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State Energy Data Report 1997

Consumption Estimates

September 1999

Energy Information Administration
Office of Energy Markets and End Use
U.S. Department of Energy
Washington, DC 20585

State Energy Data Report 1997

Consumption Estimates

The *State Energy Data Report 1997* presents estimates of annual energy consumption at the State and national levels by major economic sector and by principal energy type for 1960, 1965, 1970, 1975, 1980, and 1985 through 1997. Included in the report are documentation describing how the estimates were made for each type of energy, the source references for all input data, and a summary of changes from the *State Energy Data Report 1996*, which was published in February 1999.

Publication of this report is in keeping with responsibilities given to the Energy Information Administration (EIA) in Public Law 95–91 (Department of Energy Organization Act), which states, in part, in Section 205(a)(2), that:

> The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze, and disseminate data and information....

Contacts

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Contents

Introduction

Purpose

The *State Energy Data Report* (*SEDR*) provides annual time series estimates of State-level energy consumption by major economic sectors. The estimates are developed in the Combined State Energy Data System (CSEDS), which is maintained and operated by the Energy Information Administration (EIA). The goal in maintaining CSEDS is to create historical time series of energy consumption by State that are defined as consistently as possible over time and across sectors. CSEDS exists for two principal reasons: (1) to provide State energy consumption estimates to Members of Congress, Federal and State agencies, and the general public and (2) to provide the historical series necessary for EIA's energy models.

System and Report

Efforts are made to ensure that the sums of the State data equal the national totals as closely as possible for each energy type and end-use sector as published in other EIA publications. Estimates in this *State Energy Data Report* (*SEDR*) are generally comparable to the statistics in the *Annual Energy Review 1998* and the *Monthly Energy Review*, March 1999.

Due to page-size constraints, *SEDR* tables show data for selected years from 1960 through 1984; however, data for all years 1960 forward are maintained in CSEDS, are included in the data files available via Internet, and are covered by the documentation in this report.

Extensive documentation follows the data tables in this report. Appendix A describes how the estimates were derived for each individual energy source and lists the sources of all data series. Appendix B lists alphabetically all of the variable names and formulas used. Appendix C lists the conversion factors used to convert physical units into British thermal units and cites the sources for those factors. Appendix D provides the State resident population statistics that are used in per capita calculations. Appendix E provides metric and other physical conversion factors for measures used in energy analyses. Appendix F contains carbon dioxide emission factors. Appendix G summarizes the changes made since the last report, which was released in February 1999. Appendix H lists other EIA reports containing State-level data.

Improvements

Several renewable energy sources have been added to the database in this update. Estimates of wood energy consumed in the residential, commercial, and industrial sectors from 1960 through 1989 are now included. Direct use of geothermal energy and energy derived from the use of heat pumps in the residential, commercial, and industrial sectors are also added for 1989 forward. Several energy sources previously had been included for 1990 forward—solar energy estimates in the residential (including commercial) sector, industrial use of hydroelectricity, and geothermal, solar and wind energy, and transportation consumption of ethanol—now have 1989 data as well.

The method used to estimate State-level commercial wood consumption for 1990 forward is revised to be consistent with the estimation methodology for the new commercial wood consumption estimates added for 1960 through 1989.

Appendix G. Detailed information about all data revisions in this edition of *SEDR* is contained in Appendix G. All data with revisions since the last edition of CSEDS that are large enough to be seen in the report tables' level of rounding are preceded with an "R" in the report tables.

Data

Estimation Methodologies. CSEDS develops estimates of energy consumption by principal energy sources and major end-use sectors, by State, for a 38-year period. Energy consumption is estimated by using data from existing surveys of energy suppliers that report consumption, sales, or distribution of energy at the State level. Most of the CSEDS estimates rely directly on collected State-level consumption data. (See box below that summarizes the status of current data sources used.) Some consumption estimates in CSEDS are based on a variety of surrogate measures. The measures were selected principally on the basis of applicability as an indicator of consumption, availability, continuity over time, and consistency. For instance, for petroleum, "product supplied" is a surrogate for

Collected Data and Estimated Values in CSEDS

Coal. U.S. anthracite, bituminous coal and lignite, and total coal consumption data by sector are taken directly from EIA's *Quarterly Coal Report (QCR)* or are unpublished data from EIA's Weekly Coal Production database. Total coal consumption by State and for most sectors is from the *QCR*, except where values are withheld and must be estimated. The State-level disaggregation of the *QCR*'s combined residential and commercial sector and the combined anthracite and bituminous coal and lignite use in all sectors (except electric utilities) are estimates. Data on electric utility coal consumption by State and coal type are data from the Form EIA-759, "Monthly Power Plant Report," database.

Natural Gas. Natural gas consumption by State and sector come directly from the EIA's *Natural Gas Annual (NGA)*. Natural gas consumed as lease fuel and plant fuel and natural gas delivered to industrial consumers are combined in CSEDS as industrial sector consumption. Natural gas consumed as vehicle fuel and pipeline fuel are combined in CSEDS as transportation sector consumption.

Petroleum. U.S. total consumption for each petroleum product is the "product supplied" data from EIA's *Petroleum Supply Annual*. State values for distillate fuel and residual fuel consumption at electric utilities are unpublished data from EIA's Form EIA-759 database. All other State and sector values for consumption of petroleum products are estimates based on sales data from several sources.

Renewable Energy. • Residential and commercial sectors consumption of wood, geothermal, and solar energy are estimated. • Industrial consumption of hydroelectric power is data collected by the Federal Power Commission for 1960 through 1978, CSEDS' estimates for 1979 through 1989, and data collected by EIA on Form EIA-867, "Annual Nonutility Power Producer Report," for nonutility power production for 1990 forward. Industrial consumption of geothermal, wind, solar thermal, and photovoltaic energy is collected on the Form EIA-867. An additonal portion of industrial consumption of wood, waste, and geothermal energy is estimated. • State-level transportation use of ethanol is estimated, although the U.S. data are collected on several forms and reported in EIA's *Renewable Energy Annual*. • All sources of renewable energy used for electricity generation at electric utilities (i.e., wood and waste, hydroelectric power, geothermal, wind, solar thermal, and photovoltaic energy) by State are from EIA's *Electric Power Annual (EPA)* or are unpublished data from the Form EIA-759 database.

Nuclear Electric Power. Nuclear electricity generation by State is from the *EPA*.

Electricity. Electricity consumption is sales data by sector and State from the *EPA* with one exception. The *EPA* "Other" category is allocated to the transportation and commercial sectors in each State by estimation.

Electrical System Energy Losses and Net Interstate Flow of Electricity. These series are estimated in CSEDS.

consumption and is derived by summing field and refinery production, plus imports, minus exports, plus or minus changes in stocks. State-level sales survey data are used to disaggregate the national petroleum product supplied totals to the States. The measures of consumption and estimation methodologies are explained in detail under each energy source in Appendix A.

Methods are also applied to estimate State electrical system energy losses that are not available from any survey. See the box below for a discussion about losses and how they are reflected in *SEDR* tables. U.S. total electrical system energy losses are allocated to each individual State's end-use sectors in proportion to the sectors' electricity sales. The estimation method does not separately identify electrical system energy losses from interstate flow of electricity. Therefore, specific estimates are developed for Alaska and Hawaii and for the 48 contiguous States. The Electricity section of Appendix A on page 425 explains the methodology in detail. EIA is examining a method to disaggregate the estimates of net interstate flow of electricity and electrical system energy losses that are currently combined. The explanation and Tables A 10 through A21 in the Electricity

Energy Consumption Measures—Total and Site

Sources of energy can be categorized as primary and secondary. Primary sources of energy, such as coal, petroleum, and natural gas are consumed directly. Electricity is a secondary form of energy that is created from primary energy sources. The amount of electricity actually consumed by the end user (site consumption) does not include the energy lost in the generation and delivery of the electricity to the point of use.

Primary sources of energy are measured in applicable physical units. Coal is measured by the short ton (equal to 2,000 pounds); petroleum, by the barrel (equivalent to 42 gallons); and natural gas, by the cubic foot. Energy sources are also measured by their heat content, generally expressed in British thermal units (Btu). For example, in 1997, the average short ton of bituminous coal and lignite consumed at electric utilities contained 20.6 million Btu (Table C13), the average barrel of distillate fuel contained 5.825 million Btu (page 494), and the average cubic foot of natural gas consumed at electric utilities contained 1,018 Btu (Table C3).

Electricity, a secondary form of energy, can also be measured in physical units, commonly kilowatthours, and by heat content. The conventional thermal conversion factor for electricity consumed by the end user (site consumption) is 3,412 Btu per kilowatthour.

Table A10 on page 430 shows that electric utilities consumed 32.6 quadrillion Btu of primary energy in 1997 in order to provide 10.0 quadrillion Btu of electricity for sale. These data indicate that 67 percent of the primary (embodied) energy in the fuels consumed to generate the electricity was used (or "lost") in converting the primary energy to electricity and transmitting and distributing the electricity to the consumers, and 33 percent was used as site (point-of-use) electricity by consumers.

In evaluating energy consumption in this report, tables titled "Total Energy Consumption" include all primary energy sources, including those used to generate electricity; the electricity generated is not included. Tables showing "Total End-Use Sector Consumption" include columns for the primary sources and electricity that are consumed by the sector, as well as a column for the estimated energy lost in the electrical system processes. The "Total" column in those tables includes all energy consumed by the sector and the associated energy lost in the generation and transmission of electricity. The column titled "Net" is site energy consumption—that is, the sum of the primary sources and electricity, excluding the electrical system energy losses.

section of Appendix A (pages 428–441) discuss and illustrate the alternative methodology.

Data Sources. The original source documents cited in Appendix A include descriptions of the data collection methodologies, universes, imputation or adjustment techniques (if any), and errors associated with the processes. Due to the numerous collection forms and procedures associated with those reports, it is not possible to develop a meaningful numerical estimate of the overall errors of the integrated data published here.

Reliable, consistent series for long periods of time—especially in the earlier years—are difficult to develop, and estimates and assumptions must be applied to fill data gaps and to maintain definitional consistency. Although CSEDS incorporates the most consistent series and procedures possible, users of this report should recognize the limitations of the data that are due to changing and inadequate data sources.

In reports prepared by the Bureau of Mines in the late 1960's and early 1970's, petroleum consumption was equated to demand. Later, consumption was equated to apparent demand and, more recently, to product supplied. Changes in surveys and reduction of data collections, especially after 1978, disturbed the continuity of some petroleum consumption series, most notably for distillate fuel, residual fuel, kerosene, and liquefied petroleum gases. These and other data inconsistencies are explained in detail under "Additional Notes" for each energy source in Appendix A. All data series with recognized data inconsistencies are footnoted in the *SEDR* tables.

Comparison with Other Energy Consumption Reports

EIA conducts numerous energy-related surveys. In general, the surveys can be divided into two broad groups. One group of surveys, called supply surveys, is directed to the suppliers and marketers of specific energy sources. Those surveys measure the quantities of specific fuels supplied to the market. The results of supply surveys are combined and published in a number of EIA publications, including the *Monthly Energy Review* and *SEDR*. The second group of surveys, called energy consumption surveys, gathers information directly from end users of energy. Although there are some elements in common, the supply survey data and the consumption survey data have substantially different approaches, capabilities, and objectives. Thus, care must be taken in analyzing *SEDR* data in conjunction with consumption survey data for the following reasons:

- *SEDR* is designed to be a broad accounting of energy consumption, covering all energy use and splitting it into major sectors as clearly as possible. The energy consumption surveys are designed to be comprehensive and representative within individual sectors. However, the sectors are restricted for purposes of creating relatively homogeneous, well-defined populations and for aiding in sampling and data collection. For example, the Residential Transportation Energy Consumption Survey covers only household vehicles; CSEDS covers all uses of energy for transportation of persons and commodities. Similarly, the Commercial Buildings Energy Consumption Survey covers only energy consumption in commercial buildings, while CSEDS includes other commercial consumption, such as street lighting and public services; and the Manufacturing Energy Consumption Survey covers only manufacturing establishments, while CSEDS includes other industrial energy consumption (i.e., mining, construction, agriculture, fisheries, and forestry). Further, the consumption surveys do not cover all energy-using sectors. Therefore, energy consumption surveys cannot be summed together to account for all energy use.

- Energy consumption surveys provide user characteristics that allow for both macro-level (for major sectoral sub-populations) and micro-level (at the unit of data collection) interpretive analysis. The surveys of energy consumption by residential households from the Residential Energy Consumption Survey (Form EIA-457 series), for personal transportation from the Residential Transportation Energy Consumption Survey (Form EIA-876 series), and by commercial buildings from the Commercial Buildings Energy Consumption Survey (Form EIA-871 series) provide detailed information about the energy end users, their size, their stock of energy-consuming equipment and appliances, and their total energy consumption and expenditures. The Manufacturing Energy Consumption Survey (Form EIA-846 series) collects consumption by type of use and fuel switching capability from manufacturing establishments grouped by manufacturing classification. CSEDS, on the other hand, provides limited characterization of the end users of energy but greater geographic and energy product detail, as well as annual historical time series.

- Sectoral classification in CSEDS is generally based on supplier classifications of customer accounts, by whatever means suppliers choose to use. (See discussion in next section.) Sectoral classification for the energy consumption surveys is based upon a categorization, verified by end user, of the primary economic activity of the data collection unit (household, vehicle, building, or establishment).

- The energy consumption surveys provide data at national and Census region and/or Census division levels, whereas the estimates in CSEDS are on national and State levels.

- The reference periods are also different in that CSEDS covers calendar years from 1960 through 1997, while the consumption surveys are for selected years, and the residential end-use surveys taken prior to 1987 cover a heating season year (i.e., April through March). Beginning with the 1987 residential end-use survey, the reference period is a calendar year.

For a more detailed description of the differences between CSEDS and the energy consumption surveys, see the EIA analysis report *Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533, April 1990.

Energy Consuming Sectors

The consumption estimates in CSEDS are based on data collected by various surveys that do not necessarily define the consuming sectors exactly the same way. Appendix A of this report describes in detail for each energy source how the collected data series are combined and assigned to CSEDS consuming sectors. To the degree possible, energy consumption in this report has been assigned to the five sectors according to the following general definitions:

- The **residential sector** is considered to consist of all private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.

- The **commercial sector**, as defined economically, consists of business establishments that are not engaged in transportation or in manufacturing or other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.

- The **industrial sector** comprises manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills to small farms to companies assembling electronic components.

- The **transportation sector** consists of private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.

- The **electric utility sector** consists of privately and publicly owned establishments that generate, transmit, distribute, or sell electricity primarily for use by the public and that meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

Sector Definition Discrepancies. Although the end-use allocations are made according to these aggregations as closely as possible, some data are collected by using different classifications. For example, electric utilities may classify commercial and industrial users by the quantity of electricity purchased rather than by the business activity of the purchaser. Natural gas used in agriculture, forestry, and fisheries was collected and reported in the commercial sector through 1995. Beginning with 1996 data, deliveries of natural gas for agriculture, forestry, and fisheries are reported in the industrial sector instead. Another example is master-metered condominiums and apartments and buildings with a combination of residential and

commercial units. In many cases, the metering and billing practices cause residential energy usage of electricity, natural gas, or fuel oil to be included in the commercial sector. No adjustments for these discrepancies were made.

CSEDS does not provide further disaggregated end-use consumption estimates. For example, the industrial sector cannot be broken down into the chemical or rubber industries, all manufacturing, or agriculture. The input series for the system are provided in broad end-use categories from the data collection forms and are not available by the individual components. Additional disaggregated regional information, such as counties or cities, are also not available from CSEDS.

1997 Summaries

Table 1. Energy Consumption Estimates by Source and End-Use Sector, 1997
(Trillion Btu)

State	Total Energy [b]	Sources								End-Use Sectors [a]			
		Coal	Natural Gas [c]	Petroleum	Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [f]	Net Interstate Flow of Electricity/Losses [g]	Residential	Commercial	Industrial [b]	Transportation
Alabama	1,977.5	858.8	335.5	546.6	314.2	121.2	177.8	0.2	-376.5	333.7	219.1	983.5	441.2
Alaska	697.3	11.7	425.4	244.8	0.0	11.3	4.5	0.1	0.0	48.8	64.7	398.8	184.9
Arizona	1,152.4	369.4	134.0	432.1	311.4	127.9	23.1	4.0	-247.0	262.4	250.6	240.1	399.3
Arkansas	1,030.2	246.8	267.0	316.7	150.9	36.3	77.5	1.3	-66.3	190.0	118.9	446.2	275.1
California	7,727.5	49.2	1,982.0	3,281.2	324.1	447.5	174.4	328.0	1,144.7	1,338.1	1,249.5	2,322.5	2,817.4
Colorado	1,133.4	356.0	309.6	397.9	0.0	21.6	16.8	0.6	35.6	260.5	242.7	298.3	331.8
Connecticut	795.8	28.0	140.7	439.5	-1.3	11.8	26.3	0.2	145.8	247.0	193.2	139.0	216.6
Delaware	267.2	48.6	48.1	130.2	0.0	0.0	3.5	0.1	36.6	54.4	43.8	103.2	65.7
Dist. of Col.	176.6	1.0	34.8	34.5	0.0	0.0	1.5	(s)	104.9	35.7	109.2	3.5	28.2
Florida	3,614.7	697.3	509.0	1,691.4	244.0	10.6	79.2	31.3	352.0	991.0	778.5	565.1	1,280.1
Georgia	2,588.4	771.9	371.4	980.6	323.1	45.9	120.9	0.2	-25.6	533.6	400.7	840.3	813.7
Hawaii	239.5	3.3	2.7	217.8	0.0	1.2	7.9	6.6	0.0	21.2	24.1	77.3	117.0
Idaho	497.7	6.4	69.0	163.4	0.0	151.0	24.7	0.5	81.9	92.4	81.8	205.7	117.9
Illinois	3,900.2	964.2	1,099.7	1,293.6	542.5	1.1	83.6	0.5	-70.2	937.7	719.2	1,398.5	844.8
Indiana	2,683.6	1,427.3	563.3	878.3	0.0	5.8	42.5	0.9	-229.5	486.6	300.0	1,278.1	618.9
Iowa	1,136.4	390.0	257.1	375.5	44.1	8.3	59.4	0.3	6.4	234.9	158.3	472.5	270.7
Kansas	1,033.1	310.8	334.5	371.7	89.6	0.1	11.3	0.2	-85.0	194.9	173.1	390.4	274.7
Kentucky	1,809.6	985.2	239.3	642.4	0.0	34.9	25.9	0.5	-117.9	318.6	215.3	841.2	434.6
Louisiana	4,093.0	225.4	1,855.0	1,592.1	143.5	15.3	126.3	0.4	135.0	327.1	230.2	2,758.4	777.4
Maine	553.4	4.8	6.3	261.7	0.0	68.7	151.0	0.1	39.3	100.0	57.9	283.5	112.0
Maryland	1,360.0	290.2	214.5	529.4	140.4	16.4	34.5	0.2	134.8	360.7	323.8	302.6	372.9
Massachusetts	1,534.1	122.9	388.6	746.0	45.8	14.0	56.2	0.4	155.0	419.4	382.7	301.7	430.3
Michigan	3,259.1	774.6	995.4	1,051.7	232.8	26.9	107.9	1.2	75.2	770.4	572.3	1,123.7	792.7
Minnesota	1,685.8	341.2	360.5	647.5	114.9	95.4	92.5	1.1	-10.7	357.5	225.5	656.8	446.0
Mississippi	1,123.7	132.2	264.1	453.5	114.9	0.0	80.8	0.2	78.0	198.9	138.6	434.3	351.9
Missouri	1,748.9	666.7	286.4	729.9	95.1	15.2	19.6	0.2	-63.7	447.6	337.9	375.6	587.8
Montana	377.5	160.7	61.7	175.4	0.0	138.3	11.0	0.1	-169.8	70.8	54.7	148.5	103.6
Nebraska	617.1	193.3	131.9	239.4	98.5	17.2	5.4	0.3	-67.3	140.2	121.8	170.5	184.6
Nevada	584.4	166.3	132.1	210.6	0.0	26.7	2.8	34.1	11.9	113.7	91.9	199.2	179.6
New Hampshire	303.9	44.5	21.1	162.1	84.8	24.2	32.5	(s)	-70.5	82.7	55.9	77.0	88.3
New Jersey	2,585.4	75.0	642.8	1,253.0	147.7	-0.9	32.0	0.6	436.1	547.0	523.4	669.5	845.5
New Mexico	647.1	288.4	274.4	215.7	0.0	2.7	5.9	0.7	-139.5	91.0	105.6	215.8	234.7
New York	4,093.2	306.1	1,260.3	1,531.9	314.1	337.2	132.4	0.7	203.7	1,056.3	1,168.8	905.6	962.4
North Carolina	2,425.2	733.1	221.9	889.1	344.7	61.2	100.5	0.3	76.9	556.3	418.4	792.1	658.4
North Dakota	355.8	386.5	58.9	121.2	0.0	35.3	1.8	0.2	-245.8	57.1	44.3	177.5	76.8
Ohio	4,144.3	1,409.7	939.2	1,299.2	162.9	5.2	108.3	0.7	231.1	892.2	651.9	1,673.0	927.3
Oklahoma	1,405.2	367.4	566.7	466.6	0.0	29.1	18.3	0.1	-43.0	267.1	203.7	553.3	381.2
Oregon	1,132.9	16.4	179.5	368.0	0.0	486.3	89.3	1.0	-10.8	230.2	185.0	406.0	311.7
Pennsylvania	3,900.7	1,462.1	717.9	1,350.0	718.7	16.9	107.6	0.9	-469.0	898.5	592.4	1,463.7	946.1
Rhode Island	235.1	0.1	84.9	104.1	0.0	7.4	3.7	(s)	29.7	70.6	51.5	47.3	65.7
South Carolina	1,474.2	361.6	158.7	469.0	477.1	21.7	81.3	0.1	-95.3	274.4	193.0	661.8	345.1
South Dakota	241.9	42.4	36.1	115.2	0.0	92.9	4.4	0.3	-48.1	59.1	40.6	63.6	78.6
Tennessee	2,084.2	673.5	291.1	703.6	261.8	107.0	77.3	0.1	-30.3	443.0	339.2	748.5	553.4
Texas	11,396.1	1,507.1	4,061.2	5,247.0	396.9	24.8	82.4	1.8	89.9	1,324.1	1,130.7	6,551.0	2,390.4
Utah	691.2	365.5	172.1	261.8	0.0	14.0	4.6	4.1	-131.1	125.2	114.7	249.7	201.7
Vermont	167.1	0.1	8.2	88.7	45.3	32.1	14.3	(s)	-34.9	45.4	28.6	41.7	51.4
Virginia	2,126.4	384.8	252.0	819.9	287.7	2.1	64.8	0.4	317.0	499.4	451.1	543.8	632.1
Washington	2,164.2	80.5	241.9	852.5	66.3	1,058.7	141.5	0.6	-278.0	426.5	321.7	779.3	636.8
West Virginia	809.2	922.5	169.9	277.7	0.0	11.8	12.6	(s)	-585.4	145.6	95.7	389.1	178.8
Wisconsin	1,835.4	488.4	405.0	562.0	41.6	25.6	215.2	0.3	102.5	384.2	279.1	768.4	403.7
Wyoming	428.3	466.5	107.9	149.0	0.0	14.2	3.0	0.7	-312.9	38.7	42.8	243.0	103.8
United States	94,063.6	20,986.4	22,691.1	36,382.5	6,678.1	3,880.4	2,982.6	427.6	0.0	18,402.5	14,918.1	35,797.4	24,945.6

[a] End-use sector data include electricity sales and associated electrical system energy losses.
[b] U.S. total energy and U.S. industrial sector include 18.2 trillion Btu of net imports of coal coke that is not allocated to the States. State and U.S. totals include 113.9 trillion Btu of net imports of electricity generated from nonrenewable energy sources not shown in "Sources" columns. See data in appendix Table A8.
[c] Includes supplemental gaseous fuels.
[d] Includes net imports of hydroelectricity. A negative number in this column results from pumped storage for which, overall, more electricity is expended than created to provide electricity during peak demand periods.
[e] Includes wood, waste, and ethanol. Ethanol blended into motor gasoline is included in petroleum. It is also included in biomass to give complete biomass data, but it is counted only once in the total energy.
[f] "Other" is electricity generated from geothermal, wind, photovoltaic, and solar thermal energy. It includes net imports of electricity generated from geothermal energy.
[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.
(s)=Less than 0.05 trillion Btu.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 2. Energy Consumption Estimates in Physical Units, 1997

State	Coal	Natural Gas [a]	Petroleum											Nuclear Electric Power
			Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel	Jet Fuel	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel	Other [b]	Total	
	Million Short Tons	Billion Cubic Feet	Million Barrels											Billion Kilowatthours
Alabama	36.4	322.3	5.5	0.1	21.4	2.2	0.1	5.0	1.0	55.7	2.6	7.0	100.6	29.6
Alaska	0.7	425.4	0.1	0.4	9.9	21.1	(s)	0.2	0.1	6.3	0.9	4.1	43.1	0.0
Arizona	18.2	131.2	2.7	0.2	17.3	8.0	(s)	1.7	0.6	48.9	(s)	0.1	79.5	29.3
Arkansas	14.1	263.1	1.0	0.1	16.8	1.5	(s)	3.2	0.7	33.2	(s)	2.1	58.8	14.2
California	2.1	1,946.9	11.5	0.8	75.8	103.1	0.4	11.3	4.9	322.9	21.9	45.4	598.0	30.5
Colorado	18.0	305.9	2.6	0.1	13.8	7.2	(s)	4.0	0.6	43.7	(s)	1.8	73.9	0.0
Connecticut	1.1	137.0	1.2	(s)	22.9	2.4	0.3	1.5	0.5	32.9	14.7	1.7	78.1	-0.1
Delaware	1.9	46.5	0.1	0.1	3.4	0.1	0.1	1.7	0.1	8.6	4.5	4.7	23.5	0.0
Dist. of Col.	(s)	34.1	(s)	(s)	1.5	0.3	0.2	(s)	0.1	4.1	0.2	0.0	6.3	0.0
Florida	28.7	485.7	3.5	0.6	42.9	30.5	0.3	8.0	1.4	161.9	49.9	6.8	305.8	23.0
Georgia	32.7	361.7	4.9	0.2	37.3	15.2	0.2	7.4	1.3	101.6	4.3	8.7	181.1	30.4
Hawaii	0.1	2.6	0.4	0.1	4.3	10.2	(s)	1.4	0.1	9.4	9.9	2.5	38.2	0.0
Idaho	0.4	66.9	2.1	0.1	9.9	0.8	(s)	2.8	0.2	14.5	(s)	(s)	30.3	0.0
Illinois	47.6	1,077.1	8.3	0.2	39.2	12.5	0.4	24.2	3.5	113.3	1.4	39.1	242.2	51.1
Indiana	66.0	557.1	9.2	0.1	38.4	11.0	0.5	7.9	1.8	69.8	1.5	19.3	159.5	0.0
Iowa	21.7	254.8	2.6	0.1	20.6	0.8	0.1	10.4	0.7	35.6	0.1	0.7	71.6	4.1
Kansas	17.7	334.5	2.1	0.2	17.1	2.1	0.1	10.2	1.0	30.7	0.3	6.5	70.3	8.4
Kentucky	42.2	227.9	3.4	(s)	29.3	4.6	0.7	6.7	1.1	50.2	0.2	21.9	118.1	0.0
Louisiana	13.9	1,659.2	5.3	0.1	35.3	30.5	0.1	69.1	2.0	46.9	22.0	92.8	304.0	13.5
Maine	0.2	6.2	0.6	(s)	15.1	1.0	1.5	1.8	0.2	16.0	10.0	0.2	46.4	0.0
Maryland	11.3	207.4	5.6	(s)	20.2	4.1	0.9	3.0	0.7	53.6	4.0	4.3	96.4	13.2
Massachusetts	4.9	380.3	0.9	0.1	35.6	7.3	0.3	2.5	0.8	60.9	22.5	2.5	133.5	4.3
Michigan	35.9	979.7	7.8	0.2	31.0	9.5	0.4	16.8	3.3	112.4	1.6	14.9	197.8	21.9
Minnesota	19.1	354.1	6.7	0.1	24.8	10.9	0.1	11.0	1.1	55.8	0.7	8.7	119.9	10.8
Mississippi	6.3	255.4	3.0	0.1	15.1	7.9	0.1	9.3	0.7	35.4	5.3	7.3	84.1	10.8
Missouri	36.7	283.6	4.1	0.2	30.0	12.3	0.1	11.9	1.6	70.6	0.3	5.5	136.6	9.0
Montana	9.5	59.8	1.4	0.1	10.8	0.8	(s)	1.7	0.2	11.5	0.2	4.9	31.5	0.0
Nebraska	11.2	132.2	1.5	0.1	17.7	1.1	(s)	3.5	0.4	19.8	0.1	(s)	44.2	9.3
Nevada	7.4	128.6	0.4	0.1	9.1	7.6	(s)	1.0	0.1	20.0	0.2	0.1	38.6	0.0
New Hampshire	1.7	20.8	0.4	(s)	8.1	0.4	0.6	2.4	0.1	14.7	3.1	0.1	29.9	8.0
New Jersey	2.9	621.0	8.2	0.1	36.3	38.7	1.7	3.8	2.4	88.9	9.3	36.2	225.7	13.9
New Mexico	15.9	268.7	1.2	0.1	10.2	1.8	(s)	2.1	0.3	21.5	0.2	2.3	39.8	0.0
New York	11.7	1,228.4	6.3	0.1	72.8	12.1	2.9	7.0	2.1	130.9	30.3	11.4	276.0	29.6
North Carolina	29.6	214.2	4.2	0.2	33.8	7.2	3.0	13.8	1.2	90.9	6.1	6.0	166.3	32.5
North Dakota	29.4	56.1	1.2	(s)	8.4	0.2	(s)	2.0	0.2	8.6	0.2	1.3	22.2	0.0
Ohio	58.9	898.8	14.4	0.4	49.1	12.6	1.1	14.7	3.8	118.3	1.3	23.0	238.7	15.3
Oklahoma	21.1	560.0	1.4	0.1	21.9	5.3	(s)	3.8	1.4	42.7	0.3	8.7	85.4	0.0
Oregon	0.9	171.6	3.0	0.2	15.4	5.7	0.1	1.7	0.8	33.6	3.5	2.6	66.5	0.0
Pennsylvania	58.6	693.7	7.0	0.1	61.3	14.8	3.0	6.0	4.1	114.8	10.6	22.2	243.8	67.7
Rhode Island	(s)	82.9	0.3	(s)	6.9	0.8	0.1	0.5	0.1	9.2	0.9	(s)	18.9	0.0
South Carolina	14.1	153.9	3.7	0.1	16.4	1.3	0.7	3.6	0.5	49.5	2.6	8.0	86.5	44.9
South Dakota	2.4	35.4	1.4	(s)	6.4	0.7	(s)	2.7	0.2	10.2	0.1	(s)	21.6	0.0
Tennessee	28.2	282.4	4.9	0.3	28.1	9.4	0.6	4.0	1.2	66.1	0.2	14.1	128.9	24.6
Texas	101.3	3,950.6	10.5	0.7	86.7	105.6	0.4	409.5	5.3	225.0	22.6	218.1	1,084.3	37.4
Utah	15.9	165.2	2.0	0.1	11.3	6.3	(s)	2.7	0.3	22.0	0.2	3.1	47.9	0.0
Vermont	(s)	8.1	0.8	(s)	5.5	0.1	0.3	1.8	0.1	7.6	0.3	0.0	16.5	4.3
Virginia	15.3	241.4	3.5	0.1	36.9	9.4	2.0	5.1	1.0	81.4	5.3	5.7	150.4	27.1
Washington	4.9	231.2	4.0	0.2	21.6	22.5	0.2	3.3	0.7	61.2	13.2	25.1	152.0	6.2
West Virginia	37.1	159.0	1.2	(s)	10.9	0.2	0.5	2.2	0.7	19.8	0.2	15.6	51.2	0.0
Wisconsin	25.5	400.6	5.2	0.5	26.1	1.9	0.1	10.2	1.0	55.7	1.1	3.4	105.3	3.9
Wyoming	26.1	101.0	1.0	0.2	13.3	0.1	(s)	1.7	0.2	7.6	(s)	2.7	26.8	0.0
United States	1,007.6	21,972.2	184.4	7.9	1,253.9	583.5	24.0	743.8	58.4	2,926.1	290.8	723.5	6,796.4	628.6

[a] Includes supplemental gaseous fuels.
[b] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."
(s)=Less than 0.05.
Notes: • Totals may not equal sum of components due to independent rounding. • Total electricity generation by electric utilities and the industrial sector from hydroelectric power, wood and waste, and geothermal, wind, photovoltaic, and solar thermal energy are not available in billion kilowatthours. Wood and waste used by the industrial sector for other purposes are also not available in physical units. The Btu equivalents are shown in Table 3.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 3. Energy Consumption Estimates by Source, 1997
(Trillion Btu)

State	Coal	Natural Gas [a]	Petroleum											Nuclear Electric Power	Hydro-electric Power [c]	Biomass [d]	Other [e]	Net Interstate Flow of Electricity/Losses [f]	Total [g]
			Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel	Jet Fuel	Kero-sene	LPG	Lubri-cants	Motor Gasoline	Residual Fuel	Other [b]	Total						
Alabama	858.8	335.5	36.3	0.5	124.6	12.4	0.7	18.2	6.0	292.6	16.3	39.0	546.6	314.2	121.2	177.8	0.2	-376.5	1,977.5
Alaska	11.7	425.4	0.4	2.1	57.9	119.6	(s)	0.9	0.7	33.2	5.4	24.6	244.8	0.0	11.3	4.5	0.1	0.0	697.3
Arizona	369.4	134.0	17.9	0.8	100.8	45.2	(s)	6.1	3.7	256.8	0.1	0.6	432.1	311.4	127.9	23.1	4.0	-247.0	1,152.4
Arkansas	246.8	267.0	6.7	0.7	97.8	8.7	0.2	11.7	4.3	174.3	0.3	12.0	316.7	150.9	36.3	77.5	1.3	-66.3	1,030.2
California	49.2	1,982.0	76.4	4.2	441.5	584.8	2.0	40.9	29.8	1,696.0	137.5	268.1	3,281.2	324.1	447.5	174.4	328.0	1,144.7	7,727.5
Colorado	356.0	309.6	17.1	0.7	80.4	40.7	0.2	14.6	3.9	229.8	(s)	10.6	397.9	0.0	21.6	16.8	0.6	35.6	1,133.4
Connecticut	28.0	140.7	8.1	0.1	133.3	13.4	1.6	5.4	2.8	173.0	92.3	9.4	439.5	-1.3	11.8	26.3	0.2	145.8	795.8
Delaware	48.6	48.1	0.9	0.3	20.1	0.4	0.8	6.1	0.8	45.1	28.0	27.6	130.2	0.0	0.0	3.5	0.1	36.6	267.2
Dist. of Col.	1.0	34.8	0.2	(s)	8.9	1.4	1.2	(s)	0.4	21.4	1.0	0.0	34.5	0.0	0.0	1.5	(s)	104.9	176.6
Florida	697.3	509.0	23.3	2.9	249.8	173.0	1.7	28.9	8.6	850.3	314.0	38.9	1,691.4	244.0	10.6	79.2	31.3	352.0	3,614.7
Georgia	771.9	371.4	32.4	0.8	217.5	86.4	1.1	26.8	7.6	533.6	27.3	47.2	980.6	323.1	45.9	120.9	0.2	-25.6	2,588.4
Hawaii	3.3	2.7	2.6	0.6	25.0	57.9	(s)	4.9	0.6	49.2	62.1	14.9	217.8	0.0	1.2	7.9	6.6	0.0	239.5
Idaho	6.4	69.0	13.8	0.4	57.7	4.3	0.1	10.0	1.1	76.0	(s)	0.1	163.4	0.0	151.0	24.7	0.5	81.9	497.7
Illinois	964.2	1,099.7	55.4	1.0	228.3	70.9	2.1	87.4	21.1	595.4	9.1	223.1	1,293.6	542.5	1.1	83.6	0.5	-70.2	3,900.2
Indiana	1,427.3	563.3	61.3	0.7	223.7	62.3	2.6	28.4	10.9	366.8	9.5	112.1	878.3	0.0	5.8	42.5	0.9	-229.5	2,683.6
Iowa	390.0	257.1	17.4	0.4	119.7	4.5	0.4	37.7	4.3	186.9	0.5	3.7	375.5	44.1	8.3	59.4	0.3	6.4	1,136.4
Kansas	310.8	334.5	14.0	1.2	99.9	12.1	0.3	37.0	6.1	161.2	1.6	38.2	371.7	89.6	0.1	11.3	0.2	-85.0	1,033.1
Kentucky	985.2	239.3	22.7	0.1	170.9	25.8	4.2	24.2	6.4	263.6	1.1	123.4	642.4	0.0	34.9	25.9	0.5	-117.9	1,809.6
Louisiana	225.4	1,855.0	35.1	0.5	205.5	172.7	0.7	249.8	12.1	246.5	138.1	531.2	1,592.1	143.5	15.3	126.3	0.4	135.0	4,093.0
Maine	4.8	6.3	3.7	0.2	88.2	5.4	8.5	6.5	1.2	84.0	63.1	0.9	261.7	0.0	68.7	151.0	0.1	39.3	553.4
Maryland	290.2	214.5	37.3	0.2	117.7	23.2	4.9	10.7	4.4	281.5	25.3	24.1	529.4	140.4	16.4	34.5	0.2	134.8	1,360.0
Massachusetts	122.9	388.6	6.1	0.4	207.3	41.4	1.5	9.2	5.1	320.0	141.4	13.6	746.0	45.8	14.0	56.2	0.4	155.0	1,534.1
Michigan	774.6	995.4	51.6	1.0	180.6	53.8	2.0	60.8	19.9	590.4	9.8	81.8	1,051.7	232.8	26.9	107.9	1.2	75.2	3,259.1
Minnesota	341.2	360.5	44.3	0.7	144.5	61.7	0.6	39.9	6.8	292.9	4.5	51.6	647.5	114.9	95.4	92.5	1.1	-10.7	1,685.8
Mississippi	132.2	264.1	20.2	0.3	87.9	44.9	0.4	33.5	4.0	185.9	33.6	42.8	453.5	114.9	0.0	80.8	0.2	78.0	1,123.7
Missouri	666.7	286.4	27.5	0.8	174.8	69.9	0.4	43.1	9.7	370.8	1.6	31.3	729.9	95.1	15.2	19.6	0.2	-63.7	1,748.9
Montana	160.7	61.7	9.6	0.4	62.8	4.5	(s)	6.1	1.5	60.3	1.0	29.3	175.4	0.0	138.3	11.0	0.1	-169.8	377.5
Nebraska	193.3	131.9	9.6	0.5	103.0	6.1	0.1	12.7	2.4	104.1	0.7	0.2	239.4	98.5	17.2	5.4	0.3	-67.3	617.1
Nevada	166.3	132.1	3.0	0.4	53.2	42.8	(s)	3.6	0.7	104.8	1.5	0.6	210.6	0.0	26.7	2.8	34.1	11.9	584.4
New Hampshire	44.5	21.1	2.7	0.1	46.9	2.3	3.2	8.8	0.5	77.0	19.8	0.8	162.1	84.8	24.2	32.5	(s)	-70.5	303.9
New Jersey	75.0	642.8	54.5	0.7	211.5	219.6	9.6	13.6	14.4	466.7	58.8	203.5	1,253.0	147.7	-0.9	32.0	0.6	436.1	2,585.4
New Mexico	288.4	274.4	8.2	0.5	59.7	9.9	0.1	7.6	2.0	113.0	1.0	13.8	215.7	0.0	2.7	5.9	0.7	-139.5	647.1
New York	306.1	1,260.3	42.0	0.3	424.1	68.8	16.5	25.3	12.7	687.7	190.7	63.7	1,531.9	314.1	337.2	132.4	0.7	203.7	4,093.2
North Carolina	733.1	221.9	27.6	0.8	196.8	40.6	16.8	49.7	7.3	477.7	38.5	33.2	889.1	344.7	61.2	100.5	0.3	76.9	2,425.2
North Dakota	386.5	58.9	8.2	0.2	49.1	1.1	(s)	7.3	1.1	45.3	1.2	7.7	121.2	0.0	35.3	1.8	0.2	-245.8	355.8
Ohio	1,409.7	939.2	95.4	1.9	285.9	71.5	6.5	53.2	23.2	621.6	8.0	131.9	1,299.2	162.9	5.2	108.3	0.7	231.1	4,144.3
Oklahoma	367.4	566.7	9.5	0.4	127.3	29.8	0.3	13.6	8.2	224.1	1.7	51.6	466.6	0.0	29.1	18.3	0.1	-43.0	1,405.2
Oregon	16.4	179.5	19.7	0.9	89.9	32.4	0.4	6.1	4.6	176.5	22.1	15.5	368.0	0.0	486.3	89.3	1.0	-10.8	1,132.9
Pennsylvania	1,462.1	717.9	46.2	0.5	356.9	84.0	17.1	21.7	24.7	602.9	66.5	129.4	1,350.0	718.7	16.9	107.6	0.9	-469.0	3,900.7
Rhode Island	0.1	84.9	1.8	0.1	40.1	4.7	0.5	1.9	0.8	48.3	5.8	0.1	104.1	0.0	7.4	3.7	(s)	29.7	235.1
South Carolina	361.6	158.7	24.7	0.3	95.3	7.5	3.9	13.1	3.3	259.9	16.6	44.3	469.0	477.1	21.7	81.3	0.1	-95.3	1,474.2
South Dakota	42.4	36.1	9.0	0.2	37.4	4.0	(s)	9.7	1.0	53.4	0.4	0.1	115.2	0.0	92.9	4.4	0.3	-48.1	241.9
Tennessee	673.5	291.1	32.6	1.6	163.7	53.5	3.3	14.3	7.5	347.5	1.0	78.6	703.6	261.8	107.0	77.3	0.1	-30.3	2,084.2
Texas	1,507.1	4,061.2	69.7	3.3	505.3	598.8	2.1	1,480.6	32.4	1,181.9	141.8	1,231.1	5,247.0	396.9	24.8	82.4	1.8	89.9	11,396.1
Utah	365.5	172.1	13.2	0.3	65.6	35.6	0.1	9.8	1.8	115.7	1.0	18.7	261.8	0.0	14.0	4.6	4.1	-131.1	691.2
Vermont	0.1	8.2	5.3	0.1	32.2	0.6	1.6	6.6	0.4	40.0	2.1	0.0	88.7	45.3	32.1	14.3	(s)	-34.9	167.1
Virginia	384.8	252.0	23.1	0.3	214.8	53.3	11.6	18.4	5.8	427.8	33.2	31.7	819.9	287.7	2.1	64.8	0.4	317.0	2,126.4
Washington	80.5	241.9	26.9	1.0	126.0	127.3	0.9	12.0	4.3	321.6	82.9	149.6	852.5	66.3	1,058.7	141.5	0.6	-278.0	2,164.2
West Virginia	922.5	169.9	7.7	0.1	63.3	1.0	2.9	7.9	4.1	103.8	1.5	85.5	277.7	0.0	11.8	12.6	(s)	-585.4	809.2
Wisconsin	488.4	405.0	34.2	2.5	152.2	11.1	0.4	37.0	6.2	292.6	6.8	19.0	562.0	41.6	25.6	215.2	0.3	102.5	1,835.4
Wyoming	466.5	107.9	6.4	0.8	77.2	0.7	0.1	6.2	1.3	39.9	(s)	16.3	149.0	0.0	14.2	3.0	0.7	-312.9	428.3
United States	20,986.4	22,691.1	1,223.6	39.7	7,304.2	3,308.2	136.3	2,689.6	354.4	15,371.1	1,828.2	4,127.3	36,382.5	6,678.1	3,880.4	2,982.6	427.6	0.0	94,063.6

[a] Includes supplemental gaseous fuels.
[b] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."
[c] Includes net imports of hydroelectricity. A negative number in this column results from pumped storage for which, overall, more electricity is expended than created to provide electricity during peak demand periods.
[d] Includes wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.
[e] "Other" is electricity generated from geothermal, wind, photovoltaic, and solar thermal energy. It includes net imports of electricity generated from geothermal energy.
[f] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.
[g] U.S. total includes 18.2 trillion Btu of net imports of coal coke that has not been allocated to the States. State and U.S. totals include 113.9 trillion Btu of net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.
(s)=Less than 0.05 trillion Btu.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 4. Residential Energy Consumption Estimates, 1997

(Trillion Btu)

State	Coal			Natural Gas [a]	Petroleum				Wood	Geothermal	Solar [b]	Electricity	Net Energy	Electrical System Energy Losses [c]	Total [b]
	Bituminous Coal and Lignite	Anthracite	Total		Distillate Fuel	Kerosene	LPG	Total							
Alabama	0.6	(s)	0.6	50.5	0.2	0.3	10.6	11.1	10.0	(s)	0.1	84.9	157.3	176.4	333.7
Alaska	2.8	0.0	2.8	15.1	8.5	(s)	0.7	9.2	1.5	(s)	(s)	5.9	34.5	14.3	48.8
Arizona	(s)	0.0	(s)	31.8	(s)	(s)	2.8	2.9	6.8	(s)	3.8	70.6	115.8	146.6	262.4
Arkansas	0.0	(s)	(s)	43.0	(s)	0.1	5.4	5.5	3.8	0.1	1.1	44.3	97.9	92.0	190.0
California	0.9	0.0	0.9	487.4	0.7	0.8	14.8	16.2	47.2	0.2	19.0	249.4	820.3	517.9	1,338.1
Colorado	0.4	(s)	0.4	117.0	0.4	0.1	7.6	8.1	6.0	0.1	0.2	41.8	173.7	86.9	260.5
Connecticut	0.0	0.1	0.1	41.7	77.8	0.8	3.7	82.3	8.7	0.0	0.2	37.1	170.0	76.9	247.0
Delaware	(s)	(s)	0.1	9.3	5.4	0.7	3.1	9.3	1.5	0.1	(s)	11.1	31.3	23.1	54.4
Dist. of Col.	0.3	(s)	0.3	16.1	1.6	(s)	(s)	1.6	1.4	0.0	(s)	5.3	24.7	11.0	35.7
Florida	0.0	0.0	0.0	13.8	0.9	1.1	13.9	15.9	8.1	1.6	29.4	299.7	368.5	622.5	991.0
Georgia	0.1	0.0	0.1	117.5	0.5	0.8	14.0	15.3	13.8	0.1	0.2	125.7	272.6	261.0	533.6
Hawaii	0.0	0.0	0.0	0.5	(s)	(s)	0.4	0.4	0.0	0.0	1.2	9.1	11.2	10.0	21.2
Idaho	0.2	0.0	0.2	15.7	3.4	(s)	1.6	5.0	1.7	0.1	(s)	22.6	45.4	47.0	92.4
Illinois	2.4	(s)	2.4	507.8	4.4	0.6	16.7	21.7	14.3	0.4	0.1	127.1	673.8	263.9	937.7
Indiana	3.0	0.1	3.1	171.0	7.8	1.7	16.2	25.7	7.3	0.7	(s)	90.6	298.4	188.1	486.6
Iowa	3.1	0.0	3.1	82.4	4.5	0.2	17.1	21.7	5.0	0.1	(s)	39.8	152.2	82.7	234.9
Kansas	(s)	0.0	(s)	69.5	0.2	0.1	6.3	6.6	4.6	(s)	(s)	37.1	117.9	77.0	194.9
Kentucky	2.9	(s)	2.9	69.4	4.1	2.8	9.7	16.5	9.1	0.3	(s)	71.6	169.8	148.8	318.6
Louisiana	(s)	0.0	(s)	59.8	(s)	0.5	2.9	3.4	6.4	0.2	0.1	83.6	153.5	173.6	327.1
Maine	0.0	0.1	0.1	1.0	44.5	7.4	4.5	56.5	3.9	0.0	0.1	12.5	74.1	25.9	100.0
Maryland	0.5	(s)	0.5	80.1	30.1	3.4	6.4	39.9	9.8	0.1	(s)	74.8	205.3	155.4	360.7
Massachusetts	0.1	0.2	0.3	114.6	110.2	1.1	5.9	117.2	16.2	0.0	0.2	55.5	304.1	115.3	419.4
Michigan	1.6	(s)	1.6	395.3	22.6	1.4	34.5	58.5	12.3	0.8	0.3	98.0	566.9	203.6	770.4
Minnesota	0.7	(s)	0.7	131.2	18.1	0.3	19.1	37.5	8.3	0.2	0.4	58.3	236.5	121.0	357.5
Mississippi	0.0	(s)	(s)	28.5	(s)	0.1	8.7	8.8	6.0	(s)	(s)	50.6	93.9	105.0	198.9
Missouri	2.1	(s)	2.1	128.9	1.9	0.3	25.1	27.3	9.8	0.1	0.1	90.7	259.1	188.5	447.6
Montana	0.5	0.0	0.5	21.6	5.3	(s)	1.9	7.2	1.4	(s)	(s)	13.0	43.8	27.0	70.8
Nebraska	0.7	0.0	0.7	47.0	0.6	(s)	5.0	5.6	2.9	0.1	(s)	27.3	83.6	56.6	140.2
Nevada	(s)	0.0	(s)	25.9	1.2	(s)	2.0	3.2	2.3	0.2	0.2	26.6	58.4	55.3	113.7
New Hampshire	(s)	0.1	0.1	7.0	27.9	2.7	6.3	36.9	3.4	0.0	(s)	11.5	58.9	23.9	82.7
New Jersey	0.0	0.1	0.1	224.5	68.3	1.7	5.8	75.8	12.1	0.1	0.5	76.0	389.0	157.9	547.0
New Mexico	0.1	0.0	0.1	37.4	(s)	(s)	3.1	3.1	2.6	(s)	0.5	15.4	59.1	31.9	91.0
New York	1.3	1.5	2.8	385.4	176.5	9.9	17.0	203.4	43.6	0.1	0.5	136.7	772.5	283.9	1,056.3
North Carolina	1.7	(s)	1.7	54.8	20.6	14.8	23.1	58.4	14.7	0.2	0.2	138.6	268.5	287.8	556.3
North Dakota	0.7	0.0	0.7	11.9	3.7	(s)	3.3	7.1	1.2	0.1	(s)	11.7	32.8	24.4	57.1
Ohio	2.7	0.1	2.8	370.5	20.5	4.4	21.4	46.3	13.9	0.5	(s)	148.9	583.0	309.2	892.2
Oklahoma	1.8	0.0	1.8	72.2	(s)	0.1	5.2	5.3	5.3	(s)	0.1	59.3	143.9	123.1	267.1
Oregon	(s)	0.0	(s)	34.1	4.9	0.2	1.7	6.8	8.3	0.1	0.6	58.6	108.4	121.8	230.2
Pennsylvania	2.1	14.8	16.9	271.7	115.2	14.4	11.6	141.2	19.5	0.3	0.5	145.7	595.8	302.7	898.5
Rhode Island	0.0	(s)	(s)	18.6	21.7	0.2	1.2	23.1	2.7	0.0	(s)	8.5	53.0	17.6	70.6
South Carolina	(s)	0.0	(s)	26.5	3.2	3.5	6.7	13.4	7.4	0.1	(s)	73.7	121.3	153.1	274.4
South Dakota	(s)	0.0	(s)	13.4	2.9	(s)	6.0	8.8	1.3	0.1	(s)	11.5	35.2	23.9	59.1
Tennessee	1.1	(s)	1.1	66.1	1.5	2.5	9.2	13.1	12.3	(s)	0.1	113.8	206.6	236.4	443.0
Texas	(s)	0.0	(s)	242.0	(s)	0.3	8.4	8.6	11.5	0.3	0.5	344.9	607.8	716.3	1,324.1
Utah	1.0	0.0	1.0	60.6	0.7	(s)	0.9	1.6	2.5	0.1	(s)	19.3	85.1	40.1	125.2
Vermont	(s)	(s)	(s)	2.7	13.9	1.4	4.8	20.0	1.8	0.0	(s)	6.8	31.3	14.1	45.4
Virginia	1.6	(s)	1.6	77.1	31.3	9.0	11.0	51.3	13.0	0.1	0.1	115.7	259.0	240.4	499.4
Washington	0.2	0.0	0.2	64.7	8.5	0.8	4.5	13.8	14.2	(s)	0.4	108.3	201.5	225.0	426.5
West Virginia	0.9	(s)	0.9	38.4	3.6	2.3	1.7	7.5	3.9	0.0	(s)	30.8	81.6	64.0	145.6
Wisconsin	1.4	(s)	1.4	137.3	20.0	0.3	23.9	44.2	6.6	0.1	0.2	63.2	253.0	131.2	384.2
Wyoming	0.9	0.0	0.9	13.9	0.3	(s)	1.7	2.0	0.8	0.0	(s)	6.8	24.5	14.2	38.7
United States	40.5	17.3	57.8	5,124.6	900.0	92.9	439.1	1,431.9	433.0	7.5	61.2	3,670.5	10,786.6	7,615.9	18,402.5

[a] Includes supplemental gaseous fuels.
[b] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.
[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

(s)=Less than 0.05 trillion Btu.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 5. Commercial Energy Consumption Estimates, 1997

(Trillion Btu)

State	Coal			Natural Gas [a]	Petroleum						Wood [b]	Geothermal	Electricity	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite	Anthracite	Total		Distillate Fuel	Kerosene	LPG	Motor Gasoline	Residual Fuel	Total						
Alabama	1.2	(s)	1.2	33.7	2.2	0.1	1.9	0.2	0.0	4.4	1.0	0.0	58.2	98.3	120.8	219.1
Alaska	5.2	0.0	5.2	26.9	4.3	(s)	0.1	0.4	0.0	4.8	0.1	(s)	8.0	45.1	19.5	64.7
Arizona	(s)	0.0	(s)	30.8	3.0	(s)	0.5	0.2	0.0	3.7	0.7	(s)	70.0	105.2	145.4	250.6
Arkansas	0.0	(s)	(s)	29.8	1.1	(s)	1.0	0.1	0.0	2.3	0.4	(s)	28.1	60.6	58.4	118.9
California	1.6	0.0	1.6	258.4	11.4	0.2	2.6	1.2	(s)	15.5	4.6	0.5	314.9	595.5	654.0	1,249.5
Colorado	0.8	(s)	0.8	69.9	6.9	(s)	1.3	0.2	0.0	8.5	0.6	0.2	52.9	132.8	109.9	242.7
Connecticut	0.0	0.1	0.1	43.8	17.6	0.6	0.6	5.2	2.1	26.1	0.8	0.0	39.8	110.6	82.6	193.2
Delaware	0.1	(s)	0.1	6.8	2.0	0.1	0.6	(s)	1.2	4.0	0.1	0.0	10.7	21.7	22.1	43.8
Dist. of Col.	0.6	(s)	0.6	18.4	3.0	1.1	(s)	0.3	0.2	4.7	0.1	0.0	27.7	51.6	57.6	109.2
Florida	0.0	0.0	0.0	38.7	10.7	0.3	2.5	1.3	0.8	15.6	0.8	0.4	235.0	290.4	488.1	778.5
Georgia	0.3	0.0	0.3	58.8	5.2	0.2	2.5	3.3	(s)	11.2	1.3	(s)	107.0	178.6	222.2	400.7
Hawaii	0.0	0.0	0.0	1.8	1.8	(s)	0.1	0.1	0.1	2.0	0.0	0.0	9.7	13.5	10.6	24.1
Idaho	0.4	0.0	0.4	11.8	2.7	(s)	0.3	0.2	(s)	3.2	0.2	0.2	21.4	37.2	44.5	81.8
Illinois	4.4	(s)	4.4	207.2	13.6	0.6	3.0	1.2	0.8	19.2	1.4	0.0	158.3	390.4	328.8	719.2
Indiana	5.6	0.1	5.7	82.6	6.8	0.5	2.9	0.9	0.1	11.1	0.7	0.2	64.9	165.2	134.8	300.0
Iowa	5.7	0.0	5.7	50.6	2.0	(s)	3.0	2.3	0.0	7.4	0.5	0.2	30.5	94.9	63.4	158.3
Kansas	(s)	0.0	(s)	41.3	2.9	0.2	1.1	0.5	0.0	4.7	0.4	0.2	41.1	87.7	85.3	173.1
Kentucky	5.4	(s)	5.4	40.6	5.8	0.6	1.7	0.2	0.0	8.3	0.9	0.2	52.0	107.3	108.0	215.3
Louisiana	(s)	0.0	(s)	29.1	1.3	(s)	0.5	0.2	0.0	2.0	0.6	0.2	64.4	96.3	133.8	230.2
Maine	0.0	(s)	(s)	2.8	14.1	0.9	0.8	0.1	3.8	19.6	0.4	0.0	11.4	34.2	23.7	57.9
Maryland	0.8	(s)	0.9	51.5	14.9	1.3	1.1	0.2	0.3	17.8	0.9	0.0	82.1	153.2	170.6	323.8
Massachusetts	0.2	0.1	0.4	108.0	34.1	0.3	1.0	0.3	14.4	50.1	1.6	0.2	72.3	232.5	150.2	382.7
Michigan	3.0	(s)	3.0	200.1	11.8	0.3	6.1	0.4	0.4	19.0	1.2	0.2	113.4	336.8	235.5	572.3
Minnesota	1.3	(s)	1.3	93.9	5.4	0.1	3.4	5.3	1.0	15.2	0.8	0.0	37.1	148.4	77.2	225.5
Mississippi	0.0	(s)	(s)	22.8	1.4	0.1	1.5	0.2	0.0	3.2	0.6	0.2	36.3	63.1	75.5	138.6
Missouri	3.9	(s)	3.9	70.5	7.2	0.1	4.4	0.8	0.2	12.7	1.0	0.0	81.2	169.4	168.6	337.9
Montana	1.0	0.0	1.0	14.3	1.3	(s)	0.3	0.1	(s)	1.7	0.1	0.1	12.2	29.4	25.3	54.7
Nebraska	1.3	0.0	1.3	33.8	1.0	(s)	0.9	0.1	0.1	2.1	0.3	0.2	27.3	65.0	56.8	121.8
Nevada	(s)	0.0	(s)	22.5	1.3	(s)	0.4	0.1	(s)	1.7	0.2	0.4	21.8	46.7	45.2	91.9
New Hampshire	(s)	0.1	0.1	7.6	8.0	0.3	1.1	0.1	3.0	12.5	0.3	0.0	11.5	32.0	23.9	55.9
New Jersey	0.0	0.1	0.1	174.6	20.5	4.3	1.0	0.4	5.1	31.3	1.2	0.0	102.8	309.9	213.5	523.4
New Mexico	0.1	0.0	0.1	32.0	0.7	(s)	0.5	0.1	0.0	1.4	0.3	(s)	23.3	57.1	48.5	105.6
New York	2.5	1.0	3.5	329.2	86.2	4.5	3.0	1.0	64.8	159.6	4.2	0.2	218.5	715.1	453.7	1,168.8
North Carolina	3.1	(s)	3.1	39.4	17.2	1.2	4.1	0.9	1.1	24.4	1.4	0.0	113.8	182.1	236.3	418.4
North Dakota	1.4	0.0	1.4	11.4	1.6	(s)	0.6	0.1	0.1	2.3	0.1	0.1	9.4	24.7	19.6	44.3
Ohio	5.0	0.1	5.0	192.1	8.7	0.7	3.8	10.3	(s)	23.4	1.4	0.2	139.7	361.8	290.1	651.9
Oklahoma	3.3	0.0	3.3	45.4	3.5	0.1	0.9	0.2	0.0	4.7	0.5	0.0	48.7	102.6	101.2	203.7
Oregon	(s)	0.0	(s)	26.7	4.4	0.1	0.3	0.2	0.3	5.2	0.8	0.3	49.4	82.4	102.6	185.0
Pennsylvania	3.9	9.9	13.8	149.1	28.9	1.8	2.0	1.5	6.6	40.9	1.9	0.2	125.7	331.5	261.0	592.4
Rhode Island	0.0	(s)	(s)	12.6	4.5	0.3	0.2	0.1	3.9	9.0	0.3	0.0	9.6	31.5	20.0	51.5
South Carolina	(s)	0.0	(s)	20.2	6.3	0.1	1.2	0.2	0.1	7.8	0.7	0.0	53.4	82.1	110.9	193.0
South Dakota	(s)	0.0	(s)	10.6	1.6	(s)	1.1	0.1	0.1	2.8	0.1	0.3	8.7	22.5	18.1	40.6
Tennessee	2.1	(s)	2.1	56.8	5.1	0.6	1.6	0.3	0.3	7.8	1.2	0.0	88.2	156.1	183.1	339.2
Texas	(s)	0.0	(s)	222.8	10.0	0.2	1.5	0.9	0.0	12.6	1.1	0.2	290.6	527.2	603.5	1,130.7
Utah	1.8	0.0	1.8	32.4	3.1	(s)	0.2	0.1	0.1	3.5	0.2	0.2	24.9	63.0	51.6	114.7
Vermont	(s)	(s)	(s)	3.1	5.1	0.1	0.8	(s)	0.7	6.8	0.2	0.0	6.0	16.1	12.5	28.6
Virginia	2.9	(s)	2.9	64.6	17.9	2.1	1.9	0.7	0.8	23.5	1.3	0.2	116.6	209.0	242.1	451.1
Washington	0.3	0.0	0.3	48.8	5.0	0.1	0.8	0.3	0.3	6.5	1.4	0.2	86.0	143.2	178.5	321.7
West Virginia	1.7	(s)	1.7	27.7	1.9	0.3	0.3	0.1	0.0	2.6	0.4	0.0	20.6	52.9	42.8	95.7
Wisconsin	2.6	(s)	2.6	89.7	7.8	(s)	4.2	0.3	0.8	13.1	0.6	0.0	56.2	162.4	116.8	279.1
Wyoming	1.6	0.0	1.6	11.5	1.7	(s)	0.3	(s)	(s)	2.0	0.1	0.6	8.8	24.6	18.2	42.8
United States	75.3	11.5	86.8	3,309.7	446.5	24.6	77.5	43.1	113.6	705.2	42.0	5.7	3,502.2	7,651.6	7,266.5	14,918.1

[a] Includes supplemental gaseous fuels.

[b] U.S. total is estimated to be 2 percent of total wood consumption. State portions are allocated in proportion to residential wood consumption.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

(s)=Less than 0.05 trillion Btu.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 6. Industrial Energy Consumption Estimates, 1997
(Trillion Btu)

State	Coal	Natural Gas [a]	Petroleum									Hydro-electric power	Wood and Waste	Other [c]	Electricity	Net Energy [d]	Electrical System Energy Losses [e]	Total [d]
			Asphalt and Road Oil	Distillate Fuel	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel	Other [b]	Total							
Alabama	142.5	219.4	36.3	18.3	0.3	5.5	3.1	3.8	3.8	39.0	110.1	2.4	166.5	0.0	111.3	752.4	231.1	983.5
Alaska	(s)	344.9	0.4	16.4	(s)	0.1	0.1	0.3	0.9	24.6	42.8	0.0	2.3	(s)	2.6	392.6	6.3	398.8
Arizona	13.7	28.5	17.9	19.4	(s)	2.6	1.6	2.4	0.1	0.6	44.7	0.0	13.8	0.2	45.2	146.2	93.9	240.1
Arkansas	7.0	156.9	6.7	16.6	0.1	5.2	1.6	2.5	0.1	12.0	44.8	(s)	73.3	0.0	53.3	335.5	110.8	446.2
California	46.7	825.9	76.4	64.3	1.0	21.9	12.8	15.3	0.7	268.1	460.4	27.2	114.5	196.8	211.6	1,883.1	439.4	2,322.5
Colorado	16.8	104.6	17.1	23.7	(s)	5.4	1.4	3.6	(s)	10.6	61.9	1.4	5.3	0.2	35.1	225.4	73.0	298.3
Connecticut	0.0	35.5	8.1	5.1	0.2	1.0	1.3	1.2	2.5	9.4	28.8	0.7	11.8	0.0	20.2	97.0	41.9	139.0
Delaware	4.4	15.3	0.9	2.7	(s)	2.4	0.5	0.4	7.8	27.6	42.3	0.0	1.9	0.0	12.8	76.7	26.5	103.2
Dist. of Col.	0.0	0.0	0.2	0.1	(s)	(s)	(s)	0.3	0.0	0.0	0.7	0.0	0.0	0.0	0.9	1.6	1.9	3.5
Florida	33.7	140.5	23.3	34.5	0.3	12.1	3.7	6.0	22.1	18.8	120.8	8.1	70.1	0.0	62.3	435.6	129.4	565.1
Georgia	51.3	179.5	32.4	29.3	0.1	9.8	3.8	4.7	19.6	47.2	147.0	0.4	105.7	0.0	115.9	599.7	240.6	840.3
Hawaii	3.3	0.4	2.6	2.9	(s)	4.5	0.1	1.3	5.4	14.9	31.7	1.0	7.9	5.5	13.2	62.8	14.4	77.3
Idaho	5.7	36.1	13.8	18.2	0.1	8.0	0.3	2.2	(s)	0.1	42.7	10.7	22.8	0.3	28.4	146.7	59.0	205.7
Illinois	155.1	324.6	55.4	50.1	0.8	66.9	11.9	7.8	4.3	223.0	420.3	0.9	52.8	0.0	144.6	1,098.2	300.3	1,398.5
Indiana	271.1	293.9	61.3	31.0	0.4	9.0	6.7	4.5	6.9	106.7	226.3	0.0	29.6	0.0	148.6	969.5	308.6	1,278.1
Iowa	66.0	108.4	17.4	40.0	0.2	17.3	1.2	5.7	0.5	3.7	85.9	0.1	49.0	0.0	53.0	362.5	110.1	472.5
Kansas	3.4	159.2	14.0	32.5	0.1	29.5	2.5	5.5	1.1	38.2	123.4	0.1	6.0	0.0	32.0	324.1	66.4	390.4
Kentucky	91.1	103.1	22.7	35.1	0.8	12.6	3.3	6.5	1.1	123.4	205.3	0.0	15.4	0.0	138.5	553.5	287.7	841.2
Louisiana	1.7	1,397.6	35.1	52.2	0.2	246.3	7.8	4.3	6.5	531.2	883.5	15.3	119.2	0.0	110.9	2,528.1	230.2	2,758.4
Maine	4.7	2.6	3.7	7.5	0.2	1.2	0.4	0.9	42.9	0.9	57.8	19.7	146.7	0.0	16.9	248.3	35.1	283.5
Maryland	19.8	68.2	37.3	10.3	0.2	3.0	2.5	1.9	5.4	24.1	84.7	0.0	23.5	0.0	34.6	230.8	71.8	302.6
Massachusetts	0.9	110.5	6.1	6.8	0.1	2.0	2.3	2.1	11.1	13.6	44.0	3.6	38.4	0.0	33.9	231.3	70.4	301.7
Michigan	95.2	364.8	51.6	24.6	0.3	19.6	10.9	6.7	2.7	81.8	198.1	1.4	92.2	0.0	120.9	872.7	251.1	1,123.7
Minnesota	28.1	109.3	44.3	39.5	0.1	17.0	2.0	9.7	3.3	44.1	160.1	3.5	64.3	0.6	94.6	460.4	196.4	656.8
Mississippi	5.6	90.5	20.2	19.3	0.2	23.1	2.1	2.6	0.2	42.8	110.4	0.0	74.2	0.0	49.9	330.7	103.6	434.3
Missouri	27.5	71.9	27.5	21.9	0.1	13.2	4.1	8.9	1.2	31.3	108.0	0.0	7.9	0.0	52.1	267.4	108.2	375.6
Montana	2.7	21.7	9.6	18.8	(s)	3.8	0.3	3.6	1.0	29.3	66.4	0.6	9.4	(s)	15.5	116.3	32.1	148.5
Nebraska	5.7	44.4	9.6	29.0	0.1	6.7	0.3	4.3	0.6	0.2	50.7	0.0	0.6	0.0	22.4	123.9	46.6	170.5
Nevada	4.1	29.7	3.0	18.6	(s)	1.2	0.2	1.6	1.3	0.6	26.4	0.2	0.2	33.3	34.2	128.1	71.1	199.2
New Hampshire	0.0	5.9	2.7	1.9	0.1	1.3	0.1	0.6	5.3	0.8	12.9	4.8	28.8	0.0	8.0	60.5	16.6	77.0
New Jersey	0.3	209.5	54.5	10.8	3.7	6.6	10.1	3.3	8.7	203.5	301.1	0.5	17.9	0.0	45.6	574.8	94.7	669.5
New Mexico	1.7	107.6	8.2	8.6	(s)	3.6	0.7	3.6	1.0	13.8	39.6	0.0	1.8	0.1	21.1	171.9	43.8	215.8
New York	71.1	314.3	42.0	17.6	2.0	4.9	6.2	6.2	12.6	63.7	155.2	17.0	82.6	0.0	86.3	726.5	179.1	905.6
North Carolina	55.4	115.5	27.6	24.2	0.9	22.1	3.5	5.5	35.6	33.2	152.6	18.4	81.7	0.0	119.7	543.4	248.7	792.1
North Dakota	85.9	30.6	8.2	16.1	(s)	3.3	0.2	2.4	1.1	7.7	39.1	0.0	(s)	0.0	7.1	162.8	14.7	177.5
Ohio	143.9	352.4	95.4	35.3	1.4	27.3	14.5	6.5	7.6	131.9	320.0	0.0	81.0	0.0	252.1	1,149.4	523.6	1,673.0
Oklahoma	15.0	289.8	9.5	21.4	0.1	7.3	3.5	6.6	1.7	51.6	101.6	0.0	12.5	0.0	43.7	462.5	90.7	553.3
Oregon	1.9	94.8	19.7	12.9	(s)	3.8	1.3	3.1	1.1	15.5	57.3	4.4	80.2	0.1	54.4	293.1	112.9	406.0
Pennsylvania	387.9	248.9	46.2	25.1	0.9	7.6	16.7	4.7	14.3	121.5	237.0	4.9	81.5	0.0	163.6	1,123.9	339.8	1,463.7
Rhode Island	0.0	25.0	1.8	2.1	(s)	0.5	0.4	0.3	1.9	0.1	7.0	0.1	0.7	0.0	4.7	37.5	9.8	47.3
South Carolina	50.5	106.1	24.7	11.6	0.4	5.0	1.7	2.5	12.7	44.3	103.0	0.6	73.2	0.0	106.7	440.2	221.6	661.8
South Dakota	7.6	7.3	9.0	12.7	(s)	2.6	(s)	3.0	0.4	0.1	27.8	0.0	1.6	(s)	6.3	50.6	13.0	63.6
Tennessee	90.2	143.2	32.6	26.7	0.3	3.1	3.4	4.9	0.7	78.6	150.4	10.0	63.8	0.0	94.5	552.2	196.4	748.5
Texas	74.0	2,431.0	69.7	91.0	1.6	1,469.8	20.8	22.3	11.9	1,231.1	2,918.2	6.4	66.3	0.8	342.7	5,839.4	711.6	6,551.0
Utah	39.7	71.7	13.2	14.0	(s)	8.7	0.6	1.8	0.9	18.7	57.9	0.1	1.9	0.3	25.4	197.0	52.6	249.7
Vermont	0.0	2.4	5.3	2.1	0.1	0.9	0.1	0.5	1.4	0.0	10.3	1.9	10.7	0.0	5.3	30.6	11.1	41.7
Virginia	88.9	90.4	23.1	30.0	0.5	5.3	2.6	4.2	15.5	31.7	112.9	1.3	48.2	0.0	65.7	407.4	136.4	543.8
Washington	3.2	116.3	26.9	15.8	0.1	6.1	1.2	3.1	1.9	149.6	204.7	5.7	120.3	0.0	107.0	557.1	222.1	779.3
West Virginia	64.8	69.0	7.7	17.1	0.4	5.9	2.6	1.0	1.5	85.5	121.7	7.9	8.4	0.0	38.1	309.9	79.2	389.1
Wisconsin	42.5	157.4	34.2	28.5	0.1	8.5	3.0	4.8	5.9	18.0	103.0	3.1	198.9	0.0	85.7	590.5	177.9	768.4
Wyoming	42.3	71.2	6.4	21.8	0.1	4.2	0.3	2.5	(s)	16.3	51.7	0.0	2.1	(s)	24.6	191.9	51.1	243.0
United States	2,374.6	10,448.2	1,223.6	1,135.5	18.8	2,159.6	182.3	213.5	296.7	4,085.1	9,315.1	184.6	2,389.8	238.2	3,523.4	28,492.1	7,305.3	35,797.4

[a] Includes supplemental gaseous fuels.
[b] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."
[c] Includes geothermal, wind, photovoltaic, and solar thermal energy sources. See Appendix A, Section 5, for explanation of estimation methodology.
[d] U.S. total includes 18.2 trillion Btu of net imports of coal coke that has not been allocated to the States.
[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.
(s)=Less than 0.05 trillion Btu.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 7. Transportation Energy Consumption Estimates, 1997

(Trillion Btu)

State	Coal	Natural Gas [a]	Petroleum								Ethanol [b]	Electricity	Net Energy	Electrical System Energy Losses [c]	Total
			Aviation Gasoline	Distillate Fuel	Jet Fuel	LPG	Lubricants	Motor Gasoline	Residual Fuel	Total					
Alabama	0.0	21.5	0.5	102.5	12.4	0.3	3.0	288.6	12.5	419.6	0.3	0.0	441.2	0.0	441.2
Alaska	0.0	4.9	2.1	25.2	119.6	(s)	0.6	32.5	(s)	180.0	0.6	0.0	184.9	0.0	184.9
Arizona	0.0	19.2	0.8	77.8	45.2	0.1	2.1	254.2	0.0	380.2	1.8	0.0	399.3	0.0	399.3
Arkansas	0.0	11.7	0.7	79.4	8.7	0.2	2.6	171.7	0.0	263.3	0.0	0.0	275.1	0.0	275.1
California	0.0	25.1	4.2	363.5	584.8	1.7	17.0	1,679.5	136.5	2,787.3	6.9	1.6	2,814.0	3.4	2,817.4
Colorado	0.0	12.5	0.7	49.1	40.7	0.2	2.4	226.0	0.0	319.2	5.0	(s)	331.8	(s)	331.8
Connecticut	0.0	2.6	0.1	32.1	13.4	0.1	1.5	166.6	0.2	214.0	0.3	0.0	216.6	0.0	216.6
Delaware	0.0	(s)	0.3	9.2	0.4	(s)	0.4	44.7	10.7	65.7	0.0	0.0	65.7	0.0	65.7
Dist. of Col.	0.0	0.3	(s)	3.7	1.4	(s)	0.3	20.8	0.0	26.3	0.0	0.5	27.1	1.1	28.2
Florida	0.0	6.0	2.9	194.9	173.0	0.4	4.9	843.1	54.5	1,273.6	0.1	0.2	1,279.8	0.4	1,280.1
Georgia	0.0	8.2	0.8	180.4	86.4	0.4	3.8	525.6	7.1	804.4	0.0	0.4	812.9	0.8	813.7
Hawaii	0.0	0.0	0.6	7.0	57.9	(s)	0.5	47.8	3.1	117.0	0.0	0.0	117.0	0.0	117.0
Idaho	0.0	5.4	0.4	33.4	4.3	0.1	0.8	73.5	0.0	112.5	0.0	0.0	117.9	0.0	117.9
Illinois	0.0	14.8	1.0	157.0	70.9	0.8	9.2	586.4	0.3	825.5	14.9	1.5	841.8	3.0	844.8
Indiana	0.0	11.0	0.7	176.3	62.3	0.4	4.2	361.5	2.5	607.8	4.9	0.1	618.8	0.1	618.9
Iowa	0.0	11.4	0.4	72.1	4.5	0.3	3.2	178.8	0.0	259.3	4.6	0.0	270.7	0.0	270.7
Kansas	0.0	39.2	1.2	63.3	12.1	0.1	3.7	155.2	0.0	235.6	0.2	0.0	274.7	0.0	274.7
Kentucky	0.0	24.0	0.1	124.4	25.8	0.2	3.1	256.9	0.0	410.6	0.5	0.0	434.6	0.0	434.6
Louisiana	0.0	81.2	0.5	151.5	172.7	0.2	4.4	241.9	125.1	696.2	0.1	(s)	777.4	(s)	777.4
Maine	0.0	0.0	0.2	21.9	5.4	(s)	0.8	83.0	0.7	112.0	0.0	(s)	112.0	(s)	112.0
Maryland	0.0	3.3	0.2	58.7	23.2	0.2	1.9	279.5	4.6	368.3	0.2	0.4	372.0	0.9	372.9
Massachusetts	0.0	2.4	0.4	54.0	41.4	0.1	2.8	317.7	8.9	425.3	0.0	0.9	428.5	1.8	430.3
Michigan	0.0	24.8	1.0	119.8	53.8	0.7	9.0	583.3	0.3	767.8	2.1	(s)	792.6	(s)	792.7
Minnesota	0.0	19.9	0.7	80.5	61.7	0.4	4.8	277.9	0.1	426.1	14.7	0.0	446.0	0.0	446.0
Mississippi	0.0	46.5	0.3	67.0	44.9	0.2	1.9	183.1	8.0	305.4	0.0	0.0	351.9	0.0	351.9
Missouri	0.0	7.6	0.8	142.2	69.9	0.3	5.7	361.1	0.1	580.1	0.5	0.1	587.7	0.1	587.8
Montana	0.0	3.6	0.4	37.3	4.5	0.1	1.2	56.6	0.0	100.0	0.0	0.0	103.6	0.0	103.6
Nebraska	0.0	4.1	0.5	72.0	6.1	0.1	2.1	99.8	0.0	180.5	1.6	0.0	184.6	0.0	184.6
Nevada	0.0	0.7	0.4	31.9	42.8	0.1	0.5	103.2	0.0	178.9	0.0	0.0	179.6	0.0	179.6
New Hampshire	0.0	(s)	0.1	9.0	2.3	(s)	0.4	76.4	(s)	88.3	0.0	0.0	88.3	0.0	88.3
New Jersey	0.0	3.5	0.7	110.0	219.6	0.2	4.3	463.0	42.8	840.6	0.9	0.5	844.6	0.9	845.5
New Mexico	0.0	63.4	0.5	50.1	9.9	0.3	1.3	109.2	0.0	171.4	1.3	0.0	234.7	0.0	234.7
New York	0.0	8.3	0.3	137.8	68.8	0.4	6.5	680.6	32.8	927.2	1.7	8.8	944.2	18.2	962.4
North Carolina	0.0	7.5	0.8	132.2	40.6	0.4	3.9	471.3	1.8	650.9	2.6	0.0	658.4	0.0	658.4
North Dakota	0.0	5.0	0.2	26.8	1.1	(s)	0.9	42.9	0.0	71.8	0.4	0.0	76.8	0.0	76.8
Ohio	0.0	20.6	1.9	218.1	71.5	0.7	8.7	604.9	0.4	906.1	12.0	0.2	926.9	0.4	927.3
Oklahoma	0.0	26.4	0.4	102.3	29.8	0.1	4.7	217.4	0.0	354.8	0.0	0.0	381.2	0.0	381.2
Oregon	0.0	13.1	0.9	67.6	32.4	0.3	3.2	173.2	20.8	298.5	0.0	(s)	311.7	0.1	311.7
Pennsylvania	0.0	40.6	0.5	182.4	84.0	0.5	8.0	596.8	29.4	901.5	4.7	1.3	943.4	2.7	946.1
Rhode Island	0.0	0.9	0.1	11.7	4.7	(s)	0.4	48.0	(s)	64.9	0.0	0.0	65.7	0.0	65.7
South Carolina	0.0	3.0	0.3	71.8	7.5	0.1	1.6	257.2	3.5	342.1	0.0	0.0	345.1	0.0	345.1
South Dakota	0.0	3.0	0.2	20.1	4.0	(s)	0.9	50.4	0.0	75.6	1.3	0.0	78.6	0.0	78.6
Tennessee	0.0	23.3	1.6	128.2	53.5	0.4	4.1	342.3	(s)	530.1	(s)	(s)	553.4	(s)	553.4
Texas	0.0	84.6	3.3	402.4	598.8	1.0	11.6	1,158.8	129.8	2,305.6	3.5	0.1	2,390.2	0.1	2,390.4
Utah	0.0	3.2	0.3	47.5	35.6	0.1	1.2	113.8	0.0	198.5	0.0	0.0	201.7	0.0	201.7
Vermont	0.0	(s)	0.1	10.9	0.6	0.1	0.3	39.4	0.0	51.4	0.0	0.0	51.4	0.0	51.4
Virginia	0.0	7.7	0.3	134.4	53.3	0.2	3.2	422.9	9.3	623.5	2.4	0.3	631.6	0.6	632.1
Washington	0.0	9.4	1.0	96.5	127.3	0.5	3.0	318.1	80.7	627.2	2.0	0.1	636.7	0.1	636.8
West Virginia	0.0	34.5	0.1	39.0	1.0	(s)	1.5	102.6	0.0	144.3	(s)	0.0	178.8	0.0	178.8
Wisconsin	0.0	4.7	2.5	94.5	11.1	0.3	3.2	287.5	0.1	399.0	5.2	(s)	403.7	(s)	403.7
Wyoming	0.0	11.2	0.8	52.8	0.7	0.1	0.9	37.4	0.0	92.6	(s)	0.0	103.8	0.0	103.8
United States	0.0	785.7	39.7	4,733.9	3,308.2	13.4	172.1	15,114.5	726.5	24,108.4	97.3	16.7	24,910.8	34.8	24,945.6

[a] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and gas consumed as vehicle fuel.

[b] Ethanol blended into motor gasoline is included in motor gasoline, but is also shown separately to display the use of renewable energy by the transportation sector. It is counted only once in the total.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

(s)=Less than 0.05 trillion Btu.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 8. Estimates of Energy Input at Electric Utilities, 1997

(Trillion Btu)

State	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [d]	Wood and Waste	Geothermal Energy [e]	Other [f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b]	Light Oil [c]	Petroleum Coke	Total						
Alabama	714.5	0.0	714.5	10.3	0.0	1.3	0.0	1.3	314.2	118.8	0.0	0.0	0.0	1,159.1
Alaska	3.7	0.0	3.7	33.5	4.5	3.5	0.0	8.0	0.0	11.3	0.0	0.0	0.0	56.6
Arizona	355.6	0.0	355.6	23.7	(s)	0.6	0.0	0.6	311.4	127.9	0.0	0.0	0.0	818.6
Arkansas	239.8	0.0	239.8	25.5	0.2	0.6	0.0	0.8	150.9	36.2	0.0	0.0	0.0	453.2
California	0.0	0.0	0.0	385.1	0.3	1.6	0.0	1.9	324.1	420.2	1.3	111.4	0.1	1,247.5
Colorado	337.9	0.0	337.9	5.5	(s)	0.2	0.0	0.2	0.0	20.2	0.0	0.0	0.0	364.1
Connecticut	27.8	0.0	27.8	17.1	87.6	0.6	0.0	88.2	-1.3	11.1	4.6	0.0	0.0	152.7
Delaware	44.0	0.0	44.0	16.7	8.3	0.7	0.0	9.0	0.0	0.0	0.0	0.0	0.0	69.7
Dist. of Col.	0.0	0.0	0.0	0.0	0.8	0.4	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2
Florida	663.6	0.0	663.6	310.0	236.7	8.8	20.1	265.6	244.0	2.5	0.0	0.0	0.0	1,485.6
Georgia	720.2	0.0	720.2	7.5	0.5	2.2	0.0	2.7	323.1	45.6	0.0	0.0	0.0	1,099.0
Hawaii	0.0	0.0	0.0	0.0	53.5	13.3	0.0	66.8	0.0	0.2	0.0	0.0	0.0	67.0
Idaho	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	140.3	0.0	0.0	0.0	141.1
Illinois	802.4	0.0	802.4	45.3	3.6	3.2	0.1	7.0	542.5	0.2	0.2	0.0	0.0	1,397.6
Indiana	1,147.5	0.0	1,147.5	4.8	0.0	1.9	5.5	7.3	0.0	5.8	0.0	0.0	0.0	1,165.4
Iowa	315.2	0.0	315.2	4.1	0.0	1.2	0.0	1.2	44.1	8.2	0.2	0.0	(s)	373.1
Kansas	307.4	0.0	307.4	25.3	0.6	1.0	0.0	1.5	89.6	0.0	0.0	0.0	0.0	423.7
Kentucky	885.9	0.0	885.9	2.2	0.0	1.5	0.0	1.5	0.0	34.9	0.0	0.0	0.0	924.5
Louisiana	223.7	0.0	223.7	287.4	6.4	0.5	0.0	6.9	143.5	0.0	0.0	0.0	0.0	661.6
Maine	0.0	0.0	0.0	0.0	15.7	0.1	0.0	15.8	0.0	49.0	0.0	0.0	0.0	86.3
Maryland	269.0	0.0	269.0	11.5	15.0	3.7	0.0	18.7	140.4	16.4	0.0	0.0	0.0	455.9
Massachusetts	121.3	0.0	121.3	53.2	107.2	2.3	0.0	109.4	45.8	10.4	0.0	0.0	0.0	345.4
Michigan	674.7	0.0	674.7	10.3	6.5	1.8	0.0	8.3	232.8	25.5	0.0	0.0	0.0	947.2
Minnesota	311.1	0.0	311.1	6.1	(s)	1.0	7.5	8.6	114.9	91.9	4.4	0.0	0.0	595.2
Mississippi	126.6	0.0	126.6	75.7	25.4	0.3	0.0	25.7	114.9	0.0	0.0	0.0	0.0	342.8
Missouri	633.1	0.0	633.1	7.5	0.2	1.6	0.0	1.8	95.1	15.2	0.4	0.0	0.0	753.1
Montana	156.5	0.0	156.5	0.4	0.0	0.2	0.0	0.2	0.0	137.7	0.0	0.0	0.0	294.9
Nebraska	185.6	0.0	185.6	2.7	(s)	0.4	0.0	0.4	98.5	17.2	(s)	0.0	0.0	304.4
Nevada	162.2	0.0	162.2	53.3	0.1	0.3	0.0	0.4	0.0	26.5	0.0	0.0	0.0	242.4
New Hampshire	44.4	0.0	44.4	0.6	11.4	0.2	0.0	11.6	84.8	19.3	0.0	0.0	0.0	165.8
New Jersey	74.6	0.0	74.6	30.6	2.2	2.1	0.0	4.3	147.7	-1.3	0.0	0.0	0.0	255.9
New Mexico	286.6	0.0	286.6	33.9	(s)	0.2	0.0	0.2	0.0	2.7	0.0	0.0	0.0	323.5
New York	228.7	0.0	228.7	223.2	80.5	6.0	0.0	86.5	314.1	320.2	0.2	0.0	0.0	1,181.3
North Carolina	673.0	0.0	673.0	4.7	0.0	2.7	0.0	2.7	344.7	42.8	0.0	0.0	0.0	1,067.9
North Dakota	298.5	0.0	298.5	(s)	0.0	0.9	0.0	0.9	0.0	35.3	0.0	0.0	0.0	332.8
Ohio	1,257.9	0.0	1,257.9	3.6	0.0	3.3	0.0	3.3	162.9	5.2	0.0	0.0	0.0	1,432.9
Oklahoma	347.4	0.0	347.4	132.9	0.1	0.1	0.0	0.2	0.0	29.1	0.0	0.0	0.0	509.6
Oregon	14.4	0.0	14.4	10.8	0.0	0.1	0.0	0.1	0.0	481.9	0.0	0.0	0.0	510.5
Pennsylvania	1,028.2	15.2	1,043.5	7.6	16.2	5.3	7.9	29.4	718.7	12.0	0.0	0.0	0.0	1,811.4
Rhode Island	0.0	0.0	0.0	27.9	0.0	0.2	0.0	0.2	0.0	7.3	0.0	0.0	0.0	40.6
South Carolina	311.0	0.0	311.0	2.8	0.4	2.3	0.0	2.7	477.1	21.1	0.0	0.0	0.0	814.7
South Dakota	34.8	0.0	34.8	1.8	0.0	0.1	0.0	0.1	0.0	92.9	0.0	0.0	0.0	129.7
Tennessee	580.1	0.0	580.1	1.7	0.0	2.2	0.0	2.2	261.8	96.9	0.0	0.0	0.0	942.7
Texas	1,433.1	0.0	1,433.1	1,080.9	0.2	1.9	0.0	2.0	396.9	18.4	0.0	0.0	(s)	2,919.9
Utah	323.0	0.0	323.0	4.2	0.0	0.3	0.0	0.3	0.0	13.9	0.0	3.5	0.0	345.0
Vermont	0.0	0.0	0.0	(s)	0.0	0.2	0.0	0.2	45.3	30.3	1.6	0.0	0.0	90.7
Virginia	291.4	0.0	291.4	12.1	7.6	1.2	0.0	8.8	287.7	0.8	0.0	0.0	0.0	600.8
Washington	76.7	0.0	76.7	2.7	0.0	0.2	0.0	0.2	66.3	1,053.1	3.6	0.0	0.0	1,205.0
West Virginia	855.1	0.0	855.1	0.2	0.0	1.7	0.0	1.7	0.0	3.9	0.0	0.0	0.0	860.9
Wisconsin	441.9	0.0	441.9	15.9	0.0	1.5	1.1	2.6	41.6	22.5	3.8	0.0	0.0	528.3
Wyoming	421.7	0.0	421.7	0.1	0.0	0.6	0.0	0.6	0.0	14.2	0.0	0.0	0.0	436.6
United States	18,451.9	15.2	18,467.1	3,023.0	691.5	88.3	42.2	822.0	6,678.1	3,695.8	20.4	115.0	0.1	32,935.4

[a] Includes supplemental gaseous fuels.
[b] Heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.
[c] Light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.
[d] Includes net imports of hydroelectricity. A negative number in this column results from pumped storage for which, overall, more electricity is expended than created to provide electricity during peak demand periods.
[e] Includes net imports of electricity generated from geothermal energy.
[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.
[g] Includes 113.9 trillion Btu of net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

(s)=Number less than 0.05.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 9. Energy Consumption by Sector, Ranked by State, 1997

Rank	Residential Sector		Commercial Sector		Industrial Sector		Transportation Sector		Total Consumption	
	State	Trillion Btu	State	Trillion Btu	State	Trillion Btu	State	Trillion Btu	State	Trillion Btu
1	California	1,338.1	California	1,249.5	Texas	6,551.0	California	2,817.4	Texas	11,396.1
2	Texas	1,324.1	New York	1,168.8	Louisiana	2,758.4	Texas	2,390.4	California	7,727.5
3	New York	1,056.3	Texas	1,130.7	California	2,322.5	Florida	1,280.1	Ohio	4,144.3
4	Florida	991.0	Florida	778.5	Ohio	1,673.0	New York	962.4	New York	4,093.2
5	Illinois	937.7	Illinois	719.2	Pennsylvania	1,463.7	Pennsylvania	946.1	Louisiana	4,093.0
6	Pennsylvania	898.5	Ohio	651.9	Illinois	1,398.5	Ohio	927.3	Pennsylvania	3,900.7
7	Ohio	892.2	Pennsylvania	592.4	Indiana	1,278.1	New Jersey	845.5	Illinois	3,900.2
8	Michigan	770.4	Michigan	572.3	Michigan	1,123.7	Illinois	844.8	Florida	3,614.7
9	North Carolina	556.3	New Jersey	523.4	Alabama	983.5	Georgia	813.7	Michigan	3,259.1
10	New Jersey	547.0	Virginia	451.1	New York	905.6	Michigan	792.7	Indiana	2,683.6
11	Georgia	533.6	North Carolina	418.4	Kentucky	841.2	Louisiana	777.4	Georgia	2,588.4
12	Virginia	499.4	Georgia	400.7	Georgia	840.3	North Carolina	658.4	New Jersey	2,585.4
13	Indiana	486.6	Massachusetts	382.7	North Carolina	792.1	Washington	636.8	North Carolina	2,425.2
14	Missouri	447.6	Tennessee	339.2	Washington	779.3	Virginia	632.1	Washington	2,164.2
15	Tennessee	443.0	Missouri	337.9	Wisconsin	768.4	Indiana	618.9	Virginia	2,126.4
16	Washington	426.5	Maryland	323.8	Tennessee	748.5	Missouri	587.8	Tennessee	2,084.2
17	Massachusetts	419.4	Washington	321.7	New Jersey	669.5	Tennessee	553.4	Alabama	1,977.5
18	Wisconsin	384.2	Indiana	300.0	South Carolina	661.8	Minnesota	446.0	Wisconsin	1,835.4
19	Maryland	360.7	Wisconsin	279.1	Minnesota	656.8	Alabama	441.2	Kentucky	1,809.6
20	Minnesota	357.5	Arizona	250.6	Florida	565.1	Kentucky	434.6	Missouri	1,748.9
21	Alabama	333.7	Colorado	242.7	Oklahoma	553.3	Massachusetts	430.3	Minnesota	1,685.8
22	Louisiana	327.1	Louisiana	230.2	Virginia	543.8	Wisconsin	403.7	Massachusetts	1,534.1
23	Kentucky	318.6	Minnesota	225.5	Iowa	472.5	Arizona	399.3	South Carolina	1,474.2
24	South Carolina	274.4	Alabama	219.1	Arkansas	446.2	Oklahoma	381.2	Oklahoma	1,405.2
25	Oklahoma	267.1	Kentucky	215.3	Mississippi	434.3	Maryland	372.9	Maryland	1,360.0
26	Arizona	262.4	Oklahoma	203.7	Oregon	406.0	Mississippi	351.9	Arizona	1,152.4
27	Colorado	260.5	Connecticut	193.2	Alaska	398.8	South Carolina	345.1	Iowa	1,136.4
28	Connecticut	247.0	South Carolina	193.0	Kansas	390.4	Colorado	331.8	Colorado	1,133.4
29	Iowa	234.9	Oregon	185.0	West Virginia	389.1	Oregon	311.7	Oregon	1,132.9
30	Oregon	230.2	Kansas	173.1	Missouri	375.6	Arkansas	275.1	Mississippi	1,123.7
31	Mississippi	198.9	Iowa	158.3	Maryland	302.6	Kansas	274.7	Kansas	1,033.1
32	Kansas	194.9	Mississippi	138.6	Massachusetts	301.7	Iowa	270.7	Arkansas	1,030.2
33	Arkansas	190.0	Nebraska	121.8	Colorado	298.3	New Mexico	234.7	West Virginia	809.2
34	West Virginia	145.6	Arkansas	118.9	Maine	283.5	Connecticut	216.6	Connecticut	795.8
35	Nebraska	140.2	Utah	114.7	Utah	249.7	Utah	201.7	Alaska	697.3
36	Utah	125.2	District of Columbia	109.2	Wyoming	243.0	Alaska	184.9	Utah	691.2
37	Nevada	113.7	New Mexico	105.6	Arizona	240.1	Nebraska	184.6	New Mexico	647.1
38	Maine	100.0	West Virginia	95.7	New Mexico	215.8	Nevada	179.6	Nebraska	617.1
39	Idaho	92.4	Nevada	91.9	Idaho	205.7	West Virginia	178.8	Nevada	584.4
40	New Mexico	91.0	Idaho	81.8	Nevada	199.2	Idaho	117.9	Maine	553.4
41	New Hampshire	82.7	Alaska	64.7	North Dakota	177.5	Hawaii	117.0	Idaho	497.7
42	Montana	70.8	Maine	57.9	Nebraska	170.5	Maine	112.0	Wyoming	428.3
43	Rhode Island	70.6	New Hampshire	55.9	Montana	148.5	Wyoming	103.8	Montana	377.5
44	South Dakota	59.1	Montana	54.7	Connecticut	139.0	Montana	103.6	North Dakota	355.8
45	North Dakota	57.1	Rhode Island	51.5	Delaware	103.2	New Hampshire	88.3	New Hampshire	303.9
46	Delaware	54.4	North Dakota	44.3	Hawaii	77.3	South Dakota	78.6	Delaware	267.2
47	Alaska	48.8	Delaware	43.8	New Hampshire	77.0	North Dakota	76.8	South Dakota	241.9
48	Vermont	45.4	Wyoming	42.8	South Dakota	63.6	Rhode Island	65.7	Hawaii	239.5
49	Wyoming	38.7	South Dakota	40.6	Rhode Island	47.3	Delaware	65.7	Rhode Island	235.1
50	District of Columbia	35.7	Vermont	28.6	Vermont	41.7	Vermont	51.4	District of Columbia	176.6
51	Hawaii	21.2	Hawaii	24.1	District of Columbia	3.5	District of Columbia	28.2	Vermont	167.1
	United States	18,402.5	United States	14,918.1	United States	35,797.4	United States	24,945.6	United States	94,063.6

Source: Combined State Energy Data System 1997.

Table 10. Energy Consumption by Source and Total Consumption per Capita, Ranked by State, 1997

Rank	Coal		Natural Gas		Petroleum		Electricity [a]		Total Consumption per Capita	
	State	Trillion Btu	State	Trillion Btu	State	Trillion Btu	State	Trillion Btu	State	Million Btu
1	Texas	1,507.1	Texas	4,061.2	Texas	5,247.0	Texas	978.2	Alaska	1,143.5
2	Pennsylvania	1,462.1	California	1,982.0	California	3,281.2	California	777.5	Louisiana	940.0
3	Indiana	1,427.3	Louisiana	1,855.0	Florida	1,691.4	Florida	597.2	Wyoming	892.2
4	Ohio	1,409.7	New York	1,260.3	Louisiana	1,592.1	Ohio	540.8	Texas	587.8
5	Kentucky	985.2	Illinois	1,099.7	New York	1,531.9	New York	450.2	North Dakota	554.9
6	Illinois	964.2	Michigan	995.4	Pennsylvania	1,350.0	Pennsylvania	436.3	Kentucky	462.6
7	West Virginia	922.5	Ohio	939.2	Ohio	1,299.2	Illinois	431.4	Indiana	457.5
8	Alabama	858.8	Pennsylvania	717.9	Illinois	1,293.6	North Carolina	372.1	Alabama	457.3
9	Michigan	774.6	New Jersey	642.8	New Jersey	1,253.0	Georgia	348.9	West Virginia	445.6
10	Georgia	771.9	Oklahoma	566.7	Michigan	1,051.7	Michigan	332.3	Maine	445.3
11	North Carolina	733.1	Indiana	563.3	Georgia	980.6	Indiana	304.2	Montana	429.4
12	Florida	697.3	Florida	509.0	North Carolina	889.1	Washington	301.3	Oklahoma	422.9
13	Tennessee	673.5	Alaska	425.4	Indiana	878.3	Virginia	298.3	Idaho	411.6
14	Missouri	666.7	Wisconsin	405.0	Washington	852.5	Tennessee	296.6	Mississippi	411.2
15	Wisconsin	488.4	Massachusetts	388.6	Virginia	819.9	Kentucky	262.2	Arkansas	408.1
16	Wyoming	466.5	Georgia	371.4	Massachusetts	746.0	Louisiana	258.9	Iowa	397.9
17	Iowa	390.0	Minnesota	360.5	Missouri	729.9	Alabama	254.4	Kansas	397.0
18	North Dakota	386.5	Alabama	335.5	Tennessee	703.6	South Carolina	233.8	South Carolina	389.0
19	Virginia	384.8	Kansas	334.5	Minnesota	647.5	New Jersey	224.9	Tennessee	387.8
20	Arizona	369.4	Colorado	309.6	Kentucky	642.4	Missouri	224.1	Washington	385.3
21	Oklahoma	367.4	Tennessee	291.1	Wisconsin	562.0	Wisconsin	205.0	New Mexico	375.2
22	Utah	365.5	Missouri	286.4	Alabama	546.6	Maryland	192.0	Nebraska	372.3
23	South Carolina	361.6	New Mexico	274.4	Maryland	529.4	Minnesota	190.0	Ohio	370.1
24	Colorado	356.0	Arkansas	267.0	South Carolina	469.0	Arizona	185.8	Delaware	363.2
25	Minnesota	341.2	Mississippi	264.1	Oklahoma	466.6	Massachusetts	162.6	Minnesota	359.5
26	Kansas	310.8	Iowa	257.1	Mississippi	453.5	Oregon	162.4	Wisconsin	352.8
27	New York	306.1	Virginia	252.0	Connecticut	439.5	Oklahoma	151.7	Oregon	349.1
28	Maryland	290.2	Washington	241.9	Arizona	432.1	Mississippi	136.8	Nevada	348.0
29	New Mexico	288.4	Kentucky	239.3	Colorado	397.9	Colorado	129.9	Georgia	345.4
30	Arkansas	246.8	North Carolina	221.9	Iowa	375.5	Arkansas	125.8	Utah	334.6
31	Louisiana	225.4	Maryland	214.5	Kansas	371.7	Iowa	123.3	Michigan	333.1
32	Nebraska	193.3	Oregon	179.5	Oregon	368.0	Kansas	110.1	District of Columbia	333.1
33	Nevada	166.3	Utah	172.1	Arkansas	316.7	Connecticut	97.0	South Dakota	327.7
34	Montana	160.7	West Virginia	169.9	West Virginia	277.7	West Virginia	89.6	North Carolina	326.2
35	Mississippi	132.2	South Carolina	158.7	Utah	261.8	Nevada	82.6	Illinois	325.2
36	Massachusetts	122.9	Connecticut	140.7	Maine	261.7	Nebraska	77.1	Pennsylvania	324.6
37	Washington	80.5	Arizona	134.0	Alaska	244.8	Idaho	72.5	Missouri	323.2
38	New Jersey	75.0	Nevada	132.1	Nebraska	239.4	Utah	69.5	New Jersey	320.7
39	California	49.2	Nebraska	131.9	Hawaii	217.8	New Mexico	59.8	Virginia	315.4
40	Delaware	48.6	Wyoming	107.9	New Mexico	215.7	Maine	40.8	Colorado	291.1
41	New Hampshire	44.5	Rhode Island	84.9	Nevada	210.6	Montana	40.7	Vermont	283.5
42	South Dakota	42.4	Idaho	69.0	Montana	175.4	Wyoming	40.2	Maryland	266.8
43	Connecticut	28.0	Montana	61.7	Idaho	163.4	Delaware	34.5	New Hampshire	259.0
44	Oregon	16.4	North Dakota	58.9	New Hampshire	162.1	District of Columbia	34.5	Arizona	252.9
45	Alaska	11.7	Delaware	48.1	Wyoming	149.0	Hawaii	31.9	Massachusetts	250.6
46	Idaho	6.4	South Dakota	36.1	Delaware	130.2	New Hampshire	31.0	Florida	246.2
47	Maine	4.8	District of Columbia	34.8	North Dakota	121.2	North Dakota	28.3	Connecticut	243.3
48	Hawaii	3.3	New Hampshire	21.1	South Dakota	115.2	South Dakota	26.5	California	240.0
49	District of Columbia	1.0	Vermont	8.2	Rhode Island	104.1	Rhode Island	22.8	Rhode Island	237.9
50	Rhode Island	0.1	Maine	6.3	Vermont	88.7	Vermont	18.1	New York	225.3
51	Vermont	0.1	Hawaii	2.7	District of Columbia	34.5	Alaska	16.5	Hawaii	201.0
	United States	20,986.4	United States	22,691.1	United States	36,382.5	United States	10,712.9	United States	351.2

[a] Electricity sold to end users, not including the losses incurred in the generation, transmission, and distribution of the electricity.

Source: Combined State Energy Data System 1997.

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Table 11. Energy Consumption Estimates by Source, Selected Years 1960-1997, United States

Year	Coal	Net Imports of Coal Coke	Natural Gas [a]	Petroleum											Nuclear Electric Power	Hydro-electric Power [c,d]	Biomass [e]	Other [c,f]	Total [g]
				Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel	Jet Fuel	Kero-sene	LPG	Lubri-cants	Motor Gasoline	Residual Fuel	Other [b]	Total					
	Million Short Tons		Billion Cubic Feet	Million Barrels											Billion Kilowatthours				
1960	398	(s)	11,967	111	59	685	136	99	227	43	1,453	559	214	3,586	1	154	–	–	–
1965	472	-1	15,280	134	44	776	220	98	307	47	1,676	587	313	4,202	4	197	–	–	–
1970	523	-2	21,139	163	20	927	353	96	447	50	2,111	804	393	5,364	22	253	–	–	–
1975	563	1	19,538	153	14	1,041	365	58	486	50	2,436	899	455	5,958	173	309	–	–	–
1980	703	-1	19,877	145	13	1,049	391	58	538	58	2,408	918	665	6,242	251	300	–	–	–
1985	818	-1	17,281	155	10	1,047	445	42	584	53	2,493	439	473	5,740	384	325	–	–	–
1986	804	-1	16,221	164	12	1,064	477	36	552	52	2,567	518	501	5,942	414	330	–	–	–
1987	837	(s)	17,211	170	9	1,086	506	35	588	59	2,630	462	538	6,083	455	299	–	–	–
1988	884	2	18,030	171	10	1,143	530	35	606	57	2,685	504	585	6,326	527	258	–	–	–
1989	890	1	18,801	165	9	1,152	544	31	609	58	2,675	500	581	6,324	529	[h] NA	–	–	–
1990	895	(s)	18,716	176	9	1,103	556	16	568	60	2,641	449	625	6,201	577	NA	–	–	–
1991	888	(s)	19,035	162	8	1,066	537	17	616	53	2,623	423	594	6,101	613	NA	–	–	–
1992	892	1	19,544	166	8	1,090	532	15	642	54	2,660	401	665	6,234	619	NA	–	–	–
1993	926	1	20,279	173	8	1,110	536	18	633	55	2,729	394	635	6,291	610	NA	–	–	–
1994	930	1	20,708	177	8	1,154	557	18	686	58	2,774	373	662	6,467	640	NA	–	–	–
1995	941	1	21,581	178	8	1,170	553	20	693	57	2,843	311	637	6,469	673	NA	–	–	–
1996	983	(s)	21,967	177	7	1,232	578	23	736	55	2,888	311	695	6,701	675	NA	–	–	–
1997	1,008	1	21,972	184	8	1,254	583	24	744	58	2,926	291	724	6,796	629	NA	–	–	–
	Trillion Btu																		
1960	9,830	-6	12,385	734	298	3,992	739	563	912	259	7,631	3,517	1,276	19,919	6	1,657	[R] 1,320	1	[R] 45,113
1965	11,582	-18	15,779	890	222	4,519	1,215	553	1,232	286	8,806	3,691	1,833	23,246	43	2,058	[R] 1,335	4	[R] 54,029
1970	12,269	-58	21,693	1,082	100	5,401	1,973	544	1,689	301	11,091	5,057	2,283	29,522	239	2,654	[R] 1,431	11	[R] 67,761
1975	12,656	14	19,977	1,014	71	6,061	2,047	329	1,807	304	12,798	5,649	2,651	32,732	1,900	3,219	[R] 1,499	70	[R] 72,066
1980	15,461	-35	20,384	962	64	6,110	2,190	329	1,976	354	12,648	5,772	3,799	34,204	2,739	3,118	[R] 2,484	110	[R] 78,465
1985	17,540	-13	17,843	1,029	50	6,098	2,497	236	2,103	322	13,098	2,759	2,733	30,925	4,149	3,398	[R] 2,788	198	[R] 76,827
1986	17,241	-17	16,718	1,086	59	6,196	2,682	203	2,009	315	13,487	3,255	2,905	32,198	4,471	3,446	[R] 2,754	219	[R] 77,031
1987	17,950	9	17,750	1,130	46	6,328	2,843	196	2,153	356	13,816	2,901	3,096	32,864	4,906	3,117	[R] 2,725	229	[R] 79,550
1988	18,886	40	18,563	1,136	49	6,655	2,982	200	2,213	343	14,105	3,170	3,369	34,223	5,661	2,662	[R] 2,835	217	[R] 83,087
1989	18,917	30	19,386	1,096	48	6,712	3,059	174	2,243	352	14,050	3,144	3,332	34,209	5,677	[R h] 2,881	[R h] 3,019	[R h] 403	[R h] 84,518
1990	18,997	5	19,280	1,170	45	6,422	3,129	88	2,059	362	13,872	2,820	3,584	33,552	6,161	[R] 3,125	2,633	[R] 434	[R] 83,990
1991	18,754	9	19,605	1,077	42	6,210	3,025	96	2,227	324	13,781	2,657	3,407	32,846	6,579	[R] 3,161	2,642	[R] 450	[R] 84,004
1992	18,846	27	20,139	1,102	41	6,351	3,001	86	2,328	330	13,973	2,518	3,794	33,525	6,607	[R] 2,820	2,788	[R] 469	[R] 85,181
1993	19,483	17	20,848	1,149	38	6,466	3,028	103	2,282	337	14,335	2,479	3,626	33,842	6,519	3,105	2,784	[R] 487	[R] 87,028
1994	19,511	24	21,313	1,173	38	6,723	3,154	101	2,494	352	14,574	2,342	3,781	34,734	6,837	[R] 2,936	[R] 2,918	[R] 494	[R] 88,832
1995	19,679	26	22,189	1,178	40	6,818	3,132	112	2,512	346	14,934	1,955	3,639	34,664	7,177	[R] 3,446	[R] 3,047	[R] 438	[R] 90,676
1996	20,520	(s)	22,598	1,176	37	7,175	3,274	128	2,660	335	15,170	1,952	3,958	35,866	7,168	3,881	[R] 3,109	[R] 456	[R] 93,584
1997	20,986	18	22,691	1,224	40	7,304	3,308	136	2,690	354	15,371	1,828	4,127	36,383	6,678	3,880	2,983	428	94,064

[a] Includes supplemental gaseous fuels.

[b] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[c] The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[d] Through 1988, includes all net imports of electricity. From 1989, includes only the portion of net imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. From 1989, includes net imports of electricity generated from geothermal energy.

[g] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[h] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data. – =Not applicable. NA=Not available.

(s)=Less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 12. Residential Energy Consumption Estimates, Selected Years 1960-1997, United States

Year	Coal			Natural Gas [a]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [b]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite	Anthracite	Total		Distillate Fuel [b]	Kerosene [b]	LPG [b]	Total							
	Million Short Tons			Billion Cubic Feet	Million Barrels				Thousand Cords			Billion Kilowatthours		Billion Kilowatthours	
1960	11	6	17	3,103	269	62	85	417	R 31	–	–	201	–	502	–
1965	7	4	11	3,903	294	59	108	461	R 23	–	–	291	–	695	–
1970	4	2	7	4,837	322	53	153	528	R 20	–	–	466	–	1,131	–
1975	3	1	4	4,924	310	28	142	481	R 21	–	–	588	–	1,419	–
1980	2	1	3	4,752	226	19	88	333	R 43	–	–	717	–	1,746	–
1985	2	1	3	4,433	171	28	91	290	R 45	–	–	794	–	1,866	–
1986	2	1	3	4,314	174	21	89	284	R 44	–	–	819	–	1,885	–
1987	2	1	3	4,315	177	21	98	296	R 43	–	–	850	–	1,943	–
1988	2	1	3	4,630	182	25	98	305	R 44	–	–	893	–	2,019	–
1989	2	1	2	4,781	179	21	109	308	R 46	–	–	906	–	R 2,035	–
1990	2	1	3	4,391	144	11	101	256	29	–	–	924	–	2,021	–
1991	2	1	2	4,556	143	13	108	263	31	–	–	955	–	2,079	–
1992	2	1	2	4,690	148	11	106	265	32	–	–	936	–	1,998	–
1993	2	1	2	4,956	157	13	111	281	27	–	–	995	–	2,100	–
1994	2	1	2	4,848	151	11	109	271	27	–	–	1,008	–	2,102	–
1995	2	1	2	4,850	152	13	112	276	30	–	–	1,043	–	2,170	–
1996	2	1	2	5,241	160	16	121	297	30	–	–	1,082	–	2,251	–
1997	2	1	3	4,984	155	16	121	292	22	–	–	1,076	–	2,232	–
									Trillion Btu						
1960	252	156	408	3,212	1,568	354	343	2,265	R 627	0	0	687	R 7,199	1,711	R 8,911
1965	157	97	254	4,019	1,713	334	434	2,481	R 468	0	0	993	R 8,215	2,372	R 10,587
1970	96	57	153	4,953	1,878	298	579	2,755	R 401	0	0	1,591	R 9,853	3,858	R 13,711
1975	56	28	85	5,024	1,807	161	528	2,495	R 425	0	0	2,007	R 10,036	4,843	R 14,879
1980	40	21	60	4,855	1,316	107	325	1,748	R 859	0	0	2,448	R 9,971	5,958	R 15,928
1985	51	18	69	4,566	998	159	327	1,483	R 900	0	0	2,709	R 9,728	6,366	R 16,093
1986	51	18	69	4,432	1,012	121	323	1,457	R 876	0	0	2,795	R 9,629	6,430	R 16,059
1987	47	19	66	4,436	1,030	119	360	1,508	R 852	0	0	2,902	R 9,763	6,630	R 16,394
1988	49	17	66	4,757	1,063	144	356	1,563	R 885	0	0	3,046	R 10,318	6,888	R 17,205
1989	41	17	58	4,925	1,041	117	402	1,560	R 918	[e] 5	R [e] 47	3,090	R [e] 10,602	R 6,943	R [e] 17,546
1990	43	19	62	4,519	837	64	365	1,266	582	6	48	3,153	R 9,635	6,897	R 16,532
1991	39	17	56	4,685	832	72	389	1,293	613	6	50	3,260	R 9,963	R 7,094	R 17,057
1992	40	17	57	4,821	865	65	382	1,312	645	6	52	3,193	R 10,086	6,816	R 16,903
1993	40	16	57	5,097	913	76	399	1,387	548	7	53	3,394	R 10,542	7,166	R 17,708
1994	39	16	55	4,980	880	65	395	1,340	537	6	55	3,441	R 10,415	R 7,174	R 17,589
1995	38	16	53	4,984	883	74	404	1,361	596	7	57	3,557	R 10,616	R 7,404	R 18,019
1996	38	16	54	5,390	930	89	439	1,457	595	7	59	3,693	R 11,257	7,680	R 18,937
1997	41	17	58	5,125	900	93	439	1,432	433	8	61	3,671	10,787	7,616	18,402

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 13. Commercial Energy Consumption Estimates, Selected Years 1960-1997, United States

Year	Coal			Natural Gas [a]	Petroleum						Wood [c]	Geothermal	Electricity [b]	Net Energy	Electrical System Energy Losses [d]	Total [e]
	Bituminous Coal and Lignite	Anthracite	Total		Distillate Fuel [b]	Kerosene [b]	LPG [b]	Motor Gasoline	Residual Fuel [b]	Total						
	Million Short Tons			Billion Cubic Feet	Million Barrels						Thousand Cords		Billion Kilowatthours		Billion Kilowatthours	
1960	20	4	24	1,020	85	8	15	13	89	210	R 1	–	159	–	396	–
1965	12	3	15	1,444	92	9	19	15	103	238	R (s)	–	231	–	552	–
1970	8	2	9	2,399	101	11	27	16	114	269	R (s)	–	R 352	–	R 854	–
1975	5	1	6	2,508	101	9	25	17	78	230	R (s)	–	468	–	1,130	–
1980	3	1	4	2,611	89	7	16	20	90	222	R 1	–	559	–	R 1,359	–
1985	4	1	5	2,432	107	6	16	18	36	184	NA	–	689	–	1,620	–
1986	4	(s)	5	2,318	102	9	16	20	46	193	NA	–	715	–	R 1,645	–
1987	4	(s)	4	2,430	102	9	17	21	42	191	NA	–	R 744	–	R 1,700	–
1988	4	(s)	4	2,670	98	5	17	21	42	183	NA	–	R 784	–	R 1,773	–
1989	3	(s)	4	2,718	92	5	19	19	37	172	NA	–	R 811	–	R 1,822	–
1990	4	(s)	4	2,623	84	2	18	21	37	162	NA	–	R 838	–	R 1,834	–
1991	3	(s)	4	2,729	83	2	19	16	34	154	NA	–	R 855	–	R 1,861	–
1992	3	(s)	4	2,803	80	2	19	15	30	146	NA	–	R 850	–	R 1,814	–
1993	3	(s)	4	2,862	80	2	20	6	28	135	2	–	R 885	–	R 1,868	–
1994	3	(s)	4	2,895	80	3	19	5	28	135	2	–	R 913	–	R 1,904	–
1995	3	(s)	4	3,031	79	4	20	3	23	129	2	–	R 953	–	R 1,984	–
1996	3	(s)	4	3,158	82	4	21	5	22	134	2	–	R 980	–	R 2,038	–
1997	3	(s)	4	3,219	77	4	21	8	18	129	2	–	1,026	–	2,130	–
	Trillion Btu															
1960	468	104	572	1,056	494	48	61	67	559	1,228	R 12	0	543	R 3,410	R 1,352	R 4,762
1965	292	64	357	1,483	534	54	77	77	645	1,386	R 9	0	789	R 4,024	R 1,884	R 5,908
1970	179	38	217	2,455	587	61	102	86	714	1,551	R 8	0	R 1,201	R 5,432	R 2,913	R 8,345
1975	104	19	123	2,556	587	49	93	89	492	1,310	R 8	0	1,598	R 5,595	3,856	R 9,451
1980	73	14	87	2,666	518	41	57	107	565	1,287	R 21	0	R 1,906	R 5,967	R 4,638	R 10,605
1985	95	12	107	2,503	625	33	58	96	228	1,039	NA	0	R 2,351	R 6,001	R 5,526	R 11,527
1986	95	12	107	2,383	596	50	57	106	290	1,099	NA	0	R 2,439	R 6,027	R 5,612	R 11,638
1987	87	13	99	2,499	594	49	63	111	263	1,079	NA	0	R 2,539	R 6,216	R 5,801	R 12,018
1988	91	11	102	2,744	574	26	63	110	264	1,037	NA	0	R 2,675	R 6,558	R 6,049	R 12,607
1989	76	11	88	2,799	535	28	71	102	230	966	NA	[f] 3	R 2,767	6,622	R 6,218	R 12,840
1990	81	12	93	2,698	487	12	64	111	233	907	NA	3	R 2,860	6,561	R 6,258	R 12,819
1991	73	11	84	2,807	482	12	69	85	213	861	NA	3	R 2,918	R 6,674	R 6,351	R 13,024
1992	75	11	86	2,883	464	11	67	80	191	813	NA	3	R 2,900	R 6,686	R 6,190	R 12,876
1993	75	11	86	2,944	464	14	70	30	175	753	44	3	R 3,019	6,848	R 6,373	R 13,221
1994	72	11	83	2,978	464	19	70	25	175	753	45	4	R 3,116	6,978	R 6,495	R 13,473
1995	70	10	80	3,117	460	22	71	18	144	715	45	5	R 3,252	R 7,214	R 6,768	R 13,982
1996	71	11	82	3,250	476	21	77	27	140	741	49	5	R 3,344	R 7,471	R 6,953	R 14,424
1997	75	12	87	3,310	446	25	77	43	114	705	42	6	3,502	7,652	7,267	14,918

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Estimated to be 2 percent of total wood consumption.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 14. Industrial Energy Consumption Estimates, Selected Years 1960-1997, United States

Year	Coal	Net Imports of Coal Coke	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
				Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [c]	Total							
	Million Short Tons		Billion Cubic Feet	Million Barrels									Billion kWh			Billion kWh			
1960	177	(s)	5,771	111	174	28	122	18	73	252	214	991	4	–	–	324	–	807	–
1965	201	-1	7,112	134	197	29	172	23	65	252	313	1,185	3	–	–	429	–	1,024	–
1970	187	-2	9,249	163	211	33	255	26	55	258	390	1,390	3	–	–	571	–	1,383	–
1975	147	1	8,365	153	230	21	308	25	43	240	455	1,474	3	–	–	688	–	1,659	–
1980	127	-1	8,198	145	227	32	429	30	30	215	664	1,772	3	–	–	815	–	1,983	–
1985	116	-1	6,867	155	204	8	469	27	41	119	472	1,495	3	–	–	837	–	1,965	–
1986	111	-1	6,502	164	206	6	440	27	39	117	500	1,499	3	–	–	831	–	1,910	–
1987	112	(s)	7,103	170	211	5	467	30	39	93	537	1,551	3	–	–	858	–	1,960	–
1988	118	2	7,479	171	210	5	485	29	37	87	583	1,607	3	–	–	896	–	2,026	–
1989	117	1	7,886	165	197	5	475	30	38	66	578	1,554	[f] NA	–	–	926	–	[R] 2,080	–
1990	115	(s)	8,255	176	203	2	444	31	35	66	621	1,578	NA	–	–	946	–	2,068	–
1991	109	(s)	8,360	162	196	2	484	27	37	53	591	1,552	NA	–	–	947	–	2,059	–
1992	106	1	8,698	166	196	2	513	28	37	62	660	1,664	NA	–	–	973	–	2,075	–
1993	106	1	9,153	173	189	2	498	29	34	72	629	1,625	NA	–	–	977	–	2,061	–
1994	107	1	9,291	177	190	3	549	30	37	68	658	1,711	NA	–	–	1,008	–	2,100	–
1995	106	1	9,800	178	184	3	557	29	38	54	633	1,677	NA	–	–	1,013	–	2,106	–
1996	103	(s)	10,120	177	193	3	589	28	38	54	691	1,775	NA	–	–	1,030	–	2,141	–
1997	101	1	10,045	184	195	3	597	30	41	47	717	1,814	NA	–	–	1,033	–	2,141	–
													Trillion Btu						
1960	4,548	-6	5,973	734	1,016	[R] 161	489	107	381	1,584	1,276	5,748	39	[R] 680	0	1,107	[R] 18,089	2,754	[R] 20,843
1965	5,134	-18	7,350	890	1,150	[R] 165	688	137	342	1,582	1,833	6,789	33	[R] 855	0	1,463	[R] 21,606	3,493	[R] 25,099
1970	4,664	-58	9,498	1,082	1,226	[R] 185	964	155	288	1,624	2,264	7,788	34	[R] 1,019	0	1,948	[R] 24,892	4,720	[R] 29,612
1975	3,658	14	8,571	1,014	1,339	119	1,144	149	223	1,509	2,649	8,148	32	[R] 1,063	0	2,346	[R] 23,832	5,660	[R] 29,492
1980	3,155	-35	8,409	962	1,324	[R] 181	1,577	182	158	1,349	3,794	9,527	33	[R] 1,600	0	2,781	[R] 25,470	6,764	[R] 32,235
1985	2,777	-13	7,096	1,029	1,186	[R] 44	1,690	166	218	748	2,726	7,808	33	[R] 1,874	0	2,855	[R] 22,429	6,706	[R] 29,135
1986	2,646	-17	6,714	1,086	1,201	[R] 32	1,603	162	206	736	2,896	7,922	33	[R] 1,866	0	2,834	[R] 21,998	6,516	[R] 28,514
1987	2,670	9	7,343	1,130	1,227	[R] 28	1,709	183	206	582	3,085	8,150	33	[R] 1,858	0	2,928	[R] 22,990	6,689	[R] 29,680
1988	2,831	40	7,720	1,136	1,221	[R] 30	1,772	177	193	546	3,357	8,431	33	[R] 1,933	0	3,059	[R] 24,046	6,914	[R] 30,961
1989	2,774	30	8,149	1,096	1,148	[R] 30	1,748	181	199	413	3,316	8,130	[R f] 74	[R f] 2,010	[R f] 140	3,158	[R f] 24,466	[R] 7,096	[R f] 31,562
1990	2,754	5	8,520	1,170	1,181	[R] 12	1,608	186	185	417	3,559	8,319	[R] 85	1,948	[R] 185	3,226	[R] 25,041	7,055	[R] 32,096
1991	2,600	9	8,637	1,077	1,139	[R] 11	1,749	167	193	336	3,386	8,058	85	1,943	[R] 206	3,230	[R] 24,768	[R] 7,025	[R] 31,793
1992	2,512	27	8,996	1,102	1,144	[R] 10	1,860	170	194	391	3,764	8,636	[R] 98	2,042	[R] 219	3,319	[R] 25,850	7,081	[R] 32,931
1993	2,500	17	9,420	1,149	1,100	[R] 13	1,794	173	180	452	3,589	8,450	[R] 119	2,084	[R] 247	3,334	[R] 26,169	7,034	[R] 33,203
1994	2,507	24	9,590	1,173	1,109	[R] 17	1,997	181	193	425	3,755	8,849	136	[R] 2,217	[R] 259	3,439	[R] 27,022	[R] 7,165	[R] 34,187
1995	2,500	26	10,109	1,178	1,074	[R] 15	2,019	178	202	342	3,616	8,624	152	[R] 2,286	[R] 252	3,455	[R] 27,405	[R] 7,187	[R] 34,591
1996	2,423	(s)	10,446	1,176	1,127	[R] 18	2,130	173	201	341	3,937	9,103	[R] 171	[R] 2,370	[R] 261	3,516	[R] 28,289	7,305	[R] 35,594
1997	2,375	18	10,448	1,224	1,136	19	2,160	182	213	297	4,085	9,315	185	2,390	238	3,523	28,492	7,305	35,797

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 15. Transportation Energy Consumption Estimates, Selected Years 1960-1997, United States

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	3	347	59	153	136	5	25	1,367	134	1,880	0	3	–	8	–
1965	1	501	44	188	220	8	24	1,596	123	2,203	0	3	–	7	–
1970	(s)	722	20	269	353	12	24	2,040	121	2,839	0	3	–	R 8	–
1975	(s)	583	14	364	362	11	26	2,377	113	3,267	0	3	–	7	–
1980	0	635	13	480	389	5	28	2,357	222	3,494	0	3	–	8	–
1985	0	504	10	550	445	8	26	2,434	125	3,597	0	4	–	R 10	–
1986	0	485	12	567	477	7	25	2,508	138	3,735	0	4	–	R 10	–
1987	0	519	9	582	506	6	29	2,570	143	3,843	0	R 5	–	R 10	–
1988	0	614	10	633	530	6	27	2,627	146	3,980	0	R 5	–	R 11	–
1989	0	629	9	659	544	6	28	2,617	156	4,020	R e 929	R 5	–	R 11	–
1990	0	660	9	658	556	6	29	2,584	164	4,005	1,073	R 5	–	R 10	–
1991	0	602	8	631	537	6	26	2,570	164	3,943	851	R 5	–	R 10	–
1992	0	588	8	654	532	5	26	2,608	172	4,006	1,034	R 5	–	R 10	–
1993	0	625	8	672	536	5	27	2,689	145	4,082	1,154	R 5	–	R 10	–
1994	0	687	8	717	557	9	28	2,733	143	4,194	1,280	R 5	–	R 10	–
1995	0	703	8	740	553	5	28	2,801	147	4,281	1,355	R 5	–	R 10	–
1996	0	714	7	780	578	4	27	2,845	138	4,378	974	R 5	–	R 10	–
1997	0	756	8	813	583	4	28	2,877	116	4,429	1,274	5	–	10	–
			Trillion Btu												
1960	76	359	298	892	739	20	152	7,183	844	10,126	0	R 10	10,572	R 26	10,598
1965	16	518	222	1,093	1,215	33	149	8,386	770	11,868	0	10	R 12,412	R 24	R 12,435
1970	7	740	100	1,569	1,973	44	147	10,716	761	15,310	0	R 11	R 16,068	R 26	R 16,094
1975	1	595	71	2,121	2,029	42	155	12,485	711	17,614	0	10	18,219	R 24	18,244
1980	0	650	64	2,795	2,179	17	172	12,383	1,398	19,009	0	11	19,669	R 27	R 19,696
1985	0	521	50	3,204	2,497	28	156	12,784	786	19,504	0	R 14	R 20,039	R 33	R 20,072
1986	0	501	59	3,305	2,682	26	153	13,174	870	20,269	0	R 15	R 20,785	R 35	R 20,820
1987	0	538	46	3,388	2,843	21	173	13,499	900	20,870	0	R 16	R 21,423	R 36	R 21,459
1988	0	633	49	3,689	2,982	22	167	13,802	919	21,629	0	R 16	R 22,279	R 36	R 22,315
1989	0	650	48	3,840	3,059	22	171	13,749	980	21,868	R e 71	R 16	R e 22,534	R 37	R e 22,570
1990	0	683	45	3,831	3,129	22	176	13,575	1,030	21,808	82	R 16	R 22,507	R 35	R 22,543
1991	0	622	42	3,678	3,025	20	157	13,503	1,032	21,456	65	R 16	R 22,094	R 35	R 22,130
1992	0	609	41	3,810	3,001	18	161	13,699	1,082	21,812	79	R 16	R 22,437	R 34	R 22,471
1993	0	644	38	3,913	3,028	19	163	14,126	913	22,201	88	R 16	R 22,861	R 34	R 22,895
1994	0	708	38	4,175	3,154	32	171	14,356	896	22,823	98	R 17	R 23,548	R 36	R 23,583
1995	0	726	40	4,311	3,132	17	168	14,714	925	23,305	104	R 17	R 24,048	R 35	R 24,083
1996	0	737	37	4,543	3,274	15	163	14,942	866	23,841	74	R 17	R 24,594	R 35	R 24,629
1997	0	786	40	4,734	3,308	13	172	15,115	726	24,108	97	17	24,911	35	24,946

[a] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 16. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, United States

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy [f]	Other [b,g]	Total [h]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Million Short Tons			Billion Cubic Feet	Million Barrels				Billion Kilowatthours					
1960	174	3	177	1,725	84	4	0	88	1	150	(s)	(s)	0	–
1965	243	2	245	2,321	110	5	0	115	4	194	(s)	(s)	0	–
1970	318	2	320	3,932	311	24	3	339	22	250	(s)	1	0	–
1975	404	1	406	3,158	467	39	(s)	506	173	306	(s)	3	0	–
1980	568	1	569	3,682	391	29	1	421	251	297	(s)	5	0	–
1985	693	1	694	3,044	159	15	1	175	384	322	1	9	(s)	–
1986	684	1	685	2,602	216	14	2	232	414	327	1	10	(s)	–
1987	717	1	718	2,844	184	15	2	201	455	296	1	11	(s)	–
1988	757	1	758	2,636	229	19	2	250	527	255	2	10	(s)	–
1989	766	1	767	2,787	242	25	3	270	529	R 269	2	R 10	(s)	–
1990	773	1	774	2,787	181	15	4	200	577	292	2	9	(s)	–
1991	771	1	772	2,789	171	14	4	188	613	295	2	9	(s)	–
1992	779	1	780	2,766	136	12	5	152	619	263	2	9	(s)	–
1993	813	1	814	2,682	149	13	6	169	610	290	2	8	(s)	–
1994	816	1	817	2,987	135	16	4	155	640	271	2	8	(s)	–
1995	828	1	829	3,197	87	16	4	106	673	319	2	6	(s)	–
1996	874	1	875	2,732	96	17	3	117	675	359	2	6	(s)	–
1997	899	1	900	2,968	110	15	7	132	629	358	2	5	(s)	–
	Trillion Btu													
1960	4,178	48	4,227	1,785	530	22	0	553	6	1,618	2	1	0	8,191
1965	5,784	38	5,821	2,408	693	29	0	722	43	2,025	3	4	0	11,027
1970	7,195	33	7,228	4,048	1,958	141	19	2,117	239	2,620	4	11	0	16,267
1975	8,764	25	8,789	3,232	2,937	226	2	3,166	1,900	3,187	2	70	0	20,345
1980	12,141	17	12,158	3,804	2,459	169	5	2,634	2,739	3,085	4	110	0	24,533
1985	14,569	17	14,586	3,157	998	85	7	1,090	4,149	3,365	14	198	(s)	26,560
1986	14,406	13	14,418	2,689	1,359	83	9	1,452	4,471	3,413	12	219	(s)	26,675
1987	15,099	16	15,115	2,934	1,157	90	10	1,257	4,906	3,084	15	229	(s)	27,540
1988	15,868	18	15,886	2,708	1,442	109	12	1,563	5,661	2,630	17	217	(s)	28,683
1989	15,980	17	15,997	2,863	1,521	148	16	1,685	5,677	R 2,807	20	R 208	(s)	R 29,325
1990	16,071	17	16,088	2,861	1,139	86	25	1,250	6,161	3,040	R 22	192	(s)	R 29,501
1991	15,997	16	16,012	2,854	1,076	80	22	1,178	6,579	R 3,075	21	185	(s)	R 29,929
1992	16,175	17	16,192	2,829	854	67	30	951	6,607	R 2,723	22	188	(s)	R 29,551
1993	16,825	16	16,841	2,744	939	77	37	1,052	6,519	2,986	21	177	(s)	30,370
1994	16,850	16	16,867	3,057	847	95	26	968	6,837	R 2,799	R 21	170	(s)	R 30,882
1995	17,031	14	17,045	3,253	544	91	23	658	7,177	R 3,294	17	118	(s)	R 31,675
1996	17,946	14	17,961	2,774	606	98	21	725	7,168	R 3,710	20	123	(s)	R 32,542
1997	18,452	15	18,467	3,023	692	88	42	822	6,678	3,696	20	115	(s)	32,935

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] Through 1988, includes all net imports of electricity. From 1989, includes only the portion of net imports of electricity that is derived from hydroelectric power.

[f] From 1989, includes net imports of electricity generated from geothermal energy.

[g] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[h] From 1989, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

State Summaries

Table 17. Energy Consumption Estimates by Source, Selected Years 1960-1997, Alabama

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	15,579	184	2,160	280	5,393	1,126	1,046	3,211	661	24,578	4,292	752	43,498	0	6,239	–	–	-19,803	–
1965	21,473	229	2,749	446	5,251	1,156	908	4,207	741	28,919	2,553	2,142	49,072	0	7,103	–	–	-32,017	–
1970	27,653	298	3,176	349	8,512	1,799	1,310	7,583	812	37,003	3,290	2,877	66,710	0	7,632	–	–	-21,654	–
1975	26,609	264	2,706	249	14,697	1,707	673	6,540	1,049	45,174	12,953	3,910	89,656	2,722	12,213	–	–	-28,518	–
1980	27,042	269	3,132	248	15,190	2,048	1,253	4,949	992	44,296	7,296	4,532	83,937	23,497	9,408	–	–	-68,842	–
1985	27,145	219	3,757	172	16,278	3,516	108	3,648	903	43,476	2,249	6,215	80,323	14,313	6,886	–	–	-51,090	–
1986	26,831	203	3,486	204	16,457	3,745	130	4,024	883	46,448	2,464	6,243	84,084	11,561	5,251	–	–	-35,739	–
1987	26,683	208	4,564	143	18,741	3,872	137	4,653	998	48,533	2,436	7,253	91,331	11,248	7,472	–	–	-27,763	–
1988	26,441	236	4,132	157	20,427	1,872	163	4,438	963	48,748	3,443	7,343	91,685	12,981	5,383	–	–	-16,101	–
1989	27,611	245	4,484	133	24,711	2,046	113	4,768	987	49,488	3,669	6,381	96,780	11,524	[i] NA	–	–	[R] -42,635	–
1990	27,640	244	4,321	116	25,436	1,899	64	4,160	1,016	49,199	3,970	6,693	96,874	12,052	NA	–	–	[R] -35,826	–
1991	29,349	254	5,286	109	23,909	2,292	96	3,807	909	49,527	3,554	5,895	95,385	15,875	NA	–	–	[R] -58,052	–
1992	31,510	279	4,943	106	24,432	2,108	83	3,968	927	50,605	3,907	5,996	97,074	19,397	NA	–	–	[R] -74,760	–
1993	33,047	292	4,984	103	22,990	1,973	80	5,033	944	51,956	4,059	6,045	98,167	17,823	NA	–	–	-77,336	–
1994	31,473	289	5,059	110	25,410	3,472	72	5,132	986	53,226	3,432	6,313	103,212	20,480	NA	–	–	[R] -74,466	–
1995	34,309	322	4,994	97	23,087	3,843	121	5,115	969	55,472	3,158	6,017	102,873	20,752	NA	–	–	[R] -80,141	–
1996	37,052	326	5,704	93	23,107	3,508	121	4,972	941	54,999	3,207	6,556	103,207	29,708	NA	–	–	[R] -118,967	–
1997	36,434	322	5,467	103	21,383	2,183	127	5,022	994	55,694	2,595	7,024	100,591	29,573	NA	–	–	-110,333	–
			Trillion Btu																
1960	395.4	190.7	14.3	1.4	31.4	6.1	5.9	12.9	4.0	129.1	27.0	4.5	236.6	0.0	67.1	[R] 45.7	0.0	-67.6	[R] 868.0
1965	533.1	236.9	18.2	2.3	30.6	6.2	5.2	16.9	4.5	151.9	16.0	12.7	264.4	0.0	74.2	[R] 47.6	0.0	-109.2	[R] 1,047.2
1970	675.6	307.8	21.1	1.8	49.6	9.9	7.4	28.7	4.9	194.4	20.7	16.9	355.3	0.0	80.1	[R] 52.4	0.0	-73.9	[R] 1,397.2
1975	640.1	271.7	18.0	1.3	85.6	9.4	3.8	24.3	6.4	237.3	81.4	23.1	490.6	30.0	127.1	[R] 57.6	0.0	-97.3	[R] 1,519.7
1980	661.0	278.4	20.8	1.3	88.5	11.3	7.1	18.2	6.0	232.7	45.9	26.2	457.9	256.3	97.7	[R] 139.1	0.0	-234.9	[R] 1,655.6
1985	662.9	227.8	24.9	0.9	94.8	19.7	0.6	13.1	5.5	228.4	14.1	35.3	437.4	154.8	71.9	[R] 176.5	0.0	-174.3	[R] 1,557.0
1986	660.5	210.2	23.1	1.0	95.9	21.0	0.7	14.6	5.4	244.0	15.5	35.4	456.6	124.9	54.8	[R] 168.1	0.0	-121.9	[R] 1,553.2
1987	660.7	214.6	30.3	0.7	109.2	21.7	0.8	17.0	6.1	254.9	15.3	41.1	497.1	121.2	77.9	[R] 163.6	0.0	-94.7	[R] 1,640.4
1988	652.7	243.2	27.4	0.8	119.0	10.4	0.9	16.2	5.8	256.1	21.6	41.6	499.8	139.5	55.6	[R] 170.2	0.0	-54.9	[R] 1,706.0
1989	673.9	252.4	29.8	0.7	143.9	11.4	0.6	17.6	6.0	260.0	23.1	35.6	528.6	123.6	[R i] 137.2	[R i] 170.7	[R i] 0.1	[R] -145.5	[R i] 1,740.0
1990	678.3	251.0	28.7	0.6	148.2	10.6	0.4	15.1	6.2	258.4	25.0	37.2	530.2	128.7	107.8	[R] 145.5	0.1	-122.2	[R] 1,718.3
1991	719.8	260.7	35.1	0.6	139.3	12.6	0.5	13.8	5.5	260.2	22.3	33.0	522.9	170.5	[R] 112.3	[R] 151.4	0.1	[R] -198.1	[R] 1,738.7
1992	770.5	286.6	32.8	0.5	142.3	11.7	0.5	14.4	5.6	265.8	24.6	33.2	531.4	207.1	106.1	[R] 159.7	0.1	-255.1	[R] 1,805.4
1993	808.4	301.1	33.1	0.5	133.9	11.0	0.5	18.1	5.7	272.9	25.5	33.6	534.8	190.4	93.1	[R] 167.5	0.1	-263.9	[R] 1,830.4
1994	770.6	297.5	33.6	0.6	148.0	19.6	0.4	18.7	6.0	279.6	21.6	35.1	563.0	218.6	[R] 117.9	[R] 175.0	[R] 0.2	[R] -254.1	[R] 1,887.4
1995	826.5	330.9	33.1	0.5	134.5	21.8	0.7	18.5	5.9	291.4	19.9	33.4	559.6	221.2	[R] 98.0	[R] 182.6	[R] 0.2	-273.4	[R] 1,943.7
1996	887.5	336.3	37.9	0.5	134.6	19.9	0.7	18.0	5.7	288.9	20.2	36.3	562.5	315.6	[R] 114.5	[R] 188.7	[R] 0.2	-405.9	[R] 1,999.0
1997	858.8	335.5	36.3	0.5	124.6	12.4	0.7	18.2	6.0	292.6	16.3	39.0	546.6	314.2	121.2	177.8	0.2	-376.5	1,977.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 18. Residential Energy Consumption Estimates, Selected Years 1960-1997, Alabama

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	96	0	96	41	36	163	2,101	2,300	R 1,084	–	–	4,129	–	10,271	–
1965	35	0	35	48	24	169	2,672	2,865	R 765	–	–	6,150	–	14,684	–
1970	44	0	44	56	36	236	4,920	5,192	R 515	–	–	11,527	–	27,935	–
1975	7	0	7	52	74	134	3,916	4,124	R 530	–	–	13,409	–	32,345	–
1980	80	0	80	52	13	198	2,589	2,800	R 521	–	–	16,469	–	40,047	–
1985	43	0	43	44	34	73	2,088	2,194	R 1,302	–	–	17,182	–	40,368	–
1986	45	0	45	45	39	64	2,389	2,491	R 1,267	–	–	18,259	–	42,001	–
1987	46	1	47	49	30	60	2,834	2,924	R 1,075	–	–	19,294	–	44,086	–
1988	52	(s)	52	49	42	129	2,774	2,945	R 1,117	–	–	19,641	–	44,404	–
1989	24	1	25	48	34	81	3,037	3,152	R 1,158	–	–	19,842	–	R 44,582	–
1990	37	0	37	45	25	38	2,688	2,752	R 757	–	–	20,719	–	R 45,317	–
1991	6	(s)	6	46	18	61	2,312	2,391	797	–	–	21,293	–	R 46,353	–
1992	31	(s)	31	50	11	30	2,213	2,254	839	–	–	21,137	–	R 45,148	–
1993	14	(s)	14	51	14	43	2,861	2,919	R 633	–	–	22,628	–	47,808	–
1994	4	(s)	4	50	13	29	2,798	2,840	R 621	–	–	23,159	–	R 48,326	–
1995	3	0	3	50	9	66	2,849	2,924	R 689	–	–	24,314	–	R 50,653	–
1996	15	0	15	57	9	64	2,922	2,995	R 688	–	–	25,634	–	R 53,350	–
1997	25	(s)	25	48	29	57	2,922	3,008	500	–	–	24,893	–	51,697	–
	Trillion Btu														
1960	2.4	0.0	2.4	42.3	0.2	0.9	8.4	9.6	R 21.7	0.0	0.0	14.1	R 90.0	35.0	R 125.0
1965	0.9	0.0	0.9	49.7	0.1	1.0	10.7	11.8	R 15.3	0.0	0.0	21.0	R 98.7	50.1	R 148.8
1970	1.1	0.0	1.1	57.5	0.2	1.3	18.6	20.1	R 10.3	0.0	0.0	39.3	R 128.3	95.3	R 223.7
1975	0.2	0.0	0.2	53.8	0.4	0.8	14.5	15.7	R 10.6	0.0	0.0	45.8	R 126.1	110.4	R 236.4
1980	1.9	0.0	1.9	54.1	0.1	1.1	9.5	10.7	R 10.4	0.0	0.0	56.2	R 133.3	136.6	R 270.0
1985	1.1	0.0	1.1	45.4	0.2	0.4	7.5	8.1	R 26.0	0.0	0.0	58.6	R 139.2	137.7	R 276.9
1986	1.1	0.0	1.1	46.3	0.2	0.4	8.7	9.3	R 25.3	0.0	0.0	62.3	R 144.3	143.3	R 287.6
1987	1.2	(s)	1.2	50.7	0.2	0.3	10.4	10.9	R 21.5	0.0	0.0	65.8	R 150.1	150.4	R 300.5
1988	1.3	(s)	1.3	50.3	0.2	0.7	10.1	11.1	R 22.3	0.0	0.0	67.0	R 152.1	151.5	R 303.6
1989	0.6	(s)	0.6	49.6	0.2	0.5	11.2	11.8	R 23.2	e (s)	R e 0.1	67.7	R e 153.0	152.1	R e 305.1
1990	0.9	0.0	0.9	46.7	0.1	0.2	9.7	10.1	15.1	(s)	0.1	70.7	143.7	154.6	298.3
1991	0.1	(s)	0.1	47.4	0.1	0.3	8.4	8.8	15.9	(s)	0.1	72.7	145.1	R 158.2	303.2
1992	0.7	(s)	0.8	51.0	0.1	0.2	8.0	8.3	16.8	(s)	0.1	72.1	149.1	154.0	303.1
1993	0.3	(s)	0.3	52.9	0.1	0.2	10.3	10.6	12.7	(s)	0.1	77.2	153.9	163.1	R 317.0
1994	0.1	(s)	0.1	51.3	0.1	0.2	10.2	10.4	12.4	(s)	0.1	79.0	R 153.3	164.9	318.2
1995	0.1	0.0	0.1	51.0	0.1	0.4	10.3	10.7	13.8	(s)	0.1	83.0	158.7	172.8	331.5
1996	0.4	0.0	0.4	58.4	0.1	0.4	10.6	11.0	13.8	(s)	0.1	87.5	171.1	182.0	R 353.1
1997	0.6	(s)	0.6	50.5	0.2	0.3	10.6	11.1	10.0	(s)	0.1	84.9	157.3	176.4	333.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 19. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Alabama

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	178	0	178	17	264	294	371	327	(s)	1,257	R 21	–	2,390	–	5,944	–
1965	64	0	64	32	175	306	472	327	(s)	1,280	R 14	–	3,443	–	8,221	–
1970	83	0	83	36	264	426	868	391	(s)	1,950	R 10	–	5,144	–	12,467	–
1975	13	0	13	33	547	242	691	453	1	1,934	R 10	–	6,493	–	15,662	–
1980	148	0	148	29	641	176	457	258	3	1,535	R 13	–	7,190	–	17,484	–
1985	80	0	80	26	1,290	16	368	251	514	2,439	NA	–	8,805	–	20,688	–
1986	84	0	84	25	971	29	422	253	558	2,231	NA	–	9,292	–	21,375	–
1987	85	(s)	86	22	1,149	49	500	260	383	2,341	NA	–	9,930	–	22,690	–
1988	96	(s)	96	26	1,125	13	489	243	707	2,577	NA	–	10,239	–	23,148	–
1989	45	(s)	46	26	1,228	14	536	223	501	2,503	NA	–	11,113	–	R 24,969	–
1990	68	0	68	24	1,088	11	474	258	614	2,445	NA	–	11,589	–	R 25,348	–
1991	11	(s)	11	24	982	15	408	160	244	1,809	NA	–	11,948	–	R 26,010	–
1992	57	(s)	58	25	1,030	17	391	138	0	1,576	NA	–	11,554	–	R 24,679	–
1993	26	(s)	26	26	918	13	505	41	0	1,477	R 51	–	11,906	–	25,156	–
1994	7	(s)	7	26	1,071	11	494	41	1	1,617	R 52	–	12,503	–	R 26,091	–
1995	5	0	5	26	532	10	503	42	3	1,089	R 52	–	12,845	–	R 26,761	–
1996	29	0	29	29	488	9	516	42	1	1,055	R 57	–	13,948	–	R 29,028	–
1997	47	(s)	47	32	383	9	516	41	0	949	49	–	17,043	–	35,395	–
	Trillion Btu															
1960	4.4	0.0	4.4	18.1	1.5	1.7	1.5	1.7	(s)	6.4	R 0.4	0.0	8.2	R 37.5	20.3	R 57.8
1965	1.6	0.0	1.6	33.0	1.0	1.7	1.9	1.7	(s)	6.4	R 0.3	0.0	11.7	R 53.0	28.0	R 81.1
1970	2.0	0.0	2.0	37.4	1.5	2.4	3.3	2.1	(s)	9.3	R 0.2	0.0	17.6	R 66.4	42.5	R 108.9
1975	0.3	0.0	0.3	34.4	3.2	1.4	2.6	2.4	(s)	9.5	R 0.2	0.0	22.2	R 66.6	53.4	R 120.0
1980	3.6	0.0	3.6	29.5	3.7	1.0	1.7	1.4	(s)	7.8	R 0.3	0.0	24.5	R 65.6	59.7	R 125.3
1985	2.0	0.0	2.0	26.8	7.5	0.1	1.3	1.3	3.2	13.5	NA	0.0	30.0	72.3	70.6	142.9
1986	2.1	0.0	2.1	26.0	5.7	0.2	1.5	1.3	3.5	12.2	NA	0.0	31.7	72.0	72.9	144.9
1987	2.1	(s)	2.2	23.1	6.7	0.3	1.8	1.4	2.4	12.6	NA	0.0	33.9	71.7	77.4	149.1
1988	2.5	(s)	2.5	26.3	6.6	0.1	1.8	1.3	4.4	14.1	NA	0.0	34.9	77.8	79.0	156.8
1989	1.1	(s)	1.1	27.3	7.2	0.1	2.0	1.2	3.2	13.5	NA	0.0	37.9	79.8	85.2	165.0
1990	1.7	0.0	1.7	25.0	6.3	0.1	1.7	1.4	3.9	13.3	NA	0.0	39.5	79.5	86.5	166.0
1991	0.3	(s)	0.3	24.4	5.7	0.1	1.5	0.8	1.5	9.7	NA	0.0	40.8	75.0	88.7	163.8
1992	1.4	(s)	1.4	25.9	6.0	0.1	1.4	0.7	0.0	8.2	NA	0.0	39.4	75.0	84.2	159.2
1993	0.6	(s)	0.6	26.5	5.3	0.1	1.8	0.2	0.0	7.5	R 1.0	0.0	40.6	R 76.2	85.8	R 162.1
1994	0.2	(s)	0.2	26.3	6.2	0.1	1.8	0.2	(s)	8.3	R 1.0	0.0	42.7	R 78.5	89.0	R 167.5
1995	0.1	0.0	0.1	27.0	3.1	0.1	1.8	0.2	(s)	5.2	R 1.0	0.0	43.8	R 77.2	91.3	R 168.5
1996	0.7	0.0	0.7	30.0	2.8	0.1	1.9	0.2	(s)	5.0	R 1.1	0.0	47.6	R 84.4	99.0	R 183.4
1997	1.2	(s)	1.2	33.7	2.2	0.1	1.9	0.2	0.0	4.4	1.0	0.0	58.2	98.3	120.8	219.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 20. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Alabama

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	7,904	109	2,160	2,511	589	708	265	382	2,014	752	9,380	26	–	–	8,966	–	22,301	–
1965	8,774	132	2,749	1,962	434	1,020	311	372	945	2,142	9,935	25	–	–	13,636	–	32,559	–
1970	11,177	171	3,176	2,833	648	1,696	391	204	1,611	2,428	12,987	25	–	–	18,041	–	43,720	–
1975	9,288	156	2,706	4,475	297	1,846	440	198	5,814	3,910	19,686	25	–	–	20,473	–	49,384	–
1980	7,221	171	3,132	3,356	879	1,857	506	104	3,787	4,532	18,154	24	–	–	26,708	–	64,945	–
1985	5,476	138	3,757	3,671	19	1,031	461	507	96	6,215	15,758	24	–	–	24,179	–	56,806	–
1986	5,265	122	3,486	4,088	37	1,068	451	432	556	6,243	16,360	24	–	–	24,046	–	55,312	–
1987	5,804	123	4,564	4,467	28	1,218	509	439	564	7,253	19,044	24	–	–	25,478	–	58,216	–
1988	6,291	147	4,132	4,390	21	1,084	491	384	699	7,343	18,545	24	–	–	26,758	–	60,493	–
1989	5,656	155	4,484	5,178	17	1,107	504	497	345	6,381	18,512	[f] NA	–	–	27,232	–	[R] 61,186	–
1990	5,525	156	4,321	6,740	15	901	519	443	451	6,693	20,083	NA	–	–	27,618	–	[R] 60,406	–
1991	5,633	163	5,286	5,423	21	994	464	408	85	5,895	18,575	NA	–	–	27,985	–	[R] 60,921	–
1992	6,433	182	4,943	5,396	35	1,279	473	435	371	5,996	18,928	NA	–	–	29,476	–	[R] 62,961	–
1993	5,474	195	4,984	4,587	23	1,551	482	583	775	6,045	19,029	NA	–	–	30,524	–	64,490	–
1994	5,646	195	5,059	5,115	32	1,646	503	634	1,080	6,313	20,382	NA	–	–	31,919	–	[R] 66,606	–
1995	5,543	218	4,994	3,635	45	1,670	495	674	512	6,017	18,041	NA	–	–	32,847	–	[R] 68,431	–
1996	5,792	215	5,704	4,465	48	1,451	480	678	717	6,556	20,099	NA	–	–	33,523	–	[R] 69,768	–
1997	5,521	211	5,467	3,145	61	1,509	507	719	612	7,024	19,044	NA	–	–	32,617	–	67,738	–
			Trillion Btu															
1960	209.9	112.8	14.3	14.6	3.3	2.8	1.6	2.0	12.7	4.5	55.9	0.3	[R] 23.6	0.0	30.6	[R] 433.0	76.1	[R] 509.1
1965	232.0	136.0	18.2	11.4	2.5	4.1	1.9	2.0	5.9	12.7	58.7	0.3	[R] 32.1	0.0	46.5	[R] 505.5	111.1	[R] 616.6
1970	291.4	176.5	21.1	16.5	3.7	6.4	2.4	1.1	10.1	14.2	75.4	0.3	[R] 41.9	0.0	61.6	[R] 647.0	149.2	[R] 796.1
1975	238.8	160.0	18.0	26.1	1.7	6.9	2.7	1.0	36.6	23.1	115.9	0.3	[R] 46.8	0.0	69.9	[R] 631.7	168.5	[R] 800.2
1980	187.0	176.3	20.8	19.6	5.0	6.8	3.1	0.5	23.8	26.2	105.8	0.2	[R] 128.5	0.0	91.1	[R] 688.9	221.6	[R] 910.5
1985	140.4	143.0	24.9	21.4	0.1	3.7	2.8	2.7	0.6	35.3	91.5	0.2	[R] 150.5	0.0	82.5	[R] 608.1	193.8	[R] 801.9
1986	135.4	126.6	23.1	23.8	0.2	3.9	2.7	2.3	3.5	35.4	94.9	0.2	[R] 142.7	0.0	82.0	[R] 581.9	188.7	[R] 770.6
1987	150.2	127.1	30.3	26.0	0.2	4.5	3.1	2.3	3.5	41.1	111.0	0.2	[R] 142.1	0.0	86.9	[R] 617.6	198.6	[R] 816.2
1988	162.3	151.4	27.4	25.6	0.1	4.0	3.0	2.0	4.4	41.6	108.0	0.2	[R] 147.8	0.0	91.3	[R] 661.2	206.4	[R] 867.6
1989	145.9	159.9	29.8	30.2	0.1	4.1	3.1	2.6	2.2	35.6	107.5	[R f] 0.0	[R f] 146.5	[f] 0.0	92.9	[R f] 652.8	[R] 208.8	[R f] 861.5
1990	143.3	160.0	28.7	39.3	0.1	3.3	3.1	2.3	2.8	37.2	116.8	0.0	[R] 129.2	0.0	94.2	[R] 643.6	206.1	[R] 849.7
1991	145.5	167.9	35.1	31.6	0.1	3.6	2.8	2.1	0.5	33.0	108.9	0.0	[R] 134.5	0.0	95.5	[R] 652.3	[R] 207.9	[R] 860.1
1992	165.6	187.0	32.8	31.4	0.2	4.6	2.9	2.3	2.3	33.2	109.8	0.0	[R] 141.8	0.0	100.6	[R] 704.8	214.8	[R] 919.6
1993	141.6	201.0	33.1	26.7	0.1	5.6	2.9	3.1	4.9	33.6	110.0	0.0	[R] 152.6	0.0	104.1	[R] 709.2	220.0	[R] 929.3
1994	146.2	200.7	33.6	29.8	0.2	6.0	3.1	3.3	6.8	35.1	117.8	0.0	[R] 160.2	0.0	108.9	[R] 733.8	[R] 227.3	[R] 961.1
1995	144.1	224.7	33.1	21.2	0.3	6.1	3.0	3.5	3.2	33.4	103.8	0.0	[R] 166.0	0.0	112.1	[R] 750.6	233.5	[R] 984.1
1996	150.1	221.9	37.9	26.0	0.3	5.2	2.9	3.6	4.5	36.3	116.7	0.0	[R] 173.5	0.0	114.4	[R] 776.5	[R] 238.0	[R] 1,014.5
1997	142.5	219.4	36.3	18.3	0.3	5.5	3.1	3.8	3.8	39.0	110.1	2.4	166.5	0.0	111.3	752.4	231.1	983.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 21. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Alabama

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	137	8	280	2,582	1,126	31	396	23,869	2,278	30,562	0	0	–	0	–
1965	29	12	446	3,090	1,156	43	430	28,220	1,608	34,993	0	0	–	0	–
1970	18	20	349	5,353	1,799	98	421	36,408	1,679	46,107	0	0	–	0	–
1975	2	17	249	9,087	1,707	87	609	44,523	7,039	63,300	0	0	–	0	–
1980	0	16	248	11,049	2,048	46	486	43,934	3,506	61,318	0	0	–	0	–
1985	0	11	172	11,195	3,516	161	442	42,718	1,640	59,844	0	0	–	0	–
1986	0	10	204	11,293	3,745	146	432	45,763	1,351	62,935	0	0	–	0	–
1987	0	12	143	13,036	3,872	100	489	47,835	1,489	66,965	0	0	–	0	–
1988	0	12	157	14,697	1,872	90	471	48,120	2,036	67,443	0	0	–	0	–
1989	0	14	133	18,055	2,046	89	483	48,768	2,823	72,397	R e 13,365	0	–	0	–
1990	0	15	116	17,450	1,899	96	497	48,498	2,905	71,462	15,436	0	–	0	–
1991	0	16	109	17,323	2,292	94	445	48,959	3,225	72,448	12,236	0	–	0	–
1992	0	19	106	17,854	2,108	85	454	50,031	3,536	74,174	14,871	0	–	0	–
1993	0	16	103	17,341	1,973	117	462	51,332	3,283	74,612	16,596	0	–	0	–
1994	0	15	110	18,992	3,472	193	483	52,551	2,352	78,152	17,676	0	–	0	–
1995	0	20	97	18,730	3,843	93	475	54,756	2,644	80,638	23,911	(s)	–	(s)	–
1996	0	19	93	17,845	3,508	82	461	54,279	2,490	78,759	4,149	(s)	–	(s)	–
1997	0	21	103	17,597	2,183	75	487	54,934	1,982	77,361	4,238	0	–	0	–
			Trillion Btu												
1960	3.4	7.9	1.4	15.0	6.1	0.1	2.4	125.4	14.3	164.7	0.0	0.0	176.0	0.0	176.0
1965	0.7	12.4	2.3	18.0	6.2	0.2	2.6	148.2	10.1	187.6	0.0	0.0	200.7	0.0	200.7
1970	0.4	20.5	1.8	31.2	9.9	0.4	2.6	191.3	10.6	247.6	0.0	0.0	268.5	0.0	268.5
1975	(s)	17.3	1.3	52.9	9.4	0.3	3.7	233.9	44.3	345.8	0.0	0.0	363.1	0.0	363.1
1980	0.0	17.0	1.3	64.4	11.3	0.2	2.9	230.8	22.0	332.9	0.0	0.0	349.9	0.0	349.9
1985	0.0	11.5	0.9	65.2	19.7	0.6	2.7	224.4	10.3	323.7	0.0	0.0	335.2	0.0	335.2
1986	0.0	10.2	1.0	65.8	21.0	0.5	2.6	240.4	8.5	339.9	0.0	0.0	350.0	0.0	350.0
1987	0.0	12.2	0.7	75.9	21.7	0.4	3.0	251.3	9.4	362.3	0.0	0.0	374.5	0.0	374.5
1988	0.0	12.5	0.8	85.6	10.4	0.3	2.9	252.8	12.8	365.5	0.0	0.0	378.0	0.0	378.0
1989	0.0	13.9	0.7	105.2	11.4	0.3	2.9	256.2	17.8	394.4	R e 1.0	0.0	e 408.3	0.0	e 408.3
1990	0.0	15.1	0.6	101.6	10.6	0.3	3.0	254.8	18.3	389.2	1.2	0.0	404.2	0.0	404.2
1991	0.0	16.9	0.6	100.9	12.6	0.3	2.7	257.2	20.3	394.6	0.9	0.0	411.5	0.0	411.5
1992	0.0	19.2	0.5	104.0	11.7	0.3	2.8	262.8	22.2	404.3	1.1	0.0	423.5	0.0	423.5
1993	0.0	16.0	0.5	101.0	11.0	0.4	2.8	269.6	20.6	406.0	1.3	0.0	422.1	0.0	422.1
1994	0.0	15.4	0.6	110.6	19.6	0.7	2.9	276.0	14.8	425.3	1.4	0.0	440.6	0.0	440.6
1995	0.0	20.7	0.5	109.1	21.8	0.3	2.9	287.6	16.6	438.8	1.8	(s)	459.5	(s)	459.5
1996	0.0	19.8	0.5	103.9	19.9	0.3	2.8	285.1	15.7	428.2	0.3	(s)	448.0	(s)	448.0
1997	0.0	21.5	0.5	102.5	12.4	0.3	3.0	288.6	12.5	419.6	0.3	0.0	441.2	0.0	441.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 22. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Alabama

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	7,264	0	7,264	9	0	(s)	0	(s)	0	6,213	0	0	0	–
1965	12,572	0	12,572	6	0	0	0	0	0	7,078	0	0	0	–
1970	16,331	0	16,331	15	0	26	448	474	0	7,607	0	0	0	–
1975	17,301	0	17,301	6	99	514	0	613	2,722	12,188	0	0	0	–
1980	19,593	0	19,593	1	0	131	0	131	23,497	9,385	0	0	0	–
1985	21,545	0	21,545	1	0	88	0	88	14,313	6,862	0	0	0	–
1986	21,436	0	21,436	1	0	67	0	67	11,561	5,227	0	0	0	–
1987	20,746	0	20,746	1	0	58	0	58	11,248	7,449	0	0	0	–
1988	20,002	0	20,002	3	0	174	0	174	12,981	5,359	0	0	0	–
1989	21,884	0	21,884	2	0	216	0	216	11,524	13,153	0	0	0	–
1990	22,010	0	22,010	4	0	133	0	133	12,052	10,367	0	0	0	–
1991	23,700	0	23,700	4	0	163	0	163	15,875	10,758	0	0	0	–
1992	24,988	0	24,988	3	0	141	0	141	19,397	10,260	0	0	0	–
1993	27,533	0	27,533	5	0	130	0	130	17,823	9,034	0	0	0	–
1994	25,817	0	25,817	4	0	220	0	220	20,480	11,429	0	0	0	–
1995	28,759	0	28,759	7	0	181	0	181	20,752	9,502	0	0	0	–
1996	31,216	0	31,216	6	0	299	0	299	29,708	11,082	0	0	0	–
1997	30,841	0	30,841	10	0	230	0	230	29,573	11,521	0	0	0	–
	Trillion Btu													
1960	175.3	0.0	175.3	9.7	0.0	(s)	0.0	(s)	0.0	66.9	0.0	0.0	0.0	251.8
1965	298.0	0.0	298.0	5.8	0.0	0.0	0.0	0.0	0.0	74.0	0.0	0.0	0.0	377.7
1970	380.7	0.0	380.7	15.9	0.0	0.2	2.7	2.9	0.0	79.8	0.0	0.0	0.0	479.3
1975	400.7	0.0	400.7	6.2	0.6	3.0	0.0	3.6	30.0	126.8	0.0	0.0	0.0	567.4
1980	468.5	0.0	468.5	1.6	0.0	0.8	0.0	0.8	256.3	97.5	0.0	0.0	0.0	824.6
1985	519.5	0.0	519.5	1.2	0.0	0.5	0.0	0.5	154.8	71.7	0.0	0.0	0.0	747.6
1986	522.0	0.0	522.0	1.2	0.0	0.4	0.0	0.4	124.9	54.6	0.0	0.0	0.0	703.0
1987	507.1	0.0	507.1	1.6	0.0	0.3	0.0	0.3	121.2	77.6	0.0	0.0	0.0	707.8
1988	486.6	0.0	486.6	2.7	0.0	1.0	0.0	1.0	139.5	55.3	0.0	0.0	0.0	685.1
1989	526.2	0.0	526.2	1.8	0.0	1.3	0.0	1.3	123.6	137.2	0.0	0.0	0.0	790.1
1990	532.4	0.0	532.4	4.2	0.0	0.8	0.0	0.8	128.7	107.8	0.0	0.0	0.0	773.9
1991	573.9	0.0	573.9	4.2	0.0	0.9	0.0	0.9	170.5	R 112.3	0.0	0.0	0.0	R 861.7
1992	602.8	0.0	602.8	3.4	0.0	0.8	0.0	0.8	207.1	106.1	0.0	0.0	0.0	R 920.3
1993	665.9	0.0	665.9	4.7	0.0	0.8	0.0	0.8	190.4	93.1	0.0	0.0	0.0	954.8
1994	624.1	0.0	624.1	3.9	0.0	1.3	0.0	1.3	218.6	R 117.9	0.0	0.0	0.0	965.8
1995	682.2	0.0	682.2	7.5	0.0	1.1	0.0	1.1	221.2	R 98.0	0.0	0.0	0.0	1,009.9
1996	736.3	0.0	736.3	6.3	0.0	1.7	0.0	1.7	315.6	R 114.5	0.0	0.0	0.0	1,174.5
1997	714.5	0.0	714.5	10.3	0.0	1.3	0.0	1.3	314.2	118.8	0.0	0.0	0.0	1,159.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 23. Energy Consumption Estimates by Source, Selected Years 1960-1997, Alaska

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	376	2	47	1,032	2,636	1,972	90	46	7	1,657	711	0	8,197	0	290	–	–	0	–
1965	525	8	132	293	3,788	3,005	10	91	41	2,450	881	284	10,975	0	350	–	–	0	–
1970	740	64	274	462	5,100	6,735	33	151	60	2,621	1,020	523	16,979	0	363	–	–	0	–
1975	868	85	319	466	7,090	7,420	123	211	145	4,179	1,075	771	21,800	0	357	–	–	0	–
1980	273	153	309	498	6,677	9,618	19	191	115	3,676	371	1,446	22,919	0	539	–	–	0	–
1985	733	213	485	490	10,356	15,231	7	331	104	5,638	3,072	5,761	41,475	0	748	–	–	0	–
1986	769	206	373	617	7,549	16,187	4,985	268	102	5,425	7,081	4,828	47,417	0	809	–	–	0	–
1987	274	249	257	208	8,006	14,850	4,792	271	115	5,205	3,406	4,329	41,438	0	872	–	–	0	–
1988	276	288	698	407	8,582	16,899	192	277	111	5,319	713	5,181	38,380	0	935	–	–	0	–
1989	299	322	274	491	11,055	18,586	2	278	114	5,079	348	4,683	40,911	0	[i] NA	–	–	0	–
1990	784	343	269	491	11,592	17,367	3	384	117	5,854	429	4,582	41,088	0	NA	–	–	0	–
1991	802	367	259	618	9,805	17,116	8	402	105	5,108	593	2,312	36,326	0	NA	–	–	0	–
1992	792	383	264	459	10,408	14,720	1	393	107	5,881	765	3,377	36,376	0	NA	–	–	0	–
1993	863	378	43	410	9,354	14,693	5	238	109	5,976	728	3,028	34,584	0	NA	–	–	0	–
1994	796	367	66	171	8,027	16,080	11	252	114	6,542	728	3,375	35,366	0	NA	–	–	0	–
1995	815	430	83	389	10,378	16,921	1	272	112	7,148	754	3,195	39,253	0	NA	–	–	0	–
1996	706	448	26	142	8,552	18,652	1	247	109	6,735	912	4,138	39,515	0	NA	–	–	0	–
1997	740	425	55	407	9,936	21,099	1	250	115	6,312	867	4,104	43,145	0	NA	–	–	0	–
			Trillion Btu																
1960	7.2	2.0	0.3	5.2	15.4	10.6	0.5	0.2	(s)	8.7	4.5	0.0	45.4	0.0	3.1	[R] 3.7	0.0	0.0	[R] 61.4
1965	9.9	7.7	0.9	1.5	22.1	16.5	0.1	0.4	0.3	12.9	5.5	1.7	61.7	0.0	3.7	[R] 4.9	0.0	0.0	[R] 87.8
1970	13.2	64.0	1.8	2.3	29.7	37.7	0.2	0.6	0.4	13.8	6.4	3.1	96.0	0.0	3.8	[R] 5.0	0.0	0.0	[R] 182.0
1975	15.3	85.2	2.1	2.4	41.3	41.7	0.7	0.8	0.9	22.0	6.8	4.6	123.1	0.0	3.7	[R] 4.9	0.0	0.0	[R] 232.2
1980	4.3	153.8	2.1	2.5	38.9	54.0	0.1	0.7	0.7	19.3	2.3	8.7	129.3	0.0	5.6	[R] 3.0	0.0	0.0	[R] 296.1
1985	11.6	214.0	3.2	2.5	60.3	85.8	(s)	1.2	0.6	29.6	19.3	34.3	236.9	0.0	7.8	[R] 3.7	(s)	0.0	[R] 474.1
1986	12.1	208.3	2.5	3.1	44.0	91.2	28.3	1.0	0.6	28.5	44.5	29.1	272.8	0.0	8.4	[R] 2.2	0.0	0.0	[R] 503.9
1987	4.3	251.5	1.7	1.0	46.6	83.6	27.2	1.0	0.7	27.3	21.4	26.0	236.6	0.0	9.1	[R] 2.9	0.0	0.0	[R] 504.4
1988	4.4	288.8	4.6	2.1	50.0	95.2	1.1	1.0	0.7	27.9	4.5	30.8	217.9	0.0	9.7	[R] 3.0	0.0	0.0	[R] 523.7
1989	4.7	321.2	1.8	2.5	64.4	104.7	(s)	1.0	0.7	26.7	2.2	27.8	231.8	0.0	[i] 9.1	[R i] 4.5	[R i] 0.1	0.0	[R i] 571.4
1990	12.4	326.8	1.8	2.5	67.5	97.9	(s)	1.4	0.7	30.8	2.7	27.2	232.5	0.0	10.1	[R] 4.8	[R] 0.1	0.0	[R] 586.8
1991	12.7	368.0	1.7	3.1	57.1	96.1	(s)	1.5	0.6	26.8	3.7	14.1	204.9	0.0	[R] 9.4	[R] 5.0	[R] 0.1	0.0	[R] 599.9
1992	12.5	383.9	1.8	2.3	60.6	82.9	(s)	1.4	0.6	30.9	4.8	20.3	205.7	0.0	9.5	[R] 5.2	[R] 0.1	0.0	[R] 616.8
1993	13.6	376.0	0.3	2.1	54.5	83.2	(s)	0.9	0.7	31.4	4.6	18.4	196.0	0.0	13.4	[R] 4.5	[R] 0.1	0.0	[R] 603.5
1994	12.6	367.6	0.4	0.9	46.8	91.2	0.1	0.9	0.7	34.4	4.6	20.4	200.2	0.0	13.9	[R] 4.2	[R] 0.1	0.0	[R] 598.5
1995	12.9	432.8	0.5	2.0	60.5	95.9	(s)	1.0	0.7	37.5	4.7	19.3	222.2	0.0	14.1	[R] 5.9	[R] 0.1	0.0	[R] 687.4
1996	11.2	443.6	0.2	0.7	49.8	105.8	(s)	0.9	0.7	35.4	5.7	24.9	224.0	0.0	13.1	[R] 6.0	[R] 0.1	0.0	[R] 697.2
1997	11.7	425.4	0.4	2.1	57.9	119.6	(s)	0.9	0.7	33.2	5.4	24.6	244.8	0.0	11.3	4.5	0.1	0.0	697.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 24. Residential Energy Consumption Estimates, Selected Years 1960-1997, Alaska

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	22	0	22	(s)	866	0	36	902	R 90	–	–	151	–	539	–
1965	12	0	12	1	1,110	10	77	1,197	R 80	–	–	292	–	1,139	–
1970	8	0	8	6	1,362	19	77	1,458	R 65	–	–	527	–	2,073	–
1975	6	0	6	10	1,621	91	69	1,781	R 71	–	–	898	–	3,227	–
1980	0	0	0	8	1,172	0	58	1,231	R 63	–	–	1,092	–	4,397	–
1985	153	0	153	13	1,310	1	192	1,503	R 83	–	–	1,674	–	4,834	–
1986	174	0	174	12	1,065	1	152	1,217	R 81	–	–	1,625	–	4,638	–
1987	0	0	0	12	1,614	1	157	1,772	R 118	–	–	1,548	–	4,006	–
1988	0	0	0	13	1,285	3	167	1,456	R 122	–	–	1,590	–	4,075	–
1989	0	0	0	14	1,518	1	198	1,717	R 127	–	–	1,643	–	4,306	–
1990	173	0	173	14	1,745	3	300	2,048	109	–	–	1,661	–	R 4,429	–
1991	176	0	176	14	1,597	8	323	1,928	R 114	–	–	1,603	–	R 3,918	–
1992	180	0	180	14	1,606	1	319	1,925	R 120	–	–	1,640	–	3,599	–
1993	197	0	197	14	1,277	1	192	1,470	R 97	–	–	1,629	–	3,958	–
1994	182	0	182	15	1,254	10	151	1,416	R 95	–	–	1,688	–	R 4,019	–
1995	183	0	183	15	1,494	(s)	157	1,650	R 106	–	–	1,713	–	R 4,108	–
1996	166	0	166	16	1,312	(s)	195	1,507	R 106	–	–	1,766	–	4,186	–
1997	176	0	176	15	1,453	(s)	195	1,648	77	–	–	1,726	–	4,188	–
	Trillion Btu														
1960	0.4	0.0	0.4	0.2	5.0	0.0	0.1	5.2	R 1.8	0.0	0.0	0.5	R 8.1	1.8	R 10.0
1965	0.2	0.0	0.2	1.5	6.5	0.1	0.3	6.8	R 1.6	0.0	0.0	1.0	R 11.1	3.9	R 15.0
1970	0.1	0.0	0.1	6.2	7.9	0.1	0.3	8.3	R 1.3	0.0	0.0	1.8	R 17.8	7.1	R 24.9
1975	0.1	0.0	0.1	10.4	9.4	0.5	0.3	10.2	R 1.4	0.0	0.0	3.1	R 25.2	11.0	R 36.2
1980	0.0	0.0	0.0	7.9	6.8	0.0	0.2	7.0	R 1.3	0.0	0.0	3.7	R 20.0	15.0	R 35.0
1985	2.4	0.0	2.4	13.3	7.6	(s)	0.7	8.3	R 1.7	0.0	0.0	5.7	R 31.5	16.5	R 48.0
1986	2.7	0.0	2.7	12.2	6.2	(s)	0.6	6.8	R 1.6	0.0	0.0	5.5	R 28.9	15.8	R 44.7
1987	0.0	0.0	0.0	12.4	9.4	(s)	0.6	10.0	R 2.4	0.0	0.0	5.3	R 30.0	13.7	R 43.7
1988	0.0	0.0	0.0	12.6	7.5	(s)	0.6	8.1	R 2.4	0.0	0.0	5.4	R 28.6	13.9	R 42.5
1989	0.0	0.0	0.0	13.6	8.8	(s)	0.7	9.6	R 2.5	[e] (s)	R [e] (s)	5.6	R [e] 31.3	14.7	R [e] 46.0
1990	2.7	0.0	2.7	13.4	10.2	(s)	1.1	11.3	2.2	(s)	(s)	5.7	35.3	15.1	50.4
1991	2.8	0.0	2.8	13.6	9.3	(s)	1.2	10.5	2.3	(s)	(s)	5.5	34.7	13.4	48.0
1992	2.8	0.0	2.8	14.4	9.4	(s)	1.2	10.5	2.4	(s)	(s)	5.6	R 35.8	12.3	48.0
1993	3.1	0.0	3.1	13.8	7.4	(s)	0.7	8.1	R 1.9	(s)	(s)	5.6	R 32.5	13.5	R 46.0
1994	2.9	0.0	2.9	14.9	7.3	0.1	0.5	7.9	R 1.9	(s)	(s)	5.8	33.4	13.7	47.1
1995	2.9	0.0	2.9	15.3	8.7	(s)	0.6	9.3	R 2.1	(s)	(s)	5.8	35.5	14.0	49.5
1996	2.6	0.0	2.6	16.0	7.6	(s)	0.7	8.3	R 2.1	(s)	(s)	6.0	R 35.1	14.3	R 49.4
1997	2.8	0.0	2.8	15.1	8.5	(s)	0.7	9.2	1.5	(s)	(s)	5.9	34.5	14.3	48.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 25. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Alaska

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	42	0	42	0	268	0	6	130	464	868	R 2	–	99	–	354	–
1965	22	0	22	2	344	0	14	253	751	1,361	R 2	–	267	–	1,043	–
1970	15	0	15	13	422	0	14	246	807	1,488	R 1	–	478	–	1,882	–
1975	11	0	11	14	502	0	12	415	558	1,487	R 1	–	657	–	2,362	–
1980	0	0	0	17	577	0	10	258	4	849	R 2	–	728	–	2,932	–
1985	284	0	284	20	926	3	34	268	0	1,231	NA	–	1,898	–	5,480	–
1986	323	0	323	21	837	4,981	27	200	1,650	7,695	NA	–	1,957	–	5,587	–
1987	0	0	0	20	1,055	4,791	28	52	1,962	7,887	NA	–	1,894	–	4,901	–
1988	0	0	0	21	875	189	30	50	310	1,454	NA	–	1,913	–	4,903	–
1989	0	0	0	22	825	1	35	52	0	912	NA	–	2,048	–	5,366	–
1990	321	0	321	22	1,176	(s)	53	52	0	1,281	NA	–	2,133	–	R 5,687	–
1991	328	0	328	21	974	(s)	57	88	0	1,119	NA	–	2,187	–	R 5,346	–
1992	334	0	334	21	1,376	(s)	56	57	0	1,490	NA	–	2,195	–	4,816	–
1993	366	0	366	20	1,211	(s)	34	8	0	1,253	R 8	–	2,245	–	5,454	–
1994	338	0	338	21	1,184	(s)	27	10	0	1,221	R 8	–	2,334	–	R 5,556	–
1995	340	0	340	25	763	(s)	28	21	0	812	R 8	–	2,372	–	R 5,689	–
1996	309	0	309	27	804	(s)	34	294	0	1,132	R 9	–	2,429	–	R 5,757	–
1997	327	0	327	27	744	(s)	34	71	0	850	7	–	2,359	–	5,725	–
	Trillion Btu															
1960	0.8	0.0	0.8	0.0	1.6	0.0	(s)	0.7	2.9	5.2	(s)	0.0	0.3	6.3	1.2	R 7.6
1965	0.4	0.0	0.4	2.3	2.0	0.0	0.1	1.3	4.7	8.1	(s)	0.0	0.9	R 11.8	3.6	15.3
1970	0.3	0.0	0.3	12.6	2.5	0.0	0.1	1.3	5.1	8.9	(s)	0.0	1.6	23.4	6.4	29.8
1975	0.2	0.0	0.2	14.5	2.9	0.0	(s)	2.2	3.5	8.7	(s)	0.0	2.2	25.6	8.1	R 33.7
1980	0.0	0.0	0.0	16.6	3.4	0.0	(s)	1.4	(s)	4.8	(s)	0.0	2.5	23.8	10.0	33.8
1985	4.5	0.0	4.5	20.5	5.4	(s)	0.1	1.4	0.0	6.9	NA	0.0	6.5	38.4	18.7	57.1
1986	5.1	0.0	5.1	21.1	4.9	28.2	0.1	1.1	10.4	44.6	NA	0.0	6.7	77.5	19.1	96.6
1987	0.0	0.0	0.0	20.4	6.1	27.2	0.1	0.3	12.3	46.0	NA	0.0	6.5	72.9	16.7	89.6
1988	0.0	0.0	0.0	20.9	5.1	1.1	0.1	0.3	1.9	8.5	NA	0.0	6.5	35.9	16.7	52.7
1989	0.0	0.0	0.0	21.7	4.8	(s)	0.1	0.3	0.0	5.2	NA	[e] (s)	7.0	33.9	18.3	52.2
1990	5.1	0.0	5.1	20.5	6.8	(s)	0.2	0.3	0.0	7.3	NA	(s)	7.3	40.2	19.4	59.6
1991	5.2	0.0	5.2	20.9	5.7	(s)	0.2	0.5	0.0	6.3	NA	(s)	7.5	39.9	18.2	58.2
1992	5.3	0.0	5.3	21.3	8.0	(s)	0.2	0.3	0.0	8.5	NA	(s)	7.5	R 42.7	16.4	59.1
1993	5.8	0.0	5.8	19.9	7.1	(s)	0.1	(s)	0.0	7.2	R 0.2	(s)	7.7	R 40.7	18.6	R 59.3
1994	5.3	0.0	5.3	20.7	6.9	(s)	0.1	0.1	0.0	7.0	R 0.2	(s)	8.0	R 41.2	19.0	R 60.2
1995	5.4	0.0	5.4	25.1	4.4	(s)	0.1	0.1	0.0	4.7	R 0.2	(s)	8.1	R 43.4	19.4	R 62.9
1996	4.9	0.0	4.9	27.0	4.7	(s)	0.1	1.5	0.0	6.4	R 0.2	(s)	8.3	R 46.7	19.6	R 66.4
1997	5.2	0.0	5.2	26.9	4.3	(s)	0.1	0.4	0.0	4.8	0.1	(s)	8.0	45.1	19.5	64.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 26. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Alaska

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	256	2	47	878	90	4	4	0	229	0	1,252	0	–	–	45	–	162	–
1965	339	2	132	1,238	0	(s)	1	83	60	284	1,798	0	–	–	59	–	229	–
1970	467	19	274	1,923	14	60	1	107	73	523	2,975	0	–	–	101	–	398	–
1975	594	40	319	2,117	32	130	24	106	31	771	3,530	0	–	–	485	–	1,743	–
1980	0	100	309	1,784	19	119	21	111	14	1,446	3,823	0	–	–	757	–	3,048	–
1985	0	140	485	1,762	4	91	19	406	2,577	5,761	11,105	0	–	–	417	–	1,203	–
1986	0	133	373	1,145	4	81	18	386	4,789	4,828	11,624	0	–	–	466	–	1,330	–
1987	0	184	257	1,005	(s)	79	21	402	1,020	4,329	7,113	0	–	–	520	–	1,344	–
1988	0	221	698	2,016	(s)	72	20	64	0	5,181	8,051	0	–	–	542	–	1,388	–
1989	0	252	274	1,835	(s)	38	21	64	0	4,683	6,914	[f] NA	–	–	450	–	1,180	–
1990	0	271	269	1,584	(s)	25	21	55	118	4,582	6,654	NA	–	–	459	–	1,224	–
1991	0	299	259	1,954	(s)	17	19	57	280	2,312	4,898	NA	–	–	466	–	1,139	–
1992	0	316	264	1,973	(s)	14	19	58	302	3,377	6,006	NA	–	–	504	–	1,107	–
1993	2	313	43	1,573	4	10	20	40	303	3,028	5,021	NA	–	–	501	–	1,218	–
1994	5	300	66	1,506	(s)	70	20	57	346	3,375	5,441	NA	–	–	511	–	1,217	–
1995	0	358	83	2,287	(s)	85	20	62	381	3,195	6,113	NA	–	–	546	–	1,310	–
1996	2	371	26	2,541	(s)	15	20	64	394	4,138	7,198	NA	–	–	584	–	1,385	–
1997	2	345	55	2,816	(s)	18	21	54	141	4,104	7,208	NA	–	–	756	–	1,834	–
			Trillion Btu															
1960	5.0	1.9	0.3	5.1	0.5	(s)	(s)	0.0	1.4	0.0	7.4	0.0	[R] 1.8	0.0	0.2	[R] 16.2	0.6	[R] 16.8
1965	6.5	1.8	0.9	7.2	0.0	(s)	(s)	0.4	0.4	1.7	10.6	0.0	[R] 3.2	0.0	0.2	[R] 22.3	0.8	[R] 23.1
1970	8.5	19.6	1.8	11.2	0.1	0.2	(s)	0.6	0.5	3.1	17.5	0.0	[R] 3.7	0.0	0.3	[R] 49.6	1.4	[R] 51.0
1975	10.5	40.4	2.1	12.3	0.2	0.5	0.1	0.6	0.2	4.6	20.6	0.0	[R] 3.5	0.0	1.7	[R] 76.7	5.9	[R] 82.6
1980	0.0	100.3	2.1	10.4	0.1	0.4	0.1	0.6	0.1	8.7	22.5	0.0	[R] 1.8	0.0	2.6	[R] 127.1	10.4	[R] 137.5
1985	0.0	140.7	3.2	10.3	(s)	0.3	0.1	2.1	16.2	34.3	66.6	0.0	[R] 2.1	0.0	1.4	[R] 210.7	4.1	[R] 214.9
1986	0.0	134.4	2.5	6.7	(s)	0.3	0.1	2.0	30.1	29.1	70.8	0.0	[R] 0.5	0.0	1.6	[R] 207.4	4.5	[R] 211.9
1987	0.0	185.9	1.7	5.9	(s)	0.3	0.1	2.1	6.4	26.0	42.5	0.0	[R] 0.5	0.0	1.8	[R] 230.7	4.6	[R] 235.3
1988	0.0	222.3	4.6	11.7	(s)	0.3	0.1	0.3	0.0	30.8	47.9	0.0	[R] 0.6	0.0	1.8	[R] 272.6	4.7	[R] 277.4
1989	0.0	251.1	1.8	10.7	(s)	0.1	0.1	0.3	0.0	27.8	40.9	[f] 0.0	[R f] 2.0	[R f] (s)	1.5	[R f] 295.5	4.0	[R f] 299.6
1990	0.0	256.7	1.8	9.2	(s)	0.1	0.1	0.3	0.7	27.2	39.5	0.0	[R] 2.7	[R] (s)	1.6	[R] 300.4	4.2	[R] 304.6
1991	0.0	299.5	1.7	11.4	(s)	0.1	0.1	0.3	1.8	14.1	29.5	0.0	[R] 2.7	[R] (s)	1.6	[R] 333.2	3.9	[R] 337.1
1992	0.0	316.3	1.8	11.5	(s)	0.1	0.1	0.3	1.9	20.3	35.9	0.0	[R] 2.8	[R] (s)	1.7	[R] 356.8	3.8	[R] 360.5
1993	(s)	311.5	0.3	9.2	(s)	(s)	0.1	0.2	1.9	18.4	30.1	0.0	[R] 2.4	[R] (s)	1.7	[R] 345.7	4.2	[R] 349.9
1994	0.1	299.9	0.4	8.8	(s)	0.3	0.1	0.3	2.2	20.4	32.4	0.0	[R] 2.2	[R] (s)	1.7	[R] 336.4	4.2	[R] 340.5
1995	0.0	360.0	0.5	13.3	(s)	0.3	0.1	0.3	2.4	19.3	36.3	0.0	[R] 3.1	[R] (s)	1.9	[R] 401.3	4.5	[R] 405.8
1996	(s)	367.4	0.2	14.8	(s)	0.1	0.1	0.3	2.5	24.9	42.8	0.0	[R] 3.0	[R] (s)	2.0	[R] 415.3	4.7	[R] 420.0
1997	(s)	344.9	0.4	16.4	(s)	0.1	0.1	0.3	0.9	24.6	42.8	0.0	2.3	(s)	2.6	392.6	6.3	398.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 27. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Alaska

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	5	(s)	1,032	528	1,972	0	3	1,527	15	5,077	0	0	–	0	–
1965	1	0	293	789	3,005	(s)	40	2,113	66	6,307	0	0	–	0	–
1970	1	17	462	1,000	6,735	1	59	2,267	135	10,659	0	0	–	0	–
1975	(s)	(s)	466	2,157	7,420	0	121	3,658	484	14,305	0	0	–	0	–
1980	0	(s)	498	2,605	9,618	4	94	3,306	0	16,125	0	0	–	0	–
1985	0	5	490	5,840	15,231	14	86	4,964	19	26,643	0	0	–	0	–
1986	0	6	617	4,065	16,187	9	84	4,839	113	25,914	0	0	–	0	–
1987	0	2	208	3,912	14,850	6	95	4,751	118	23,940	0	0	–	0	–
1988	0	2	407	3,981	16,899	8	91	5,205	140	26,732	0	0	–	0	–
1989	0	2	491	6,372	18,586	7	94	4,963	118	30,632	[e] 0	0	–	0	–
1990	0	2	491	6,601	17,367	6	96	5,747	140	30,448	0	0	–	0	–
1991	0	3	618	4,750	17,116	4	86	4,963	73	27,611	0	0	–	0	–
1992	0	3	459	4,845	14,720	4	88	5,766	316	26,199	0	0	–	0	–
1993	0	3	410	4,754	14,693	2	90	5,928	119	25,995	0	0	–	0	–
1994	0	3	171	3,510	16,080	4	94	6,475	102	26,435	32	0	–	0	–
1995	0	2	389	5,243	16,921	2	92	7,065	116	29,828	7,553	0	–	0	–
1996	0	2	142	3,239	18,652	4	89	6,377	4	28,507	8,659	0	–	0	–
1997	0	5	407	4,325	21,099	3	94	6,187	2	32,118	7,240	0	–	0	–
			Trillion Btu												
1960	0.1	(s)	5.2	3.1	10.6	0.0	(s)	8.0	0.1	27.1	0.0	0.0	27.1	0.0	27.1
1965	(s)	0.0	1.5	4.6	16.5	(s)	0.2	11.1	0.4	34.4	0.0	0.0	34.4	0.0	34.4
1970	(s)	17.4	2.3	5.8	37.7	(s)	0.4	11.9	0.9	59.0	0.0	0.0	76.4	0.0	76.4
1975	(s)	0.1	2.4	12.6	41.7	0.0	0.7	19.2	3.0	79.6	0.0	0.0	79.7	0.0	79.7
1980	0.0	0.1	2.5	15.2	54.0	(s)	0.6	17.4	0.0	89.7	0.0	0.0	89.8	0.0	89.8
1985	0.0	5.2	2.5	34.0	85.8	0.1	0.5	26.1	0.1	149.0	0.0	0.0	154.2	0.0	154.2
1986	0.0	6.0	3.1	23.7	91.2	(s)	0.5	25.4	0.7	144.7	0.0	0.0	150.7	0.0	150.7
1987	0.0	2.1	1.0	22.8	83.6	(s)	0.6	25.0	0.7	133.7	0.0	0.0	135.9	0.0	135.9
1988	0.0	2.0	2.1	23.2	95.2	(s)	0.6	27.3	0.9	149.2	0.0	0.0	151.2	0.0	151.2
1989	0.0	1.9	2.5	37.1	104.7	(s)	0.6	26.1	0.7	171.7	[e] 0.0	0.0	[e] 173.6	0.0	[e] 173.6
1990	0.0	1.6	2.5	38.4	97.9	(s)	0.6	30.2	0.9	170.5	0.0	0.0	172.2	0.0	172.2
1991	0.0	2.6	3.1	27.7	96.1	(s)	0.5	26.1	0.5	154.0	0.0	0.0	156.6	0.0	156.6
1992	0.0	2.9	2.3	28.2	82.9	(s)	0.5	30.3	2.0	146.3	0.0	0.0	149.2	0.0	149.2
1993	0.0	2.8	2.1	27.7	83.2	(s)	0.5	31.1	0.7	145.4	0.0	0.0	148.3	0.0	148.3
1994	0.0	3.0	0.9	20.4	91.2	(s)	0.6	34.0	0.6	147.7	(s)	0.0	150.7	0.0	150.7
1995	0.0	2.4	2.0	30.5	95.9	(s)	0.6	37.1	0.7	166.8	0.6	0.0	169.3	0.0	169.3
1996	0.0	2.0	0.7	18.9	105.8	(s)	0.5	33.5	(s)	159.4	0.7	0.0	161.4	0.0	161.4
1997	0.0	4.9	2.1	25.2	119.6	(s)	0.6	32.5	(s)	180.0	0.6	0.0	184.9	0.0	184.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 28. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Alaska

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	52	0	52	0	3	95	0	99	0	290	0	0	0	–
1965	151	0	151	2	4	308	0	312	0	350	0	0	0	–
1970	249	0	249	8	5	394	0	399	0	363	0	0	0	–
1975	257	0	257	20	1	694	0	696	0	357	0	0	0	–
1980	273	0	273	29	353	538	0	891	0	539	0	0	0	–
1985	296	0	296	34	476	518	0	994	0	748	0	0	(s)	–
1986	272	0	272	34	529	437	0	966	0	809	0	0	0	–
1987	274	0	274	31	306	421	0	727	0	872	0	0	0	–
1988	276	0	276	31	264	424	0	688	0	935	0	0	0	–
1989	299	0	299	33	230	506	0	736	0	873	0	0	0	–
1990	290	0	290	34	171	486	0	658	0	975	0	0	0	–
1991	298	0	298	31	240	530	0	769	0	896	0	0	0	–
1992	277	0	277	29	147	608	0	755	0	918	0	0	0	–
1993	298	0	298	28	306	538	0	845	0	1,303	0	0	0	–
1994	271	0	271	29	281	573	0	854	0	1,345	0	0	0	–
1995	293	0	293	30	257	592	0	849	0	1,372	0	0	0	–
1996	229	0	229	31	515	655	0	1,171	0	1,267	0	0	0	–
1997	235	0	235	34	723	598	0	1,321	0	1,100	0	0	0	–
	Trillion Btu													
1960	0.9	0.0	0.9	0.0	(s)	0.6	0.0	0.6	0.0	3.1	0.0	0.0	0.0	4.6
1965	2.7	0.0	2.7	2.2	(s)	1.8	0.0	1.8	0.0	3.7	0.0	0.0	0.0	10.3
1970	4.3	0.0	4.3	8.2	(s)	2.3	0.0	2.3	0.0	3.8	0.0	0.0	0.0	18.6
1975	4.5	0.0	4.5	19.7	(s)	4.0	0.0	4.1	0.0	3.7	0.0	0.0	0.0	32.0
1980	4.3	0.0	4.3	28.9	2.2	3.1	0.0	5.4	0.0	5.6	0.0	0.0	0.0	44.2
1985	4.7	0.0	4.7	34.4	3.0	3.0	0.0	6.0	0.0	7.8	0.0	0.0	(s)	52.9
1986	4.3	0.0	4.3	34.6	3.3	2.5	0.0	5.9	0.0	8.4	0.0	0.0	0.0	53.2
1987	4.3	0.0	4.3	30.7	1.9	2.4	0.0	4.4	0.0	9.1	0.0	0.0	0.0	48.5
1988	4.4	0.0	4.4	31.0	1.7	2.5	0.0	4.1	0.0	9.7	0.0	0.0	0.0	49.2
1989	4.7	0.0	4.7	32.9	1.4	2.9	0.0	4.4	0.0	9.1	0.0	0.0	0.0	51.2
1990	4.6	0.0	4.6	34.6	1.1	2.8	0.0	3.9	0.0	10.1	0.0	0.0	0.0	53.2
1991	4.7	0.0	4.7	31.4	1.5	3.1	0.0	4.6	0.0	R 9.4	0.0	0.0	0.0	50.0
1992	4.4	0.0	4.4	29.0	0.9	3.5	0.0	4.5	0.0	9.5	0.0	0.0	0.0	47.3
1993	4.7	0.0	4.7	28.0	1.9	3.1	0.0	5.1	0.0	13.4	0.0	0.0	0.0	51.2
1994	4.3	0.0	4.3	29.0	1.8	3.3	0.0	5.1	0.0	13.9	0.0	0.0	0.0	52.3
1995	4.6	0.0	4.6	29.9	1.6	3.4	0.0	5.1	0.0	14.1	0.0	0.0	0.0	53.7
1996	3.6	0.0	3.6	31.2	3.2	3.8	0.0	7.1	0.0	13.1	0.0	0.0	0.0	55.0
1997	3.7	0.0	3.7	33.5	4.5	3.5	0.0	8.0	0.0	11.3	0.0	0.0	0.0	56.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 29. Energy Consumption Estimates by Source, Selected Years 1960-1997, Arizona

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	10	136	863	699	2,787	4,721	64	724	275	12,363	125	0	22,622	0	2,975	–	–	-4,266	–
1965	337	154	1,110	478	3,528	5,545	31	1,056	299	14,997	82	0	27,125	0	4,410	–	–	1,933	–
1970	406	193	3,679	427	4,899	6,644	165	1,304	344	21,542	105	0	39,108	0	6,103	–	–	7,594	–
1975	4,392	156	2,331	358	10,143	7,075	213	1,119	472	27,704	5,942	39	55,395	0	7,240	–	–	4,887	–
1980	11,559	166	2,061	281	10,769	7,967	73	1,589	611	30,589	1,339	71	55,350	0	9,795	–	–	-24,227	–
1985	16,364	131	2,563	184	10,179	7,154	16	1,722	556	36,148	176	0	58,699	1,130	13,987	–	–	-38,272	–
1986	14,150	101	2,530	226	11,306	7,697	56	1,704	544	37,844	41	0	61,947	9,976	14,460	–	–	-46,574	–
1987	13,375	117	2,492	207	10,648	8,374	50	1,943	615	39,271	122	0	63,721	13,458	10,133	–	–	-40,889	–
1988	14,525	124	2,683	186	10,461	8,478	56	1,721	593	40,216	55	0	64,448	22,940	7,784	–	–	-63,865	–
1989	16,871	146	2,386	210	11,419	8,157	50	1,608	608	40,648	153	123	65,361	7,850	[i] NA	–	–	[R] -33,006	–
1990	16,419	127	2,367	194	12,048	8,501	20	1,508	626	39,326	28	129	64,746	20,598	NA	–	–	[R] -60,206	–
1991	16,805	125	2,181	188	10,370	9,642	36	1,700	560	40,593	201	216	65,687	25,096	NA	–	–	[R] -73,192	–
1992	17,915	130	2,984	158	11,301	8,310	3	2,095	571	41,556	106	259	67,342	25,609	NA	–	–	[R] -78,134	–
1993	18,991	115	2,328	128	13,549	7,892	3	1,843	581	43,026	192	131	69,673	22,049	NA	–	–	-68,638	–
1994	19,580	133	2,574	142	13,135	7,401	3	1,867	608	45,193	201	114	71,238	23,171	NA	–	–	[R] -70,862	–
1995	16,682	120	3,138	139	14,607	7,588	4	1,938	597	47,159	82	107	75,359	26,985	NA	–	–	[R] -63,448	–
1996	16,793	120	2,460	155	16,292	7,922	7	1,667	580	49,417	109	121	78,728	28,840	NA	–	–	[R] -60,624	–
1997	18,206	131	2,704	151	17,306	7,974	8	1,684	612	48,884	15	112	79,451	29,314	NA	–	–	-72,382	–
			Trillion Btu																
1960	0.2	140.3	5.7	3.5	16.2	25.3	0.4	2.9	1.7	64.9	0.8	0.0	121.5	0.0	32.0	[R] 4.0	0.0	-14.6	[R] 283.4
1965	7.0	166.1	7.4	2.4	20.6	30.1	0.2	4.2	1.8	78.8	0.5	0.0	145.9	0.0	46.1	[R] 3.7	0.0	6.6	[R] 375.4
1970	8.6	204.4	24.4	2.2	28.5	36.4	0.9	4.9	2.1	113.2	0.7	0.0	213.3	0.0	64.0	[R] 4.3	0.0	25.9	[R] 520.6
1975	92.4	164.3	15.5	1.8	59.1	39.0	1.2	4.2	2.9	145.5	37.4	0.2	306.7	0.0	75.3	[R] 5.4	0.0	16.7	[R] 661.0
1980	245.0	174.0	13.7	1.4	62.7	43.9	0.4	5.8	3.7	160.7	8.4	0.4	301.2	0.0	101.8	[R] 20.3	0.0	-82.7	[R] 759.6
1985	342.0	137.3	17.0	0.9	59.3	39.4	0.1	6.2	3.4	189.9	1.1	0.0	317.3	12.2	146.1	[R] 26.5	0.0	-130.6	[R] 850.9
1986	295.9	105.2	16.8	1.1	65.9	42.6	0.3	6.2	3.3	198.8	0.3	0.0	335.2	107.7	151.0	[R] 36.1	0.0	-158.9	[R] 872.3
1987	282.9	121.4	16.5	1.0	62.0	46.4	0.3	7.1	3.7	206.3	0.8	0.0	344.2	145.0	105.6	[R] 30.3	0.0	-139.5	[R] 889.9
1988	309.0	128.6	17.8	0.9	60.9	47.0	0.3	6.3	3.6	211.3	0.3	0.0	348.5	246.4	80.4	[R] 31.5	0.0	-217.9	[R] 926.5
1989	357.2	151.5	15.8	1.1	66.5	45.3	0.3	5.9	3.7	213.5	1.0	0.7	353.8	84.2	[R i] 82.1	[R i] 29.5	[R i] 3.4	[R] -112.6	[R i] 948.9
1990	343.6	130.8	15.7	1.0	70.2	47.3	0.1	5.5	3.8	206.6	0.2	0.8	351.1	220.0	[R] 79.8	[R] 19.5	[R] 3.4	-205.4	[R] 942.4
1991	347.5	128.2	14.5	1.0	60.4	53.7	0.2	6.1	3.4	213.2	1.3	1.2	355.0	269.5	[R] 74.1	[R] 20.2	[R] 3.5	-249.7	[R] 949.2
1992	369.0	133.7	19.8	0.8	65.8	46.4	(s)	7.6	3.5	218.3	0.7	1.5	364.4	273.4	71.5	[R] 21.5	[R] 3.5	-266.6	[R] 970.1
1993	389.8	118.0	15.4	0.6	78.9	44.2	(s)	6.6	3.5	226.0	1.2	0.7	377.4	235.5	72.4	[R] 21.6	[R] 3.6	-234.2	[R] 983.8
1994	402.3	137.1	17.1	0.7	76.5	41.9	(s)	6.8	3.7	237.4	1.3	0.6	386.0	247.4	79.1	[R] 22.7	[R] 3.7	-241.8	[R] 1,035.8
1995	342.4	124.3	20.8	0.7	85.1	43.0	(s)	7.0	3.6	247.7	0.5	0.6	409.1	287.6	87.4	[R] 25.3	[R] 3.8	-216.5	[R] 1,064.9
1996	343.2	121.7	16.3	0.8	94.9	44.9	(s)	6.0	3.5	259.6	0.7	0.7	427.4	306.4	98.0	[R] 25.3	[R] 3.9	-206.9	[R] 1,117.2
1997	369.4	134.0	17.9	0.8	100.8	45.2	(s)	6.1	3.7	256.8	0.1	0.6	432.1	311.4	127.9	23.1	4.0	-247.0	1,152.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 30. Residential Energy Consumption Estimates, Selected Years 1960-1997, Arizona

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	27	47	0	397	445	R 138	–	–	1,355	–	3,369	–
1965	0	0	0	25	59	9	727	794	R 129	–	–	2,230	–	5,326	–
1970	0	0	0	30	98	68	840	1,006	R 151	–	–	4,327	–	10,486	–
1975	0	0	0	38	216	77	542	836	R 170	–	–	7,138	–	17,217	–
1980	0	0	0	30	2	0	657	659	R 438	–	–	9,637	–	23,434	–
1985	(s)	0	(s)	29	12	3	956	971	R 662	–	–	12,249	–	28,778	–
1986	0	0	0	25	11	3	917	931	R 644	–	–	12,540	–	28,845	–
1987	(s)	0	(s)	28	19	3	1,102	1,124	R 360	–	–	13,821	–	31,579	–
1988	(s)	0	(s)	28	6	3	857	866	R 374	–	–	14,731	–	33,303	–
1989	0	0	0	27	7	(s)	823	830	R 387	–	–	15,248	–	R 34,258	–
1990	(s)	0	(s)	30	11	(s)	772	783	411	–	–	15,378	–	R 33,635	–
1991	(s)	(s)	(s)	31	5	1	872	878	433	–	–	15,641	–	R 34,050	–
1992	1	(s)	1	28	5	2	938	946	456	–	–	16,230	–	R 34,668	–
1993	(s)	0	(s)	28	5	1	827	833	R 433	–	–	16,705	–	35,295	–
1994	0	(s)	(s)	30	4	2	844	849	R 424	–	–	18,212	–	R 38,004	–
1995	2	0	2	27	4	2	971	977	R 471	–	–	18,036	–	R 37,574	–
1996	(s)	0	(s)	28	7	3	784	794	R 470	–	–	19,746	–	R 41,097	–
1997	(s)	0	(s)	31	6	2	784	792	342	–	–	20,683	–	42,953	–
	Trillion Btu														
1960	0.0	0.0	0.0	28.4	0.3	0.0	1.6	1.9	R 2.8	0.0	0.0	4.6	R 37.6	11.5	R 49.1
1965	0.0	0.0	0.0	27.1	0.3	(s)	2.9	3.3	R 2.6	0.0	0.0	7.6	R 40.6	18.2	R 58.8
1970	0.0	0.0	0.0	31.4	0.6	0.4	3.2	4.1	R 3.0	0.0	0.0	14.8	R 53.3	35.8	R 89.1
1975	0.0	0.0	0.0	39.8	1.3	0.4	2.0	3.7	R 3.4	0.0	0.0	24.4	R 71.3	58.7	R 130.0
1980	0.0	0.0	0.0	30.9	(s)	0.0	2.4	2.4	R 8.8	0.0	0.0	32.9	R 74.9	80.0	R 154.9
1985	(s)	0.0	(s)	29.9	0.1	(s)	3.4	3.5	R 13.2	0.0	0.0	41.8	R 88.5	98.2	R 186.7
1986	0.0	0.0	0.0	26.3	0.1	(s)	3.3	3.4	R 12.9	0.0	0.0	42.8	R 85.4	98.4	R 183.9
1987	(s)	0.0	(s)	29.5	0.1	(s)	4.0	4.2	R 7.2	0.0	0.0	47.2	R 88.0	107.7	R 195.7
1988	(s)	0.0	(s)	29.2	(s)	(s)	3.1	3.2	R 7.5	0.0	0.0	50.3	R 90.1	113.6	R 203.7
1989	0.0	0.0	0.0	28.2	(s)	(s)	3.0	3.1	R 7.7	e (s)	R e 3.1	52.0	R e 94.2	116.9	R e 211.1
1990	(s)	0.0	(s)	31.3	0.1	(s)	2.8	2.9	8.2	(s)	3.2	52.5	98.0	114.8	212.8
1991	(s)	(s)	(s)	32.1	(s)	(s)	3.2	3.2	8.7	(s)	3.2	53.4	100.6	116.2	R 216.8
1992	(s)	(s)	(s)	29.3	(s)	(s)	3.4	3.4	9.1	(s)	3.3	55.4	100.5	118.3	218.8
1993	(s)	0.0	(s)	29.0	(s)	(s)	3.0	3.0	8.7	(s)	3.4	57.0	101.0	120.4	R 221.4
1994	0.0	(s)	(s)	30.5	(s)	(s)	3.1	3.1	8.5	(s)	3.4	62.1	107.7	129.7	237.4
1995	(s)	0.0	(s)	27.9	(s)	(s)	3.5	3.6	9.4	(s)	3.5	61.5	106.0	128.2	234.2
1996	(s)	0.0	(s)	28.0	(s)	(s)	2.8	2.9	9.4	(s)	3.6	67.4	111.3	140.2	R 251.5
1997	(s)	0.0	(s)	31.8	(s)	(s)	2.8	2.9	6.8	(s)	3.8	70.6	115.8	146.6	262.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 31. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Arizona

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	25	106	0	70	89	39	305	R 3	–	3,302	–	8,214	–
1965	0	0	0	19	131	2	128	137	17	416	R 2	–	3,044	–	7,268	–
1970	0	0	0	23	220	12	148	146	31	557	R 3	–	4,690	–	11,366	–
1975	0	0	0	33	485	14	96	177	83	855	R 3	–	7,162	–	17,277	–
1980	0	0	0	27	280	0	116	179	0	576	R 11	–	9,122	–	22,182	–
1985	1	0	1	25	476	2	169	140	(s)	787	NA	–	12,295	–	28,885	–
1986	0	0	0	24	381	19	162	165	0	727	NA	–	13,088	–	30,105	–
1987	(s)	0	(s)	28	530	21	194	357	0	1,102	NA	–	14,324	–	32,730	–
1988	(s)	0	(s)	28	486	1	151	138	1	776	NA	–	14,924	–	33,739	–
1989	0	0	0	29	374	3	145	128	0	651	NA	–	15,778	–	R 35,450	–
1990	(s)	0	(s)	28	511	2	136	257	0	907	NA	–	16,058	–	R 35,123	–
1991	(s)	(s)	(s)	28	303	2	154	372	11	842	NA	–	15,802	–	R 34,399	–
1992	2	(s)	2	27	226	1	166	308	0	700	NA	–	16,366	–	R 34,957	–
1993	1	0	1	28	167	1	146	191	0	506	R 35	–	16,714	–	35,313	–
1994	0	(s)	(s)	29	253	1	149	34	0	437	R 36	–	17,766	–	R 37,074	–
1995	3	0	3	28	261	1	171	35	0	469	R 36	–	18,562	–	R 38,670	–
1996	(s)	0	(s)	29	403	2	138	35	5	584	R 39	–	19,555	–	R 40,698	–
1997	(s)	0	(s)	30	515	4	138	35	0	692	33	–	20,520	–	42,616	–
	Trillion Btu															
1960	0.0	0.0	0.0	26.2	0.6	0.0	0.3	0.5	0.2	1.6	R 0.1	0.0	11.3	39.1	28.0	67.1
1965	0.0	0.0	0.0	20.7	0.8	(s)	0.5	0.7	0.1	2.1	(s)	0.0	10.4	33.2	24.8	58.0
1970	0.0	0.0	0.0	24.0	1.3	0.1	0.6	0.8	0.2	2.9	R 0.1	0.0	16.0	R 43.0	38.8	R 81.8
1975	0.0	0.0	0.0	34.3	2.8	0.1	0.4	0.9	0.5	4.7	R 0.1	0.0	24.4	R 63.5	58.9	122.4
1980	0.0	0.0	0.0	28.7	1.6	0.0	0.4	0.9	0.0	3.0	R 0.2	0.0	31.1	R 63.1	75.7	R 138.8
1985	(s)	0.0	(s)	26.5	2.8	(s)	0.6	0.7	(s)	4.1	NA	0.0	41.9	72.6	98.6	171.2
1986	0.0	0.0	0.0	25.0	2.2	0.1	0.6	0.9	0.0	3.8	NA	0.0	44.7	73.4	102.7	176.1
1987	(s)	0.0	(s)	28.7	3.1	0.1	0.7	1.9	0.0	5.8	NA	0.0	48.9	83.3	111.7	195.0
1988	(s)	0.0	(s)	29.3	2.8	(s)	0.6	0.7	(s)	4.1	NA	0.0	50.9	84.3	115.1	199.4
1989	0.0	0.0	0.0	29.8	2.2	(s)	0.5	0.7	0.0	3.4	NA	[e] (s)	53.8	87.1	R 121.0	208.0
1990	(s)	0.0	(s)	29.3	3.0	(s)	0.5	1.3	0.0	4.8	NA	(s)	54.8	88.9	119.8	208.8
1991	(s)	(s)	(s)	28.3	1.8	(s)	0.6	2.0	0.1	4.4	NA	(s)	53.9	R 86.6	117.4	203.9
1992	(s)	(s)	0.1	27.9	1.3	(s)	0.6	1.6	0.0	3.5	NA	(s)	55.8	87.4	119.3	206.6
1993	(s)	0.0	(s)	28.3	1.0	(s)	0.5	1.0	0.0	2.5	R 0.7	(s)	57.0	R 88.6	120.5	R 209.1
1994	0.0	(s)	(s)	30.0	1.5	(s)	0.5	0.2	0.0	2.2	R 0.7	(s)	60.6	R 93.5	126.5	R 220.0
1995	0.1	0.0	0.1	29.3	1.5	(s)	0.6	0.2	0.0	2.3	R 0.7	(s)	63.3	R 95.7	131.9	R 227.7
1996	(s)	0.0	(s)	29.3	2.3	(s)	0.5	0.2	(s)	3.1	R 0.8	(s)	66.7	R 99.9	138.9	R 238.7
1997	(s)	0.0	(s)	30.8	3.0	(s)	0.5	0.2	0.0	3.7	0.7	(s)	70.0	105.2	145.4	250.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 32. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Arizona

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	10	14	863	1,227	64	222	81	515	27	0	3,000	0	–	–	1,481	–	3,683	–
1965	4	55	1,110	1,545	21	161	93	437	20	0	3,387	0	–	–	3,331	–	7,952	–
1970	5	58	3,679	1,387	85	253	115	456	55	0	6,031	13	–	–	4,751	–	11,514	–
1975	133	51	2,331	3,113	122	430	205	440	102	39	6,781	14	–	–	6,868	–	16,566	–
1980	643	38	2,061	3,570	73	739	264	309	154	71	7,241	15	–	–	8,003	–	19,461	–
1985	1,915	17	2,563	1,850	11	505	241	404	31	0	5,605	15	–	–	8,457	–	19,869	–
1986	2,289	8	2,530	2,782	33	541	235	419	38	0	6,579	15	–	–	8,358	–	19,225	–
1987	669	18	2,492	2,440	26	586	266	406	17	0	6,233	15	–	–	8,494	–	19,408	–
1988	593	24	2,683	2,031	52	648	257	405	31	0	6,107	15	–	–	9,261	–	20,938	–
1989	689	21	2,386	3,078	47	576	263	420	6	123	6,898	[f] NA	–	–	9,722	–	[R] 21,844	–
1990	660	18	2,367	3,103	17	545	271	503	18	129	6,952	NA	–	–	10,034	–	[R] 21,946	–
1991	689	19	2,181	2,617	34	617	242	368	176	216	6,452	NA	–	–	10,405	–	[R] 22,650	–
1992	632	20	2,984	2,401	1	934	247	346	94	259	7,265	NA	–	–	11,055	–	[R] 23,614	–
1993	674	21	2,328	1,707	1	812	251	338	176	131	5,745	NA	–	–	10,989	–	23,218	–
1994	727	26	2,574	1,784	(s)	789	263	366	45	114	5,937	NA	–	–	11,303	–	[R] 23,587	–
1995	657	28	3,138	2,649	1	745	258	410	70	107	7,377	NA	–	–	11,992	–	[R] 24,983	–
1996	675	27	2,460	2,768	2	707	251	437	81	121	6,826	NA	–	–	12,783	–	[R] 26,604	–
1997	702	28	2,704	3,324	2	727	265	457	14	112	7,606	NA	–	–	13,253	–	27,523	–
			Trillion Btu															
1960	0.2	14.2	5.7	7.1	0.4	0.9	0.5	2.7	0.2	0.0	17.5	0.0	[R] 1.0	0.0	5.1	[R] 37.9	12.6	[R] 50.5
1965	0.1	59.4	7.4	9.0	0.1	0.6	0.6	2.3	0.1	0.0	20.1	0.0	[R] 1.1	0.0	11.4	[R] 92.0	27.1	[R] 119.1
1970	0.1	61.2	24.4	8.1	0.5	1.0	0.7	2.4	0.3	0.0	37.4	0.1	[R] 1.3	0.0	16.2	[R] 116.3	39.3	[R] 155.6
1975	2.6	53.4	15.5	18.1	0.7	1.6	1.2	2.3	0.6	0.2	40.3	0.1	[R] 1.9	0.0	23.4	[R] 121.9	56.5	[R] 178.4
1980	13.1	39.5	13.7	20.8	0.4	2.7	1.6	1.6	1.0	0.4	42.2	0.2	[R] 11.3	0.0	27.3	[R] 133.7	66.4	[R] 200.1
1985	38.8	17.3	17.0	10.8	0.1	1.8	1.5	2.1	0.2	0.0	33.4	0.2	[R] 13.3	0.0	28.9	[R] 131.8	67.8	[R] 199.6
1986	46.3	8.8	16.8	16.2	0.2	2.0	1.4	2.2	0.2	0.0	39.0	0.2	[R] 23.2	0.0	28.5	[R] 146.0	65.6	[R] 211.6
1987	13.3	18.4	16.5	14.2	0.1	2.1	1.6	2.1	0.1	0.0	36.9	0.2	[R] 23.1	0.0	29.0	[R] 120.9	66.2	[R] 187.1
1988	12.3	25.0	17.8	11.8	0.3	2.4	1.6	2.1	0.2	0.0	36.2	0.2	[R] 24.0	0.0	31.6	[R] 129.3	71.4	[R] 200.7
1989	14.3	21.6	15.8	17.9	0.3	2.1	1.6	2.2	(s)	0.7	40.7	[R f] 0.0	[R f] 21.5	[R f] 0.2	33.2	[R f] 131.5	74.5	[R f] 206.1
1990	13.3	19.0	15.7	18.1	0.1	2.0	1.6	2.6	0.1	0.8	41.0	0.0	[R] 11.0	[R] 0.2	34.2	[R] 118.8	74.9	[R] 193.7
1991	13.7	19.7	14.5	15.2	0.2	2.2	1.5	1.9	1.1	1.2	37.9	0.0	[R] 11.4	[R] 0.2	35.5	[R] 118.4	77.3	[R] 195.7
1992	12.8	20.4	19.8	14.0	(s)	3.4	1.5	1.8	0.6	1.5	42.6	0.0	[R] 12.2	[R] 0.2	37.7	[R] 125.9	80.6	[R] 206.5
1993	13.5	21.8	15.4	9.9	(s)	2.9	1.5	1.8	1.1	0.7	33.4	0.0	[R] 11.9	[R] 0.2	37.5	[R] 118.4	79.2	[R] 197.6
1994	14.7	26.7	17.1	10.4	(s)	2.9	1.6	1.9	0.3	0.6	34.8	0.0	[R] 12.8	[R] 0.2	38.6	[R] 127.7	80.5	[R] 208.2
1995	13.1	28.8	20.8	15.4	(s)	2.7	1.6	2.2	0.4	0.6	43.7	0.0	[R] 13.2	[R] 0.2	40.9	[R] 139.8	85.2	[R] 225.1
1996	13.4	27.3	16.3	16.1	(s)	2.6	1.5	2.3	0.5	0.7	40.0	0.0	[R] 13.4	[R] 0.2	43.6	[R] 137.9	90.8	[R] 228.7
1997	13.7	28.5	17.9	19.4	(s)	2.6	1.6	2.4	0.1	0.6	44.7	0.0	13.8	0.2	45.2	146.2	93.9	240.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 33. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Arizona

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	(s)	16	699	1,404	4,721	34	193	11,759	17	18,829	0	0	–	0	–
1965	(s)	18	478	1,790	5,545	40	206	14,423	0	22,482	0	0	–	0	–
1970	(s)	24	427	3,192	6,644	63	229	20,940	0	31,494	0	0	–	0	–
1975	(s)	17	358	4,756	6,995	51	267	27,087	0	39,514	0	0	–	0	–
1980	0	21	281	6,480	7,967	78	347	30,100	0	45,253	0	0	–	0	–
1985	0	19	184	7,630	7,154	92	316	35,604	0	50,979	0	0	–	0	–
1986	0	13	226	7,892	7,697	85	309	37,260	0	53,468	0	0	–	0	–
1987	0	17	207	7,331	8,374	60	349	38,508	0	54,830	0	0	–	0	–
1988	0	18	186	7,742	8,478	65	337	39,673	0	56,480	0	0	–	0	–
1989	0	18	210	7,746	8,157	63	345	40,100	0	56,621	R e 2,700	0	–	0	–
1990	0	25	194	8,223	8,501	55	355	38,566	0	55,895	3,119	0	–	0	–
1991	0	24	188	7,300	9,642	57	318	39,853	0	57,357	2,472	0	–	0	–
1992	0	23	158	8,546	8,310	57	324	40,902	0	58,297	3,004	0	–	0	–
1993	0	17	128	11,575	7,892	58	330	42,497	0	62,479	3,353	0	–	0	–
1994	0	25	142	11,026	7,401	84	345	44,793	0	63,791	8,691	0	–	0	–
1995	0	18	139	11,586	7,588	51	339	46,714	0	66,417	26,962	0	–	0	–
1996	0	17	155	13,013	7,922	38	329	48,944	0	70,400	22,783	0	–	0	–
1997	0	19	151	13,351	7,974	34	347	48,391	0	70,249	23,389	0	–	0	–
			Trillion Btu												
1960	(s)	16.5	3.5	8.2	25.3	0.1	1.2	61.8	0.1	100.2	0.0	0.0	116.7	0.0	116.7
1965	(s)	19.4	2.4	10.4	30.1	0.2	1.2	75.8	0.0	120.1	0.0	0.0	139.4	0.0	139.4
1970	(s)	25.4	2.2	18.6	36.4	0.2	1.4	110.0	0.0	168.8	0.0	0.0	194.1	0.0	194.1
1975	(s)	17.9	1.8	27.7	38.6	0.2	1.6	142.3	0.0	212.2	0.0	0.0	230.1	0.0	230.1
1980	0.0	22.3	1.4	37.7	43.9	0.3	2.1	158.1	0.0	243.6	0.0	0.0	265.9	0.0	265.9
1985	0.0	19.4	0.9	44.4	39.4	0.3	1.9	187.0	0.0	274.1	0.0	0.0	293.5	0.0	293.5
1986	0.0	13.1	1.1	46.0	42.6	0.3	1.9	195.7	0.0	287.6	0.0	0.0	300.7	0.0	300.7
1987	0.0	17.3	1.0	42.7	46.4	0.2	2.1	202.3	0.0	294.8	0.0	0.0	312.0	0.0	312.0
1988	0.0	19.0	0.9	45.1	47.0	0.2	2.0	208.4	0.0	303.7	0.0	0.0	322.7	0.0	322.7
1989	0.0	19.2	1.1	45.1	45.3	0.2	2.1	210.6	0.0	304.4	R e 0.2	0.0	e 323.7	0.0	e 323.7
1990	0.0	26.1	1.0	47.9	47.3	0.2	2.2	202.6	0.0	301.1	0.2	0.0	327.2	0.0	327.2
1991	0.0	24.1	1.0	42.5	53.7	0.2	1.9	209.3	0.0	308.7	0.2	0.0	332.8	0.0	332.8
1992	0.0	24.1	0.8	49.8	46.4	0.2	2.0	214.9	0.0	314.0	0.2	0.0	338.2	0.0	338.2
1993	0.0	17.9	0.6	67.4	44.2	0.2	2.0	223.2	0.0	337.7	0.3	0.0	355.6	0.0	355.6
1994	0.0	25.7	0.7	64.2	41.9	0.3	2.1	235.3	0.0	344.6	0.7	0.0	370.2	0.0	370.2
1995	0.0	19.1	0.7	67.5	43.0	0.2	2.1	245.4	0.0	358.8	2.1	0.0	378.0	0.0	378.0
1996	0.0	17.5	0.8	75.8	44.9	0.1	2.0	257.1	0.0	380.7	1.7	0.0	398.3	0.0	398.3
1997	0.0	19.2	0.8	77.8	45.2	0.1	2.1	254.2	0.0	380.2	1.8	0.0	399.3	0.0	399.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 34. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Arizona

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	53	41	3	0	44	0	2,975	18	0	0	–
1965	333	0	333	37	44	3	0	47	0	4,410	0	0	0	–
1970	401	0	401	59	19	1	0	20	0	6,089	0	0	0	–
1975	4,259	0	4,259	18	5,756	1,653	0	7,410	0	7,226	0	0	0	–
1980	10,916	0	10,916	50	1,185	436	0	1,622	0	9,780	0	0	0	–
1985	14,448	0	14,448	42	145	211	0	357	1,130	13,972	0	0	0	–
1986	11,861	0	11,861	31	2	240	0	242	9,976	14,444	0	0	0	–
1987	12,706	0	12,706	27	104	328	0	432	13,458	10,118	0	0	0	–
1988	13,932	0	13,932	25	22	197	0	219	22,940	7,769	0	0	0	–
1989	16,182	0	16,182	51	147	214	0	361	7,850	7,875	0	0	0	–
1990	15,758	0	15,758	24	10	200	0	210	20,598	7,667	0	0	0	–
1991	16,116	0	16,116	23	14	145	0	159	25,096	7,098	0	0	0	–
1992	17,280	0	17,280	31	11	123	0	135	25,609	6,911	0	0	0	–
1993	18,316	0	18,316	20	16	95	0	110	22,049	7,023	0	0	0	–
1994	18,853	0	18,853	24	155	68	0	224	23,171	7,670	0	0	0	–
1995	16,021	0	16,021	19	12	107	0	119	26,985	8,478	0	0	0	–
1996	16,118	0	16,118	19	23	101	0	124	28,840	9,480	0	0	0	–
1997	17,504	0	17,504	23	(s)	110	0	110	29,314	12,401	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	55.1	0.3	(s)	0.0	0.3	0.0	32.0	0.2	0.0	0.0	87.6
1965	6.9	0.0	6.9	39.5	0.3	(s)	0.0	0.3	0.0	46.1	0.0	0.0	0.0	92.9
1970	8.5	0.0	8.5	62.4	0.1	(s)	0.0	0.1	0.0	63.9	0.0	0.0	0.0	134.9
1975	89.8	0.0	89.8	18.9	36.2	9.6	0.0	45.8	0.0	75.2	0.0	0.0	0.0	229.8
1980	231.9	0.0	231.9	52.5	7.5	2.5	0.0	10.0	0.0	101.6	0.0	0.0	0.0	396.0
1985	303.2	0.0	303.2	44.2	0.9	1.2	0.0	2.1	12.2	146.0	0.0	0.0	0.0	507.7
1986	249.6	0.0	249.6	32.0	(s)	1.4	0.0	1.4	107.7	150.9	0.0	0.0	0.0	541.6
1987	269.6	0.0	269.6	27.6	0.7	1.9	0.0	2.6	145.0	105.4	0.0	0.0	0.0	550.2
1988	296.7	0.0	296.7	26.2	0.1	1.1	0.0	1.3	246.4	80.2	0.0	0.0	0.0	650.9
1989	342.9	0.0	342.9	52.6	0.9	1.2	0.0	2.2	84.2	82.1	0.0	0.0	0.0	564.0
1990	330.3	0.0	330.3	25.1	0.1	1.2	0.0	1.2	220.0	R 79.8	0.0	0.0	0.0	656.4
1991	333.8	0.0	333.8	23.9	0.1	0.8	0.0	0.9	269.5	R 74.1	0.0	0.0	0.0	703.3
1992	356.1	0.0	356.1	31.9	0.1	0.7	0.0	0.8	273.4	71.5	0.0	0.0	0.0	733.7
1993	376.3	0.0	376.3	21.0	0.1	0.6	0.0	0.7	235.5	72.4	0.0	0.0	0.0	705.8
1994	387.6	0.0	387.6	24.3	1.0	0.4	0.0	1.4	247.4	79.1	0.0	0.0	0.0	R 739.8
1995	329.2	0.0	329.2	19.3	0.1	0.6	0.0	0.7	287.6	87.4	0.0	0.0	0.0	R 727.7
1996	329.8	0.0	329.8	19.5	0.1	0.6	0.0	0.7	306.4	98.0	0.0	0.0	0.0	754.4
1997	355.6	0.0	355.6	23.7	(s)	0.6	0.0	0.6	311.4	127.9	0.0	0.0	0.0	818.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 35. Energy Consumption Estimates by Source, Selected Years 1960-1997, Arkansas

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	14	215	1,003	177	2,021	2,237	565	4,823	543	14,675	539	1,981	28,564	0	992	–	–	2,208	–
1965	6	277	1,295	482	2,828	2,094	386	5,599	468	17,922	453	2,836	34,362	0	1,080	–	–	7,475	–
1970	0	382	2,104	293	5,462	2,204	821	10,198	531	22,457	935	2,832	47,837	0	2,160	–	–	6,464	–
1975	40	258	2,276	254	9,566	1,995	688	9,467	616	27,611	9,086	3,224	64,784	4,874	3,433	–	–	18,078	–
1980	2,076	274	2,770	275	10,686	2,035	571	4,847	700	26,490	4,981	4,159	57,515	7,833	1,695	–	–	28,164	–
1985	12,682	196	1,263	86	14,911	2,030	156	3,673	637	26,607	735	2,448	52,547	9,889	4,434	–	–	-30,696	–
1986	12,849	199	982	111	13,270	1,919	52	3,803	623	27,900	926	1,596	51,181	8,876	2,813	–	–	-33,455	–
1987	12,066	170	1,018	92	13,453	2,063	44	3,503	704	28,575	265	1,691	51,409	11,369	2,407	–	–	-33,346	–
1988	12,555	217	1,373	100	14,181	2,221	51	3,552	679	29,540	355	1,776	53,829	8,895	2,785	–	–	-23,597	–
1989	11,547	250	778	103	14,522	1,938	47	3,786	697	29,409	372	1,765	53,417	8,844	[i] NA	–	–	[R] -19,467	–
1990	12,092	232	495	125	14,258	1,693	38	3,463	717	28,997	231	1,863	51,880	11,282	NA	–	–	-29,844	–
1991	12,261	209	533	144	13,478	1,792	36	3,309	641	28,995	146	1,640	50,715	12,662	NA	–	–	[R] -30,282	–
1992	12,538	225	1,174	152	15,340	1,134	22	3,012	654	29,401	31	1,876	52,795	11,326	NA	–	–	-27,343	–
1993	11,447	231	1,453	134	15,659	1,031	28	3,478	666	30,472	224	1,805	54,951	13,522	NA	–	–	-20,463	–
1994	12,596	244	1,066	157	17,162	1,634	28	3,378	696	30,874	323	1,893	57,210	13,924	NA	–	–	[R] -23,670	–
1995	13,540	257	1,246	143	16,551	1,179	39	3,229	684	32,121	223	1,817	57,231	11,658	NA	–	–	[R] -16,540	–
1996	14,816	271	975	121	16,587	1,534	26	3,197	664	32,081	199	2,052	57,436	13,357	NA	–	–	[R] -23,032	–
1997	14,069	263	1,012	135	16,785	1,539	34	3,229	701	33,184	48	2,085	58,753	14,208	NA	–	–	-19,435	–
			Trillion Btu																
1960	0.4	222.2	6.7	0.9	11.8	12.0	3.2	19.3	3.3	77.1	3.4	11.8	149.5	0.0	10.7	[R] 37.4	0.0	7.5	[R] 427.7
1965	0.2	277.7	8.6	2.4	16.5	11.2	2.2	22.5	2.8	94.1	2.8	17.0	180.2	0.0	11.3	[R] 35.1	0.0	25.5	[R] 529.9
1970	0.0	383.5	14.0	1.5	31.8	11.9	4.7	38.5	3.2	118.0	5.9	17.0	246.4	0.0	22.7	[R] 34.3	0.0	22.1	[R] 708.8
1975	0.9	257.4	15.1	1.3	55.7	10.8	3.9	35.2	3.7	145.0	57.1	18.8	346.7	53.7	35.7	[R] 35.9	0.0	61.7	[R] 791.9
1980	36.6	274.0	18.4	1.4	62.2	11.0	3.2	17.8	4.2	139.1	31.3	23.6	312.5	85.4	17.6	[R] 36.0	0.0	96.1	[R] 858.2
1985	219.8	199.3	8.4	0.4	86.9	11.0	0.9	13.2	3.9	139.8	4.6	13.8	282.9	106.9	46.3	[R] 38.0	0.0	-104.7	[R] 788.6
1986	224.5	203.0	6.5	0.6	77.3	10.4	0.3	13.8	3.8	146.6	5.8	9.2	274.3	95.9	29.4	[R] 62.0	0.0	-114.1	[R] 775.0
1987	211.0	172.3	6.8	0.5	78.4	11.3	0.2	12.8	4.3	150.1	1.7	9.7	275.6	122.5	25.1	[R] 62.7	0.0	-113.8	[R] 755.4
1988	218.8	218.8	9.1	0.5	82.6	12.2	0.3	13.0	4.1	155.2	2.2	10.2	289.4	95.6	28.8	[R] 65.2	0.0	-80.5	[R] 835.9
1989	202.7	251.1	5.2	0.5	84.6	10.6	0.3	13.9	4.2	154.5	2.3	10.1	286.2	94.8	[i] 32.2	[R i] 69.1	[R i] 1.2	[R] -66.4	[R i] 870.8
1990	212.7	234.5	3.3	0.6	83.1	9.2	0.2	12.6	4.3	152.3	1.5	10.7	277.8	120.5	38.5	[R] 65.5	[R] 1.2	-101.8	[R] 848.7
1991	216.1	212.7	3.5	0.7	78.5	9.7	0.2	12.0	3.9	152.3	0.9	9.5	271.3	136.0	[R] 37.2	[R] 67.5	[R] 1.2	-103.3	[R] 838.6
1992	220.7	226.6	7.8	0.8	89.4	6.2	0.1	10.9	4.0	154.4	0.2	10.8	284.6	120.9	[R] 35.0	[R] 70.7	[R] 1.3	-93.3	[R] 866.3
1993	200.4	234.4	9.6	0.7	91.2	5.7	0.2	12.5	4.0	160.1	1.4	10.4	295.8	144.4	46.5	[R] 72.6	[R] 1.3	-69.8	[R] 925.5
1994	221.9	249.8	7.1	0.8	100.0	9.1	0.2	12.3	4.2	162.2	2.0	10.9	308.7	148.6	35.7	[R] 73.1	[R] 1.3	-80.8	[R] 958.4
1995	237.4	276.6	8.3	0.7	96.4	6.7	0.2	11.7	4.1	168.7	1.4	10.5	308.8	124.2	33.2	[R] 77.1	[R] 1.3	-56.4	[R] 1,002.1
1996	260.2	277.7	6.5	0.6	96.6	8.7	0.1	11.6	4.0	168.5	1.3	11.8	309.7	141.9	28.9	[R] 79.3	[R] 1.3	-78.6	[R] 1,020.3
1997	246.8	267.0	6.7	0.7	97.8	8.7	0.2	11.7	4.3	174.3	0.3	12.0	316.7	150.9	36.3	77.5	1.3	-66.3	1,030.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 36. Residential Energy Consumption Estimates, Selected Years 1960-1997, Arkansas

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	33	24	62	2,831	2,918	R 969	–	–	1,339	–	3,331	–
1965	0	0	0	37	43	63	3,420	3,527	R 667	–	–	2,333	–	5,571	–
1970	0	0	0	60	70	147	6,552	6,769	R 417	–	–	4,321	–	10,472	–
1975	0	0	0	49	161	128	5,162	5,451	R 430	–	–	7,751	–	18,697	–
1980	2	0	2	47	152	0	2,142	2,294	R 318	–	–	10,227	–	24,869	–
1985	(s)	0	(s)	40	1	31	2,083	2,114	R 173	–	–	8,936	–	20,994	–
1986	0	0	0	39	1	25	2,299	2,325	R 169	–	–	9,254	–	21,286	–
1987	(s)	0	(s)	40	2	21	1,918	1,941	R 213	–	–	9,708	–	22,181	–
1988	(s)	0	(s)	43	1	25	1,877	1,904	R 222	–	–	9,946	–	22,485	–
1989	1	0	1	42	1	29	2,042	2,072	R 230	–	–	9,957	–	R 22,372	–
1990	(s)	0	(s)	39	(s)	20	1,851	1,871	246	–	–	10,558	–	23,092	–
1991	(s)	0	(s)	41	1	14	1,674	1,688	259	–	–	11,001	–	R 23,947	–
1992	(s)	1	1	39	13	7	1,498	1,518	272	–	–	10,440	–	R 22,300	–
1993	(s)	(s)	(s)	46	1	10	1,708	1,718	R 242	–	–	11,762	–	24,850	–
1994	(s)	(s)	(s)	42	1	6	1,669	1,676	237	–	–	11,642	–	R 24,294	–
1995	0	0	0	41	2	14	1,497	1,513	263	–	–	12,417	–	R 25,868	–
1996	0	0	0	46	1	12	1,490	1,503	R 263	–	–	12,934	–	R 26,918	–
1997	0	(s)	(s)	42	1	19	1,490	1,510	191	–	–	12,990	–	26,976	–
	Trillion Btu														
1960	0.0	0.0	0.0	34.4	0.1	0.4	11.4	11.9	R 19.4	0.0	0.0	4.6	R 70.2	11.4	R 81.6
1965	0.0	0.0	0.0	36.5	0.3	0.4	13.7	14.3	R 13.3	0.0	0.0	8.0	R 72.2	19.0	R 91.2
1970	0.0	0.0	0.0	60.0	0.4	0.8	24.8	26.0	R 8.3	0.0	0.0	14.7	R 109.1	35.7	R 144.8
1975	0.0	0.0	0.0	48.3	0.9	0.7	19.2	20.8	R 8.6	0.0	0.0	26.4	R 104.2	63.8	R 168.0
1980	0.1	0.0	0.1	46.6	0.9	0.0	7.9	8.8	R 6.4	0.0	0.0	34.9	R 96.6	84.9	R 181.5
1985	(s)	0.0	(s)	40.9	(s)	0.2	7.5	7.7	R 3.5	0.0	0.0	30.5	R 82.5	71.6	R 154.1
1986	0.0	0.0	0.0	39.0	(s)	0.1	8.4	8.5	R 3.4	0.0	0.0	31.6	R 82.5	72.6	R 155.1
1987	(s)	0.0	(s)	40.6	(s)	0.1	7.0	7.1	R 4.3	0.0	0.0	33.1	R 85.1	75.7	R 160.8
1988	(s)	0.0	(s)	43.2	(s)	0.1	6.9	7.0	R 4.4	0.0	0.0	33.9	R 88.5	76.7	R 165.2
1989	(s)	0.0	(s)	42.5	(s)	0.2	7.5	7.7	R 4.6	e 0.1	R e 1.1	34.0	R e 90.0	76.3	R e 166.3
1990	(s)	0.0	(s)	39.5	(s)	0.1	6.7	6.8	4.9	0.1	1.1	36.0	R 88.5	78.8	R 167.3
1991	(s)	0.0	(s)	41.3	(s)	0.1	6.0	6.1	5.2	0.1	1.1	37.5	R 91.4	81.7	R 173.1
1992	(s)	(s)	(s)	39.7	0.1	(s)	5.4	5.5	5.4	0.1	1.1	35.6	R 87.6	76.1	R 163.7
1993	(s)	(s)	(s)	46.1	(s)	0.1	6.2	6.2	4.8	0.1	1.1	40.1	R 98.6	84.8	R 183.4
1994	(s)	(s)	(s)	42.4	(s)	(s)	6.1	6.1	4.7	0.1	1.1	39.7	R 94.3	82.9	R 177.1
1995	0.0	0.0	0.0	44.5	(s)	0.1	5.4	5.5	5.3	0.1	1.1	42.4	R 98.9	88.3	R 187.2
1996	0.0	0.0	0.0	47.5	(s)	0.1	5.4	5.5	R 5.3	0.1	1.1	44.1	R 103.6	R 91.8	R 195.5
1997	0.0	(s)	(s)	43.0	(s)	0.1	5.4	5.5	3.8	0.1	1.1	44.3	97.9	92.0	190.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 37. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Arkansas

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	17	14	38	500	151	103	806	R 18	–	1,161	–	2,888	–
1965	0	0	0	28	24	39	604	127	88	883	R 13	–	1,834	–	4,379	–
1970	0	0	0	39	40	90	1,156	181	41	1,508	R 8	–	2,789	–	6,760	–
1975	0	0	0	33	92	79	911	143	1,077	2,302	R 8	–	4,382	–	10,570	–
1980	4	0	4	31	112	132	378	162	437	1,221	R 8	–	5,326	–	12,951	–
1985	1	0	1	27	1,172	84	368	119	0	1,743	NA	–	5,848	–	13,739	–
1986	0	0	0	25	186	7	406	117	3	719	NA	–	5,915	–	13,607	–
1987	(s)	0	(s)	25	359	5	339	130	0	833	NA	–	6,131	–	14,008	–
1988	(s)	0	(s)	27	254	10	331	124	0	719	NA	–	6,396	–	14,459	–
1989	2	0	2	27	440	2	360	108	0	910	NA	–	6,566	–	R 14,753	–
1990	(s)	0	(s)	25	439	1	327	142	0	909	NA	–	6,681	–	14,613	–
1991	(s)	0	(s)	26	342	2	295	81	0	720	NA	–	6,922	–	R 15,069	–
1992	(s)	1	1	25	378	5	264	71	4	722	NA	–	6,760	–	14,438	–
1993	(s)	(s)	(s)	29	426	5	301	28	1	762	R 19	–	7,292	–	15,407	–
1994	(s)	(s)	(s)	27	435	4	294	29	0	763	R 20	–	7,451	–	R 15,548	–
1995	0	0	0	27	249	5	264	29	0	547	R 20	–	7,771	–	R 16,190	–
1996	0	0	0	31	255	5	263	29	(s)	552	R 22	–	8,063	–	R 16,781	–
1997	0	(s)	(s)	29	193	5	263	28	0	490	19	–	8,236	–	17,103	–
	Trillion Btu															
1960	0.0	0.0	0.0	17.8	0.1	0.2	2.0	0.8	0.6	3.7	R 0.4	0.0	4.0	R 25.8	9.9	R 35.7
1965	0.0	0.0	0.0	28.0	0.1	0.2	2.4	0.7	0.6	4.0	R 0.3	0.0	6.3	R 38.5	14.9	R 53.4
1970	0.0	0.0	0.0	39.3	0.2	0.5	4.4	0.9	0.3	6.3	R 0.2	0.0	9.5	R 55.3	23.1	R 78.4
1975	0.0	0.0	0.0	33.1	0.5	0.4	3.4	0.8	6.8	11.9	R 0.2	0.0	15.0	R 60.1	36.1	R 96.2
1980	0.1	0.0	0.1	30.5	0.6	0.7	1.4	0.9	2.7	6.4	R 0.2	0.0	18.2	R 55.3	44.2	R 99.5
1985	(s)	0.0	(s)	27.2	6.8	0.5	1.3	0.6	0.0	9.3	NA	0.0	20.0	56.4	46.9	103.3
1986	0.0	0.0	0.0	25.3	1.1	(s)	1.5	0.6	(s)	3.2	NA	0.0	20.2	48.7	46.4	95.1
1987	(s)	0.0	(s)	24.9	2.1	(s)	1.2	0.7	0.0	4.0	NA	0.0	20.9	49.9	47.8	97.7
1988	(s)	0.0	(s)	27.6	1.5	0.1	1.2	0.6	0.0	3.4	NA	0.0	21.8	52.9	49.3	102.2
1989	0.1	0.0	0.1	27.4	2.6	(s)	1.3	0.6	0.0	4.5	NA	[e] (s)	22.4	54.3	50.3	104.6
1990	(s)	0.0	(s)	25.3	2.6	(s)	1.2	0.7	0.0	4.5	NA	(s)	22.8	52.6	49.9	102.5
1991	(s)	0.0	(s)	26.4	2.0	(s)	1.1	0.4	0.0	3.5	NA	(s)	23.6	53.5	51.4	R 105.0
1992	(s)	(s)	(s)	25.5	2.2	(s)	1.0	0.4	(s)	3.6	NA	(s)	23.1	52.2	49.3	101.4
1993	(s)	(s)	(s)	29.4	2.5	(s)	1.1	0.1	(s)	3.8	R 0.4	(s)	24.9	R 58.4	52.6	R 111.0
1994	(s)	(s)	(s)	28.0	2.5	(s)	1.1	0.1	0.0	3.8	R 0.4	(s)	25.4	R 57.6	R 53.1	R 110.7
1995	0.0	0.0	0.0	29.7	1.4	(s)	1.0	0.2	0.0	2.6	R 0.4	(s)	26.5	R 59.2	55.2	R 114.4
1996	0.0	0.0	0.0	31.8	1.5	(s)	1.0	0.2	(s)	2.6	R 0.4	(s)	27.5	R 62.4	57.3	R 119.6
1997	0.0	(s)	(s)	29.8	1.1	(s)	1.0	0.1	0.0	2.3	0.4	(s)	28.1	60.6	58.4	118.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 38. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Arkansas

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	14	108	1,003	1,055	465	1,183	269	431	315	1,981	6,703	0	–	–	3,161	–	7,864	–
1965	6	134	1,295	1,057	283	1,141	163	485	291	2,836	7,551	0	–	–	4,883	–	11,660	–
1970	0	162	2,104	1,962	584	1,798	231	291	191	2,832	9,993	0	–	–	6,333	–	15,346	–
1975	40	132	2,276	2,841	480	2,715	308	169	3,634	3,224	15,646	0	–	–	5,994	–	14,459	–
1980	296	126	2,770	3,544	439	2,122	268	51	1,438	4,159	14,793	0	–	–	10,946	–	26,617	–
1985	379	109	1,263	6,041	41	1,076	244	630	726	2,448	12,470	0	–	–	9,049	–	21,260	–
1986	344	101	982	5,257	20	1,006	238	482	875	1,596	10,456	0	–	–	7,763	–	17,857	–
1987	302	67	1,018	4,662	18	1,171	270	470	265	1,691	9,564	0	–	–	8,358	–	19,097	–
1988	260	117	1,373	4,970	16	1,269	260	451	220	1,776	10,336	0	–	–	8,931	–	20,191	–
1989	267	141	778	3,623	16	1,313	267	358	238	1,765	8,357	[f] NA	–	–	9,562	–	[R] 21,483	–
1990	256	127	495	3,567	17	1,202	274	416	217	1,863	8,053	NA	–	–	10,126	–	[R] 22,148	–
1991	283	106	533	2,675	20	1,262	246	453	145	1,640	6,974	NA	–	–	10,518	–	[R] 22,895	–
1992	295	125	1,174	4,390	9	1,188	250	439	27	1,876	9,353	NA	–	–	11,251	–	[R] 24,033	–
1993	330	126	1,453	3,800	13	1,400	255	393	219	1,805	9,337	NA	–	–	12,609	–	26,640	–
1994	346	139	1,066	3,596	17	1,290	266	425	269	1,893	8,823	NA	–	–	13,526	–	[R] 28,225	–
1995	325	144	1,246	3,341	20	1,416	262	449	207	1,817	8,759	NA	–	–	14,483	–	[R] 30,173	–
1996	348	147	975	2,979	9	1,396	254	454	118	2,052	8,236	NA	–	–	15,139	–	[R] 31,508	–
1997	297	155	1,012	2,852	10	1,433	268	472	21	2,085	8,153	NA	–	–	15,632	–	32,464	–
			Trillion Btu															
1960	0.4	112.1	6.7	6.1	2.6	4.7	1.6	2.3	2.0	11.8	37.9	0.0	[R] 17.7	0.0	10.8	[R] 178.9	26.8	[R] 205.7
1965	0.2	134.2	8.6	6.2	1.6	4.6	1.0	2.5	1.8	17.0	43.3	0.0	[R] 21.6	0.0	16.7	[R] 215.9	39.8	[R] 255.7
1970	0.0	162.8	14.0	11.4	3.3	6.8	1.4	1.5	1.2	17.0	56.6	0.0	[R] 25.8	0.0	21.6	[R] 266.7	52.4	[R] 319.1
1975	0.9	131.7	15.1	16.5	2.7	10.1	1.9	0.9	22.8	18.8	88.8	0.0	[R] 27.1	0.0	20.5	[R] 269.0	49.3	[R] 318.3
1980	6.3	125.1	18.4	20.6	2.5	7.8	1.6	0.3	9.0	23.6	83.9	0.0	[R] 29.5	0.0	37.3	[R] 282.2	90.8	[R] 373.0
1985	8.1	110.9	8.4	35.2	0.2	3.9	1.5	3.3	4.6	13.8	70.9	0.0	[R] 34.5	0.0	30.9	[R] 255.3	72.5	[R] 327.8
1986	7.7	102.7	6.5	30.6	0.1	3.7	1.4	2.5	5.5	9.2	59.6	0.0	[R] 58.6	0.0	26.5	[R] 255.1	60.9	[R] 316.1
1987	6.7	68.0	6.8	27.2	0.1	4.3	1.6	2.5	1.7	9.7	53.7	0.0	[R] 58.4	0.0	28.5	[R] 215.3	65.2	[R] 280.5
1988	5.8	117.7	9.1	29.0	0.1	4.6	1.6	2.4	1.4	10.2	58.3	0.0	[R] 60.7	0.0	30.5	[R] 273.0	68.9	[R] 341.9
1989	6.0	141.5	5.2	21.1	0.1	4.8	1.6	1.9	1.5	10.1	46.3	[f] 0.0	[R f] 64.3	[f] 0.0	32.6	[R f] 290.7	73.3	[R f] 364.0
1990	5.8	128.3	3.3	20.8	0.1	4.4	1.7	2.2	1.4	10.7	44.4	0.0	[R] 60.5	0.0	34.6	[R] 273.6	75.6	[R] 349.1
1991	6.8	108.0	3.5	15.6	0.1	4.6	1.5	2.4	0.9	9.5	38.1	0.0	[R] 62.2	0.0	35.9	[R] 251.1	78.1	[R] 329.2
1992	7.1	125.5	7.8	25.6	0.1	4.3	1.5	2.3	0.2	10.8	52.5	(s)	[R] 65.2	0.0	38.4	[R] 288.7	82.0	[R] 370.7
1993	7.7	127.4	9.6	22.1	0.1	5.0	1.5	2.1	1.4	10.4	52.3	(s)	[R] 67.2	0.0	43.0	[R] 297.7	90.9	[R] 388.6
1994	8.6	141.7	7.1	20.9	0.1	4.7	1.6	2.2	1.7	10.9	49.3	(s)	[R] 68.0	0.0	46.2	[R] 313.7	96.3	[R] 410.0
1995	7.8	156.4	8.3	19.5	0.1	5.1	1.6	2.4	1.3	10.5	48.7	0.0	[R] 71.4	0.0	49.4	[R] 333.8	102.9	[R] 436.7
1996	8.4	150.7	6.5	17.3	0.1	5.0	1.5	2.4	0.7	11.8	45.4	(s)	[R] 73.6	0.0	51.7	[R] 329.7	107.5	[R] 437.2
1997	7.0	156.9	6.7	16.6	0.1	5.2	1.6	2.5	0.1	12.0	44.8	(s)	73.3	0.0	53.3	335.5	110.8	446.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 39. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Arkansas

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	(s)	9	177	926	2,237	309	274	14,093	3	18,019	0	0	–	0	–
1965	(s)	11	482	1,703	2,094	434	305	17,310	36	22,364	0	0	–	0	–
1970	0	13	293	3,383	2,204	692	300	21,985	5	28,862	0	0	–	0	–
1975	(s)	12	254	6,410	1,995	679	308	27,299	11	36,957	0	0	–	0	–
1980	0	11	275	6,699	2,035	205	432	26,276	0	35,922	0	0	–	0	–
1985	0	8	86	7,685	2,030	147	393	25,857	0	36,199	0	0	–	0	–
1986	0	6	111	7,812	1,919	92	384	27,302	0	37,620	0	0	–	0	–
1987	0	6	92	8,420	2,063	75	435	27,975	0	39,060	0	0	–	0	–
1988	0	8	100	8,825	2,221	74	419	28,965	0	40,605	0	0	–	0	–
1989	0	10	103	10,315	1,938	71	430	28,943	0	41,800	R e 1,533	0	–	0	–
1990	0	9	125	10,111	1,693	83	442	28,438	0	40,892	1,771	0	–	0	–
1991	0	8	144	10,333	1,792	78	396	28,461	0	41,204	1,404	0	–	0	–
1992	0	8	152	10,464	1,134	62	404	28,891	0	41,106	1,706	0	–	0	–
1993	0	10	134	11,307	1,031	68	411	30,051	0	43,003	1,904	0	–	0	–
1994	0	12	157	13,007	1,634	125	429	30,421	0	45,772	342	0	–	0	–
1995	0	11	143	12,865	1,179	51	422	31,644	0	46,304	375	0	–	0	–
1996	0	13	121	13,255	1,534	48	410	31,599	0	46,966	22	0	–	0	–
1997	0	12	135	13,639	1,539	43	433	32,684	0	48,473	0	0	–	0	–
			Trillion Btu												
1960	(s)	9.5	0.9	5.4	12.0	1.2	1.7	74.0	(s)	95.2	0.0	0.0	104.7	0.0	104.7
1965	(s)	11.4	2.4	9.9	11.2	1.7	1.8	90.9	0.2	118.3	0.0	0.0	129.7	0.0	129.7
1970	0.0	13.5	1.5	19.7	11.9	2.6	1.8	115.5	(s)	153.0	0.0	0.0	166.5	0.0	166.5
1975	(s)	12.2	1.3	37.3	10.8	2.5	1.9	143.4	0.1	197.3	0.0	0.0	209.4	0.0	209.4
1980	0.0	11.4	1.4	39.0	11.0	0.8	2.6	138.0	0.0	192.9	0.0	0.0	204.2	0.0	204.2
1985	0.0	8.3	0.4	44.8	11.0	0.5	2.4	135.8	0.0	195.0	0.0	0.0	203.3	0.0	203.3
1986	0.0	6.1	0.6	45.5	10.4	0.3	2.3	143.4	0.0	202.6	0.0	0.0	208.7	0.0	208.7
1987	0.0	5.9	0.5	49.0	11.3	0.3	2.6	147.0	0.0	210.6	0.0	0.0	216.5	0.0	216.5
1988	0.0	7.6	0.5	51.4	12.2	0.3	2.5	152.2	0.0	219.0	0.0	0.0	226.6	0.0	226.6
1989	0.0	9.7	0.5	60.1	10.6	0.3	2.6	152.0	0.0	226.1	R e 0.1	0.0	e 235.8	0.0	e 235.8
1990	0.0	8.7	0.6	58.9	9.2	0.3	2.7	149.4	0.0	221.1	0.1	0.0	229.9	0.0	229.9
1991	0.0	8.5	0.7	60.2	9.7	0.3	2.4	149.5	0.0	222.8	0.1	0.0	231.3	0.0	231.3
1992	0.0	8.1	0.8	61.0	6.2	0.2	2.4	151.8	0.0	222.4	0.1	0.0	230.5	0.0	230.5
1993	0.0	9.8	0.7	65.9	5.7	0.2	2.5	157.9	0.0	232.8	0.1	0.0	242.6	0.0	242.6
1994	0.0	12.1	0.8	75.8	9.1	0.5	2.6	159.8	0.0	248.5	(s)	0.0	260.6	0.0	260.6
1995	0.0	12.4	0.7	74.9	6.7	0.2	2.6	166.2	0.0	251.3	(s)	0.0	263.7	0.0	263.7
1996	0.0	12.8	0.6	77.2	8.7	0.2	2.5	166.0	0.0	255.2	(s)	0.0	268.0	0.0	268.0
1997	0.0	11.7	0.7	79.4	8.7	0.2	2.6	171.7	0.0	263.3	0.0	0.0	275.1	0.0	275.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 40. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Arkansas

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	47	118	1	0	119	0	992	0	0	0	–
1965	0	0	0	68	38	(s)	0	38	0	1,080	0	0	0	–
1970	0	0	0	107	698	8	0	705	0	2,160	0	0	0	–
1975	0	0	0	32	4,365	62	0	4,427	4,874	3,433	0	0	0	–
1980	1,774	0	1,774	59	3,106	180	0	3,285	7,833	1,695	0	0	0	–
1985	12,302	0	12,302	11	8	12	0	21	9,889	4,434	0	0	0	–
1986	12,505	0	12,505	28	48	13	0	61	8,876	2,813	0	0	0	–
1987	11,764	0	11,764	32	(s)	10	0	10	11,369	2,407	0	0	0	–
1988	12,295	0	12,295	22	136	130	0	265	8,895	2,785	0	0	0	–
1989	11,278	0	11,278	29	135	143	0	278	8,844	3,084	0	0	0	–
1990	11,836	0	11,836	32	15	140	0	155	11,282	3,698	0	0	0	–
1991	11,978	0	11,978	28	1	127	0	129	12,662	3,561	0	0	0	–
1992	12,241	0	12,241	27	(s)	95	0	95	11,326	3,380	0	0	0	–
1993	11,116	0	11,116	21	5	126	0	131	13,522	4,508	0	0	0	–
1994	12,250	0	12,250	25	54	122	0	176	13,924	3,462	0	0	0	–
1995	13,216	0	13,216	33	15	94	0	109	11,658	3,218	0	0	0	–
1996	14,467	0	14,467	34	81	97	0	179	13,357	2,797	0	0	0	–
1997	13,772	0	13,772	25	27	100	0	127	14,208	3,511	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	48.4	0.7	(s)	0.0	0.7	0.0	10.7	0.0	0.0	0.0	59.8
1965	0.0	0.0	0.0	67.6	0.2	(s)	0.0	0.2	0.0	11.3	0.0	0.0	0.0	79.1
1970	0.0	0.0	0.0	107.9	4.4	(s)	0.0	4.4	0.0	22.7	0.0	0.0	0.0	135.0
1975	0.0	0.0	0.0	32.2	27.4	0.4	0.0	27.8	53.7	35.7	0.0	0.0	0.0	149.4
1980	30.2	0.0	30.2	60.4	19.5	1.0	0.0	20.6	85.4	17.6	0.0	0.0	0.0	214.2
1985	211.7	0.0	211.7	12.0	0.1	0.1	0.0	0.1	106.9	46.3	0.0	0.0	0.0	377.1
1986	216.8	0.0	216.8	29.9	0.3	0.1	0.0	0.4	95.9	29.4	0.0	0.0	0.0	372.4
1987	204.3	0.0	204.3	33.1	(s)	0.1	0.0	0.1	122.5	25.1	0.0	0.0	0.0	385.0
1988	213.0	0.0	213.0	22.7	0.9	0.8	0.0	1.6	95.6	28.8	0.0	0.0	0.0	361.7
1989	196.7	0.0	196.7	30.0	0.8	0.8	0.0	1.7	94.8	32.2	0.0	0.0	0.0	355.4
1990	206.9	0.0	206.9	32.7	0.1	0.8	0.0	0.9	120.5	38.5	0.0	0.0	0.0	399.4
1991	209.2	0.0	209.2	28.5	(s)	0.7	0.0	0.7	136.0	R 37.2	0.0	0.0	0.0	411.6
1992	213.6	0.0	213.6	27.7	(s)	0.6	0.0	0.6	120.9	R 35.0	0.0	0.0	0.0	397.7
1993	192.6	0.0	192.6	21.8	(s)	0.7	0.0	0.8	144.4	46.5	0.0	0.0	0.0	406.1
1994	213.3	0.0	213.3	25.6	0.3	0.7	0.0	1.0	148.6	35.7	0.0	0.0	0.0	424.3
1995	229.6	0.0	229.6	33.5	0.1	0.5	0.0	0.6	124.2	33.2	0.0	0.0	0.0	421.2
1996	251.8	0.0	251.8	34.8	0.5	0.6	0.0	1.1	141.9	28.9	0.0	0.0	0.0	458.5
1997	239.8	0.0	239.8	25.5	0.2	0.6	0.0	0.8	150.9	36.2	0.0	0.0	0.0	453.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 41. Energy Consumption Estimates by Source, Selected Years 1960-1997, California

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	1,343	1,258	10,665	5,383	26,683	25,818	1,017	8,888	3,781	137,025	80,575	26,994	326,829	(s)	17,045	–	–	3,463	–
1965	2,380	1,690	11,892	3,342	35,105	40,150	817	11,029	4,482	169,900	69,745	29,401	375,863	270	30,520	–	–	-1,406	–
1970	2,327	2,126	12,084	2,184	39,221	59,614	1,004	15,532	3,967	214,064	70,324	36,713	454,707	3,132	38,071	–	–	39,011	–
1975	2,151	1,833	13,146	1,640	42,335	62,607	2,027	19,264	3,632	241,508	111,086	38,045	535,291	6,071	40,103	–	–	113,596	–
1980	2,669	1,808	18,431	285	62,277	63,201	2,117	19,197	4,907	253,593	148,701	47,941	620,652	4,920	40,868	–	–	122,895	–
1985	1,942	1,846	13,848	1,354	72,431	67,028	916	20,497	4,465	267,368	66,724	52,908	567,539	19,729	35,772	–	–	173,717	–
1986	1,865	1,531	15,373	1,338	75,115	75,176	491	20,119	4,366	279,569	58,047	50,263	579,857	26,215	45,239	–	–	180,788	–
1987	1,934	1,935	16,458	1,084	74,102	79,857	685	22,328	4,936	292,909	66,638	50,750	609,747	30,387	32,308	–	–	170,101	–
1988	2,209	1,804	15,343	1,312	84,492	82,620	225	22,798	4,760	303,621	68,917	57,870	641,957	30,863	30,760	–	–	210,270	–
1989	2,551	1,838	14,996	1,303	81,819	90,291	192	24,697	4,882	310,918	67,675	54,107	650,881	32,519	[i] NA	–	–	[R] 213,035	–
1990	2,899	1,864	14,862	1,106	82,559	94,907	145	19,992	5,024	305,983	64,890	52,963	642,431	32,693	NA	–	–	[R] 278,171	–
1991	2,816	1,971	14,251	1,091	75,409	90,064	139	18,596	4,495	298,698	45,571	41,871	590,185	31,542	NA	–	–	[R] 291,867	–
1992	2,821	2,031	13,558	1,059	67,259	86,688	75	21,088	4,583	315,643	34,696	46,017	590,665	35,244	NA	–	–	[R] 263,930	–
1993	2,453	1,976	12,433	819	59,089	89,244	131	16,655	4,666	308,726	37,615	42,961	572,340	31,581	NA	–	–	235,131	–
1994	2,498	2,123	12,237	793	64,921	98,793	120	18,099	4,877	307,653	42,525	44,366	594,386	33,752	NA	–	–	[R] 241,850	–
1995	2,618	1,925	12,212	807	68,710	95,305	164	14,798	4,793	313,464	46,957	41,048	598,257	30,246	NA	–	–	[R] 257,381	–
1996	2,317	1,807	12,399	769	67,412	103,773	294	11,198	4,652	318,257	40,949	46,620	606,323	34,097	NA	–	–	[R] 297,844	–
1997	2,134	1,947	11,512	837	75,787	103,144	358	11,311	4,914	322,871	21,864	45,425	598,022	30,512	NA	–	–	335,489	–
														Trillion Btu					
1960	35.9	1,301.8	70.8	27.2	155.4	140.7	5.8	35.7	22.9	719.8	506.6	161.8	1,846.5	(s)	183.4	[R] 82.1	0.8	11.8	[R] 3,462.4
1965	63.7	1,813.2	78.9	16.9	204.5	222.2	4.6	44.2	27.2	892.5	438.5	173.2	2,102.7	3.2	319.0	[R] 97.5	4.2	-4.8	[R] 4,398.7
1970	61.8	2,241.3	80.2	11.0	228.5	332.9	5.7	58.7	24.1	1,124.5	442.1	215.9	2,523.6	34.4	399.5	[R] 116.8	11.3	133.1	[R] 5,521.9
1975	56.4	1,937.3	87.2	8.3	246.6	350.7	11.5	71.6	22.0	1,268.6	698.4	223.7	2,988.6	66.9	417.3	[R] 127.5	70.2	387.6	[R] 6,051.8
1980	66.2	1,890.9	122.3	1.4	362.8	354.2	12.0	70.5	29.8	1,332.1	934.9	280.4	3,500.5	53.7	424.5	[R] 125.2	109.8	419.3	[R] 6,590.0
1985	45.3	1,925.5	91.9	6.8	421.9	375.8	5.2	73.8	27.1	1,404.5	419.5	313.6	3,140.2	213.3	373.7	[R] 143.0	195.7	592.7	[R] 6,629.4
1986	42.5	1,591.0	102.0	6.8	437.5	422.1	2.8	73.2	26.5	1,468.6	364.9	300.8	3,205.2	283.1	472.6	[R] 138.9	215.3	616.8	[R] 6,565.6
1987	45.0	1,993.0	109.2	5.5	431.6	448.8	3.9	81.7	29.9	1,538.6	419.0	300.9	3,369.1	327.4	336.6	[R] 170.3	225.5	580.4	[R] 7,047.3
1988	50.8	1,860.4	101.8	6.6	492.2	464.2	1.3	83.3	28.9	1,594.9	433.3	342.0	3,548.4	331.6	317.6	[R] 176.8	213.4	717.4	[R] 7,216.4
1989	57.9	1,905.8	99.5	6.6	476.6	507.8	1.1	91.0	29.6	1,633.3	425.5	318.2	3,589.1	348.7	[R i] 337.5	[R i] 220.3	[R i] 343.0	[R] 726.9	[R i] 7,548.5
1990	65.3	1,923.7	98.6	5.6	480.9	534.7	0.8	72.5	30.5	1,607.3	408.0	311.3	3,550.1	349.2	[R] 281.7	[R] 176.5	[R] 371.1	949.1	[R] 7,681.2
1991	64.0	2,023.9	94.6	5.5	439.3	508.1	0.8	67.2	27.3	1,569.1	286.5	248.1	3,246.3	338.8	[R] 264.4	[R] 174.7	[R] 379.9	[R] 995.8	[R] 7,508.5
1992	64.8	2,089.5	90.0	5.3	391.8	489.5	0.4	76.4	27.8	1,658.1	218.1	270.6	3,228.1	376.3	[R] 228.4	[R] 181.8	[R] 394.1	900.5	[R] 7,479.5
1993	56.9	2,047.5	82.5	4.1	344.2	504.7	0.7	60.1	28.3	1,621.7	236.5	254.0	3,136.9	337.3	[R] 432.9	[R] 173.6	[R] 400.3	802.3	[R] 7,400.6
1994	58.0	2,172.1	81.2	4.0	378.2	560.1	0.7	65.8	29.6	1,616.1	267.4	262.2	3,265.2	360.3	[R] 258.5	[R] 188.9	[R] 402.3	825.2	[R] 7,543.0
1995	61.0	1,955.9	81.0	4.1	400.2	540.4	0.9	53.6	29.1	1,646.6	295.2	242.8	3,293.9	322.4	[R] 530.2	[R] 189.0	[R] 343.1	[R] 878.2	[R] 7,578.7
1996	53.9	1,865.1	82.3	3.9	392.7	588.4	1.7	40.5	28.2	1,671.8	257.4	275.0	3,341.9	362.2	487.6	[R] 191.1	[R] 356.6	1,016.2	[R] 7,672.0
1997	49.2	1,982.0	76.4	4.2	441.5	584.8	2.0	40.9	29.8	1,696.0	137.5	268.1	3,281.2	324.1	447.5	174.4	328.0	1,144.7	7,727.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. From 1989, includes net imports of electricity generated from geothermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 42. Residential Energy Consumption Estimates, Selected Years 1960-1997, California

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	2	0	2	365	485	15	3,778	4,277	R 1,263	–	–	14,975	–	37,248	–
1965	4	0	4	489	427	31	5,095	5,553	R 1,083	–	–	23,800	–	56,824	–
1970	38	0	38	553	500	166	5,167	5,833	R 1,209	–	–	35,777	–	86,700	–
1975	0	0	0	631	493	211	2,708	3,412	R 1,374	–	–	44,257	–	106,754	–
1980	1	0	1	529	94	18	4,919	5,032	R 3,546	–	–	52,011	–	126,473	–
1985	19	0	19	527	148	73	5,350	5,571	R 4,083	–	–	57,501	–	135,093	–
1986	0	0	0	464	240	183	4,115	4,538	R 3,974	–	–	57,542	–	132,363	–
1987	(s)	0	(s)	503	285	82	5,252	5,619	R 5,559	–	–	60,368	–	137,936	–
1988	2	(s)	2	497	228	101	5,799	6,128	R 5,774	–	–	64,639	–	146,134	–
1989	4	0	4	514	241	108	6,269	6,618	R 5,989	–	–	64,347	–	R 144,577	–
1990	9	0	9	515	226	88	5,750	6,064	3,174	–	–	66,575	–	R 145,614	–
1991	16	0	16	509	199	80	6,952	7,231	3,344	–	–	66,017	–	R 143,710	–
1992	(s)	0	(s)	480	201	33	4,802	5,036	3,519	–	–	68,121	–	R 145,507	–
1993	50	0	50	501	155	67	5,035	5,257	2,983	–	–	67,359	–	142,315	–
1994	58	(s)	58	521	148	67	4,953	5,168	2,924	–	–	68,866	–	R 143,705	–
1995	46	0	46	477	129	81	4,884	5,094	3,246	–	–	68,783	–	R 143,296	–
1996	62	0	62	473	101	103	4,079	4,283	3,240	–	–	71,396	–	R 148,590	–
1997	38	0	38	479	125	135	4,079	4,339	2,358	–	–	73,086	–	151,783	–
	Trillion Btu														
1960	0.1	0.0	0.1	377.6	2.8	0.1	15.2	18.1	R 25.3	0.0	0.0	51.1	R 472.0	127.1	R 599.1
1965	0.1	0.0	0.1	524.9	2.5	0.2	20.4	23.1	R 21.7	0.0	0.0	81.2	R 650.9	193.9	R 844.8
1970	0.8	0.0	0.8	582.4	2.9	0.9	19.5	23.4	R 24.2	0.0	0.0	122.1	R 752.9	295.8	R 1,048.7
1975	0.0	0.0	0.0	666.7	2.9	1.2	10.1	14.1	R 27.5	0.0	0.0	151.0	R 859.3	364.2	R 1,223.6
1980	(s)	0.0	(s)	552.4	0.6	0.1	18.1	18.7	R 70.9	0.0	0.0	177.5	R 819.5	431.5	R 1,251.1
1985	0.4	0.0	0.4	547.8	0.9	0.4	19.3	20.6	R 81.7	0.0	0.0	196.2	R 846.6	460.9	R 1,307.6
1986	0.0	0.0	0.0	481.3	1.4	1.0	15.0	17.4	R 79.5	0.0	0.0	196.3	R 774.5	451.6	R 1,226.1
1987	(s)	0.0	(s)	516.6	1.7	0.5	19.2	21.3	R 111.2	0.0	0.0	206.0	R 855.1	470.6	R 1,325.7
1988	(s)	(s)	0.1	511.5	1.3	0.6	21.2	23.1	R 115.5	0.0	0.0	220.5	R 870.6	498.6	R 1,369.2
1989	0.1	0.0	0.1	532.7	1.4	0.6	23.1	25.1	R 119.8	e 0.2	R e 15.2	219.6	R e 912.6	R 493.3	R e 1,405.9
1990	0.2	0.0	0.2	530.8	1.3	0.5	20.8	22.7	63.5	0.2	15.8	227.2	R 860.3	496.8	R 1,357.2
1991	0.4	0.0	0.4	522.3	1.2	0.5	25.1	26.7	66.9	0.2	16.4	225.2	R 858.1	490.3	R 1,348.5
1992	(s)	0.0	(s)	492.7	1.2	0.2	17.4	18.8	70.4	0.2	17.0	232.4	R 831.4	496.5	R 1,327.9
1993	1.2	0.0	1.2	519.9	0.9	0.4	18.2	19.4	59.7	0.2	17.3	229.8	R 847.6	485.6	R 1,333.1
1994	1.3	(s)	1.4	531.7	0.9	0.4	18.0	19.2	58.5	0.2	17.7	235.0	R 863.7	490.3	R 1,354.0
1995	1.1	0.0	1.1	483.8	0.8	0.5	17.7	18.9	64.9	0.2	18.1	234.7	R 821.7	488.9	R 1,310.6
1996	1.4	0.0	1.4	489.1	0.6	0.6	14.7	15.9	64.8	0.2	18.5	243.6	R 833.6	507.0	R 1,340.6
1997	0.9	0.0	0.9	487.4	0.7	0.8	14.8	16.2	47.2	0.2	19.0	249.4	820.3	517.9	1,338.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 43. Commercial Energy Consumption Estimates, Selected Years 1960-1997, California

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	4	0	4	109	637	46	667	1,406	7,284	10,040	R 24	–	R 22,039	–	R 54,819	–
1965	7	0	7	164	560	95	899	1,309	6,200	9,064	R 20	–	R 29,917	–	R 71,430	–
1970	71	0	71	210	657	510	912	1,482	8,631	12,192	R 23	–	R 40,634	–	R 98,471	–
1975	0	0	0	240	647	650	478	1,622	4,377	7,774	R 26	–	R 57,846	–	R 139,532	–
1980	3	0	3	258	3,225	222	868	1,795	6,811	12,921	R 85	–	R 63,465	–	R 154,326	–
1985	34	0	34	205	3,513	353	944	1,759	35	6,604	NA	–	R 73,592	–	R 172,897	–
1986	0	0	0	183	5,651	112	726	1,755	962	9,207	NA	–	R 74,727	–	R 171,893	–
1987	(s)	0	(s)	213	6,882	168	927	2,522	948	11,446	NA	–	R 77,783	–	R 177,729	–
1988	4	(s)	4	248	6,317	88	1,023	1,773	823	10,024	NA	–	R 80,737	–	R 182,529	–
1989	7	0	7	259	4,614	41	1,106	1,783	751	8,296	NA	–	R 83,921	–	R 188,554	–
1990	16	0	16	285	4,588	19	1,015	1,928	895	8,444	NA	–	R 88,311	–	R 193,157	–
1991	29	0	29	288	4,449	23	1,227	1,647	764	8,110	NA	–	R 86,098	–	R 187,424	–
1992	(s)	0	(s)	285	1,994	20	847	1,485	43	4,390	NA	–	R 87,849	–	R 187,646	–
1993	92	0	92	250	1,591	19	889	262	18	2,779	R 240	–	R 86,544	–	R 182,851	–
1994	108	(s)	108	262	1,505	12	874	226	8	2,625	R 245	–	R 84,529	–	R 176,389	–
1995	86	0	86	279	2,334	27	862	236	4	3,463	R 245	–	R 86,032	–	R 179,230	–
1996	115	0	115	235	1,743	69	720	231	12	2,775	R 267	–	R 88,605	–	R 184,405	–
1997	71	0	71	254	1,955	41	720	233	2	2,951	229	–	92,295	–	191,676	–
	Trillion Btu															
1960	0.1	0.0	0.1	112.7	3.7	0.3	2.7	7.4	45.8	59.8	R 0.5	0.0	75.2	R 248.3	187.0	R 435.3
1965	0.2	0.0	0.2	175.5	3.3	0.5	3.6	6.9	39.0	53.3	R 0.4	0.0	102.1	R 331.4	243.7	R 575.1
1970	1.6	0.0	1.6	221.3	3.8	2.9	3.4	7.8	54.3	72.2	R 0.5	0.0	R 138.6	R 434.2	R 336.0	R 770.1
1975	0.0	0.0	0.0	253.7	3.8	3.7	1.8	8.5	27.5	45.3	R 0.5	0.0	197.4	R 496.8	476.1	R 972.9
1980	0.1	0.0	0.1	269.4	18.8	1.3	3.2	9.4	42.8	75.5	R 1.7	0.0	R 216.5	R 563.2	526.6	1089.8
1985	0.8	0.0	0.8	212.9	20.5	2.0	3.4	9.2	0.2	35.3	NA	0.0	R 251.1	500.2	R 589.9	1090.1
1986	0.0	0.0	0.0	189.5	32.9	0.6	2.6	9.2	6.0	51.5	NA	0.0	R 255.0	R 495.9	R 586.5	1082.4
1987	(s)	0.0	(s)	218.4	40.1	1.0	3.4	13.2	6.0	63.6	NA	0.0	R 265.4	R 547.5	R 606.4	1153.9
1988	0.1	(s)	0.1	255.5	36.8	0.5	3.7	9.3	5.2	55.5	NA	0.0	R 275.5	R 586.6	R 622.8	1209.4
1989	0.2	0.0	0.2	268.4	26.9	0.2	4.1	9.4	4.7	45.3	NA	0.3	R 286.3	R 600.5	R 643.3	1,243.8
1990	0.4	0.0	0.4	294.1	26.7	0.1	3.7	10.1	5.6	46.3	NA	0.3	R 301.3	R 642.4	R 659.1	1301.5
1991	0.7	0.0	0.7	295.3	25.9	0.1	4.4	8.7	4.8	43.9	NA	0.3	R 293.8	R 634.0	R 639.5	1273.5
1992	(s)	0.0	(s)	292.8	11.6	0.1	3.1	7.8	0.3	22.9	NA	0.3	R 299.7	R 615.8	R 640.2	1256.0
1993	2.1	0.0	2.1	259.8	9.3	0.1	3.2	1.4	0.1	14.1	R 4.8	0.3	R 295.3	R 576.4	R 623.9	1200.3
1994	2.5	(s)	2.5	267.4	8.8	0.1	3.2	1.2	(s)	13.2	R 4.9	0.3	R 288.4	R 576.8	R 601.8	1178.7
1995	2.0	0.0	2.0	282.4	13.6	0.2	3.1	1.2	(s)	18.1	R 4.9	0.4	R 293.5	R 601.4	R 611.5	1212.9
1996	2.7	0.0	2.7	242.9	10.2	0.4	2.6	1.2	0.1	14.4	R 5.3	0.5	R 302.3	R 568.1	R 629.2	1197.3
1997	1.6	0.0	1.6	258.4	11.4	0.2	2.6	1.2	(s)	15.5	4.6	0.5	314.9	595.5	654.0	1,249.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 44. Industrial Energy Consumption Estimates, Selected Years 1960-1997, California

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	1,313	451	10,665	10,127	956	4,231	1,454	2,851	10,750	26,994	68,029	(s)	–	–	20,190	–	50,221	–
1965	2,361	529	11,892	13,002	692	4,826	1,709	2,245	11,846	29,401	75,613	(s)	–	–	28,904	–	69,012	–
1970	2,215	711	12,084	8,510	328	9,147	1,510	1,942	12,121	36,713	82,356	(s)	–	–	42,169	–	102,190	–
1975	2,151	666	13,146	10,519	1,166	15,688	1,246	1,338	8,308	38,045	89,457	0	–	–	46,053	–	111,086	–
1980	2,665	486	18,431	15,576	1,877	12,887	2,103	1,698	12,554	47,941	113,068	0	–	–	51,888	–	126,174	–
1985	1,889	433	13,848	18,285	491	12,977	1,914	3,065	18,732	52,908	122,220	0	–	–	52,972	–	124,454	–
1986	1,865	428	15,373	15,010	195	14,347	1,871	3,176	15,045	50,263	115,281	0	–	–	52,884	–	121,648	–
1987	1,933	556	16,458	18,283	435	15,310	2,115	3,256	14,576	50,750	121,185	0	–	–	54,387	–	124,269	–
1988	2,203	487	15,343	17,138	37	15,073	2,040	2,978	8,772	57,870	119,251	0	–	–	54,988	–	124,316	–
1989	2,540	528	14,996	16,266	43	16,435	2,092	3,232	2,711	54,107	109,883	[f] NA	–	–	55,596	–	[R] 124,914	–
1990	2,874	588	14,862	19,138	38	12,304	2,153	3,163	1,864	52,963	106,485	NA	–	–	55,892	–	[R] 122,248	–
1991	2,771	707	14,251	14,329	36	9,658	1,926	3,271	1,762	41,871	87,104	NA	–	–	56,191	–	[R] 122,321	–
1992	2,821	687	13,558	11,101	23	14,788	1,964	3,297	1,889	46,017	92,637	NA	–	–	57,090	–	[R] 121,943	–
1993	2,311	747	12,433	8,779	44	10,073	2,000	2,664	1,539	42,961	80,494	NA	–	–	56,189	–	118,717	–
1994	2,332	726	12,237	9,028	40	11,266	2,090	2,758	1,353	44,366	83,138	NA	–	–	59,864	–	[R] 124,919	–
1995	2,485	754	12,212	8,607	56	8,489	2,054	2,849	1,489	41,048	76,803	NA	–	–	57,367	–	[R] 119,514	–
1996	2,140	761	12,399	8,078	122	5,889	1,994	2,741	309	46,620	78,154	NA	–	–	57,683	–	[R] 120,050	–
1997	2,026	812	11,512	11,031	182	6,049	2,106	2,910	104	45,425	79,318	NA	–	–	62,017	–	128,793	–
			Trillion Btu															
1960	35.2	466.3	70.8	59.0	5.4	17.0	8.8	15.0	67.6	161.8	405.3	(s)	[R] 56.3	0.0	68.9	[R] 1,032.0	171.4	[R] 1,203.4
1965	63.2	567.4	78.9	75.7	3.9	19.4	10.4	11.8	74.5	173.2	447.7	(s)	[R] 74.8	0.0	98.6	[R] 1,251.8	235.5	[R] 1,487.3
1970	59.3	749.1	80.2	49.6	1.9	34.6	9.2	10.2	76.2	215.9	477.7	(s)	[R] 91.7	0.0	143.9	[R] 1,521.7	348.7	[R] 1,870.4
1975	56.4	703.6	87.2	61.3	6.6	58.3	7.6	7.0	52.2	223.7	503.9	0.0	[R] 99.3	0.0	157.1	[R] 1,520.4	379.0	[R] 1,899.4
1980	66.1	507.4	122.3	90.7	10.6	47.3	12.8	8.9	78.9	280.4	652.0	0.0	[R] 52.4	0.0	177.0	[R] 1,454.9	430.5	[R] 1,885.4
1985	44.0	449.5	91.9	106.5	2.8	46.8	11.6	16.1	117.8	313.6	707.0	0.0	[R] 61.3	0.0	180.7	[R] 1,442.6	424.6	[R] 1,867.2
1986	42.5	443.3	102.0	87.4	1.1	52.2	11.3	16.7	94.6	300.8	666.2	0.0	[R] 59.1	0.0	180.4	[R] 1,391.6	415.1	[R] 1,806.6
1987	44.9	570.7	109.2	106.5	2.5	56.0	12.8	17.1	91.6	300.9	696.7	0.0	[R] 58.9	0.0	185.6	[R] 1,556.8	424.0	[R] 1,980.8
1988	50.7	500.8	101.8	99.8	0.2	55.0	12.4	15.6	55.1	342.0	682.1	0.0	[R] 61.2	0.0	187.6	[R] 1,482.4	424.2	[R] 1,906.6
1989	57.7	546.4	99.5	94.7	0.2	60.5	12.7	17.0	17.0	318.2	620.0	[R f] 11.7	[R f] 99.0	[R f] 122.9	189.7	[R f] 1,647.4	[R] 426.2	[R f] 2,073.6
1990	64.7	606.5	98.6	111.5	0.2	44.6	13.1	16.6	11.7	311.3	607.6	7.4	[R] 111.3	[R] 165.6	190.7	[R] 1,753.9	417.1	[R] 2,171.0
1991	63.0	725.7	94.6	83.5	0.2	34.9	11.7	17.2	11.1	248.1	501.1	[R] 8.9	[R] 106.3	[R] 181.6	191.7	[R] 1,778.4	[R] 417.4	[R] 2,195.7
1992	64.8	705.7	90.0	64.7	0.1	53.6	11.9	17.3	11.9	270.6	520.0	[R] 10.0	[R] 109.8	[R] 192.4	194.8	[R] 1,797.5	416.1	[R] 2,213.5
1993	53.6	775.3	82.5	51.1	0.3	36.3	12.1	14.0	9.7	254.0	460.0	26.1	[R] 107.2	[R] 208.8	191.7	[R] 1,822.8	405.1	[R] 2,227.9
1994	54.2	741.4	81.2	52.6	0.2	41.0	12.7	14.5	8.5	262.2	472.8	11.4	[R] 122.9	[R] 218.4	204.3	[R] 1,825.4	426.2	[R] 2,251.6
1995	57.9	764.3	81.0	50.1	0.3	30.8	12.5	15.0	9.4	242.8	441.8	[R] 32.5	[R] 111.3	[R] 209.5	195.7	[R] 1,813.0	[R] 407.8	[R] 2,220.8
1996	49.8	786.7	82.3	47.1	0.7	21.3	12.1	14.4	1.9	275.0	454.8	[R] 30.4	[R] 113.7	[R] 217.9	196.8	[R] 1,850.1	409.6	[R] 2,259.7
1997	46.7	825.9	76.4	64.3	1.0	21.9	12.8	15.3	0.7	268.1	460.4	27.2	114.5	196.8	211.6	1,883.1	439.4	2,322.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 45. Transportation Energy Consumption Estimates, Selected Years 1960-1997, California

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1965	8	16	3,342	21,032	40,150	208	2,772	166,346	35,109	268,960	0	R 66	–	R 158	–
1970	4	17	2,184	29,448	59,614	305	2,457	210,641	27,982	332,632	0	R 65	–	R 158	–
1975	(s)	20	1,640	30,528	62,509	390	2,386	238,548	20,056	356,057	0	R 265	–	R 639	–
1980	0	15	285	41,801	62,224	522	2,804	250,100	66,673	424,409	0	R 203	–	R 493	–
1985	0	14	1,354	50,177	67,028	1,225	2,552	262,544	43,340	428,219	0	R 266	–	R 625	–
1986	0	12	1,338	53,866	75,176	931	2,495	274,637	36,709	445,152	0	R 265	–	R 611	–
1987	0	19	1,084	48,300	79,857	839	2,821	287,131	47,791	467,822	0	R 262	–	R 599	–
1988	0	19	1,312	60,642	82,620	902	2,720	298,870	46,857	493,923	0	R 272	–	R 616	–
1989	0	19	1,303	60,400	90,291	887	2,790	305,903	49,141	510,713	R e 19,488	R 275	–	R 618	–
1990	0	20	1,106	58,418	94,907	923	2,871	300,893	54,963	514,080	22,507	R 315	–	R 690	–
1991	0	19	1,091	56,328	90,064	760	2,568	293,780	42,113	486,703	17,841	R 345	–	R 751	–
1992	0	15	1,059	53,839	86,688	650	2,619	310,861	32,282	487,997	21,684	R 387	–	R 827	–
1993	0	12	819	48,455	89,244	658	2,666	305,800	32,831	480,474	24,199	R 408	–	R 861	–
1994	0	13	793	54,137	98,793	1,006	2,787	304,669	38,310	500,495	33,788	R 425	–	R 887	–
1995	0	20	807	57,540	95,305	564	2,739	310,379	44,729	512,062	103,851	R 423	–	R 882	–
1996	0	20	769	57,352	103,773	509	2,658	315,285	39,644	519,989	87,752	R 429	–	R 893	–
1997	0	25	837	62,403	103,144	464	2,808	319,727	21,714	511,097	90,939	478	–	993	–
			Trillion Btu												
1965	0.2	16.8	16.9	122.5	222.2	0.8	16.8	873.8	220.7	1,473.8	0.0	0.2	–	0.5	–
1970	0.1	17.9	11.0	171.5	332.9	1.2	14.9	1,106.5	175.9	1,814.0	0.0	0.2	R 1,832.2	R 0.5	R 1,832.7
1975	(s)	21.4	8.3	177.8	350.2	1.5	14.5	1,253.1	126.1	1,931.4	0.0	0.9	1,953.7	2.2	1,955.9
1980	0.0	15.9	1.4	243.5	348.7	1.9	17.0	1,313.8	419.2	2,345.5	0.0	0.7	2,362.1	R 1.7	R 2,363.8
1985	0.0	15.0	6.8	292.3	375.8	4.4	15.5	1,379.1	272.5	2,346.5	0.0	R 0.9	2,362.3	R 2.1	R 2,364.5
1986	0.0	12.8	6.8	313.8	422.1	3.4	15.1	1,442.7	230.8	2,434.6	0.0	R 0.9	R 2,448.3	R 2.1	R 2,450.4
1987	0.0	19.4	5.5	281.3	448.8	3.1	17.1	1,508.3	300.5	2,564.5	0.0	R 0.9	R 2,584.9	R 2.0	R 2,586.9
1988	0.0	19.7	6.6	353.2	464.2	3.3	16.5	1,570.0	294.6	2,708.4	0.0	R 0.9	R 2,729.1	R 2.1	R 2,731.2
1989	0.0	19.9	6.6	351.8	507.8	3.3	16.9	1,606.9	308.9	2,802.2	R e 1.5	R 0.9	R e 2,823.0	R 2.1	R e 2,825.1
1990	0.0	20.8	5.6	340.3	534.7	3.3	17.4	1,580.6	345.6	2,827.4	1.7	R 1.1	R 2,849.3	R 2.4	R 2,851.6
1991	0.0	19.0	5.5	328.1	508.1	2.7	15.6	1,543.2	264.8	2,668.0	1.4	R 1.2	R 2,688.2	R 2.6	R 2,690.8
1992	0.0	15.2	5.3	313.6	489.5	2.4	15.9	1,633.0	203.0	2,662.7	1.7	R 1.3	R 2,679.2	R 2.8	R 2,682.0
1993	0.0	12.5	4.1	282.3	504.7	2.4	16.2	1,606.4	206.4	2,622.4	1.8	R 1.4	R 2,636.3	R 2.9	R 2,639.3
1994	0.0	12.9	4.0	315.3	560.1	3.7	16.9	1,600.4	240.9	2,741.3	2.6	R 1.5	R 2,755.7	R 3.0	R 2,758.8
1995	0.0	20.0	4.1	335.2	540.4	2.0	16.6	1,630.4	281.2	2,809.9	7.9	R 1.4	R 2,831.4	R 3.0	R 2,834.4
1996	0.0	20.2	3.9	334.1	588.4	1.8	16.1	1,656.2	249.2	2,849.7	6.7	R 1.5	R 2,871.4	R 3.0	R 2,874.4
1997	0.0	25.1	4.2	363.5	584.8	1.7	17.0	1,679.5	136.5	2,787.3	6.9	1.6	2,814.0	3.4	2,817.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 46. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, California

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy [f]	Other [b,g]	Total [h]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	323	23,931	120	0	24,051	(s)	17,045	(s)	33	0	–
1965	0	0	0	493	16,590	83	0	16,673	270	30,520	64	189	0	–
1970	0	0	0	636	21,589	107	0	21,696	3,132	38,071	48	525	0	–
1975	0	0	0	275	78,345	247	0	78,592	6,071	40,103	20	3,246	0	–
1980	0	0	0	519	62,663	2,559	0	65,222	4,920	40,868	20	5,073	0	–
1985	0	0	0	666	4,617	308	0	4,925	19,729	35,772	4	9,197	13	–
1986	0	0	0	444	5,332	348	0	5,680	26,215	45,239	30	10,119	17	–
1987	0	0	0	643	3,324	350	0	3,674	30,387	32,308	24	10,599	14	–
1988	0	0	0	553	12,464	167	0	12,631	30,863	30,760	11	10,110	10	–
1989	0	0	0	518	15,072	299	0	15,370	32,519	R 31,225	4	R 9,688	2	–
1990	0	0	0	456	7,169	189	0	7,358	32,693	26,365	2	8,968	2	–
1991	0	0	0	449	933	104	0	1,037	31,542	24,487	8	8,638	3	–
1992	0	0	0	564	482	124	0	605	35,244	21,121	5	8,807	3	–
1993	0	0	0	466	3,227	109	0	3,336	31,581	39,456	4	8,300	3	–
1994	0	0	0	601	2,854	104	0	2,959	33,752	23,951	3	7,918	3	–
1995	0	0	0	395	734	101	0	835	30,246	48,257	2	5,490	15	–
1996	0	0	0	318	983	138	0	1,122	34,097	44,244	55	5,692	13	–
1997	0	0	0	378	44	273	0	317	30,512	40,756	122	5,317	9	–
	Trillion Btu													
1960	0.0	0.0	0.0	334.3	150.5	0.7	0.0	151.2	(s)	183.4	(s)	0.8	0.0	669.6
1965	0.0	0.0	0.0	528.7	104.3	0.5	0.0	104.8	3.2	319.0	0.7	4.2	0.0	960.5
1970	0.0	0.0	0.0	670.6	135.7	0.6	0.0	136.4	34.4	399.5	0.5	11.3	0.0	1,252.7
1975	0.0	0.0	0.0	291.9	492.6	1.4	0.0	494.0	66.9	417.3	0.2	70.2	0.0	1,340.4
1980	0.0	0.0	0.0	545.8	394.0	14.8	0.0	408.7	53.7	424.5	0.2	109.8	0.0	1,542.7
1985	0.0	0.0	0.0	700.3	29.0	1.8	0.0	30.8	213.3	373.7	(s)	195.6	0.1	1,513.8
1986	0.0	0.0	0.0	464.2	33.5	2.0	0.0	35.5	283.1	472.6	0.3	215.2	0.2	1,471.1
1987	0.0	0.0	0.0	667.8	20.9	2.0	0.0	22.9	327.4	336.6	0.3	225.4	0.1	1,580.5
1988	0.0	0.0	0.0	572.8	78.4	1.0	0.0	79.3	331.6	317.6	0.1	213.3	0.1	1,514.8
1989	0.0	0.0	0.0	538.4	94.8	1.7	0.0	96.5	348.7	R 325.7	(s)	R 204.4	(s)	R 1,534.6
1990	0.0	0.0	0.0	471.5	45.1	1.1	0.0	46.2	349.2	274.2	(s)	189.2	(s)	R 1,346.5
1991	0.0	0.0	0.0	461.6	5.9	0.6	0.0	6.5	338.8	R 255.5	0.1	181.4	(s)	R 1,265.8
1992	0.0	0.0	0.0	583.1	3.0	0.7	0.0	3.7	376.3	218.4	0.1	184.2	(s)	R 1,383.4
1993	0.0	0.0	0.0	480.0	20.3	0.6	0.0	20.9	337.3	406.8	(s)	173.6	(s)	1,433.4
1994	0.0	0.0	0.0	618.7	17.9	0.6	0.0	18.6	360.3	R 247.1	(s)	165.6	(s)	R 1,425.3
1995	0.0	0.0	0.0	405.4	4.6	0.6	0.0	5.2	322.4	R 497.6	(s)	114.8	0.2	R 1,358.5
1996	0.0	0.0	0.0	326.3	6.2	0.8	0.0	7.0	362.2	R 457.3	0.6	119.3	0.1	R 1,276.8
1997	0.0	0.0	0.0	385.1	0.3	1.6	0.0	1.9	324.1	420.2	1.3	111.4	0.1	1,247.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] Includes net imports of electricity generated from geothermal energy.

[g] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[h] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this

Table 47. Energy Consumption Estimates by Source, Selected Years 1960-1997, Colorado

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	2,941	188	1,617	1,125	4,194	480	277	3,153	378	16,461	1,883	790	30,357	0	970	–	–	-4,980	–
1965	4,204	224	1,423	1,111	3,925	3,426	1,108	3,339	416	19,321	2,056	941	37,065	0	938	–	–	-2,572	–
1970	5,101	282	3,220	337	5,212	7,476	822	4,710	423	26,103	1,507	1,146	50,956	0	1,236	–	–	-2,230	–
1975	7,603	308	2,231	267	8,846	7,151	278	5,053	458	31,916	3,388	1,351	60,938	0	1,507	–	–	-1,877	–
1980	11,981	256	2,284	265	11,228	4,725	413	3,870	641	34,282	1,814	1,646	61,167	667	1,717	–	–	-5,019	–
1985	15,241	219	3,103	142	9,552	7,861	92	2,324	583	35,742	194	1,242	60,835	-32	2,357	–	–	-1,099	–
1986	15,029	198	3,091	176	10,119	8,065	62	2,161	570	36,504	246	972	61,966	52	2,264	–	–	-23	–
1987	15,007	210	3,110	153	9,864	8,372	85	2,336	645	36,195	34	1,176	61,969	174	1,818	–	–	1,889	–
1988	15,860	228	3,552	167	11,190	6,460	85	2,705	622	36,389	32	1,319	62,519	660	1,745	–	–	-722	–
1989	16,393	242	2,928	181	10,204	5,337	226	3,744	638	35,420	22	1,414	60,115	529	[i] NA	–	–	[R] -2,097	–
1990	16,710	239	3,257	167	10,373	6,109	50	3,045	656	35,562	13	1,444	60,676	0	NA	–	–	[R] 1,041	–
1991	16,218	261	3,107	155	11,805	6,503	51	3,520	587	35,676	80	1,298	62,783	0	NA	–	–	[R] 3,690	–
1992	16,696	253	3,190	136	12,425	7,363	51	3,184	599	35,790	41	1,675	64,455	0	NA	–	–	[R] 1,149	–
1993	17,070	284	3,413	124	12,922	8,959	53	3,448	610	37,913	11	1,564	69,017	0	NA	–	–	1,294	–
1994	17,475	276	4,188	128	13,261	7,930	48	3,390	637	39,385	3	1,636	70,606	0	NA	–	–	[R] 3,556	–
1995	16,971	284	3,720	124	13,426	7,428	29	3,936	626	41,357	8	1,570	72,225	0	NA	–	–	[R] 7,276	–
1996	17,222	307	3,904	124	14,839	7,765	33	3,999	608	43,028	20	1,803	76,122	0	NA	–	–	[R] 10,417	–
1997	17,961	306	2,574	143	13,796	7,174	29	4,039	642	43,744	3	1,782	73,925	0	NA	–	–	10,432	–
			Trillion Btu																
1960	68.2	195.0	10.7	5.7	24.4	2.6	1.6	12.6	2.3	86.5	11.8	4.7	163.0	0.0	10.4	[R] 6.5	0.0	-17.0	[R] 426.1
1965	98.1	204.5	9.4	5.6	22.9	19.3	6.3	13.4	2.5	101.5	12.9	5.6	199.4	0.0	9.8	[R] 6.6	0.0	-8.8	[R] 509.6
1970	115.7	275.0	21.4	1.7	30.4	42.3	4.7	17.8	2.6	137.1	9.5	6.7	274.0	0.0	13.0	[R] 8.4	0.0	-7.6	[R] 678.4
1975	159.3	281.0	14.8	1.3	51.5	40.4	1.6	18.8	2.8	167.7	21.3	8.0	328.2	0.0	15.7	[R] 9.0	0.0	-6.4	[R] 786.8
1980	247.6	254.6	15.2	1.3	65.4	26.7	2.3	14.2	3.9	180.1	11.4	9.4	329.9	7.3	17.8	[R] 10.9	0.0	-17.1	[R] 851.0
1985	299.1	218.7	20.6	0.7	55.6	44.5	0.5	8.4	3.5	187.8	1.2	7.4	330.2	-0.3	24.6	[R] 15.2	0.0	-3.7	[R] 883.7
1986	295.4	198.4	20.5	0.9	58.9	45.6	0.4	7.9	3.5	191.8	1.5	6.0	337.0	0.6	23.6	[R] 17.5	0.0	-0.1	[R] 872.5
1987	296.5	210.1	20.6	0.8	57.5	47.4	0.5	8.5	3.9	190.1	0.2	7.1	336.7	1.9	18.9	[R] 11.1	0.0	6.4	[R] 881.7
1988	311.4	229.0	23.6	0.8	65.2	36.5	0.5	9.9	3.8	191.2	0.2	7.9	339.5	7.1	18.0	[R] 11.5	0.0	-2.5	[R] 914.1
1989	323.7	244.9	19.4	0.9	59.4	30.2	1.3	13.8	3.9	186.1	0.1	8.5	323.5	5.7	[R i] 18.2	[R i] 12.7	[R i] 0.5	-7.2	[R i] 920.5
1990	329.0	240.3	21.6	0.8	60.4	34.6	0.3	11.0	4.0	186.8	0.1	8.6	328.3	0.0	13.7	[R] 11.7	[R] 0.5	[R] 3.6	[R] 925.1
1991	321.8	268.1	20.6	0.8	68.8	36.8	0.3	12.7	3.6	187.4	0.5	7.8	339.3	0.0	17.9	[R] 12.1	[R] 0.6	12.6	[R] 970.8
1992	331.5	258.9	21.2	0.7	72.4	41.6	0.3	11.5	3.6	188.0	0.3	10.0	349.6	0.0	16.9	[R] 12.8	[R] 0.6	3.9	[R] 972.4
1993	338.5	287.3	22.6	0.6	75.3	50.7	0.3	12.4	3.7	199.2	0.1	9.4	374.3	0.0	20.5	[R] 13.2	[R] 0.6	4.4	[R] 1,036.9
1994	349.1	277.1	27.8	0.6	77.2	44.9	0.3	12.3	3.9	206.9	(s)	9.8	383.7	0.0	17.1	[R] 15.0	[R] 0.6	12.1	[R] 1,052.9
1995	337.3	288.7	24.7	0.6	78.2	42.0	0.2	14.3	3.8	217.2	0.1	9.4	390.5	0.0	[R] 23.0	[R] 16.6	[R] 0.6	24.8	[R] 1,078.7
1996	340.3	314.7	25.9	0.6	86.4	44.0	0.2	14.4	3.7	226.0	0.1	10.8	412.2	0.0	17.6	[R] 18.9	[R] 0.6	[R] 35.5	[R] 1,135.0
1997	356.0	309.6	17.1	0.7	80.4	40.7	0.2	14.6	3.9	229.8	(s)	10.6	397.9	0.0	21.6	16.8	0.6	35.6	1,133.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 48. Residential Energy Consumption Estimates, Selected Years 1960-1997, Colorado

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	90	0	90	52	148	50	2,097	2,294	R 212	–	–	1,776	–	4,418	–
1965	112	0	112	65	90	285	2,224	2,599	R 179	–	–	2,521	–	6,018	–
1970	80	0	80	83	168	112	3,080	3,361	R 195	–	–	3,859	–	9,351	–
1975	7	0	7	100	283	36	2,862	3,181	R 233	–	–	5,142	–	12,403	–
1980	35	0	35	90	78	23	1,670	1,772	R 463	–	–	6,693	–	16,275	–
1985	55	0	55	90	106	49	1,390	1,545	R 673	–	–	8,861	–	20,819	–
1986	37	0	37	81	63	30	1,355	1,448	R 655	–	–	8,863	–	20,387	–
1987	28	0	28	86	59	28	1,470	1,558	R 335	–	–	9,218	–	21,062	–
1988	33	(s)	33	93	53	32	1,403	1,488	R 348	–	–	9,551	–	21,592	–
1989	22	0	22	92	42	41	1,596	1,680	R 361	–	–	9,595	–	R 21,559	–
1990	20	0	20	92	27	22	1,697	1,746	366	–	–	9,787	–	R 21,407	–
1991	23	0	23	97	27	24	1,899	1,950	385	–	–	10,099	–	R 21,985	–
1992	20	(s)	21	95	22	37	1,692	1,751	406	–	–	10,216	–	R 21,821	–
1993	13	(s)	13	106	33	35	1,768	1,836	379	–	–	10,656	–	22,513	–
1994	8	0	8	100	26	40	1,757	1,822	372	–	–	10,939	–	R 22,826	–
1995	7	0	7	104	40	20	2,188	2,248	413	–	–	11,307	–	R 23,555	–
1996	5	0	5	111	60	21	2,100	2,180	412	–	–	11,871	–	R 24,705	–
1997	23	(s)	23	116	69	19	2,100	2,187	300	–	–	12,261	–	25,463	–
	Trillion Btu														
1960	2.1	0.0	2.1	54.1	0.9	0.3	8.4	9.6	R 4.2	0.0	0.0	6.1	R 76.0	15.1	R 91.1
1965	2.6	0.0	2.6	59.6	0.5	1.6	8.9	11.1	R 3.6	0.0	0.0	8.6	R 85.4	20.5	R 105.9
1970	1.8	0.0	1.8	80.4	1.0	0.6	11.6	13.3	R 3.9	0.0	0.0	13.2	R 112.5	31.9	R 144.5
1975	0.2	0.0	0.2	89.5	1.6	0.2	10.6	12.5	R 4.7	0.0	0.0	17.5	R 124.4	42.3	R 166.7
1980	0.8	0.0	0.8	89.2	0.5	0.1	6.1	6.7	R 9.3	0.0	0.0	22.8	R 128.8	55.5	R 184.3
1985	1.2	0.0	1.2	90.1	0.6	0.3	5.0	5.9	R 13.5	0.0	0.0	30.2	R 140.8	71.0	R 211.9
1986	0.8	0.0	0.8	81.4	0.4	0.2	4.9	5.5	R 13.1	0.0	0.0	30.2	R 131.0	69.6	R 200.6
1987	0.6	0.0	0.6	86.3	0.3	0.2	5.4	5.9	R 6.7	0.0	0.0	31.5	R 130.9	71.9	R 202.8
1988	0.7	(s)	0.7	93.5	0.3	0.2	5.1	5.6	R 7.0	0.0	0.0	32.6	R 139.4	73.7	R 213.1
1989	0.5	0.0	0.5	92.7	0.2	0.2	5.9	6.4	R 7.2	e 0.1	R e 0.1	32.7	R e 139.7	R 73.6	R e 213.2
1990	0.4	0.0	0.4	92.4	0.2	0.1	6.2	6.4	7.3	0.1	0.1	33.4	R 140.2	73.0	213.2
1991	0.5	0.0	0.5	100.3	0.2	0.1	6.9	7.2	7.7	0.1	0.1	34.5	R 150.4	75.0	R 225.4
1992	0.4	(s)	0.4	96.8	0.1	0.2	6.1	6.5	8.1	0.1	0.2	34.9	146.9	74.5	R 221.4
1993	0.3	(s)	0.3	107.4	0.2	0.2	6.4	6.8	7.6	0.1	0.2	36.4	R 158.6	76.8	R 235.4
1994	0.2	0.0	0.2	99.9	0.1	0.2	6.4	6.8	7.4	0.1	0.2	37.3	R 151.9	77.9	R 229.8
1995	0.2	0.0	0.2	106.2	0.2	0.1	7.9	8.3	8.3	0.1	0.2	38.6	R 161.7	80.4	R 242.1
1996	0.1	0.0	0.1	113.6	0.4	0.1	7.6	8.1	8.2	0.1	0.2	40.5	R 170.8	84.3	R 255.1
1997	0.4	(s)	0.4	117.0	0.4	0.1	7.6	8.1	6.0	0.1	0.2	41.8	173.7	86.9	260.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 49. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Colorado

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	167	0	167	28	123	66	370	135	56	750	R 4	–	1,772	–	4,408	–
1965	207	0	207	39	75	376	393	186	49	1,078	R 3	–	2,842	–	6,785	–
1970	149	0	149	59	140	148	544	124	38	993	R 4	–	4,594	–	11,134	–
1975	14	0	14	76	235	48	505	109	75	972	R 4	–	6,276	–	15,139	–
1980	65	0	65	67	339	6	295	312	3	955	R 11	–	7,277	–	17,695	–
1985	101	0	101	69	681	15	245	176	1	1,118	NA	–	12,344	–	29,001	–
1986	68	0	68	62	406	13	239	191	72	922	NA	–	12,450	–	28,639	–
1987	53	0	53	64	958	27	259	191	0	1,436	NA	–	12,638	–	28,876	–
1988	61	(s)	61	69	1,019	14	248	176	0	1,457	NA	–	13,489	–	30,496	–
1989	42	0	42	67	539	157	282	164	6	1,147	NA	–	14,116	–	R 31,717	–
1990	38	0	38	66	437	10	299	265	0	1,011	NA	–	14,420	–	R 31,541	–
1991	42	0	42	69	591	11	335	336	0	1,272	NA	–	14,609	–	R 31,802	–
1992	38	(s)	38	66	834	7	299	161	(s)	1,301	NA	–	14,757	–	R 31,522	–
1993	24	(s)	24	72	759	7	312	35	(s)	1,113	R 30	–	15,278	–	32,279	–
1994	15	0	15	66	1,219	5	310	51	0	1,585	R 31	–	13,943	–	R 29,094	–
1995	13	0	13	67	814	5	386	58	0	1,263	R 31	–	R 14,300	–	R 29,791	–
1996	9	0	9	69	987	6	371	265	0	1,628	R 34	–	R 15,251	–	R 31,741	–
1997	42	(s)	42	69	1,186	5	371	37	0	1,598	29	–	15,506	–	32,202	–
	Trillion Btu															
1960	3.8	0.0	3.8	29.5	0.7	0.4	1.5	0.7	0.4	3.6	R 0.1	0.0	6.0	R 43.1	15.0	R 58.1
1965	4.7	0.0	4.7	35.8	0.4	2.1	1.6	1.0	0.3	5.4	R 0.1	0.0	9.7	55.7	23.1	R 78.9
1970	3.3	0.0	3.3	57.5	0.8	0.8	2.1	0.7	0.2	4.6	R 0.1	0.0	15.7	R 81.2	38.0	R 119.2
1975	0.3	0.0	0.3	68.3	1.4	0.3	1.9	0.6	0.5	4.6	R 0.1	0.0	21.4	R 94.7	51.7	146.3
1980	1.4	0.0	1.4	66.6	2.0	(s)	1.1	1.6	(s)	4.7	R 0.2	0.0	24.8	R 97.8	60.4	R 158.2
1985	2.2	0.0	2.2	68.9	4.0	0.1	0.9	0.9	(s)	5.9	NA	0.0	42.1	119.1	98.9	218.0
1986	1.5	0.0	1.5	61.8	2.4	0.1	0.9	1.0	0.5	4.8	NA	0.0	42.5	110.5	97.7	208.3
1987	1.1	0.0	1.1	64.4	5.6	0.2	0.9	1.0	0.0	7.7	NA	0.0	43.1	116.3	98.5	214.8
1988	1.3	(s)	1.3	69.0	5.9	0.1	0.9	0.9	0.0	7.8	NA	0.0	46.0	124.2	104.1	228.2
1989	0.9	0.0	0.9	68.3	3.1	0.9	1.0	0.9	(s)	6.0	NA	0.2	48.2	R 123.5	108.2	R 231.7
1990	0.8	0.0	0.8	66.6	2.5	0.1	1.1	1.4	0.0	5.1	NA	0.2	49.2	R 121.9	107.6	R 229.5
1991	0.9	0.0	0.9	71.0	3.4	0.1	1.2	1.8	0.0	6.5	NA	0.2	49.8	R 128.4	108.5	R 236.9
1992	0.8	(s)	0.8	68.0	4.9	(s)	1.1	0.8	(s)	6.8	NA	0.2	50.4	R 126.1	R 107.6	R 233.7
1993	0.5	(s)	0.5	72.4	4.4	(s)	1.1	0.2	(s)	5.8	R 0.6	0.2	52.1	R 131.7	110.1	R 241.8
1994	0.3	0.0	0.3	66.2	7.1	(s)	1.1	0.3	0.0	8.5	R 0.6	0.2	47.6	R 123.4	99.3	R 222.7
1995	0.3	0.0	0.3	67.8	4.7	(s)	1.4	0.3	0.0	6.5	R 0.6	0.2	48.8	R 124.2	101.6	R 225.8
1996	0.2	0.0	0.2	70.6	5.7	(s)	1.3	1.4	0.0	8.5	R 0.7	0.2	52.0	R 132.2	108.3	R 240.5
1997	0.8	(s)	0.8	69.9	6.9	(s)	1.3	0.2	0.0	8.5	0.6	0.2	52.9	132.8	109.9	242.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 50. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Colorado

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	1,438	69	1,617	1,768	161	593	98	1,303	1,583	790	7,913	1	–	–	1,289	–	3,206	–
1965	1,698	82	1,423	1,994	447	641	130	1,039	1,254	941	7,869	1	–	–	1,576	–	3,763	–
1970	1,657	88	3,220	2,228	561	953	137	1,036	1,128	1,146	10,409	1	–	–	2,334	–	5,656	–
1975	1,871	73	2,231	3,419	193	1,498	156	860	2,327	1,351	12,035	1	–	–	4,407	–	10,630	–
1980	1,757	60	2,284	3,983	384	1,860	238	695	1,640	1,646	12,729	1	–	–	6,900	–	16,778	–
1985	791	48	3,103	2,293	28	621	217	580	40	1,242	8,124	1	–	–	5,468	–	12,848	–
1986	773	44	3,091	3,448	19	507	212	555	174	972	8,978	1	–	–	5,848	–	13,452	–
1987	748	43	3,110	2,659	29	567	240	532	34	1,176	8,348	1	–	–	6,216	–	14,202	–
1988	679	50	3,552	3,690	39	1,000	231	477	5	1,319	10,313	1	–	–	6,295	–	14,233	–
1989	643	64	2,928	2,825	28	1,807	237	505	14	1,414	9,760	[f] NA	–	–	6,427	–	[R] 14,441	–
1990	729	66	3,257	2,683	18	975	244	408	13	1,444	9,042	NA	–	–	6,587	–	[R] 14,407	–
1991	738	80	3,107	3,531	17	1,203	218	503	34	1,298	9,911	NA	–	–	6,748	–	[R] 14,690	–
1992	735	79	3,190	4,350	7	1,125	223	494	4	1,675	11,069	NA	–	–	6,849	–	14,629	–
1993	780	94	3,413	3,626	12	1,284	227	504	11	1,564	10,640	NA	–	–	7,024	–	14,840	–
1994	857	95	4,188	3,126	4	1,184	237	583	1	1,636	10,960	NA	–	–	9,620	–	[R] 20,075	–
1995	729	98	3,720	3,184	5	1,294	233	541	(s)	1,570	10,547	NA	–	–	9,706	–	[R] 20,222	–
1996	367	111	3,904	4,119	6	1,455	226	631	4	1,803	12,149	NA	–	–	9,947	–	[R] 20,702	–
1997	780	103	2,574	4,066	5	1,502	239	681	3	1,782	10,852	NA	–	–	10,297	–	21,385	–
			Trillion Btu															
1960	36.6	71.8	10.7	10.3	0.9	2.4	0.6	6.8	10.0	4.7	46.4	(s)	[R] 2.2	0.0	4.4	[R] 161.4	10.9	[R] 172.4
1965	44.2	74.9	9.4	11.6	2.5	2.6	0.8	5.5	7.9	5.6	45.8	(s)	[R] 2.9	0.0	5.4	[R] 173.3	12.8	[R] 186.1
1970	41.4	85.3	21.4	13.0	3.2	3.6	0.8	5.4	7.1	6.7	61.2	(s)	[R] 4.4	0.0	8.0	[R] 200.3	19.3	[R] 219.6
1975	45.8	65.6	14.8	19.9	1.1	5.6	0.9	4.5	14.6	8.0	69.4	(s)	[R] 4.3	0.0	15.0	[R] 200.2	36.3	[R] 236.5
1980	43.1	59.9	15.2	23.2	2.2	6.8	1.4	3.6	10.3	9.4	72.2	(s)	[R] 1.4	0.0	23.5	[R] 200.2	57.2	[R] 257.4
1985	17.1	47.7	20.6	13.4	0.2	2.2	1.3	3.0	0.2	7.4	48.3	(s)	[R] 1.7	0.0	18.7	[R] 133.5	43.8	[R] 177.3
1986	16.6	43.9	20.5	20.1	0.1	1.8	1.3	2.9	1.1	6.0	53.9	(s)	[R] 4.4	0.0	20.0	[R] 138.7	45.9	[R] 184.6
1987	15.7	43.0	20.6	15.5	0.2	2.1	1.5	2.8	0.2	7.1	50.0	(s)	[R] 4.4	0.0	21.2	[R] 134.3	48.5	[R] 182.8
1988	14.5	50.2	23.6	21.5	0.2	3.7	1.4	2.5	(s)	7.9	60.8	(s)	[R] 4.6	0.0	21.5	[R] 151.5	48.6	[R] 200.0
1989	13.4	64.3	19.4	16.5	0.2	6.7	1.4	2.7	0.1	8.5	55.3	[R f] 0.4	[R f] 3.9	[R f] 0.2	21.9	[R f] 159.4	49.3	[R f] 208.7
1990	15.4	66.7	21.6	15.6	0.1	3.5	1.5	2.1	0.1	8.6	53.2	0.4	2.5	[R] 0.2	22.5	[R] 160.8	49.2	[R] 210.0
1991	15.6	82.4	20.6	20.6	0.1	4.3	1.3	2.6	0.2	7.8	57.6	0.5	[R] 2.9	[R] 0.2	23.0	[R] 182.3	50.1	[R] 232.4
1992	14.8	80.6	21.2	25.3	(s)	4.1	1.4	2.6	(s)	10.0	64.6	1.3	[R] 3.0	[R] 0.2	23.4	[R] 187.8	49.9	[R] 237.7
1993	16.3	94.9	22.6	21.1	0.1	4.6	1.4	2.6	0.1	9.4	61.9	1.3	[R] 3.1	[R] 0.2	24.0	[R] 201.7	50.6	[R] 252.3
1994	18.5	95.9	27.8	18.2	(s)	4.3	1.4	3.1	(s)	9.8	64.6	1.2	[R] 5.0	[R] 0.2	32.8	[R] 218.2	68.5	[R] 286.7
1995	15.8	99.3	24.7	18.5	(s)	4.7	1.4	2.8	(s)	9.4	61.6	1.3	[R] 5.0	[R] 0.2	33.1	[R] 216.3	69.0	[R] 285.3
1996	7.9	113.9	25.9	24.0	(s)	5.3	1.4	3.3	(s)	10.8	70.7	1.2	[R] 5.1	[R] 0.2	33.9	[R] 232.9	70.6	[R] 303.5
1997	16.8	104.6	17.1	23.7	(s)	5.4	1.4	3.6	(s)	10.6	61.9	1.4	5.3	0.2	35.1	225.4	73.0	298.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 51. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Colorado

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	25	1	1,125	2,146	480	93	280	15,023	137	19,284	0	0	–	0	–
1965	6	2	1,111	1,763	3,426	81	286	18,097	713	25,476	0	0	–	0	–
1970	3	2	337	2,655	7,476	133	286	24,943	99	35,929	0	0	–	0	–
1975	(s)	5	267	4,290	7,151	188	302	30,948	104	43,250	0	0	–	0	–
1980	0	8	265	6,554	4,725	45	402	33,275	0	45,267	0	0	–	0	–
1985	0	7	142	6,358	7,861	68	366	34,986	146	49,927	0	0	–	0	–
1986	0	7	176	6,106	8,065	59	358	35,759	(s)	50,523	0	0	–	0	–
1987	0	9	153	6,096	8,372	39	405	35,471	0	50,536	0	0	–	0	–
1988	0	8	167	6,371	6,460	54	390	35,736	0	49,177	0	0	–	0	–
1989	0	11	181	6,728	5,337	59	400	34,751	0	47,458	R e 20,772	0	–	0	–
1990	0	9	167	7,175	6,109	75	412	34,889	0	48,826	23,990	0	–	0	–
1991	0	8	155	7,622	6,503	83	369	34,837	0	49,568	19,016	0	–	0	–
1992	0	8	136	7,173	7,363	68	376	35,135	0	50,251	23,112	0	–	0	–
1993	0	8	124	8,476	8,959	84	383	37,374	0	55,400	25,793	0	–	0	–
1994	0	10	128	8,864	7,930	138	400	38,751	1	56,212	24,573	1	–	R 2	–
1995	0	11	124	9,366	7,428	69	393	40,757	0	58,136	36,910	R 4	–	R 8	–
1996	0	11	124	9,638	7,765	74	382	42,132	(s)	60,114	63,802	R 4	–	R 9	–
1997	0	12	143	8,437	7,174	67	403	43,026	0	59,250	64,827	5	–	10	–
			Trillion Btu												
1960	0.6	1.3	5.7	12.5	2.6	0.4	1.7	78.9	0.9	102.6	0.0	0.0	104.5	0.0	104.5
1965	0.1	1.7	5.6	10.3	19.3	0.3	1.7	95.1	4.5	136.8	0.0	0.0	138.6	0.0	138.6
1970	0.1	1.8	1.7	15.5	42.3	0.5	1.7	131.0	0.6	193.3	0.0	0.0	195.2	0.0	195.2
1975	(s)	4.8	1.3	25.0	40.4	0.7	1.8	162.6	0.7	232.5	0.0	0.0	237.3	0.0	237.3
1980	0.0	7.5	1.3	38.2	26.7	0.2	2.4	174.8	0.0	243.6	0.0	0.0	251.1	0.0	251.1
1985	0.0	7.1	0.7	37.0	44.5	0.2	2.2	183.8	0.9	269.4	0.0	0.0	276.5	0.0	276.5
1986	0.0	6.7	0.9	35.6	45.6	0.2	2.2	187.8	(s)	272.3	0.0	0.0	279.0	0.0	279.0
1987	0.0	8.7	0.8	35.5	47.4	0.1	2.5	186.3	0.0	272.6	0.0	0.0	281.3	0.0	281.3
1988	0.0	7.9	0.8	37.1	36.5	0.2	2.4	187.7	0.0	264.8	0.0	0.0	272.7	0.0	272.7
1989	0.0	11.4	0.9	39.2	30.2	0.2	2.4	182.5	0.0	255.5	R e 1.6	0.0	e 266.8	0.0	e 266.8
1990	0.0	9.2	0.8	41.8	34.6	0.3	2.5	183.3	0.0	263.2	1.8	0.0	272.4	0.0	272.4
1991	0.0	8.6	0.8	44.4	36.8	0.3	2.2	183.0	0.0	267.5	1.5	0.0	276.2	0.0	276.2
1992	0.0	8.5	0.7	41.8	41.6	0.2	2.3	184.6	0.0	271.2	1.8	0.0	279.7	0.0	279.7
1993	0.0	7.7	0.6	49.4	50.7	0.3	2.3	196.3	0.0	299.6	2.0	0.0	307.4	0.0	307.4
1994	0.0	10.1	0.6	51.6	44.9	0.5	2.4	203.6	(s)	303.6	1.9	(s)	313.8	(s)	313.8
1995	0.0	11.5	0.6	54.6	42.0	0.2	2.4	214.1	0.0	313.9	2.8	(s)	325.4	(s)	R 325.5
1996	0.0	11.2	0.6	56.1	44.0	0.3	2.3	221.3	(s)	324.7	4.9	(s)	335.8	(s)	335.9
1997	0.0	12.5	0.7	49.1	40.7	0.2	2.4	226.0	0.0	319.2	5.0	(s)	331.8	(s)	331.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 52. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Colorado

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	1,221	0	1,221	37	106	10	0	116	0	969	0	0	0	–
1965	2,181	0	2,181	36	40	4	0	43	0	937	0	0	0	–
1970	3,212	0	3,212	51	242	22	0	264	0	1,234	0	0	0	–
1975	5,710	0	5,710	53	882	619	0	1,501	0	1,506	0	0	0	–
1980	10,124	0	10,124	32	171	273	0	444	667	1,716	0	0	0	–
1985	14,295	0	14,295	5	8	113	0	121	-32	2,357	3	0	0	–
1986	14,150	0	14,150	5	0	96	0	96	52	2,263	4	0	0	–
1987	14,178	0	14,178	8	(s)	90	0	90	174	1,818	2	0	0	–
1988	15,087	0	15,087	8	26	57	0	84	660	1,744	2	0	0	–
1989	15,686	0	15,686	8	1	70	0	71	529	1,705	1	0	0	–
1990	15,924	0	15,924	5	(s)	50	0	50	0	1,276	(s)	0	0	–
1991	15,416	0	15,416	6	46	35	0	82	0	1,663	(s)	0	0	–
1992	15,902	0	15,902	5	37	47	0	84	0	1,505	0	0	0	–
1993	16,252	0	16,252	5	0	28	0	28	0	1,858	0	0	0	–
1994	16,596	0	16,596	5	(s)	26	0	26	0	1,540	0	0	0	–
1995	16,222	0	16,222	4	8	22	0	30	0	2,101	0	0	0	–
1996	16,841	0	16,841	5	16	35	0	51	0	1,585	0	0	0	–
1997	17,116	0	17,116	6	(s)	38	0	38	0	1,961	0	0	0	–
	Trillion Btu													
1960	25.1	0.0	25.1	38.3	0.7	0.1	0.0	0.7	0.0	10.4	0.0	0.0	0.0	74.6
1965	46.5	0.0	46.5	32.4	0.3	(s)	0.0	0.3	0.0	9.8	0.0	0.0	0.0	89.0
1970	69.1	0.0	69.1	49.9	1.5	0.1	0.0	1.6	0.0	13.0	0.0	0.0	0.0	133.6
1975	113.1	0.0	113.1	52.7	5.5	3.6	0.0	9.2	0.0	15.7	0.0	0.0	0.0	190.6
1980	202.4	0.0	202.4	31.3	1.1	1.6	0.0	2.7	7.3	17.8	0.0	0.0	0.0	261.5
1985	278.7	0.0	278.7	4.9	(s)	0.7	0.0	0.7	-0.3	24.6	(s)	0.0	0.0	308.6
1986	276.5	0.0	276.5	4.6	0.0	0.6	0.0	0.6	0.6	23.6	(s)	0.0	0.0	305.9
1987	279.1	0.0	279.1	7.7	(s)	0.5	0.0	0.5	1.9	18.9	(s)	0.0	0.0	308.2
1988	294.9	0.0	294.9	8.4	0.2	0.3	0.0	0.5	7.1	18.0	(s)	0.0	0.0	328.8
1989	309.0	0.0	309.0	8.2	(s)	0.4	0.0	0.4	5.7	17.8	(s)	0.0	0.0	341.0
1990	312.4	0.0	312.4	5.4	(s)	0.3	0.0	0.3	0.0	13.3	(s)	0.0	0.0	331.3
1991	304.8	0.0	304.8	5.7	0.3	0.2	0.0	0.5	0.0	R 17.4	(s)	0.0	0.0	328.4
1992	315.5	0.0	315.5	5.0	0.2	0.3	0.0	0.5	0.0	15.6	0.0	0.0	0.0	336.6
1993	321.4	0.0	321.4	4.9	0.0	0.2	0.0	0.2	0.0	19.2	0.0	0.0	0.0	345.6
1994	330.1	0.0	330.1	5.1	(s)	0.1	0.0	0.2	0.0	15.9	0.0	0.0	0.0	351.2
1995	321.0	0.0	321.0	3.8	(s)	0.1	0.0	0.2	0.0	R 21.7	0.0	0.0	0.0	346.7
1996	332.1	0.0	332.1	5.5	0.1	0.2	0.0	0.3	0.0	16.4	0.0	0.0	0.0	354.2
1997	337.9	0.0	337.9	5.5	(s)	0.2	0.0	0.2	0.0	20.2	0.0	0.0	0.0	364.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 53. Energy Consumption Estimates by Source, Selected Years 1960-1997, Connecticut

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	3,851	28	1,088	104	23,369	1,129	1,914	1,092	350	19,349	14,622	222	63,238	0	424	–	–	-708	–
1965	4,957	41	1,326	172	21,186	1,411	1,308	1,383	563	22,933	17,159	660	68,100	0	187	–	–	-946	–
1970	2,060	61	1,019	124	24,117	2,897	778	1,854	569	28,638	35,595	6,190	101,782	3,604	329	–	–	-9,907	–
1975	55	64	1,262	90	21,613	2,124	588	2,209	396	31,822	32,512	617	93,233	8,135	493	–	–	-5,957	–
1980	16	73	630	89	22,304	1,973	491	1,501	455	30,205	29,334	2,012	88,994	11,835	256	–	–	-5,609	–
1985	815	78	2,095	71	18,909	1,085	712	1,283	414	30,999	21,040	1,857	78,464	12,721	307	–	–	-501	–
1986	809	79	2,124	72	20,609	1,255	561	1,134	405	31,860	22,279	1,177	81,477	18,667	804	–	–	-20,645	–
1987	815	92	2,139	55	21,201	1,784	579	1,558	458	32,428	18,951	1,198	80,350	20,540	918	–	–	-20,413	–
1988	881	88	1,853	48	22,980	2,156	724	1,518	442	32,838	21,861	1,185	85,605	22,251	1,008	–	–	-27,044	–
1989	890	95	1,797	40	25,627	2,242	671	1,586	453	32,273	22,185	1,162	88,036	19,563	[i] NA	–	–	[R] -18,452	–
1990	971	98	1,585	94	20,398	2,344	315	1,592	466	31,140	16,590	1,305	75,829	19,776	NA	–	–	[R] -13,462	–
1991	856	102	1,976	28	19,837	2,246	379	1,485	417	31,870	14,536	1,515	74,289	12,243	NA	–	–	[R] 12,746	–
1992	849	111	1,678	28	22,236	2,293	249	1,885	425	32,596	10,889	1,583	73,862	16,771	NA	–	–	[R] 4,338	–
1993	788	112	1,577	30	22,099	2,312	279	1,684	433	33,103	8,845	1,595	71,957	21,802	NA	–	–	-7,841	–
1994	862	120	1,676	28	20,347	2,452	260	1,487	453	32,668	7,597	1,624	68,592	20,160	NA	–	–	[R] -1,374	–
1995	906	132	1,911	41	20,982	2,489	244	1,410	445	30,591	6,822	1,553	66,486	18,749	NA	–	–	[R] -2,174	–
1996	931	128	1,572	37	22,545	2,718	221	1,484	432	32,663	10,432	1,624	73,728	6,225	NA	–	–	[R] 34,720	–
1997	1,065	137	1,217	23	22,877	2,371	286	1,499	456	32,934	14,688	1,746	78,097	-125	NA	–	–	42,720	–
			Trillion Btu																
1960	101.7	29.4	7.2	0.5	136.1	6.4	10.9	4.4	2.1	101.6	91.9	1.3	362.4	0.0	4.6	[R] 12.8	0.0	-2.4	[R] 508.6
1965	128.6	41.7	8.8	0.9	123.4	8.0	7.4	5.5	3.4	120.5	107.9	3.7	389.4	0.0	2.0	[R] 13.5	0.0	-3.2	[R] 572.0
1970	48.6	61.5	6.8	0.6	140.5	16.4	4.4	7.0	3.5	150.4	223.8	34.0	587.4	39.6	3.5	[R] 15.8	0.0	-33.8	[R] 722.6
1975	1.3	64.3	8.4	0.5	125.9	12.0	3.3	8.2	2.4	167.2	204.4	3.4	535.7	89.6	5.1	[R] 17.1	0.0	-20.3	[R] 692.8
1980	0.4	74.2	4.2	0.4	129.9	11.2	2.8	5.5	2.8	158.7	184.4	11.0	510.9	129.1	2.7	[R] 36.8	0.0	-19.1	[R] 734.8
1985	21.3	80.6	13.9	0.4	110.1	6.1	4.0	4.6	2.5	162.8	132.3	10.0	446.9	137.6	3.2	[R] 37.4	0.0	-1.7	[R] 725.2
1986	21.2	81.3	14.1	0.4	120.0	7.1	3.2	4.1	2.5	167.4	140.1	6.4	465.2	201.6	8.4	[R] 55.1	0.0	-70.4	[R] 762.3
1987	21.4	94.7	14.2	0.3	123.5	10.1	3.3	5.7	2.8	170.3	119.1	6.4	455.7	221.3	9.6	[R] 51.3	0.0	-69.6	[R] 784.4
1988	23.1	90.9	12.3	0.2	133.9	12.2	4.1	5.5	2.7	172.5	137.4	6.4	487.3	239.0	10.4	[R] 55.9	0.0	-92.3	[R] 814.4
1989	23.7	98.3	11.9	0.2	149.3	12.7	3.8	5.8	2.7	169.5	139.5	6.3	501.8	209.8	[R i] 6.4	[R i] 57.6	[R i] 0.1	-63.0	[R i] 834.7
1990	25.7	100.9	10.5	0.5	118.8	13.3	1.8	5.8	2.8	163.6	104.3	7.1	428.4	211.2	7.3	[R] 29.4	0.1	-45.9	[R] 756.9
1991	22.6	105.1	13.1	0.1	115.5	12.7	2.1	5.4	2.5	167.4	91.4	8.2	418.6	131.5	6.1	[R] 23.9	0.1	43.5	[R] 751.4
1992	22.3	114.4	11.1	0.1	129.5	13.0	1.4	6.8	2.6	171.2	68.5	8.5	412.8	179.1	12.0	[R] 25.5	0.1	14.8	[R] 782.8
1993	20.6	114.5	10.5	0.2	128.7	13.1	1.6	6.1	2.6	173.9	55.6	8.6	400.8	232.9	12.8	[R] 27.4	0.1	-26.8	[R] 784.3
1994	22.5	123.6	11.1	0.1	118.5	13.9	1.5	5.4	2.7	171.6	47.8	8.8	381.4	215.2	[R] 11.4	[R] 27.2	0.1	-4.7	[R] 780.5
1995	23.7	136.0	12.7	0.2	122.2	14.1	1.4	5.1	2.7	160.7	42.9	8.4	370.4	199.8	14.0	[R] 28.2	0.1	-7.4	[R] 770.3
1996	24.4	131.5	10.4	0.2	131.3	15.4	1.3	5.4	2.6	171.6	65.6	8.7	412.5	66.1	15.7	[R] 29.2	0.2	118.5	[R] 801.1
1997	28.0	140.7	8.1	0.1	133.3	13.4	1.6	5.4	2.8	173.0	92.3	9.4	439.5	-1.3	11.8	26.3	0.2	145.8	795.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 54. Residential Energy Consumption Estimates, Selected Years 1960-1997, Connecticut

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	29	66	95	16	15,480	1,507	624	17,611	R 255	–	–	2,724	–	6,776	–
1965	4	42	46	22	13,649	1,101	692	15,442	R 239	–	–	3,812	–	9,101	–
1970	0	25	25	31	14,239	526	802	15,568	R 308	–	–	6,396	–	15,501	–
1975	0	13	13	32	12,950	291	768	14,009	R 332	–	–	7,449	–	17,969	–
1980	0	10	10	32	13,468	233	595	14,296	R 820	–	–	8,218	–	19,983	–
1985	0	22	22	33	9,758	605	639	11,001	R 698	–	–	8,638	–	20,295	–
1986	(s)	22	22	35	11,578	423	562	12,563	R 680	–	–	9,080	–	20,887	–
1987	(s)	14	15	36	11,613	406	795	12,814	R 500	–	–	9,670	–	22,095	–
1988	(s)	7	7	39	13,136	403	742	14,281	R 519	–	–	10,300	–	23,287	–
1989	(s)	7	7	41	14,228	287	840	15,355	R 538	–	–	10,485	–	R 23,559	–
1990	0	7	7	37	11,426	196	857	12,479	483	–	–	10,376	–	22,694	–
1991	0	8	8	37	11,236	175	950	12,360	509	–	–	10,441	–	R 22,728	–
1992	3	7	10	42	13,434	196	1,220	14,850	535	–	–	10,496	–	R 22,420	–
1993	0	8	8	42	13,812	211	1,051	15,073	R 550	–	–	10,597	–	22,389	–
1994	(s)	7	7	42	12,564	162	941	13,667	R 539	–	–	10,898	–	R 22,742	–
1995	6	5	11	41	12,129	122	875	13,126	R 598	–	–	10,760	–	R 22,416	–
1996	0	3	3	44	13,392	124	1,012	14,528	R 597	–	–	10,943	–	R 22,774	–
1997	0	4	4	41	13,362	143	1,012	14,517	435	–	–	10,859	–	22,551	–
	Trillion Btu														
1960	0.7	1.6	2.4	16.6	90.2	8.5	2.5	101.2	R 5.1	0.0	0.0	9.3	R 134.5	23.1	R 157.7
1965	0.1	1.0	1.1	22.7	79.5	6.2	2.8	88.5	R 4.8	0.0	0.0	13.0	R 130.1	31.1	R 161.2
1970	0.0	0.6	0.6	31.7	82.9	3.0	3.0	89.0	R 6.2	0.0	0.0	21.8	R 149.2	52.9	R 202.1
1975	0.0	0.3	0.3	32.3	75.4	1.7	2.9	79.9	R 6.6	0.0	0.0	25.4	R 144.6	61.3	R 205.9
1980	0.0	0.2	0.2	32.7	78.5	1.3	2.2	82.0	R 16.4	0.0	0.0	28.0	R 159.4	68.2	R 227.5
1985	0.0	0.5	0.5	33.8	56.8	3.4	2.3	62.6	R 14.0	0.0	0.0	29.5	R 140.3	69.2	R 209.5
1986	(s)	0.5	0.5	36.2	67.4	2.4	2.0	71.9	R 13.6	0.0	0.0	31.0	R 153.2	71.3	R 224.4
1987	(s)	0.4	0.4	37.3	67.6	2.3	2.9	72.9	R 10.0	0.0	0.0	33.0	R 153.5	75.4	R 228.9
1988	(s)	0.2	0.2	40.7	76.5	2.3	2.7	81.5	R 10.4	0.0	0.0	35.1	R 168.0	79.5	R 247.4
1989	(s)	0.2	0.2	42.1	82.9	1.6	3.1	87.6	R 10.8	e 0.0	R e 0.1	35.8	R e 176.5	80.4	R e 256.8
1990	0.0	0.2	0.2	38.7	66.6	1.1	3.1	70.8	9.7	0.0	0.1	35.4	154.8	77.4	232.2
1991	0.0	0.2	0.2	38.3	65.4	1.0	3.4	69.9	10.2	0.0	0.1	35.6	154.3	77.5	231.8
1992	0.1	0.2	0.2	43.6	78.3	1.1	4.4	83.8	10.7	0.0	0.1	35.8	174.2	76.5	250.7
1993	0.0	0.2	0.2	43.4	80.5	1.2	3.8	85.4	11.0	0.0	0.1	36.2	176.2	76.4	252.6
1994	(s)	0.2	0.2	42.9	73.2	0.9	3.4	77.5	10.8	0.0	0.1	37.2	168.7	77.6	246.3
1995	0.1	0.1	0.3	42.0	70.7	0.7	3.2	74.5	12.0	0.0	0.1	36.7	R 165.6	76.5	242.1
1996	0.0	0.1	0.1	45.0	78.0	0.7	3.7	82.4	R 11.9	0.0	0.2	37.3	176.9	77.7	R 254.6
1997	0.0	0.1	0.1	41.7	77.8	0.8	3.7	82.3	8.7	0.0	0.2	37.1	170.0	76.9	247.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 55. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Connecticut

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	54	44	98	3	5,029	52	110	63	871	6,125	R 5	–	1,825	–	4,539	–
1965	7	28	35	6	4,434	38	122	76	958	5,629	R 5	–	2,873	–	6,861	–
1970	0	17	17	15	4,626	18	142	97	995	5,877	R 6	–	4,649	–	11,265	–
1975	0	9	9	16	4,207	10	136	239	656	5,248	R 6	–	6,000	–	14,472	–
1980	0	6	6	20	2,905	7	105	275	1,171	4,463	R 20	–	7,039	–	17,116	–
1985	0	15	15	25	3,547	64	113	142	1,679	5,546	NA	–	8,731	–	20,514	–
1986	1	14	15	25	3,525	67	99	146	1,604	5,441	NA	–	9,267	–	21,317	–
1987	1	10	10	28	3,137	112	140	172	1,302	4,864	NA	–	9,801	–	22,394	–
1988	(s)	4	4	27	3,023	66	131	165	1,364	4,749	NA	–	10,317	–	23,325	–
1989	(s)	4	4	31	3,427	145	148	190	1,548	5,459	NA	–	10,644	–	R 23,915	–
1990	0	5	5	29	2,929	51	151	204	1,049	4,385	NA	–	10,711	–	R 23,428	–
1991	0	5	5	27	2,984	167	168	656	529	4,504	NA	–	10,908	–	R 23,746	–
1992	5	5	10	30	2,944	45	215	1,576	893	5,673	NA	–	10,851	–	R 23,179	–
1993	0	5	5	31	2,564	44	185	1,588	413	4,795	R 44	–	11,044	–	23,335	–
1994	1	4	5	39	2,469	51	166	1,041	656	4,382	R 45	–	11,210	–	R 23,393	–
1995	11	3	14	38	2,921	27	154	250	454	3,807	R 45	–	11,297	–	R 23,535	–
1996	0	2	2	40	3,001	72	179	823	462	4,537	R 49	–	11,546	–	R 24,029	–
1997	0	3	3	43	3,029	104	179	983	328	4,622	42	–	11,654	–	24,203	–
	Trillion Btu															
1960	1.4	1.1	2.4	3.3	29.3	0.3	0.4	0.3	5.5	35.8	R 0.1	0.0	6.2	R 47.9	15.5	R 63.4
1965	0.2	0.7	0.9	5.9	25.8	0.2	0.5	0.4	6.0	33.0	R 0.1	0.0	9.8	R 49.6	23.4	R 73.0
1970	0.0	0.4	0.4	14.7	26.9	0.1	0.5	0.5	6.3	34.3	R 0.1	0.0	15.9	R 65.5	38.4	R 103.9
1975	0.0	0.2	0.2	16.0	24.5	0.1	0.5	1.3	4.1	30.4	R 0.1	0.0	20.5	R 67.3	49.4	R 116.6
1980	0.0	0.1	0.1	20.6	16.9	(s)	0.4	1.4	7.4	26.2	R 0.4	0.0	24.0	R 71.3	58.4	R 129.7
1985	0.0	0.3	0.3	25.3	20.7	0.4	0.4	0.7	10.6	32.7	NA	0.0	29.8	88.2	70.0	158.2
1986	(s)	0.4	0.4	25.5	20.5	0.4	0.4	0.8	10.1	32.1	NA	0.0	31.6	89.6	72.7	162.3
1987	(s)	0.3	0.3	28.4	18.3	0.6	0.5	0.9	8.2	28.5	NA	0.0	33.4	90.7	76.4	167.1
1988	(s)	0.1	0.1	28.3	17.6	0.4	0.5	0.9	8.6	27.9	NA	0.0	35.2	91.5	79.6	171.1
1989	(s)	0.1	0.1	31.8	20.0	0.8	0.5	1.0	9.7	32.1	NA	0.0	36.3	100.3	81.6	181.9
1990	0.0	0.1	0.1	30.4	17.1	0.3	0.5	1.1	6.6	25.6	NA	0.0	36.5	92.6	79.9	172.6
1991	0.0	0.1	0.1	27.7	17.4	0.9	0.6	3.4	3.3	25.7	NA	0.0	37.2	90.7	81.0	171.7
1992	0.1	0.1	0.3	30.7	17.1	0.3	0.8	8.3	5.6	32.1	NA	0.0	37.0	100.0	79.1	179.1
1993	0.0	0.1	0.1	32.3	14.9	0.3	0.7	8.3	2.6	26.8	R 0.9	0.0	37.7	R 97.8	79.6	R 177.4
1994	(s)	0.1	0.1	40.3	14.4	0.3	0.6	5.5	4.1	24.9	R 0.9	0.0	38.2	R 104.4	79.8	R 184.3
1995	0.2	0.1	0.3	39.0	17.0	0.2	0.6	1.3	2.9	21.9	R 0.9	0.0	38.5	R 100.7	80.3	R 181.0
1996	0.0	0.1	0.1	40.9	17.5	0.4	0.6	4.3	2.9	25.8	R 1.0	0.0	39.4	R 107.1	82.0	R 189.1
1997	0.0	0.1	0.1	43.8	17.6	0.6	0.6	5.2	2.1	26.1	0.8	0.0	39.8	110.6	82.6	193.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 56. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Connecticut

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	866	7	1,088	1,665	354	355	93	243	11,950	222	15,968	26	–	–	2,837	–	7,056	–
1965	776	12	1,326	1,561	169	564	308	248	13,180	660	18,016	9	–	–	3,862	–	9,220	–
1970	142	15	1,019	1,968	234	890	331	269	13,710	6,190	24,611	3	–	–	5,094	–	12,344	–
1975	29	16	1,262	1,944	287	1,280	200	36	9,124	617	14,750	7	–	–	5,050	–	12,181	–
1980	0	20	630	3,235	251	785	208	66	6,683	2,012	13,870	6	–	–	5,944	–	14,454	–
1985	4	19	2,095	1,072	44	499	189	225	2,202	1,857	8,183	6	–	–	6,113	–	14,362	–
1986	8	18	2,124	1,055	71	451	185	238	2,322	1,177	7,623	6	–	–	6,178	–	14,211	–
1987	3	20	2,139	1,697	61	601	209	236	1,981	1,198	8,122	6	–	–	6,251	–	14,282	–
1988	16	19	1,853	1,333	255	614	202	267	2,095	1,185	7,804	6	–	–	6,305	–	14,255	–
1989	2	20	1,797	1,454	239	565	207	277	1,695	1,162	7,397	[f] NA	–	–	6,235	–	[R] 14,009	–
1990	1	25	1,585	1,018	68	548	213	263	1,434	1,305	6,434	NA	–	–	6,100	–	[R] 13,342	–
1991	3	33	1,976	1,080	37	327	191	239	996	1,515	6,360	NA	–	–	5,822	–	[R] 12,675	–
1992	12	36	1,678	932	8	417	194	240	1,229	1,583	6,282	NA	–	–	5,780	–	12,345	–
1993	30	37	1,577	822	24	415	198	196	1,442	1,595	6,269	NA	–	–	5,597	–	11,826	–
1994	29	31	1,676	761	46	330	207	195	1,313	1,624	6,153	NA	–	–	5,917	–	[R] 12,347	–
1995	0	33	1,911	825	95	355	203	195	767	1,553	5,903	NA	–	–	5,913	–	[R] 12,319	–
1996	0	32	1,572	822	25	272	197	223	980	1,624	5,715	NA	–	–	5,928	–	[R] 12,338	–
1997	0	35	1,217	874	39	289	208	232	395	1,746	4,999	NA	–	–	5,919	–	12,293	–
			Trillion Btu															
1960	22.8	7.5	7.2	9.7	2.0	1.4	0.6	1.3	75.1	1.3	98.6	0.3	[R] 7.6	0.0	9.7	[R] 146.5	24.1	[R] 170.6
1965	20.4	12.7	8.8	9.1	1.0	2.3	1.9	1.3	82.9	3.7	110.8	0.1	[R] 8.7	0.0	13.2	[R] 165.9	31.5	[R] 197.3
1970	3.4	14.9	6.8	11.5	1.3	3.4	2.0	1.4	86.2	34.0	146.6	(s)	[R] 9.6	0.0	17.4	[R] 191.9	42.1	[R] 234.0
1975	0.7	15.6	8.4	11.3	1.6	4.8	1.2	0.2	57.4	3.4	88.3	0.1	[R] 10.3	0.0	17.2	[R] 132.2	41.6	[R] 173.8
1980	0.0	20.8	4.2	18.8	1.4	2.9	1.3	0.3	42.0	11.0	82.0	0.1	[R] 20.0	0.0	20.3	[R] 143.1	49.3	[R] 192.4
1985	0.1	19.5	13.9	6.2	0.2	1.8	1.1	1.2	13.8	10.0	48.4	0.1	[R] 23.4	0.0	20.9	[R] 112.4	49.0	[R] 161.4
1986	0.2	18.2	14.1	6.1	0.4	1.6	1.1	1.2	14.6	6.4	45.6	0.1	[R] 41.5	0.0	21.1	[R] 126.7	48.5	[R] 175.2
1987	0.1	20.4	14.2	9.9	0.3	2.2	1.3	1.2	12.5	6.4	48.0	0.1	[R] 41.3	0.0	21.3	[R] 131.2	48.7	[R] 180.0
1988	0.4	20.1	12.3	7.8	1.4	2.2	1.2	1.4	13.2	6.4	46.0	0.1	[R] 43.0	0.0	21.5	[R] 131.0	48.6	[R] 179.6
1989	(s)	20.4	11.9	8.5	1.4	2.1	1.3	1.5	10.7	6.3	43.5	[R f] 0.5	[R f] 43.1	[f] 0.0	21.3	[R f] 128.7	47.8	[R f] 176.5
1990	(s)	26.3	10.5	5.9	0.4	2.0	1.3	1.4	9.0	7.1	37.6	0.6	[R] 14.9	0.0	20.8	[R] 100.2	45.5	[R] 145.8
1991	0.1	33.7	13.1	6.3	0.2	1.2	1.2	1.3	6.3	8.2	37.7	[R] 0.6	[R] 8.7	0.0	19.9	[R] 100.6	43.2	[R] 143.9
1992	0.3	37.4	11.1	5.4	(s)	1.5	1.2	1.3	7.7	8.5	36.8	0.7	[R] 10.4	0.0	19.7	[R] 105.4	42.1	[R] 147.5
1993	0.7	37.8	10.5	4.8	0.1	1.5	1.2	1.0	9.1	8.6	36.8	0.7	[R] 10.8	0.0	19.1	[R] 105.9	40.4	[R] 146.3
1994	0.7	31.6	11.1	4.4	0.3	1.2	1.3	1.0	8.3	8.8	36.3	0.7	[R] 10.6	0.0	20.2	[R] 100.2	42.1	[R] 142.3
1995	0.0	34.1	12.7	4.8	0.5	1.3	1.2	1.0	4.8	8.4	34.8	0.6	[R] 11.1	0.0	20.2	[R] 100.7	42.0	[R] 142.8
1996	0.0	33.4	10.4	4.8	0.1	1.0	1.2	1.2	6.2	8.7	33.6	1.0	[R] 11.5	0.0	20.2	[R] 99.7	42.1	[R] 141.8
1997	0.0	35.5	8.1	5.1	0.2	1.0	1.3	1.2	2.5	9.4	28.8	0.7	11.8	0.0	20.2	97.0	41.9	139.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 57. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Connecticut

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	15	(s)	104	1,117	1,129	2	258	19,044	204	21,857	0	0	–	0	–
1965	3	(s)	172	1,415	1,411	5	255	22,609	471	26,338	0	0	–	0	–
1970	(s)	(s)	124	2,266	2,897	21	238	28,273	359	34,177	0	0	–	0	–
1975	(s)	(s)	90	2,391	2,013	26	196	31,547	581	36,844	0	0	–	0	–
1980	0	(s)	89	2,580	1,921	15	247	29,864	53	34,768	0	0	–	0	–
1985	0	(s)	71	4,448	1,085	32	225	30,631	152	36,645	0	0	–	0	–
1986	0	1	72	4,338	1,255	22	220	31,477	35	37,420	0	0	–	0	–
1987	0	1	55	4,617	1,784	21	249	32,020	72	38,818	0	0	–	0	–
1988	0	1	48	5,257	2,156	30	240	32,406	131	40,270	0	0	–	0	–
1989	0	1	40	6,319	2,242	32	246	31,806	65	40,750	R e 5,541	0	–	0	–
1990	0	(s)	94	4,955	2,344	36	253	30,673	86	38,441	6,399	0	–	0	–
1991	0	1	28	4,428	2,246	40	227	30,976	92	38,036	5,073	0	–	0	–
1992	0	1	28	4,861	2,293	32	231	30,780	44	38,269	6,165	0	–	0	–
1993	0	(s)	30	4,828	2,312	33	235	31,319	31	38,788	6,880	0	–	0	–
1994	0	1	28	4,470	2,452	50	246	31,433	23	38,701	4,582	0	–	0	–
1995	0	1	41	4,976	2,489	26	242	30,146	12	37,930	980	0	–	0	–
1996	0	1	37	5,255	2,718	22	235	31,617	36	39,920	3,316	0	–	0	–
1997	0	3	23	5,510	2,371	20	248	31,719	25	39,915	3,620	0	–	0	–
			Trillion Btu												
1960	0.4	0.2	0.5	6.5	6.4	(s)	1.6	100.0	1.3	116.3	0.0	0.0	116.9	0.0	116.9
1965	0.1	0.1	0.9	8.2	8.0	(s)	1.5	118.8	3.0	140.4	0.0	0.0	140.5	0.0	140.5
1970	(s)	0.1	0.6	13.2	16.4	0.1	1.4	148.5	2.3	182.5	0.0	0.0	182.6	0.0	182.6
1975	(s)	(s)	0.5	13.9	11.4	0.1	1.2	165.7	3.7	196.4	0.0	0.0	196.5	0.0	196.5
1980	0.0	0.1	0.4	15.0	10.9	0.1	1.5	156.9	0.3	185.1	0.0	0.0	185.2	0.0	185.2
1985	0.0	0.4	0.4	25.9	6.1	0.1	1.4	160.9	1.0	195.7	0.0	0.0	196.1	0.0	196.1
1986	0.0	0.7	0.4	25.3	7.1	0.1	1.3	165.4	0.2	199.7	0.0	0.0	200.4	0.0	200.4
1987	0.0	1.0	0.3	26.9	10.1	0.1	1.5	168.2	0.5	207.5	0.0	0.0	208.5	0.0	208.5
1988	0.0	0.6	0.2	30.6	12.2	0.1	1.5	170.2	0.8	215.7	0.0	0.0	216.2	0.0	216.2
1989	0.0	0.6	0.2	36.8	12.7	0.1	1.5	167.1	0.4	218.8	R e 0.4	0.0	e 219.4	0.0	e 219.4
1990	0.0	0.5	0.5	28.9	13.3	0.1	1.5	161.1	0.5	205.9	0.5	0.0	206.4	0.0	206.4
1991	0.0	0.5	0.1	25.8	12.7	0.1	1.4	162.7	0.6	203.4	0.4	0.0	204.0	0.0	204.0
1992	0.0	0.6	0.1	28.3	13.0	0.1	1.4	161.7	0.3	204.9	0.5	0.0	205.5	0.0	205.5
1993	0.0	0.5	0.2	28.1	13.1	0.1	1.4	164.5	0.2	207.6	0.5	0.0	208.1	0.0	208.1
1994	0.0	0.7	0.1	26.0	13.9	0.2	1.5	165.1	0.1	207.0	0.4	0.0	207.7	0.0	207.7
1995	0.0	1.2	0.2	29.0	14.1	0.1	1.5	158.4	0.1	203.3	0.1	0.0	204.5	0.0	204.5
1996	0.0	1.5	0.2	30.6	15.4	0.1	1.4	166.1	0.2	214.0	0.3	0.0	215.5	0.0	215.5
1997	0.0	2.6	0.1	32.1	13.4	0.1	1.5	166.6	0.2	214.0	0.3	0.0	216.6	0.0	216.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 58. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Connecticut

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,776	0	2,776	2	1,597	79	0	1,676	0	398	0	0	0	–
1965	4,097	0	4,097	(s)	2,550	126	0	2,676	0	179	0	0	0	–
1970	1,875	0	1,875	(s)	20,531	1,018	0	21,550	3,604	327	0	0	0	–
1975	4	0	4	(s)	22,150	232	0	22,382	8,135	487	0	0	0	–
1980	0	0	0	0	21,428	168	0	21,596	11,835	250	0	0	0	–
1985	774	0	774	2	17,006	83	0	17,089	12,721	300	0	0	0	–
1986	763	0	763	1	18,318	112	0	18,430	18,667	797	0	0	0	–
1987	787	0	787	7	15,596	136	0	15,732	20,540	912	0	0	0	–
1988	854	0	854	1	18,271	230	0	18,500	22,251	1,002	242	0	0	–
1989	877	0	877	3	18,876	198	0	19,074	19,563	R 571	317	0	0	–
1990	958	0	958	5	14,021	69	0	14,090	19,776	645	422	0	0	–
1991	840	0	840	5	12,919	109	0	13,029	12,243	535	439	0	0	–
1992	817	0	817	2	8,723	65	0	8,788	16,771	1,092	374	0	0	–
1993	745	0	745	1	6,958	73	0	7,032	21,802	1,174	406	0	0	–
1994	821	0	821	8	5,605	83	0	5,689	20,160	1,028	439	0	0	–
1995	881	0	881	19	5,589	131	0	5,720	18,749	1,299	404	0	0	–
1996	925	0	925	10	8,953	75	0	9,028	6,225	1,424	437	0	0	–
1997	1,058	0	1,058	17	13,941	102	0	14,043	-125	1,077	451	0	0	–
	Trillion Btu													
1960	73.7	0.0	73.7	1.8	10.0	0.5	0.0	10.5	0.0	4.3	0.0	0.0	0.0	90.3
1965	106.2	0.0	106.2	0.3	16.0	0.7	0.0	16.8	0.0	1.9	0.0	0.0	0.0	125.1
1970	44.2	0.0	44.2	0.1	129.1	5.9	0.0	135.0	39.6	3.4	0.0	0.0	0.0	222.3
1975	0.1	0.0	0.1	0.3	139.3	1.3	0.0	140.6	89.6	5.1	0.0	0.0	0.0	235.7
1980	0.0	0.0	0.0	0.0	134.7	1.0	0.0	135.7	129.1	2.6	0.0	0.0	0.0	267.4
1985	20.4	0.0	20.4	1.6	106.9	0.5	0.0	107.4	137.6	3.1	0.0	0.0	0.0	270.1
1986	20.1	0.0	20.1	0.8	115.2	0.7	0.0	115.8	201.6	8.3	0.0	0.0	0.0	346.6
1987	20.7	0.0	20.7	7.6	98.1	0.8	0.0	98.8	221.3	9.5	0.0	0.0	0.0	357.9
1988	22.4	0.0	22.4	1.3	114.9	1.3	0.0	116.2	239.0	10.3	2.5	0.0	0.0	391.8
1989	23.3	0.0	23.3	3.4	118.7	1.2	0.0	119.8	209.8	R 6.0	3.3	0.0	0.0	366.1
1990	25.3	0.0	25.3	5.0	88.1	0.4	0.0	88.6	211.2	6.7	4.4	0.0	0.0	341.6
1991	22.2	0.0	22.2	4.9	81.2	0.6	0.0	81.9	131.5	5.6	4.6	0.0	0.0	251.0
1992	21.5	0.0	21.5	2.2	54.8	0.4	0.0	55.2	179.1	11.3	3.9	0.0	0.0	275.5
1993	19.6	0.0	19.6	0.6	43.7	0.4	0.0	44.2	232.9	12.1	4.2	0.0	0.0	316.1
1994	21.5	0.0	21.5	8.1	35.2	0.5	0.0	35.7	215.2	10.6	4.5	0.0	0.0	R 299.9
1995	23.1	0.0	23.1	19.6	35.1	0.8	0.0	35.9	199.8	13.4	4.2	0.0	0.0	301.7
1996	24.2	0.0	24.2	10.7	56.3	0.4	0.0	56.7	66.1	14.7	4.5	0.0	0.0	180.3
1997	27.8	0.0	27.8	17.1	87.6	0.6	0.0	88.2	-1.3	11.1	4.6	0.0	0.0	152.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 59. Energy Consumption Estimates by Source, Selected Years 1960-1997, Delaware

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	791	9	239	19	2,712	2,144	966	1,007	111	4,314	6,246	2,813	20,571	0	0	–	–	-668	–
1965	1,103	18	571	150	3,275	2,086	825	1,507	112	5,076	5,538	2,864	22,005	0	0	–	–	-817	–
1970	1,541	26	518	20	4,308	2,062	437	2,255	108	6,247	6,588	3,897	26,441	0	0	–	–	-1,583	–
1975	937	19	653	15	4,309	1,654	277	2,654	82	7,069	10,218	3,269	30,200	0	0	–	–	-1,500	–
1980	1,130	30	350	10	3,716	1,573	301	3,199	139	6,614	12,717	4,945	33,564	0	0	–	–	-941	–
1985	2,766	38	827	16	3,425	1,569	705	994	126	7,556	3,602	3,279	22,099	0	0	–	–	-6,056	–
1986	2,565	33	609	20	3,312	1,341	338	878	124	7,719	5,101	3,298	22,739	0	0	–	–	-3,632	–
1987	2,710	37	573	16	3,824	1,287	368	1,006	140	7,885	4,766	3,419	23,284	0	0	–	–	-3,522	–
1988	2,686	29	410	18	3,851	1,362	342	1,017	135	8,184	6,365	3,818	25,502	0	0	–	–	-3,186	–
1989	2,357	35	522	18	4,216	1,255	284	950	138	8,155	5,776	3,832	25,146	0	[i] NA	–	–	[R] -293	–
1990	2,293	39	537	78	3,220	1,306	159	1,043	142	8,012	3,830	5,067	23,393	0	NA	–	–	1,018	–
1991	2,186	42	142	17	3,427	2,397	187	1,098	127	7,797	5,005	5,129	25,326	0	NA	–	–	[R] 230	–
1992	1,770	40	78	18	3,242	1,451	148	925	130	8,153	4,947	6,065	25,157	0	NA	–	–	[R] 3,786	–
1993	2,446	42	112	51	3,562	1,440	143	1,015	132	8,312	6,414	4,207	25,388	0	NA	–	–	2,551	–
1994	2,226	49	163	57	3,566	566	253	1,264	138	8,304	5,720	4,358	24,390	0	NA	–	–	[R] 3,189	–
1995	2,011	61	176	53	3,401	73	127	1,361	136	8,471	4,109	4,196	22,102	0	NA	–	–	[R] 4,704	–
1996	1,956	54	298	52	3,833	62	235	1,683	132	8,453	5,487	4,639	24,874	0	NA	–	–	[R] 5,385	–
1997	1,865	46	143	64	3,448	70	143	1,700	139	8,587	4,453	4,747	23,495	0	NA	–	–	10,730	–
			Trillion Btu																
1960	20.5	9.4	1.6	0.1	15.8	11.5	5.5	4.0	0.7	22.7	39.3	16.9	118.0	0.0	0.0	[R] 5.0	0.0	-2.3	[R] 150.5
1965	29.0	18.7	3.8	0.8	19.1	11.2	4.7	6.0	0.7	26.7	34.8	17.2	124.9	0.0	0.0	[R] 5.6	0.0	-2.8	[R] 175.5
1970	37.2	26.9	3.4	0.1	25.1	11.1	2.5	8.5	0.7	32.8	41.4	23.4	149.1	0.0	0.0	[R] 7.0	0.0	-5.4	[R] 214.9
1975	22.9	19.0	4.3	0.1	25.1	8.9	1.6	9.9	0.5	37.1	64.2	19.4	171.1	0.0	0.0	[R] 7.9	0.0	-5.1	[R] 215.8
1980	28.1	30.8	2.3	0.1	21.6	8.4	1.7	11.8	0.8	34.7	80.0	28.6	190.1	0.0	0.0	[R] 1.7	0.0	-3.2	[R] 247.5
1985	71.4	39.5	5.5	0.1	19.9	8.4	4.0	3.6	0.8	39.7	22.6	19.6	124.2	0.0	0.0	[R] 2.6	0.0	-20.7	[R] 217.1
1986	66.4	33.6	4.0	0.1	19.3	7.2	1.9	3.2	0.7	40.5	32.1	19.9	129.0	0.0	0.0	[R] 2.5	0.0	-12.4	[R] 219.2
1987	70.5	37.3	3.8	0.1	22.3	6.9	2.1	3.7	0.8	41.4	30.0	20.4	131.5	0.0	0.0	[R] 2.1	0.0	-12.0	[R] 229.2
1988	69.0	29.9	2.7	0.1	22.4	7.3	1.9	3.7	0.8	43.0	40.0	22.7	144.7	0.0	0.0	[R] 2.2	0.0	-10.9	[R] 235.0
1989	60.8	35.9	3.5	0.1	24.6	6.8	1.6	3.5	0.8	42.8	36.3	22.6	142.6	0.0	[i] 0.0	[R i] 2.3	[R i] 0.1	-1.0	[R i] 240.6
1990	59.5	40.1	3.6	0.4	18.8	7.0	0.9	3.8	0.9	42.1	24.1	30.0	131.4	0.0	0.0	[R] 3.2	[R] 0.1	3.5	[R] 237.9
1991	56.8	43.4	0.9	0.1	20.0	12.9	1.1	4.0	0.8	41.0	31.5	30.2	142.3	0.0	0.0	[R] 3.4	[R] 0.1	0.8	[R] 246.7
1992	46.1	41.0	0.5	0.1	18.9	7.8	0.8	3.4	0.8	42.8	31.1	35.6	141.8	0.0	0.0	[R] 3.5	[R] 0.1	12.9	[R] 245.5
1993	63.5	43.1	0.7	0.3	20.7	7.7	0.8	3.7	0.8	43.7	40.3	24.5	143.3	0.0	0.0	[R] 3.9	[R] 0.1	8.7	[R] 262.4
1994	57.5	50.4	1.1	0.3	20.8	3.0	1.4	4.6	0.8	43.6	36.0	25.3	137.0	0.0	0.0	[R] 3.7	[R] 0.1	10.9	[R] 259.5
1995	52.4	62.7	1.2	0.3	19.8	0.4	0.7	4.9	0.8	44.5	25.8	24.4	122.9	0.0	0.0	[R] 4.0	[R] 0.1	16.0	[R] 258.2
1996	50.8	55.9	2.0	0.3	22.3	0.4	1.3	6.1	0.8	44.4	34.5	26.9	139.0	0.0	0.0	[R] 4.1	[R] 0.1	18.4	[R] 268.2
1997	48.6	48.1	0.9	0.3	20.1	0.4	0.8	6.1	0.8	45.1	28.0	27.6	130.2	0.0	0.0	3.5	0.1	36.6	267.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 60. Residential Energy Consumption Estimates, Selected Years 1960-1997, Delaware

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	12	12	4	1,485	807	176	2,468	R 76	–	–	496	–	1,234	–
1965	0	8	8	6	1,651	604	288	2,543	R 58	–	–	729	–	1,741	–
1970	0	5	5	8	2,037	365	416	2,818	R 54	–	–	1,169	–	2,832	–
1975	0	3	3	7	1,866	215	394	2,474	R 63	–	–	1,640	–	3,956	–
1980	(s)	2	2	7	1,316	275	375	1,966	R 85	–	–	1,866	–	4,537	–
1985	1	1	3	6	1,331	649	593	2,572	R 131	–	–	1,924	–	4,521	–
1986	2	2	4	7	1,057	319	413	1,789	R 127	–	–	2,121	–	4,879	–
1987	13	2	15	7	1,341	337	492	2,170	R 104	–	–	2,329	–	5,322	–
1988	6	1	7	8	1,393	303	545	2,241	R 109	–	–	2,533	–	5,727	–
1989	7	1	7	8	1,321	269	546	2,137	R 113	–	–	2,623	–	R 5,893	–
1990	8	(s)	8	7	967	144	573	1,684	79	–	–	2,651	–	5,799	–
1991	7	(s)	7	7	1,017	165	631	1,813	84	–	–	2,824	–	R 6,148	–
1992	(s)	(s)	(s)	8	1,041	144	618	1,803	88	–	–	2,786	–	5,951	–
1993	17	(s)	17	8	1,135	106	672	1,913	R 95	–	–	3,044	–	6,431	–
1994	10	1	11	9	1,180	96	700	1,976	R 93	–	–	3,107	–	R 6,484	–
1995	0	1	1	9	1,078	120	859	2,056	104	–	–	3,168	–	R 6,601	–
1996	1	1	2	10	1,107	180	871	2,158	R 103	–	–	3,271	–	6,808	–
1997	2	1	2	9	934	121	871	1,926	75	–	–	3,257	–	6,765	–
	Trillion Btu														
1960	0.0	0.3	0.3	3.9	8.6	4.6	0.7	13.9	R 1.5	0.0	0.0	1.7	R 21.4	4.2	R 25.6
1965	0.0	0.2	0.2	5.9	9.6	3.4	1.2	14.2	R 1.2	0.0	0.0	2.5	R 24.0	5.9	R 29.9
1970	0.0	0.1	0.1	8.0	11.9	2.1	1.6	15.5	R 1.1	0.0	0.0	4.0	R 28.7	9.7	R 38.4
1975	0.0	0.1	0.1	7.1	10.9	1.2	1.5	13.5	R 1.3	0.0	0.0	5.6	R 27.5	13.5	R 41.0
1980	(s)	(s)	(s)	7.1	7.7	1.6	1.4	10.6	R 1.7	0.0	0.0	6.4	R 25.8	15.5	R 41.3
1985	(s)	(s)	0.1	6.3	7.8	3.7	2.1	13.6	R 2.6	0.0	0.0	6.6	R 29.2	15.4	R 44.6
1986	0.1	(s)	0.1	7.0	6.2	1.8	1.5	9.5	R 2.5	0.0	0.0	7.2	R 26.3	16.6	R 43.0
1987	0.3	(s)	0.4	7.1	7.8	1.9	1.8	11.5	R 2.1	0.0	0.0	7.9	R 29.1	18.2	R 47.2
1988	0.1	(s)	0.2	7.7	8.1	1.7	2.0	11.8	R 2.2	0.0	0.0	8.6	R 30.5	19.5	R 50.1
1989	0.2	(s)	0.2	7.7	7.7	1.5	2.0	11.2	R 2.3	[e] (s)	R [e] (s)	8.9	R [e] 30.4	20.1	R [e] 50.5
1990	0.2	(s)	0.2	7.4	5.6	0.8	2.1	8.5	1.6	0.1	(s)	9.0	26.8	19.8	46.6
1991	0.2	(s)	0.2	7.4	5.9	0.9	2.3	9.1	1.7	0.1	(s)	9.6	R 28.1	21.0	R 49.1
1992	(s)	(s)	(s)	8.5	6.1	0.8	2.2	9.1	1.8	0.1	(s)	9.5	R 29.0	20.3	R 49.3
1993	0.4	(s)	0.4	8.6	6.6	0.6	2.4	9.6	1.9	0.1	(s)	10.4	31.0	21.9	R 53.0
1994	0.2	(s)	0.3	8.9	6.9	0.5	2.5	10.0	1.9	0.1	(s)	10.6	31.6	22.1	R 53.8
1995	0.0	(s)	(s)	8.8	6.3	0.7	3.1	10.1	2.1	0.1	(s)	10.8	R 31.9	22.5	R 54.4
1996	(s)	(s)	0.1	10.1	6.4	1.0	3.1	10.6	2.1	0.1	(s)	11.2	34.1	23.2	R 57.4
1997	(s)	(s)	0.1	9.3	5.4	0.7	3.1	9.3	1.5	0.1	(s)	11.1	31.3	23.1	54.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 61. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Delaware

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	8	8	1	572	114	31	13	1,812	2,542	R 1	–	361	–	897	–
1965	0	5	5	1	636	85	51	11	2,081	2,864	R 1	–	536	–	1,279	–
1970	0	3	3	3	785	51	73	24	1,736	2,670	R 1	–	889	–	2,154	–
1975	0	2	2	3	719	30	70	32	1,204	2,054	R 1	–	1,333	–	3,214	–
1980	1	1	2	3	634	9	66	45	4,265	5,020	R 2	–	1,514	–	3,682	–
1985	3	1	3	3	334	51	105	38	70	599	NA	–	1,698	–	3,988	–
1986	4	1	5	4	245	17	73	39	157	530	NA	–	1,864	–	4,289	–
1987	24	1	25	4	362	17	87	42	166	673	NA	–	1,985	–	4,536	–
1988	11	(s)	11	4	390	27	96	40	178	731	NA	–	2,156	–	4,875	–
1989	12	(s)	13	4	298	6	96	39	234	673	NA	–	2,282	–	R 5,128	–
1990	14	(s)	14	4	338	10	101	35	180	664	NA	–	2,361	–	R 5,164	–
1991	13	(s)	13	4	440	13	111	34	51	649	NA	–	2,471	–	R 5,378	–
1992	(s)	(s)	(s)	5	349	1	109	35	89	584	NA	–	2,498	–	R 5,336	–
1993	32	(s)	32	5	332	7	119	9	220	688	R 8	–	2,660	–	5,621	–
1994	19	(s)	19	5	259	8	124	8	161	559	R 8	–	2,745	–	R 5,728	–
1995	0	(s)	(s)	6	273	2	152	8	133	568	8	–	2,900	–	R 6,042	–
1996	2	1	3	7	388	6	154	8	225	781	R 9	–	2,970	–	R 6,181	–
1997	3	(s)	4	7	349	16	154	8	198	724	7	–	3,124	–	6,488	–
	Trillion Btu															
1960	0.0	0.2	0.2	0.6	3.3	0.6	0.1	0.1	11.4	15.6	(s)	0.0	1.2	17.6	3.1	R 20.7
1965	0.0	0.1	0.1	1.4	3.7	0.5	0.2	0.1	13.1	17.5	(s)	0.0	1.8	R 20.9	4.4	25.2
1970	0.0	0.1	0.1	2.9	4.6	0.3	0.3	0.1	10.9	16.2	(s)	0.0	3.0	22.2	7.3	29.5
1975	0.0	(s)	(s)	3.0	4.2	0.2	0.3	0.2	7.6	12.4	(s)	0.0	4.5	R 20.0	11.0	30.9
1980	(s)	(s)	(s)	3.4	3.7	0.1	0.2	0.2	26.8	31.0	(s)	0.0	5.2	39.6	12.6	52.2
1985	0.1	(s)	0.1	3.5	1.9	0.3	0.4	0.2	0.4	3.3	NA	0.0	5.8	12.6	13.6	26.2
1986	0.1	(s)	0.1	3.6	1.4	0.1	0.3	0.2	1.0	3.0	NA	0.0	6.4	13.0	14.6	27.7
1987	0.6	(s)	0.6	3.8	2.1	0.1	0.3	0.2	1.0	3.8	NA	0.0	6.8	15.0	15.5	30.4
1988	0.3	(s)	0.3	4.1	2.3	0.2	0.4	0.2	1.1	4.1	NA	0.0	7.4	15.9	16.6	32.5
1989	0.3	(s)	0.3	4.2	1.7	(s)	0.4	0.2	1.5	3.8	NA	0.0	7.8	16.1	17.5	33.6
1990	0.3	(s)	0.4	4.1	2.0	0.1	0.4	0.2	1.1	3.7	NA	0.0	8.1	16.2	17.6	33.8
1991	0.3	(s)	0.3	4.4	2.6	0.1	0.4	0.2	0.3	3.5	NA	0.0	8.4	16.7	R 18.4	35.0
1992	(s)	(s)	(s)	5.1	2.0	(s)	0.4	0.2	0.6	3.2	NA	0.0	8.5	16.8	18.2	35.0
1993	0.8	(s)	0.8	5.4	1.9	(s)	0.4	(s)	1.4	3.8	0.2	0.0	9.1	19.2	19.2	38.4
1994	0.4	(s)	0.5	5.7	1.5	(s)	0.4	(s)	1.0	3.1	R 0.2	0.0	9.4	18.7	19.5	38.2
1995	0.0	(s)	(s)	5.9	1.6	(s)	0.5	(s)	0.8	3.0	0.2	0.0	9.9	19.0	20.6	39.7
1996	0.1	(s)	0.1	6.9	2.3	(s)	0.6	(s)	1.4	4.3	0.2	0.0	10.1	R 21.6	21.1	R 42.7
1997	0.1	(s)	0.1	6.8	2.0	0.1	0.6	(s)	1.2	4.0	0.1	0.0	10.7	21.7	22.1	43.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 62. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Delaware

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	32	1	239	482	45	798	37	205	2,931	2,813	7,549	0	–	–	863	–	2,146	–
1965	35	6	571	715	136	1,165	40	144	2,785	2,864	8,421	0	–	–	1,373	–	3,277	–
1970	35	12	518	794	20	1,753	41	92	2,643	2,657	8,519	0	–	–	2,527	–	6,124	–
1975	27	7	653	1,079	32	2,154	31	63	1,878	3,032	8,923	0	–	–	2,176	–	5,249	–
1980	184	13	350	616	17	2,744	75	35	1,808	4,474	10,120	0	–	–	2,439	–	5,931	–
1985	217	22	827	423	4	293	69	54	649	2,928	5,247	0	–	–	2,693	–	6,327	–
1986	206	21	609	420	2	347	67	61	698	2,864	5,068	0	–	–	2,839	–	6,530	–
1987	221	18	573	422	14	424	76	59	935	3,045	5,548	0	–	–	2,701	–	6,172	–
1988	248	15	410	446	12	369	73	56	1,121	3,492	5,979	0	–	–	2,854	–	6,452	–
1989	209	15	522	451	9	300	75	65	972	3,515	5,909	[f] NA	–	–	3,160	–	[R] 7,101	–
1990	215	17	537	434	4	363	77	48	746	3,658	5,867	NA	–	–	3,272	–	[R] 7,156	–
1991	208	16	142	445	8	350	69	51	950	3,815	5,829	NA	–	–	3,241	–	[R] 7,055	–
1992	142	18	78	345	3	192	70	51	1,238	4,374	6,352	NA	–	–	3,248	–	6,938	–
1993	174	19	112	365	30	219	72	64	1,756	4,207	6,823	NA	–	–	3,417	–	7,219	–
1994	189	17	163	341	149	434	75	64	1,813	4,358	7,398	NA	–	–	3,447	–	[R] 7,193	–
1995	194	19	176	328	5	346	74	64	1,594	4,196	6,783	NA	–	–	3,511	–	[R] 7,315	–
1996	164	14	298	511	49	655	71	70	1,485	4,639	7,777	NA	–	–	3,399	–	7,075	–
1997	174	15	143	466	6	672	75	70	1,241	4,747	7,421	NA	–	–	3,741	–	7,769	–
			Trillion Btu															
1960	0.8	1.5	1.6	2.8	0.3	3.2	0.2	1.1	18.4	16.9	44.5	0.0	[R] 3.4	0.0	2.9	[R] 53.2	7.3	[R] 60.5
1965	0.9	6.6	3.8	4.2	0.8	4.7	0.2	0.8	17.5	17.2	49.1	0.0	[R] 4.4	0.0	4.7	[R] 65.7	11.2	[R] 76.9
1970	0.8	12.3	3.4	4.6	0.1	6.6	0.3	0.5	16.6	16.0	48.1	0.0	[R] 5.9	0.0	8.6	[R] 75.8	20.9	[R] 96.7
1975	0.6	7.1	4.3	6.3	0.2	8.0	0.2	0.3	11.8	18.0	49.1	0.0	[R] 6.6	0.0	7.4	[R] 70.9	17.9	[R] 88.8
1980	4.5	13.1	2.3	3.6	0.1	10.1	0.5	0.2	11.4	25.8	53.9	0.0	0.0	0.0	8.3	79.8	20.2	100.0
1985	5.4	22.1	5.5	2.5	(s)	1.1	0.4	0.3	4.1	17.5	31.3	0.0	0.0	0.0	9.2	67.9	21.6	89.5
1986	5.1	21.2	4.0	2.4	(s)	1.3	0.4	0.3	4.4	17.3	30.1	0.0	0.0	0.0	9.7	66.1	22.3	88.4
1987	5.5	18.2	3.8	2.5	0.1	1.6	0.5	0.3	5.9	18.1	32.7	0.0	0.0	0.0	9.2	65.6	21.1	86.6
1988	6.1	15.1	2.7	2.6	0.1	1.3	0.4	0.3	7.0	20.7	35.2	0.0	0.0	0.0	9.7	66.2	22.0	88.2
1989	5.2	15.4	3.5	2.6	(s)	1.1	0.5	0.3	6.1	20.7	34.9	[f] 0.0	[f] 0.0	[f] 0.0	10.8	[f] 66.2	24.2	[f] 90.4
1990	5.3	17.3	3.6	2.5	(s)	1.3	0.5	0.3	4.7	21.5	34.4	0.0	[R] 1.6	0.0	11.2	[R] 69.8	24.4	[R] 94.2
1991	5.2	16.5	0.9	2.6	(s)	1.3	0.4	0.3	6.0	22.3	33.8	0.0	[R] 1.7	0.0	11.1	[R] 68.3	24.1	[R] 92.4
1992	3.6	18.7	0.5	2.0	(s)	0.7	0.4	0.3	7.8	25.4	37.1	0.0	[R] 1.8	0.0	11.1	[R] 72.3	23.7	[R] 95.9
1993	4.4	20.1	0.7	2.1	0.2	0.8	0.4	0.3	11.0	24.5	40.1	0.0	[R] 1.8	0.0	11.7	[R] 78.1	24.6	[R] 102.8
1994	4.8	17.8	1.1	2.0	0.8	1.6	0.5	0.3	11.4	25.3	43.0	0.0	[R] 1.7	0.0	11.8	[R] 79.1	24.5	[R] 103.6
1995	4.9	20.1	1.2	1.9	(s)	1.3	0.4	0.3	10.0	24.4	39.6	0.0	[R] 1.8	0.0	12.0	[R] 78.3	25.0	[R] 103.3
1996	4.1	14.7	2.0	3.0	0.3	2.4	0.4	0.4	9.3	26.9	44.7	0.0	[R] 1.8	0.0	11.6	[R] 76.9	24.1	[R] 101.0
1997	4.4	15.3	0.9	2.7	(s)	2.4	0.5	0.4	7.8	27.6	42.3	0.0	1.9	0.0	12.8	76.7	26.5	103.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 63. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Delaware

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	1	0	19	166	2,144	2	74	4,096	1,464	7,965	0	0	–	0	–
1965	(s)	0	150	256	2,086	3	71	4,921	589	8,076	0	0	–	0	–
1970	(s)	0	20	385	2,062	13	67	6,131	671	9,350	0	0	–	0	–
1975	(s)	0	15	510	1,654	36	52	6,973	961	10,201	0	0	–	0	–
1980	0	0	10	963	1,573	14	64	6,533	812	9,970	0	0	–	0	–
1985	0	(s)	16	1,236	1,569	5	58	7,464	232	10,580	0	0	–	0	–
1986	0	(s)	20	1,479	1,341	45	57	7,619	588	11,148	0	0	–	0	–
1987	0	(s)	16	1,567	1,287	3	64	7,785	1,202	11,924	0	0	–	0	–
1988	0	(s)	18	1,449	1,362	6	62	8,089	874	11,859	0	0	–	0	–
1989	0	(s)	18	1,869	1,255	7	63	8,052	889	12,153	[e] 0	0	–	0	–
1990	0	(s)	78	1,371	1,306	6	65	7,929	912	11,667	0	0	–	0	–
1991	0	(s)	17	1,406	2,397	6	58	7,712	1,316	12,913	0	0	–	0	–
1992	0	(s)	18	1,381	1,451	6	59	8,067	1,037	12,020	0	0	–	0	–
1993	0	(s)	51	1,627	1,440	5	61	8,238	1,144	12,566	0	0	–	0	–
1994	0	(s)	57	1,539	566	7	63	8,232	1,267	11,731	0	0	–	0	–
1995	0	(s)	53	1,562	73	5	62	8,398	1,046	11,200	0	0	–	0	–
1996	0	(s)	52	1,604	62	4	60	8,375	2,031	12,189	0	0	–	0	–
1997	0	(s)	64	1,577	70	4	64	8,510	1,701	11,989	0	0	–	0	–
			Trillion Btu												
1960	(s)	0.0	0.1	1.0	11.5	(s)	0.5	21.5	9.2	43.7	0.0	0.0	43.7	0.0	43.7
1965	(s)	0.0	0.8	1.5	11.2	(s)	0.4	25.8	3.7	43.4	0.0	0.0	43.4	0.0	43.4
1970	(s)	0.0	0.1	2.2	11.1	0.1	0.4	32.2	4.2	50.3	0.0	0.0	50.3	0.0	50.3
1975	(s)	0.0	0.1	3.0	8.9	0.1	0.3	36.6	6.0	55.0	0.0	0.0	55.0	0.0	55.0
1980	0.0	0.0	0.1	5.6	8.4	0.1	0.4	34.3	5.1	54.0	0.0	0.0	54.0	0.0	54.0
1985	0.0	(s)	0.1	7.2	8.4	(s)	0.4	39.2	1.5	56.8	0.0	0.0	56.8	0.0	56.8
1986	0.0	(s)	0.1	8.6	7.2	0.2	0.3	40.0	3.7	60.2	0.0	0.0	60.2	0.0	60.2
1987	0.0	(s)	0.1	9.1	6.9	(s)	0.4	40.9	7.6	65.0	0.0	0.0	65.0	0.0	65.0
1988	0.0	(s)	0.1	8.4	7.3	(s)	0.4	42.5	5.5	64.3	0.0	0.0	64.3	0.0	64.3
1989	0.0	(s)	0.1	10.9	6.8	(s)	0.4	42.3	5.6	66.0	[e] 0.0	0.0	[e] 66.0	0.0	[e] 66.0
1990	0.0	(s)	0.4	8.0	7.0	(s)	0.4	41.6	5.7	63.2	0.0	0.0	63.2	0.0	63.2
1991	0.0	(s)	0.1	8.2	12.9	(s)	0.4	40.5	8.3	70.3	0.0	0.0	70.3	0.0	70.3
1992	0.0	(s)	0.1	8.0	7.8	(s)	0.4	42.4	6.5	65.2	0.0	0.0	65.2	0.0	65.2
1993	0.0	(s)	0.3	9.5	7.7	(s)	0.4	43.3	7.2	68.3	0.0	0.0	68.3	0.0	68.3
1994	0.0	(s)	0.3	9.0	3.0	(s)	0.4	43.2	8.0	63.9	0.0	0.0	63.9	0.0	63.9
1995	0.0	(s)	0.3	9.1	0.4	(s)	0.4	44.1	6.6	60.9	0.0	0.0	60.9	0.0	60.9
1996	0.0	(s)	0.3	9.3	0.4	(s)	0.4	44.0	12.8	67.1	0.0	0.0	67.1	0.0	67.1
1997	0.0	(s)	0.3	9.2	0.4	(s)	0.4	44.7	10.7	65.7	0.0	0.0	65.7	0.0	65.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 64. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Delaware

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	737	0	737	3	40	8	0	48	0	0	0	0	0	–
1965	1,055	0	1,055	5	84	17	0	100	0	0	0	0	0	–
1970	1,497	0	1,497	4	1,537	307	1,240	3,084	0	0	0	0	0	–
1975	905	0	905	2	6,176	135	237	6,547	0	0	0	0	0	–
1980	942	0	942	7	5,831	187	470	6,488	0	0	0	0	0	–
1985	2,543	0	2,543	7	2,650	101	351	3,102	0	0	0	0	0	–
1986	2,350	0	2,350	2	3,658	111	434	4,204	0	0	0	0	0	–
1987	2,449	0	2,449	8	2,463	133	374	2,969	0	0	0	0	0	–
1988	2,420	0	2,420	3	4,193	172	326	4,691	0	0	0	0	0	–
1989	2,128	0	2,128	8	3,681	277	317	4,275	0	0	0	0	0	–
1990	2,056	0	2,056	11	1,991	110	1,410	3,510	0	0	0	0	0	–
1991	1,958	0	1,958	14	2,689	119	1,314	4,122	0	0	0	0	0	–
1992	1,628	0	1,628	8	2,582	126	1,691	4,399	0	0	0	0	0	–
1993	2,223	0	2,223	9	3,294	103	0	3,397	0	0	0	0	0	–
1994	2,007	0	2,007	17	2,479	247	0	2,727	0	0	0	0	0	–
1995	1,816	0	1,816	27	1,335	160	0	1,495	0	0	0	0	0	–
1996	1,787	0	1,787	23	1,747	222	0	1,969	0	0	0	0	0	–
1997	1,685	0	1,685	16	1,313	122	0	1,435	0	0	0	0	0	–
	Trillion Btu													
1960	19.1	0.0	19.1	3.3	0.2	(s)	0.0	0.3	0.0	0.0	0.0	0.0	0.0	22.7
1965	27.8	0.0	27.8	4.8	0.5	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	33.3
1970	36.2	0.0	36.2	3.8	9.7	1.8	7.5	18.9	0.0	0.0	0.0	0.0	0.0	59.0
1975	22.2	0.0	22.2	1.8	38.8	0.8	1.4	41.0	0.0	0.0	0.0	0.0	0.0	65.1
1980	23.5	0.0	23.5	7.3	36.7	1.1	2.8	40.6	0.0	0.0	0.0	0.0	0.0	71.3
1985	65.9	0.0	65.9	7.5	16.7	0.6	2.1	19.4	0.0	0.0	0.0	0.0	0.0	92.8
1986	61.1	0.0	61.1	1.9	23.0	0.6	2.6	26.3	0.0	0.0	0.0	0.0	0.0	89.2
1987	64.0	0.0	64.0	8.1	15.5	0.8	2.3	18.5	0.0	0.0	0.0	0.0	0.0	90.6
1988	62.4	0.0	62.4	3.0	26.4	1.0	2.0	29.3	0.0	0.0	0.0	0.0	0.0	94.8
1989	55.1	0.0	55.1	8.6	23.1	1.6	1.9	26.7	0.0	0.0	0.0	0.0	0.0	90.3
1990	53.6	0.0	53.6	11.4	12.5	0.6	8.5	21.6	0.0	0.0	0.0	0.0	0.0	86.6
1991	51.1	0.0	51.1	15.1	16.9	0.7	7.9	25.5	0.0	0.0	0.0	0.0	0.0	91.7
1992	42.5	0.0	42.5	8.7	16.2	0.7	10.2	27.2	0.0	0.0	0.0	0.0	0.0	78.4
1993	57.9	0.0	57.9	9.0	20.7	0.6	0.0	21.3	0.0	0.0	0.0	0.0	0.0	88.2
1994	52.0	0.0	52.0	18.0	15.6	1.4	0.0	17.0	0.0	0.0	0.0	0.0	0.0	87.1
1995	47.5	0.0	47.5	27.9	8.4	0.9	0.0	9.3	0.0	0.0	0.0	0.0	0.0	84.7
1996	46.5	0.0	46.5	24.2	11.0	1.3	0.0	12.3	0.0	0.0	0.0	0.0	0.0	83.0
1997	44.0	0.0	44.0	16.7	8.3	0.7	0.0	9.0	0.0	0.0	0.0	0.0	0.0	69.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 65. Energy Consumption Estimates by Source, Selected Years 1960-1997, District of Columbia

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	1,051	13	11	0	2,894	0	161	2	120	4,957	2,428	0	10,573	0	3	–	–	5,633	–
1965	526	17	20	0	3,435	(s)	104	2	71	5,469	6,749	0	15,850	0	3	–	–	10,436	–
1970	1,128	26	17	0	4,934	(s)	46	4	56	5,688	11,144	0	21,889	0	1	–	–	6,335	–
1975	418	26	20	0	3,157	0	110	4	60	5,748	4,174	0	13,273	0	1	–	–	14,942	–
1980	134	28	16	0	2,284	329	268	4	61	3,881	1,612	0	8,455	0	0	–	–	21,154	–
1985	140	29	27	0	2,229	7	68	4	55	3,802	740	0	6,932	0	0	–	–	26,938	–
1986	54	30	31	0	2,395	501	13	4	54	3,877	1,485	0	8,360	0	0	–	–	27,480	–
1987	70	31	31	0	1,937	(s)	13	4	61	4,246	1,355	0	7,648	0	0	–	–	28,464	–
1988	31	33	33	0	1,868	5	15	5	59	4,358	1,168	0	7,511	0	0	–	–	28,579	–
1989	60	33	27	0	1,841	0	59	5	61	4,200	1,445	0	7,637	0	[i] NA	–	–	[R] 28,624	–
1990	69	29	30	0	1,537	5	11	4	62	4,043	1,024	0	6,717	0	NA	–	–	[R] 29,795	–
1991	66	31	22	0	1,548	0	8	4	56	4,023	666	0	6,328	0	NA	–	–	[R] 31,481	–
1992	50	33	21	0	1,553	0	8	7	57	4,024	472	0	6,142	0	NA	–	–	[R] 31,042	–
1993	51	33	28	2	1,631	101	9	6	58	4,185	650	0	6,671	0	NA	–	–	31,420	–
1994	47	31	26	2	1,863	0	10	6	61	4,099	737	0	6,804	0	NA	–	–	[R] 30,566	–
1995	6	33	26	4	1,822	2	135	5	60	4,142	534	0	6,730	0	NA	–	–	[R] 30,938	–
1996	23	34	22	(s)	2,041	0	107	6	58	3,862	339	0	6,435	0	NA	–	–	[R] 30,705	–
1997	40	34	34	3	1,521	252	209	6	61	4,066	161	0	6,313	0	NA	–	–	30,744	–
			Trillion Btu																
1960	27.8	13.0	0.1	0.0	16.9	0.0	0.9	(s)	0.7	26.0	15.3	0.0	59.9	0.0	(s)	[R] 0.1	0.0	19.2	[R] 120.0
1965	13.8	17.3	0.1	0.0	20.0	0	0.6	(s)	0.4	28.7	42.4	0.0	92.3	0.0	(s)	[R] 0.1	0.0	35.6	[R] 159.2
1970	28.4	26.4	0.1	0.0	28.7	0	0.3	(s)	0.3	29.9	70.1	0.0	129.4	0.0	(s)	[R] 0.1	0.0	21.6	[R] 206.0
1975	10.1	26.2	0.1	0.0	18.4	0.0	0.6	(s)	0.4	30.2	26.2	0.0	76.0	0.0	(s)	[R] 0.1	0.0	51.0	[R] 163.4
1980	3.3	28.0	0.1	0.0	13.3	1.9	1.5	(s)	0.4	20.4	10.1	0.0	47.7	0.0	0.0	[R] 2.0	0.0	72.2	[R] 153.1
1985	3.5	29.3	0.2	0.0	13.0	0	0.4	(s)	0.3	20.0	4.7	0.0	38.6	0.0	0.0	[R] 2.9	0.0	91.9	[R] 166.2
1986	1.4	30.0	0.2	0.0	14.0	2.8	0.1	(s)	0.3	20.4	9.3	0.0	47.1	0.0	0.0	[R] 2.8	0.0	93.8	[R] 175.0
1987	1.7	31.4	0.2	0.0	11.3	0	0.1	(s)	0.4	22.3	8.5	0.0	42.8	0.0	0.0	[R] 2.2	0.0	97.1	[R] 175.2
1988	0.8	33.1	0.2	0.0	10.9	0	0.1	(s)	0.4	22.9	7.3	0.0	41.8	0.0	0.0	[R] 2.2	0.0	97.5	[R] 175.4
1989	1.5	33.8	0.2	0.0	10.7	0.0	0.3	(s)	0.4	22.1	9.1	0.0	42.8	0.0	[i] 0.0	[R i] 2.3	[R i] (s)	[R] 97.7	[R i] 178.0
1990	1.7	29.1	0.2	0.0	9.0	0	0.1	(s)	0.4	21.2	6.4	0.0	37.3	0.0	0.0	1.5	(s)	101.7	171.3
1991	1.7	31.3	0.1	0.0	9.0	0.0	(s)	(s)	0.3	21.1	4.2	0.0	34.9	0.0	0.0	1.6	(s)	107.4	176.8
1992	1.3	33.2	0.1	0.0	9.0	0.0	(s)	(s)	0.3	21.1	3.0	0.0	33.7	0.0	0.0	1.7	(s)	105.9	175.8
1993	1.3	33.3	0.2	(s)	9.5	0.6	0.1	(s)	0.4	22.0	4.1	0.0	36.8	0.0	0.0	[R] 1.9	(s)	107.2	[R] 180.4
1994	1.2	31.2	0.2	(s)	10.9	0.0	0.1	(s)	0.4	21.5	4.6	0.0	37.7	0.0	0.0	[R] 1.8	(s)	104.3	[R] 176.1
1995	0.1	33.2	0.2	(s)	10.6	0	0.8	(s)	0.4	21.8	3.4	0.0	37.1	0.0	0.0	[R] 2.0	(s)	105.6	[R] 178.0
1996	0.6	34.2	0.1	(s)	11.9	0.0	0.6	(s)	0.4	20.3	2.1	0.0	35.4	0.0	0.0	[R] 2.0	(s)	104.8	[R] 177.0
1997	1.0	34.8	0.2	(s)	8.9	1.4	1.2	(s)	0.4	21.4	1.0	0.0	34.5	0.0	0.0	1.5	(s)	104.9	176.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 66. Residential Energy Consumption Estimates, Selected Years 1960-1997, District of Columbia

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	47	0	47	9	1,314	67	1	1,382	R 6	–	–	429	–	1,068	–
1965	36	0	36	11	1,241	43	1	1,285	R 4	–	–	578	–	1,381	–
1970	14	0	14	14	1,622	21	1	1,644	R 5	–	–	830	–	2,012	–
1975	5	0	5	13	1,161	7	1	1,169	R 6	–	–	909	–	2,193	–
1980	38	0	38	14	749	5	1	755	R 98	–	–	1,085	–	2,638	–
1985	49	0	49	17	495	10	1	507	R 144	–	–	1,233	–	2,897	–
1986	19	1	19	17	398	11	1	410	R 140	–	–	1,332	–	3,063	–
1987	24	0	24	17	409	11	1	421	R 108	–	–	1,410	–	3,223	–
1988	11	0	11	17	295	8	1	304	R 112	–	–	1,465	–	3,313	–
1989	21	(s)	21	17	146	11	1	158	R 116	–	–	1,466	–	R 3,294	–
1990	24	0	24	15	149	3	1	154	76	–	–	1,480	–	3,238	–
1991	23	(s)	23	15	165	4	1	170	80	–	–	1,580	–	R 3,440	–
1992	18	(s)	18	17	170	4	1	175	R 85	–	–	1,488	–	3,178	–
1993	18	(s)	18	17	164	5	1	171	86	–	–	1,635	–	3,454	–
1994	16	(s)	16	16	133	4	1	139	R 84	–	–	1,572	–	3,279	–
1995	2	0	2	16	275	6	2	283	R 93	–	–	1,608	–	R 3,351	–
1996	8	0	8	17	307	6	2	314	R 93	–	–	1,614	–	3,360	–
1997	14	(s)	14	16	266	6	2	274	68	–	–	1,554	–	3,227	–
	Trillion Btu														
1960	1.2	0.0	1.2	9.0	7.7	0.4	(s)	8.0	R 0.1	0.0	0.0	1.5	R 19.8	3.6	R 23.5
1965	0.9	0.0	0.9	11.1	7.2	0.2	(s)	7.5	R 0.1	0.0	0.0	2.0	R 21.5	4.7	R 26.2
1970	0.3	0.0	0.3	14.1	9.4	0.1	(s)	9.6	R 0.1	0.0	0.0	2.8	R 27.0	6.9	R 33.8
1975	0.1	0.0	0.1	13.3	6.8	(s)	(s)	6.8	R 0.1	0.0	0.0	3.1	R 23.5	7.5	R 31.0
1980	0.9	0.0	0.9	13.8	4.4	(s)	(s)	4.4	R 2.0	0.0	0.0	3.7	R 24.8	9.0	R 33.8
1985	1.2	0.0	1.2	16.9	2.9	0.1	(s)	2.9	R 2.9	0.0	0.0	4.2	R 28.1	9.9	R 38.0
1986	0.5	(s)	0.5	17.5	2.3	0.1	(s)	2.4	R 2.8	0.0	0.0	4.5	R 27.7	10.5	R 38.2
1987	0.6	0.0	0.6	17.0	2.4	0.1	(s)	2.4	R 2.2	0.0	0.0	4.8	R 27.0	11.0	R 38.0
1988	0.3	0.0	0.3	17.7	1.7	(s)	(s)	1.8	R 2.2	0.0	0.0	5.0	R 26.9	11.3	R 38.2
1989	0.5	(s)	0.5	17.6	0.8	0.1	(s)	0.9	R 2.3	[e] 0.0	R [e] (s)	5.0	R [e] 26.4	11.2	R [e] 37.6
1990	0.6	0.0	0.6	15.3	0.9	(s)	(s)	0.9	1.5	0.0	(s)	5.1	23.3	11.0	34.4
1991	0.6	(s)	0.6	15.4	1.0	(s)	(s)	1.0	1.6	0.0	(s)	5.4	23.9	11.7	35.7
1992	0.4	(s)	0.4	16.7	1.0	(s)	(s)	1.0	1.7	0.0	(s)	5.1	24.9	10.8	35.8
1993	0.4	(s)	0.4	16.7	1.0	(s)	(s)	1.0	1.7	0.0	(s)	5.6	25.4	11.8	37.2
1994	0.4	(s)	0.4	16.0	0.8	(s)	(s)	0.8	1.7	0.0	(s)	5.4	24.3	11.2	35.5
1995	0.1	0.0	0.1	15.8	1.6	(s)	(s)	1.6	1.9	0.0	(s)	5.5	24.8	11.4	36.3
1996	0.2	0.0	0.2	17.4	1.8	(s)	(s)	1.8	1.9	0.0	(s)	5.5	R 26.8	11.5	38.3
1997	0.3	(s)	0.3	16.1	1.6	(s)	(s)	1.6	1.4	0.0	(s)	5.3	24.7	11.0	35.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 67. Commercial Energy Consumption Estimates, Selected Years 1960-1997, District of Columbia

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	87	0	87	4	1,060	34	(s)	85	1,443	2,621	R (s)	–	R 955	–	R 2,375	–
1965	67	0	67	6	1,001	22	(s)	78	4,044	5,144	R (s)	–	1,359	–	3,245	–
1970	26	0	26	12	1,308	10	(s)	65	5,081	6,464	R (s)	–	1,935	–	4,689	–
1975	10	0	10	12	936	4	(s)	78	1,051	2,068	R (s)	–	2,355	–	5,680	–
1980	71	0	71	14	647	1	(s)	40	37	725	R 2	–	R 2,457	–	R 5,974	–
1985	91	0	91	12	749	55	(s)	27	286	1,117	NA	–	R 4,317	–	R 10,142	–
1986	35	(s)	35	12	987	(s)	(s)	49	1,000	2,037	NA	–	R 4,516	–	R 10,387	–
1987	45	0	45	14	649	1	(s)	22	822	1,494	NA	–	R 4,752	–	R 10,859	–
1988	20	0	20	15	547	4	(s)	22	222	795	NA	–	R 4,965	–	R 11,224	–
1989	39	(s)	39	16	540	48	(s)	21	129	739	NA	–	R 5,118	–	R 11,500	–
1990	45	0	45	13	501	8	(s)	71	221	802	NA	–	R 5,250	–	R 11,484	–
1991	43	(s)	43	16	587	4	(s)	35	222	848	NA	–	R 5,418	–	R 11,794	–
1992	33	(s)	33	16	551	4	(s)	29	269	854	NA	–	R 5,416	–	R 11,568	–
1993	33	(s)	33	16	800	4	(s)	32	208	1,045	R 7	–	R 5,605	–	R 11,841	–
1994	30	(s)	30	15	908	6	(s)	66	170	1,150	R 7	–	R 8,291	–	R 17,300	–
1995	4	0	4	17	803	129	(s)	101	132	1,166	R 7	–	R 8,275	–	R 17,239	–
1996	15	0	15	16	975	101	(s)	20	97	1,194	R 8	–	R 8,108	–	R 16,874	–
1997	26	(s)	26	18	522	202	(s)	49	35	809	7	–	8,132	–	16,889	–
	Trillion Btu															
1960	2.2	0.0	2.2	3.7	6.2	0.2	(s)	0.4	9.1	15.9	(s)	0.0	3.3	R 25.1	8.1	R 33.2
1965	1.7	0.0	1.7	6.0	5.8	0.1	(s)	0.4	25.4	31.8	(s)	0.0	4.6	44.1	11.1	55.2
1970	0.6	0.0	0.6	11.8	7.6	0.1	(s)	0.3	31.9	40.0	(s)	0.0	6.6	59.0	16.0	75.0
1975	0.2	0.0	0.2	12.4	5.5	(s)	(s)	0.4	6.6	12.5	(s)	0.0	8.0	33.2	19.4	52.5
1980	1.7	0.0	1.7	13.8	3.8	(s)	(s)	0.2	0.2	4.2	(s)	0.0	8.4	R 28.2	20.4	48.6
1985	2.3	0.0	2.3	12.1	4.4	0.3	(s)	0.1	1.8	6.6	NA	0.0	R 14.7	R 35.7	R 34.6	R 70.3
1986	0.9	(s)	0.9	12.1	5.8	(s)	(s)	0.3	6.3	12.3	NA	0.0	R 15.4	40.7	R 35.4	R 76.1
1987	1.1	0.0	1.1	14.2	3.8	(s)	(s)	0.1	5.2	9.1	NA	0.0	R 16.2	R 40.6	R 37.1	R 77.7
1988	0.5	0.0	0.5	15.2	3.2	(s)	(s)	0.1	1.4	4.7	NA	0.0	R 16.9	R 37.3	R 38.3	R 75.6
1989	1.0	(s)	1.0	15.9	3.1	0.3	(s)	0.1	0.8	4.3	NA	0.0	17.5	38.7	R 39.2	R 77.9
1990	1.1	0.0	1.1	13.6	2.9	(s)	(s)	0.4	1.4	4.7	NA	0.0	R 17.9	37.4	R 39.2	R 76.5
1991	1.1	(s)	1.1	15.6	3.4	(s)	(s)	0.2	1.4	5.0	NA	0.0	R 18.5	R 40.2	R 40.2	R 80.5
1992	0.8	(s)	0.8	16.2	3.2	(s)	(s)	0.2	1.7	5.1	NA	0.0	R 18.5	R 40.6	R 39.5	R 80.1
1993	0.8	(s)	0.8	16.3	4.7	(s)	(s)	0.2	1.3	6.2	R 0.1	0.0	R 19.1	R 42.6	R 40.4	R 83.0
1994	0.8	(s)	0.8	14.9	5.3	(s)	(s)	0.3	1.1	6.7	R 0.1	0.0	R 28.3	R 50.8	R 59.0	R 109.9
1995	0.1	0.0	0.1	17.1	4.7	0.7	(s)	0.5	0.8	6.8	R 0.1	0.0	R 28.2	R 52.4	R 58.8	R 111.2
1996	0.4	0.0	0.4	16.5	5.7	0.6	(s)	0.1	0.6	7.0	R 0.2	0.0	R 27.7	R 51.7	R 57.6	R 109.2
1997	0.6	(s)	0.6	18.4	3.0	1.1	(s)	0.3	0.2	4.7	0.1	0.0	27.7	51.6	57.6	109.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 68. Industrial Energy Consumption Estimates, Selected Years 1960-1997, District of Columbia

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	463	(s)	11	211	61	1	8	0	949	0	1,241	0	–	–	1,237	–	3,076	–
1965	129	(s)	20	316	39	1	11	0	2,689	0	3,076	0	–	–	1,836	–	4,383	–
1970	414	(s)	17	377	15	2	3	0	3,296	0	3,710	0	–	–	2,627	–	6,367	–
1975	292	(s)	20	150	99	2	14	0	686	0	970	0	–	–	2,532	–	6,108	–
1980	25	(s)	16	192	262	3	7	0	54	0	534	0	–	–	3,356	–	8,161	–
1985	0	0	27	36	3	2	7	59	1	0	135	0	–	–	2,534	–	5,954	–
1986	0	0	31	79	2	2	6	64	0	0	184	0	–	–	2,606	–	5,994	–
1987	0	0	31	12	2	3	7	80	0	0	135	0	–	–	2,708	–	6,188	–
1988	0	0	33	3	2	3	7	62	0	0	109	0	–	–	2,809	–	6,351	–
1989	0	0	27	3	0	3	7	75	(s)	0	116	[f] NA	–	–	2,930	–	[R] 6,582	–
1990	0	0	30	2	0	2	7	90	1	0	133	NA	–	–	2,976	–	[R] 6,510	–
1991	0	0	22	2	(s)	2	7	58	1	0	93	NA	–	–	3,053	–	[R] 6,646	–
1992	0	0	21	13	0	5	7	59	2	0	106	NA	–	–	2,987	–	[R] 6,381	–
1993	0	0	28	15	0	3	7	36	0	0	90	NA	–	–	2,976	–	6,289	–
1994	0	0	26	13	0	3	7	69	1	0	119	NA	–	–	267	–	558	–
1995	0	0	26	15	0	3	7	44	(s)	0	95	NA	–	–	262	–	546	–
1996	0	0	22	18	(s)	3	7	39	(s)	0	89	NA	–	–	252	–	524	–
1997	0	0	34	21	(s)	3	7	56	0	0	121	NA	–	–	262	–	545	–
	Trillion Btu																	
1960	12.0	0.2	0.1	1.2	0.3	(s)	(s)	0.0	6.0	0.0	7.7	0.0	0.0	0.0	4.2	24.0	10.5	34.5
1965	3.3	0.3	0.1	1.8	0.2	(s)	0.1	0.0	16.9	0.0	19.2	0.0	0.0	0.0	6.3	29.0	15.0	44.0
1970	10.0	0.4	0.1	2.2	0.1	(s)	(s)	0.0	20.7	0.0	23.1	0.0	0.0	0.0	9.0	42.6	21.7	64.3
1975	7.0	0.4	0.1	0.9	0.6	(s)	0.1	0.0	4.3	0.0	6.0	0.0	0.0	0.0	8.6	22.0	20.8	42.8
1980	0.6	0.4	0.1	1.1	1.5	(s)	(s)	0.0	0.3	0.0	3.1	0.0	0.0	0.0	11.5	15.5	27.8	43.4
1985	0.0	0.0	0.2	0.2	(s)	(s)	(s)	0.3	(s)	0.0	0.8	0.0	0.0	0.0	8.6	9.4	20.3	29.7
1986	0.0	0.0	0.2	0.5	(s)	(s)	(s)	0.3	0.0	0.0	1.1	0.0	0.0	0.0	8.9	9.9	20.5	30.4
1987	0.0	0.0	0.2	0.1	(s)	(s)	(s)	0.4	0.0	0.0	0.8	0.0	0.0	0.0	9.2	10.0	21.1	31.1
1988	0.0	0.0	0.2	(s)	(s)	(s)	(s)	0.3	0.0	0.0	0.6	0.0	0.0	0.0	9.6	10.2	21.7	31.9
1989	0.0	0.0	0.2	(s)	0.0	(s)	(s)	0.4	(s)	0.0	0.6	[f] 0.0	[f] 0.0	[f] 0.0	10.0	[f] 10.6	22.5	[f] 33.1
1990	0.0	0.0	0.2	(s)	0.0	(s)	(s)	0.5	(s)	0.0	0.7	0.0	0.0	0.0	10.2	10.9	22.2	33.1
1991	0.0	0.0	0.1	(s)	(s)	(s)	(s)	0.3	(s)	0.0	0.5	0.0	0.0	0.0	10.4	10.9	22.7	33.6
1992	0.0	0.0	0.1	0.1	0.0	(s)	(s)	0.3	(s)	0.0	0.6	0.0	0.0	0.0	10.2	10.8	21.8	32.6
1993	0.0	0.0	0.2	0.1	0.0	(s)	(s)	0.2	0.0	0.0	0.5	0.0	0.0	0.0	10.2	10.7	21.5	32.1
1994	0.0	0.0	0.2	0.1	0.0	(s)	(s)	0.4	(s)	0.0	0.7	0.0	0.0	0.0	0.9	1.6	1.9	3.5
1995	0.0	0.0	0.2	0.1	0.0	(s)	(s)	0.2	(s)	0.0	0.5	0.0	0.0	0.0	0.9	1.4	1.9	3.3
1996	0.0	0.0	0.1	0.1	(s)	(s)	(s)	0.2	(s)	0.0	0.5	0.0	0.0	0.0	0.9	1.4	1.8	3.2
1997	0.0	0.0	0.2	0.1	(s)	(s)	(s)	0.3	0.0	0.0	0.7	0.0	0.0	0.0	0.9	1.6	1.9	3.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 69. Transportation Energy Consumption Estimates, Selected Years 1960-1997, District of Columbia

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	8	(s)	0	305	0	(s)	112	4,872	28	5,317	0	R 32	–	R 80	–
1965	(s)	0	0	874	(s)	(s)	59	5,391	6	6,331	0	0	–	0	–
1970	1	(s)	0	492	(s)	(s)	53	5,623	13	6,182	0	0	–	0	–
1975	(s)	(s)	0	820	0	1	46	5,670	350	6,887	0	0	–	0	–
1980	0	0	0	587	329	(s)	54	3,841	59	4,870	0	R 106	–	R 258	–
1985	0	(s)	0	882	7	1	49	3,716	202	4,857	0	R 130	–	R 305	–
1986	0	(s)	0	862	501	(s)	48	3,764	80	5,255	0	R 136	–	R 312	–
1987	0	(s)	0	783	(s)	(s)	54	4,144	0	4,981	0	R 136	–	R 312	–
1988	0	(s)	0	858	5	1	52	4,275	10	5,201	0	R 140	–	R 317	–
1989	0	(s)	0	938	0	1	54	4,104	40	5,135	[e] 0	R 139	–	R 312	–
1990	0	(s)	0	812	5	1	55	3,882	3	4,759	0	R 142	–	R 310	–
1991	0	(s)	0	740	0	(s)	49	3,930	0	4,720	0	R 144	–	R 314	–
1992	0	(s)	0	763	0	1	50	3,936	7	4,758	0	R 152	–	R 325	–
1993	0	(s)	2	617	101	1	51	4,117	0	4,889	0	R 159	–	R 336	–
1994	0	(s)	2	712	0	1	53	3,963	0	4,731	0	R 165	–	R 345	–
1995	0	(s)	4	654	2	1	53	3,997	0	4,709	0	R 170	–	R 355	–
1996	0	(s)	(s)	693	0	1	51	3,803	0	4,548	0	R 163	–	R 339	–
1997	0	(s)	3	641	252	(s)	54	3,962	0	4,912	0	158	–	329	–
			Trillion Btu												
1960	0.2	(s)	0.0	1.8	0.0	(s)	0.7	25.6	0.2	28.2	0.0	0.1	28.6	0.3	28.8
1965	(s)	0.0	0.0	5.1	(s)	(s)	0.4	28.3	(s)	33.8	0.0	0.0	33.8	0.0	33.8
1970	(s)	(s)	0.0	2.9	(s)	(s)	0.3	29.5	0.1	32.8	0.0	0.0	32.8	0.0	32.8
1975	(s)	(s)	0.0	4.8	0.0	(s)	0.3	29.8	2.2	37.0	0.0	0.0	37.1	0.0	37.1
1980	0.0	0.0	0.0	3.4	1.9	(s)	0.3	20.2	0.4	26.2	0.0	R 0.4	26.5	R 0.9	27.4
1985	0.0	0.4	0.0	5.1	(s)	(s)	0.3	19.5	1.3	26.3	0.0	0.4	27.1	1.0	R 28.1
1986	0.0	0.4	0.0	5.0	2.8	(s)	0.3	19.8	0.5	28.4	0.0	R 0.5	R 29.3	R 1.1	R 30.3
1987	0.0	0.3	0.0	4.6	(s)	(s)	0.3	21.8	0.0	26.7	0.0	R 0.5	R 27.4	R 1.1	R 28.5
1988	0.0	0.2	0.0	5.0	(s)	(s)	0.3	22.5	0.1	27.9	0.0	R 0.5	R 28.6	R 1.1	R 29.7
1989	0.0	0.3	0.0	5.5	0.0	(s)	0.3	21.6	0.2	27.6	[e] 0.0	R 0.5	R e 28.3	R 1.1	R e 29.4
1990	0.0	0.3	0.0	4.7	(s)	(s)	0.3	20.4	(s)	25.5	0.0	R 0.5	26.2	R 1.1	R 27.3
1991	0.0	0.3	0.0	4.3	0.0	(s)	0.3	20.6	0.0	25.3	0.0	R 0.5	R 26.0	R 1.1	R 27.1
1992	0.0	0.3	0.0	4.4	0.0	(s)	0.3	20.7	(s)	25.5	0.0	R 0.5	R 26.3	R 1.1	R 27.4
1993	0.0	0.3	(s)	3.6	0.6	(s)	0.3	21.6	0.0	26.1	0.0	R 0.5	R 26.9	R 1.1	R 28.1
1994	0.0	0.2	(s)	4.1	0.0	(s)	0.3	20.8	0.0	25.3	0.0	R 0.6	R 26.1	R 1.2	R 27.3
1995	0.0	0.3	(s)	3.8	(s)	(s)	0.3	21.0	0.0	25.2	0.0	R 0.6	R 26.0	R 1.2	R 27.2
1996	0.0	0.2	(s)	4.0	0.0	(s)	0.3	20.0	0.0	24.3	0.0	R 0.6	R 25.1	R 1.2	R 26.3
1997	0.0	0.3	(s)	3.7	1.4	(s)	0.3	20.8	0.0	26.3	0.0	0.5	27.1	1.1	28.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 70. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, District of Columbia

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	446	0	446	0	9	4	0	12	0	3	0	0	0	–
1965	293	0	293	0	10	4	0	14	0	3	0	0	0	–
1970	673	0	673	0	2,755	1,135	0	3,889	0	1	0	0	0	–
1975	111	0	111	0	2,088	90	0	2,178	0	1	0	0	0	–
1980	0	0	0	0	1,462	109	0	1,572	0	0	0	0	0	–
1985	0	0	0	0	250	66	0	316	0	0	0	0	0	–
1986	0	0	0	0	405	69	0	474	0	0	0	0	0	–
1987	0	0	0	0	533	84	0	616	0	0	0	0	0	–
1988	0	0	0	0	935	165	0	1,100	0	0	0	0	0	–
1989	0	0	0	0	1,276	214	0	1,490	0	0	0	0	0	–
1990	0	0	0	0	798	72	0	871	0	0	0	0	0	–
1991	0	0	0	0	442	54	0	497	0	0	0	0	0	–
1992	0	0	0	0	194	56	0	250	0	0	0	0	0	–
1993	0	0	0	0	442	35	0	477	0	0	0	0	0	–
1994	0	0	0	0	566	98	0	664	0	0	0	0	0	–
1995	0	0	0	0	402	75	0	477	0	0	0	0	0	–
1996	0	0	0	0	241	49	0	290	0	0	0	0	0	–
1997	0	0	0	0	126	71	0	197	0	0	0	0	0	–
	Trillion Btu													
1960	12.2	0.0	12.2	0.0	0.1	(s)	0.0	0.1	0.0	(s)	0.0	0.0	0.0	12.4
1965	7.9	0.0	7.9	0.0	0.1	(s)	0.0	0.1	0.0	(s)	0.0	0.0	0.0	8.0
1970	17.4	0.0	17.4	0.0	17.3	6.6	0.0	23.9	0.0	(s)	0.0	0.0	0.0	41.4
1975	2.8	0.0	2.8	0.0	13.1	0.5	0.0	13.6	0.0	(s)	0.0	0.0	0.0	16.5
1980	0.0	0.0	0.0	0.0	9.2	0.6	0.0	9.8	0.0	0.0	0.0	0.0	0.0	9.8
1985	0.0	0.0	0.0	0.0	1.6	0.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0
1986	0.0	0.0	0.0	0.0	2.5	0.4	0.0	2.9	0.0	0.0	0.0	0.0	0.0	2.9
1987	0.0	0.0	0.0	0.0	3.4	0.5	0.0	3.8	0.0	0.0	0.0	0.0	0.0	3.8
1988	0.0	0.0	0.0	0.0	5.9	1.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	6.8
1989	0.0	0.0	0.0	0.0	8.0	1.2	0.0	9.3	0.0	0.0	0.0	0.0	0.0	9.3
1990	0.0	0.0	0.0	0.0	5.0	0.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	5.4
1991	0.0	0.0	0.0	0.0	2.8	0.3	0.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1
1992	0.0	0.0	0.0	0.0	1.2	0.3	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.5
1993	0.0	0.0	0.0	0.0	2.8	0.2	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0
1994	0.0	0.0	0.0	0.0	3.6	0.6	0.0	4.1	0.0	0.0	0.0	0.0	0.0	4.1
1995	0.0	0.0	0.0	0.0	2.5	0.4	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0
1996	0.0	0.0	0.0	0.0	1.5	0.3	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.8
1997	0.0	0.0	0.0	0.0	0.8	0.4	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 71. Energy Consumption Estimates by Source, Selected Years 1960-1997, Florida

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	1,104	138	3,304	4,517	8,621	9,482	3,962	4,936	911	43,148	30,199	356	109,435	0	278	–	–	-2,134	–
1965	2,323	185	3,506	4,273	12,279	17,525	4,449	5,663	1,014	53,136	43,344	1,349	146,537	0	298	–	–	606	–
1970	5,131	337	4,076	3,138	15,639	23,840	3,657	7,828	1,089	76,254	53,642	1,380	190,543	0	292	–	–	-1,715	–
1975	5,779	280	3,659	1,921	23,387	24,224	879	7,478	1,189	100,592	79,315	1,651	244,296	8,370	234	–	–	-850	–
1980	9,543	317	4,487	1,339	29,431	35,911	952	10,718	1,409	109,279	96,756	3,036	293,318	16,737	215	–	–	12,500	–
1985	19,305	290	6,666	841	30,444	23,101	2,530	9,932	1,282	125,346	37,777	3,100	241,020	23,461	244	–	–	73,679	–
1986	18,699	289	8,240	1,023	31,822	25,022	1,440	10,568	1,254	131,092	57,612	3,462	271,535	22,036	212	–	–	54,546	–
1987	23,644	300	7,583	778	32,912	26,502	1,138	8,794	1,418	137,775	45,688	3,388	265,976	18,773	217	–	–	64,257	–
1988	24,595	293	7,931	882	34,425	31,960	1,153	8,020	1,367	141,728	53,941	3,335	284,744	26,198	209	–	–	49,779	–
1989	25,447	324	6,481	976	35,349	33,566	852	8,017	1,402	142,220	53,498	3,268	285,630	20,916	[i] NA	–	–	[R] 72,681	–
1990	25,233	328	6,804	808	34,388	31,958	329	7,744	1,443	142,351	54,500	3,677	284,002	21,780	NA	–	–	[R] 84,032	–
1991	26,004	344	7,310	712	31,382	25,048	237	7,959	1,291	141,440	59,727	3,068	278,174	20,508	NA	–	–	[R] 70,665	–
1992	26,368	353	6,933	593	34,689	24,436	313	7,992	1,316	143,176	59,829	3,230	282,506	25,116	NA	–	–	[R] 57,680	–
1993	26,430	336	8,342	527	23,595	26,644	284	8,070	1,340	150,283	70,106	3,254	292,446	25,887	NA	–	–	60,779	–
1994	26,082	368	7,304	526	33,724	28,640	209	7,430	1,401	152,338	67,062	3,265	301,899	26,682	NA	–	–	[R] 78,107	–
1995	26,526	516	6,630	599	39,920	28,045	313	7,796	1,377	157,657	47,456	3,110	292,904	28,741	NA	–	–	[R] 85,496	–
1996	28,443	486	5,920	519	39,187	29,345	402	7,905	1,336	159,028	47,619	3,567	294,829	25,470	NA	–	–	[R] 103,252	–
1997	28,719	486	3,517	567	42,889	30,507	308	7,985	1,411	161,878	49,948	6,817	305,828	22,968	NA	–	–	103,154	–
			Trillion Btu																
1960	27.2	142.9	21.9	22.8	50.2	51.5	22.5	19.8	5.5	226.7	189.9	2.1	612.8	0.0	3.0	[R] 32.7	0.0	-7.3	[R] 811.3
1965	55.2	191.7	23.3	21.6	71.5	97.2	25.2	22.7	6.2	279.1	272.5	7.4	826.6	0.0	3.1	[R] 36.8	0.0	2.1	[R] 1,115.5
1970	116.7	350.6	27.0	15.8	91.1	133.2	20.7	29.6	6.6	400.6	337.2	7.5	1,069.4	0.0	3.1	[R] 48.0	0.0	-5.9	[R] 1,581.9
1975	133.5	292.1	24.3	9.7	136.2	135.7	5.0	27.8	7.2	528.4	498.7	9.1	1,382.0	92.2	2.4	[R] 47.6	0.0	-2.9	[R] 1,946.9
1980	225.5	329.6	29.8	6.8	171.4	201.6	5.4	39.4	8.5	574.0	608.3	16.7	1,661.9	182.6	2.2	[R] 65.6	0.0	42.6	[R] 2,510.0
1985	472.4	305.1	44.2	4.2	177.3	129.2	14.3	35.8	7.8	658.4	237.5	16.8	1,325.6	253.7	2.5	[R] 90.5	0.0	251.4	[R] 2,701.2
1986	459.4	298.9	54.7	5.2	185.4	140.1	8.2	38.5	7.6	688.6	362.2	18.9	1,509.2	238.0	2.2	[R] 104.8	0.0	186.1	[R] 2,798.6
1987	586.6	313.6	50.3	3.9	191.7	148.4	6.5	32.2	8.6	723.7	287.2	18.2	1,470.8	202.3	2.3	[R] 97.4	0.0	219.2	[R] 2,892.2
1988	611.5	305.8	52.6	4.5	200.5	179.3	6.5	29.3	8.3	744.5	339.1	18.0	1,582.7	281.4	2.2	[R] 101.3	0.0	169.8	[R] 3,054.6
1989	630.2	337.2	43.0	4.9	205.9	188.5	4.8	29.5	8.5	747.1	336.3	17.6	1,586.3	224.3	[i] 2.4	[R i] 132.1	[R i] 23.0	[R] 248.0	[R i] 3,183.1
1990	624.3	342.0	45.1	4.1	200.3	179.6	1.9	28.1	8.8	747.8	342.6	19.9	1,578.1	232.6	1.8	[R] 73.5	[R] 23.8	286.7	[R] 3,162.5
1991	642.8	361.0	48.5	3.6	182.8	140.8	1.3	28.8	7.8	743.0	375.5	16.6	1,548.8	220.3	2.7	[R] 58.8	[R] 24.7	[R] 241.1	[R] 3,099.8
1992	652.7	370.3	46.0	3.0	202.1	137.5	1.8	29.0	8.0	752.1	376.1	17.4	1,573.0	268.2	2.4	[R] 62.1	[R] 25.9	196.8	[R] 3,150.9
1993	652.2	353.4	55.4	2.7	137.4	150.3	1.6	29.1	8.1	789.4	440.8	17.5	1,632.4	276.5	2.2	[R] 64.5	[R] 27.0	207.4	[R] 3,215.0
1994	641.7	392.5	48.5	2.7	196.4	162.1	1.2	27.0	8.5	800.2	421.6	17.6	1,685.9	284.9	2.8	[R] 71.9	[R] 27.9	[R] 266.5	[R] 3,373.7
1995	653.0	532.6	44.0	3.0	232.5	159.0	1.8	28.2	8.3	828.2	298.4	16.8	1,620.2	306.3	2.4	[R] 73.9	[R] 29.0	[R] 291.7	[R] 3,508.9
1996	694.5	510.7	39.3	2.6	228.3	166.4	2.3	28.6	8.1	835.4	299.4	19.3	1,629.6	270.6	2.2	[R] 82.1	[R] 30.2	[R] 352.3	[R] 3,572.0
1997	697.3	509.0	23.3	2.9	249.8	173.0	1.7	28.9	8.6	850.3	314.0	38.9	1,691.4	244.0	10.6	79.2	31.3	352.0	3,614.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 72. Residential Energy Consumption Estimates, Selected Years 1960-1997, Florida

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	6	541	3,150	3,458	7,149	R 436	–	–	7,258	–	18,052	–
1965	0	0	0	8	976	3,001	4,095	8,073	R 292	–	–	12,283	–	29,327	–
1970	0	0	0	15	1,010	2,414	5,698	9,121	R 373	–	–	24,610	–	59,638	–
1975	0	0	0	15	1,097	724	5,157	6,977	R 481	–	–	34,756	–	83,836	–
1980	4	0	4	15	1,215	774	4,434	6,422	R 1,607	–	–	44,746	–	108,807	–
1985	38	0	38	14	568	864	5,994	7,426	R 2,610	–	–	54,118	–	127,146	–
1986	33	0	33	14	463	556	6,418	7,436	R 2,540	–	–	57,672	–	132,662	–
1987	17	3	20	15	720	630	5,481	6,831	R 2,183	–	–	60,406	–	138,023	–
1988	1	1	1	15	522	654	4,870	6,046	R 2,268	–	–	63,972	–	144,626	–
1989	(s)	(s)	(s)	13	363	381	4,843	5,587	R 2,352	–	–	68,184	–	R 153,196	–
1990	1	(s)	2	13	234	154	4,989	5,377	428	–	–	71,115	–	R 155,544	–
1991	0	(s)	(s)	13	237	195	5,162	5,594	451	–	–	72,814	–	R 158,507	–
1992	5	1	6	14	309	274	5,189	5,772	474	–	–	73,189	–	R 156,332	–
1993	5	(s)	6	14	319	218	5,053	5,591	513	–	–	76,827	–	162,321	–
1994	7	(s)	7	14	249	125	4,635	5,008	503	–	–	80,595	–	R 168,180	–
1995	(s)	0	(s)	15	221	211	3,944	4,375	558	–	–	85,770	–	R 178,685	–
1996	(s)	0	(s)	16	216	264	3,842	4,322	557	–	–	88,315	–	R 183,802	–
1997	0	0	0	13	150	202	3,842	4,194	405	–	–	87,845	–	182,434	–
	Trillion Btu														
1960	0.0	0.0	0.0	6.6	3.2	17.9	13.9	34.9	R 8.7	0.0	0.0	24.8	R 75.0	61.6	R 136.6
1965	0.0	0.0	0.0	8.4	5.7	17.0	16.4	39.1	R 5.8	0.0	0.0	41.9	R 95.3	100.1	R 195.4
1970	0.0	0.0	0.0	15.3	5.9	13.7	21.5	41.1	R 7.5	0.0	0.0	84.0	R 147.8	203.5	R 351.3
1975	0.0	0.0	0.0	16.4	6.4	4.1	19.2	29.6	R 9.6	0.0	0.0	118.6	R 174.2	286.0	R 460.3
1980	0.1	0.0	0.1	16.2	7.1	4.4	16.3	27.8	R 32.1	0.0	0.0	152.7	R 228.8	371.2	R 600.1
1985	1.0	0.0	1.0	15.0	3.3	4.9	21.6	29.8	R 52.2	0.0	0.0	184.7	R 282.6	433.8	R 716.4
1986	0.8	0.0	0.8	14.9	2.7	3.2	23.4	29.2	R 50.8	0.0	0.0	196.8	R 292.5	452.6	R 745.2
1987	0.4	0.1	0.5	15.9	4.2	3.6	20.1	27.8	R 43.7	0.0	0.0	206.1	R 294.0	470.9	R 765.0
1988	(s)	(s)	(s)	16.1	3.0	3.7	17.8	24.5	R 45.4	0.0	0.0	218.3	R 304.3	493.5	R 797.7
1989	(s)	(s)	(s)	14.2	2.1	2.2	17.8	22.1	R 47.0	e 1.0	R e 21.8	232.6	R e 338.8	R 522.7	R e 861.5
1990	(s)	(s)	(s)	14.1	1.4	0.9	18.1	20.3	8.6	1.1	22.5	242.6	R 309.3	530.7	R 840.1
1991	0.0	(s)	(s)	14.2	1.4	1.1	18.7	21.1	9.0	1.2	23.3	248.4	R 317.3	R 540.8	R 858.1
1992	0.1	(s)	0.1	15.8	1.8	1.6	18.8	22.2	9.5	1.3	24.4	249.7	R 323.1	533.4	R 856.5
1993	0.1	(s)	0.1	15.3	1.9	1.2	18.2	21.3	10.3	1.4	25.4	262.1	R 335.9	553.8	R 889.8
1994	0.2	(s)	0.2	15.6	1.5	0.7	16.8	19.0	10.1	1.3	26.3	275.0	R 347.4	573.8	R 921.3
1995	(s)	0.0	(s)	15.6	1.3	1.2	14.3	16.8	11.2	1.4	27.3	292.6	R 364.9	R 609.7	R 974.5
1996	(s)	0.0	(s)	18.1	1.3	1.5	13.9	16.6	11.1	1.5	28.4	301.3	R 377.0	R 627.1	R 1,004.1
1997	0.0	0.0	0.0	13.8	0.9	1.1	13.9	15.9	8.1	1.6	29.4	299.7	368.5	622.5	991.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 73. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Florida

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	7	1,097	175	610	685	2,126	4,693	R 8	–	5,586	–	13,894	–
1965	0	0	0	13	1,981	166	723	712	1,608	5,190	R 6	–	9,369	–	22,369	–
1970	0	0	0	27	2,049	134	1,005	1,382	1,467	6,038	R 7	–	16,244	–	39,364	–
1975	0	0	0	32	2,226	40	910	1,038	1,555	5,769	R 9	–	22,904	–	55,248	–
1980	7	0	7	30	1,926	28	782	1,340	1,476	5,552	R 39	–	27,422	–	66,681	–
1985	71	0	71	31	3,657	1,047	1,058	1,368	2,170	9,300	NA	–	R 41,290	–	R 97,008	–
1986	62	0	62	36	3,419	848	1,133	1,427	2,798	9,625	NA	–	R 43,985	–	R 101,179	–
1987	31	2	33	37	3,860	467	967	1,370	2,027	8,691	NA	–	R 46,570	–	R 106,410	–
1988	1	(s)	1	38	3,312	418	859	1,302	2,105	7,997	NA	–	R 49,875	–	R 112,756	–
1989	(s)	(s)	(s)	35	2,778	356	855	1,220	1,985	7,194	NA	–	R 53,205	–	R 119,541	–
1990	3	(s)	3	36	3,243	125	880	1,412	2,398	8,059	NA	–	R 55,769	–	R 121,981	–
1991	0	(s)	(s)	39	3,000	29	911	927	2,146	7,014	NA	–	R 56,993	–	R 124,066	–
1992	10	1	10	42	3,002	30	916	818	1,804	6,569	NA	–	R 57,278	–	R 122,346	–
1993	10	(s)	10	41	3,077	54	892	96	143	4,262	R 41	–	R 59,576	–	R 125,873	–
1994	13	(s)	13	40	2,190	76	818	97	136	3,318	R 42	–	R 62,388	–	R 130,186	–
1995	1	0	1	40	2,850	95	696	100	140	3,881	R 42	–	R 65,201	–	R 135,833	–
1996	1	0	1	42	2,151	106	678	100	100	3,135	R 46	–	R 66,255	–	R 137,890	–
1997	0	0	0	37	1,842	54	678	241	127	2,942	39	–	68,879	–	143,046	–
	Trillion Btu															
1960	0.0	0.0	0.0	7.2	6.4	1.0	2.4	3.6	13.4	26.8	R 0.2	0.0	19.1	R 53.2	47.4	R 100.6
1965	0.0	0.0	0.0	13.2	11.5	0.9	2.9	3.7	10.1	29.2	R 0.1	0.0	32.0	R 74.5	76.3	R 150.8
1970	0.0	0.0	0.0	28.0	11.9	0.8	3.8	7.3	9.2	33.0	R 0.1	0.0	55.4	R 116.6	134.3	R 250.9
1975	0.0	0.0	0.0	34.2	13.0	0.2	3.4	5.5	9.8	31.8	R 0.2	0.0	78.1	R 144.3	188.5	R 332.8
1980	0.2	0.0	0.2	32.3	11.2	0.2	2.9	7.0	9.3	30.6	R 0.8	0.0	93.6	R 157.3	227.5	R 384.9
1985	1.8	0.0	1.8	34.0	21.3	5.9	3.8	7.2	13.6	51.9	NA	0.0	140.9	228.6	331.0	R 559.5
1986	1.5	0.0	1.5	38.5	19.9	4.8	4.1	7.5	17.6	53.9	NA	0.0	150.1	244.1	R 345.2	R 589.3
1987	0.8	0.1	0.8	41.0	22.5	2.6	3.5	7.2	12.7	48.6	NA	0.0	158.9	249.4	363.1	R 612.5
1988	(s)	(s)	(s)	40.9	19.3	2.4	3.1	6.8	13.2	44.9	NA	0.0	170.2	R 255.9	R 384.7	640.7
1989	(s)	(s)	(s)	38.1	16.2	2.0	3.1	6.4	12.5	40.2	NA	0.1	R 181.5	R 260.0	R 407.9	R 667.9
1990	0.1	(s)	0.1	39.5	18.9	0.7	3.2	7.4	15.1	45.3	NA	0.2	190.3	R 275.3	416.2	R 691.5
1991	0.0	(s)	(s)	43.1	17.5	0.2	3.3	4.9	13.5	39.3	NA	0.2	194.5	R 277.1	423.3	R 700.4
1992	0.2	(s)	0.2	45.9	17.5	0.2	3.3	4.3	11.3	36.6	NA	0.2	R 195.4	R 278.4	R 417.4	R 695.8
1993	0.3	(s)	0.3	45.2	17.9	0.3	3.2	0.5	0.9	22.8	R 0.8	0.2	203.3	R 272.6	429.5	R 702.1
1994	0.3	(s)	0.3	44.9	12.8	0.4	3.0	0.5	0.9	17.5	R 0.8	0.2	212.9	R 276.7	444.2	R 720.9
1995	(s)	0.0	(s)	43.2	16.6	0.5	2.5	0.5	0.9	21.1	R 0.8	0.3	222.5	R 287.9	463.5	R 751.3
1996	(s)	0.0	(s)	46.4	12.5	0.6	2.4	0.5	0.6	16.7	R 0.9	0.3	226.1	R 290.4	R 470.5	R 760.9
1997	0.0	0.0	0.0	38.7	10.7	0.3	2.5	1.3	0.8	15.6	0.8	0.4	235.0	290.4	488.1	778.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 74. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Florida

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	0	35	3,304	2,934	638	785	237	182	10,883	356	19,320	0	–	–	3,963	–	9,858	–
1965	0	74	3,506	4,451	1,281	711	291	180	9,636	1,349	21,404	0	–	–	6,449	–	15,397	–
1970	0	92	4,076	4,494	1,109	928	420	202	8,148	1,380	20,757	0	–	–	9,365	–	22,695	–
1975	21	90	3,659	4,724	115	1,242	567	92	7,369	1,651	19,421	0	–	–	13,294	–	32,067	–
1980	748	102	4,487	7,077	150	5,341	604	86	13,673	3,036	34,453	0	–	–	18,598	–	45,224	–
1985	911	76	6,666	4,639	620	2,489	550	1,022	6,283	3,100	25,369	0	–	–	15,742	–	36,983	–
1986	782	65	8,240	5,115	36	2,581	538	1,024	3,825	3,462	24,821	0	–	–	14,976	–	34,448	–
1987	993	68	7,583	5,054	41	2,151	608	998	1,785	3,388	21,608	0	–	–	15,443	–	35,287	–
1988	1,065	83	7,931	4,193	81	2,073	586	940	3,997	3,335	23,137	0	–	–	16,356	–	36,976	–
1989	1,154	84	6,481	3,701	115	2,106	601	1,032	2,882	3,268	20,186	[f] NA	–	–	17,040	–	[R] 38,286	–
1990	1,207	87	6,804	3,491	50	1,662	619	1,069	3,265	3,677	20,636	NA	–	–	16,605	–	[R] 36,318	–
1991	1,133	87	7,310	3,083	13	1,707	553	965	2,613	3,068	19,313	NA	–	–	16,482	–	[R] 35,880	–
1992	1,335	90	6,933	3,619	9	1,721	564	979	4,127	3,230	21,181	NA	–	–	16,497	–	[R] 35,238	–
1993	1,307	102	8,342	4,162	13	1,961	575	969	5,257	3,254	24,533	NA	–	–	16,298	–	34,434	–
1994	1,303	128	7,304	3,776	8	1,698	601	1,031	4,647	3,265	22,328	NA	–	–	16,513	–	[R] 34,458	–
1995	1,325	134	6,630	5,608	7	3,008	590	1,148	5,058	3,110	25,158	NA	–	–	16,473	–	[R] 34,318	–
1996	1,270	139	5,920	5,730	33	3,261	573	1,139	3,969	3,254	23,879	NA	–	–	17,212	–	[R] 35,822	–
1997	1,347	133	3,517	5,923	52	3,352	605	1,144	3,511	3,481	21,587	NA	–	–	18,266	–	37,934	–
			Trillion Btu															
1960	0.0	36.4	21.9	17.1	3.6	3.2	1.4	1.0	68.4	2.1	118.7	0.0	[R] 23.8	0.0	13.5	[R] 192.4	33.6	[R] 226.0
1965	0.0	77.2	23.3	25.9	7.3	2.9	1.8	0.9	60.6	7.4	130.0	0.0	[R] 30.8	0.0	22.0	[R] 260.0	52.5	[R] 312.5
1970	0.0	96.3	27.0	26.2	6.3	3.5	2.5	1.1	51.2	7.5	125.4	0.0	[R] 40.4	0.0	32.0	[R] 294.0	77.4	[R] 371.4
1975	0.5	96.6	24.3	27.5	0.7	4.6	3.4	0.5	46.3	9.1	116.4	0.0	[R] 37.8	0.0	45.4	[R] 296.7	109.4	[R] 406.1
1980	17.1	108.6	29.8	41.2	0.9	19.6	3.7	0.5	86.0	16.7	198.2	0.0	[R] 32.7	0.0	63.5	[R] 420.1	154.3	[R] 574.4
1985	22.6	84.2	44.2	27.0	3.5	9.0	3.3	5.4	39.5	16.8	148.7	0.0	[R] 38.3	0.0	53.7	[R] 347.6	126.2	[R] 473.8
1986	19.5	70.3	54.7	29.8	0.2	9.4	3.3	5.4	24.0	18.9	145.6	0.0	[R] 54.0	0.0	51.1	[R] 340.5	117.5	[R] 458.1
1987	24.9	74.6	50.3	29.4	0.2	7.9	3.7	5.2	11.2	18.2	126.2	0.0	[R] 53.7	0.0	52.7	[R] 332.1	120.4	[R] 452.5
1988	26.8	89.4	52.6	24.4	0.5	7.6	3.6	4.9	25.1	18.0	136.7	0.0	[R] 55.9	0.0	55.8	[R] 364.6	126.2	[R] 490.8
1989	28.6	91.7	43.0	21.6	0.7	7.8	3.6	5.4	18.1	17.6	117.8	[f] 0.0	[R f] 84.7	[f] 0.0	58.1	[R f] 380.9	130.6	[R f] 511.5
1990	30.2	94.2	45.1	20.3	0.3	6.0	3.8	5.6	20.5	19.9	121.6	0.0	[R] 64.5	0.0	56.7	[R] 367.1	123.9	[R] 491.0
1991	28.5	95.7	48.5	18.0	0.1	6.2	3.4	5.1	16.4	16.6	114.2	0.0	[R] 49.5	0.0	56.2	[R] 344.1	122.4	[R] 466.5
1992	33.4	99.0	46.0	21.1	0.1	6.2	3.4	5.1	25.9	17.4	125.3	0.0	[R] 52.2	0.0	56.3	[R] 366.1	120.2	[R] 486.4
1993	32.5	112.1	55.4	24.2	0.1	7.1	3.5	5.1	33.1	17.5	145.9	0.0	[R] 53.0	0.0	55.6	[R] 399.2	117.5	[R] 516.7
1994	32.5	143.5	48.5	22.0	(s)	6.2	3.6	5.4	29.2	17.6	132.6	0.0	[R] 60.7	0.0	56.3	[R] 425.6	117.6	[R] 543.1
1995	33.3	143.7	44.0	32.7	(s)	10.9	3.6	6.0	31.8	16.8	145.8	0.0	[R] 61.7	0.0	56.2	[R] 440.6	117.1	[R] 557.7
1996	31.9	154.0	39.3	33.4	0.2	11.8	3.5	6.0	25.0	17.4	136.5	0.0	[R] 69.9	0.0	58.7	[R] 451.0	122.2	[R] 573.2
1997	33.7	140.5	23.3	34.5	0.3	12.1	3.7	6.0	22.1	18.8	120.8	8.1	70.1	0.0	62.3	435.6	129.4	565.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 75. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Florida

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	0	1	4,517	3,858	9,482	82	674	42,281	3,770	64,663	0	0	–	0	–
1965	0	3	4,273	4,482	17,525	134	723	52,244	4,751	84,132	0	0	–	0	–
1970	0	4	3,138	7,493	23,840	197	669	74,670	2,244	112,252	0	0	–	0	–
1975	(s)	2	1,921	10,160	24,199	169	622	99,462	2,211	138,744	0	0	–	0	–
1980	0	4	1,339	16,014	35,911	161	805	107,853	11,613	173,695	0	0	–	0	–
1985	0	4	841	20,335	23,101	390	733	122,956	6,892	175,247	0	R 18	–	R 43	–
1986	0	4	1,023	21,800	25,022	437	716	128,640	7,549	185,188	0	R 41	–	R 95	–
1987	0	4	778	22,232	26,502	195	810	135,406	9,228	195,152	0	R 49	–	R 111	–
1988	0	3	882	25,361	31,960	218	781	139,486	8,216	206,903	0	R 38	–	R 86	–
1989	0	4	976	26,073	33,566	213	801	139,968	8,099	209,696	R e 4,431	R 46	–	R 102	–
1990	0	3	808	25,551	31,958	213	824	139,870	10,085	209,311	5,118	R 46	–	R 101	–
1991	0	3	712	23,253	25,048	179	737	139,547	8,347	197,823	4,057	R 47	–	R 103	–
1992	0	4	593	26,334	24,436	167	752	141,380	10,382	204,043	4,930	R 46	–	R 98	–
1993	0	4	527	14,616	26,644	164	766	149,218	11,774	203,709	5,502	R 46	–	R 98	–
1994	0	5	526	26,196	28,640	279	800	151,211	10,224	217,876	4,417	R 49	–	R 102	–
1995	0	8	599	29,863	28,045	148	786	156,410	8,567	224,418	2,358	R 49	–	R 102	–
1996	0	6	519	29,504	29,345	124	763	157,789	8,264	226,309	830	R 51	–	R 105	–
1997	0	6	567	33,466	30,507	113	806	160,492	8,661	234,613	1,464	51	–	105	–
			Trillion Btu												
1960	0.0	1.0	22.8	22.5	51.5	0.3	4.1	222.1	23.7	347.0	0.0	0.0	348.0	0.0	348.0
1965	0.0	2.6	21.6	26.1	97.2	0.5	4.4	274.4	29.9	454.1	0.0	0.0	456.7	0.0	456.7
1970	0.0	4.5	15.8	43.6	133.2	0.7	4.1	392.2	14.1	603.8	0.0	0.0	608.3	0.0	608.3
1975	(s)	2.5	9.7	59.2	135.5	0.6	3.8	522.5	13.9	745.2	0.0	0.0	747.7	0.0	747.7
1980	0.0	3.9	6.8	93.3	201.6	0.6	4.9	566.6	73.0	946.6	0.0	0.0	950.6	0.0	950.6
1985	0.0	4.3	4.2	118.4	129.2	1.4	4.4	645.9	43.3	946.9	0.0	0.1	951.3	0.1	951.4
1986	0.0	4.2	5.2	127.0	140.1	1.6	4.3	675.7	47.5	1,001.4	0.0	0.1	R 1,005.8	0.3	R 1,006.1
1987	0.0	4.9	3.9	129.5	148.4	0.7	4.9	711.3	58.0	1,056.8	0.0	R 0.2	1,061.8	R 0.4	R 1,062.2
1988	0.0	3.6	4.5	147.7	179.3	0.8	4.7	732.7	51.7	1,121.4	0.0	0.1	R 1,125.2	0.3	1,125.4
1989	0.0	4.5	4.9	151.9	188.5	0.8	4.9	735.3	50.9	1,137.1	R e 0.3	R 0.2	e 1,141.8	0.3	e 1,142.1
1990	0.0	3.0	4.1	148.8	179.6	0.8	5.0	734.7	63.4	1,136.4	0.4	R 0.2	1,139.6	0.3	1,139.9
1991	0.0	3.8	3.6	135.4	140.8	0.6	4.5	733.0	52.5	1,070.5	0.3	R 0.2	1,074.4	R 0.4	R 1,074.8
1992	0.0	4.8	3.0	153.4	137.5	0.6	4.6	742.7	65.3	1,107.0	0.4	R 0.2	1,111.9	0.3	R 1,112.3
1993	0.0	4.8	2.7	85.1	150.3	0.6	4.6	783.8	74.0	1,101.2	0.4	R 0.2	R 1,106.2	0.3	R 1,106.5
1994	0.0	6.0	2.7	152.6	162.1	1.0	4.9	794.3	64.3	1,181.8	0.3	R 0.2	R 1,188.1	0.3	R 1,188.4
1995	0.0	8.1	3.0	174.0	159.0	0.5	4.8	821.6	53.9	1,216.7	0.2	R 0.2	1,225.0	0.3	R 1,225.4
1996	0.0	6.4	2.6	171.9	166.4	0.4	4.6	828.9	52.0	1,226.8	0.1	R 0.2	R 1,233.4	R 0.4	R 1,233.7
1997	0.0	6.0	2.9	194.9	173.0	0.4	4.9	843.1	54.5	1,273.6	0.1	0.2	1,279.8	0.4	1,280.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 76. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Florida

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	1,104	0	1,104	89	13,419	191	0	13,610	0	278	0	0	0	–
1965	2,323	0	2,323	87	27,349	388	0	27,737	0	298	0	0	0	–
1970	5,131	0	5,131	198	41,783	593	0	42,376	0	292	0	0	0	–
1975	5,758	0	5,758	141	68,180	5,205	0	73,385	8,370	234	0	0	0	–
1980	8,785	0	8,785	166	69,994	3,200	0	73,194	16,737	215	0	0	0	–
1985	18,283	0	18,283	166	22,432	1,246	0	23,678	23,461	244	0	0	0	–
1986	17,822	0	17,822	170	43,440	1,025	0	44,465	22,036	212	0	0	0	–
1987	22,598	0	22,598	176	32,647	1,047	0	33,694	18,773	217	0	0	0	–
1988	23,528	0	23,528	155	39,623	1,037	0	40,660	26,198	209	0	0	0	–
1989	24,292	0	24,292	187	40,532	2,435	0	42,966	20,916	234	0	0	0	–
1990	24,022	0	24,022	189	38,752	1,869	0	40,620	21,780	175	0	0	0	–
1991	24,870	0	24,870	201	46,621	1,809	0	48,430	20,508	263	0	0	0	–
1992	25,016	0	25,016	203	43,516	1,424	0	44,940	25,116	236	0	0	0	–
1993	25,108	0	25,108	174	52,931	1,420	0	54,351	25,887	211	0	0	0	–
1994	24,758	0	24,758	181	52,055	1,313	0	53,369	26,682	274	0	0	0	–
1995	25,200	0	25,200	319	33,692	1,379	0	35,071	28,741	231	0	0	0	–
1996	27,172	0	27,172	284	35,286	1,586	313	37,185	25,470	216	0	0	0	–
1997	27,372	0	27,372	297	37,648	1,508	3,336	42,493	22,968	241	0	0	0	–
	Trillion Btu													
1960	27.2	0.0	27.2	91.6	84.4	1.1	0.0	85.5	0.0	3.0	0.0	0.0	0.0	207.3
1965	55.2	0.0	55.2	90.2	171.9	2.3	0.0	174.2	0.0	3.1	0.0	0.0	0.0	322.7
1970	116.7	0.0	116.7	206.5	262.7	3.5	0.0	266.1	0.0	3.1	0.0	0.0	0.0	592.4
1975	133.0	0.0	133.0	142.4	428.6	30.3	0.0	459.0	92.2	2.4	0.0	0.0	0.0	829.0
1980	208.1	0.0	208.1	168.5	440.1	18.6	0.0	458.7	182.6	2.2	0.0	0.0	0.0	1,020.1
1985	447.0	0.0	447.0	167.5	141.0	7.3	0.0	148.3	253.7	2.5	0.0	0.0	0.0	1,019.1
1986	437.6	0.0	437.6	170.9	273.1	6.0	0.0	279.1	238.0	2.2	0.0	0.0	0.0	1,127.7
1987	560.4	0.0	560.4	177.1	205.3	6.1	0.0	211.4	202.3	2.3	0.0	0.0	0.0	1,153.4
1988	584.6	0.0	584.6	155.8	249.1	6.0	0.0	255.2	281.4	2.2	0.0	0.0	0.0	1,279.2
1989	601.6	0.0	601.6	188.7	254.8	14.2	0.0	269.0	224.3	2.4	0.0	0.0	0.0	1,286.0
1990	594.0	0.0	594.0	191.2	243.6	10.9	0.0	254.5	232.6	1.8	0.0	0.0	0.0	1,274.2
1991	614.3	0.0	614.3	204.1	293.1	10.5	0.0	303.6	220.3	2.7	0.0	0.0	0.0	1,345.1
1992	618.9	0.0	618.9	204.8	273.6	8.3	0.0	281.9	268.2	2.4	0.0	0.0	0.0	1,376.2
1993	619.3	0.0	619.3	175.9	332.8	8.3	0.0	341.1	276.5	2.2	0.0	0.0	0.0	1,414.9
1994	608.7	0.0	608.7	182.5	327.3	7.7	0.0	334.9	284.9	2.8	0.0	0.0	0.0	1,413.8
1995	619.8	0.0	619.8	322.0	211.8	8.0	0.0	219.9	306.3	2.4	0.0	0.0	0.0	1,470.3
1996	662.6	0.0	662.6	285.8	221.8	9.2	1.9	233.0	270.6	2.2	0.0	0.0	0.0	1,454.2
1997	663.6	0.0	663.6	310.0	236.7	8.8	20.1	265.6	244.0	2.5	0.0	0.0	0.0	1,485.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 77. Energy Consumption Estimates by Source, Selected Years 1960-1997, Georgia

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	3,548	182	2,482	262	5,140	2,306	1,554	4,253	819	32,079	6,551	273	55,720	0	2,306	–	–	7,839	–
1965	6,116	211	4,007	928	8,531	2,158	1,297	5,424	967	39,136	8,413	1,005	71,867	0	3,234	–	–	13,600	–
1970	8,131	333	3,916	600	12,781	10,506	457	7,430	1,023	54,081	10,279	1,031	102,104	0	2,519	–	–	27,394	–
1975	13,141	327	4,198	399	16,115	12,887	246	8,168	1,126	65,541	10,809	2,038	121,527	3,093	4,334	–	–	9,175	–
1980	21,892	315	4,795	386	19,437	16,421	552	7,444	1,250	65,506	9,036	5,272	130,097	8,436	4,423	–	–	-15,441	–
1985	29,898	282	4,580	212	23,818	16,236	367	6,825	1,137	72,993	11,931	4,372	142,471	10,130	2,826	–	–	-28,970	–
1986	28,460	279	5,641	253	24,610	17,742	338	6,342	1,112	76,957	3,628	4,667	141,290	7,238	2,151	–	–	4,273	–
1987	29,126	303	5,977	218	26,033	19,691	220	6,337	1,257	80,118	3,164	4,565	147,581	15,259	3,175	–	–	-16,764	–
1988	28,654	323	6,048	227	27,922	20,295	337	6,731	1,212	83,520	3,118	4,490	153,899	15,149	2,065	–	–	-1,868	–
1989	27,918	318	4,958	210	28,125	17,451	314	7,394	1,243	83,571	2,659	4,400	150,327	24,961	[i] NA	–	–	[R] -24,161	–
1990	30,067	311	6,398	196	28,537	18,439	198	6,021	1,279	83,148	3,539	4,880	152,635	24,797	NA	–	–	[R] -31,187	–
1991	26,957	323	5,192	182	26,960	14,441	194	6,747	1,145	83,715	2,954	7,626	149,155	26,016	NA	–	–	[R] -11,511	–
1992	25,481	343	4,897	166	27,207	12,422	155	7,185	1,167	83,906	6,875	8,003	151,983	27,996	NA	–	–	[R] -10,045	–
1993	27,081	351	5,324	167	31,273	15,204	223	7,614	1,188	93,036	5,548	8,043	167,620	27,233	NA	–	–	-4,212	–
1994	29,254	341	5,251	160	31,485	16,936	243	7,548	1,242	93,493	4,798	8,151	169,308	28,927	NA	–	–	[R] -16,957	–
1995	31,288	370	5,526	156	35,275	18,451	195	7,288	1,221	97,672	4,165	7,774	177,723	30,661	NA	–	–	[R] -15,227	–
1996	31,158	383	5,428	168	41,616	17,293	212	7,326	1,185	101,063	4,857	8,112	187,260	29,925	NA	–	–	[R] 3,487	–
1997	32,693	362	4,890	157	37,344	15,233	187	7,401	1,251	101,576	4,338	8,737	181,113	30,414	NA	–	–	-7,497	–
			Trillion Btu																
1960	89.0	188.5	16.5	1.3	29.9	12.4	8.8	17.1	5.0	168.5	41.2	1.6	302.2	0.0	24.8	[R] 71.2	0.0	26.7	[R] 702.4
1965	152.6	219.8	26.6	4.7	49.7	11.6	7.4	21.8	5.9	205.6	52.9	5.4	391.4	0.0	33.8	[R] 74.2	0.0	46.4	[R] 918.2
1970	193.2	342.8	26.0	3.0	74.5	59.0	2.6	28.1	6.2	284.1	64.6	5.6	553.6	0.0	26.4	[R] 71.8	0.0	93.5	[R] 1,281.3
1975	312.0	335.4	27.9	2.0	93.9	72.6	1.4	30.3	6.8	344.3	68.0	11.2	658.3	34.1	45.1	[R] 78.3	0.0	31.3	[R] 1,494.4
1980	521.5	325.3	31.8	1.9	113.2	92.6	3.1	27.3	7.6	344.1	56.8	28.8	707.3	92.0	45.9	[R] 55.7	0.0	-52.7	[R] 1,695.1
1985	725.7	289.7	30.4	1.1	138.7	91.5	2.1	24.6	6.9	383.4	75.0	23.8	777.5	109.5	29.5	[R] 70.8	0.0	-98.8	[R] 1,904.0
1986	692.5	286.6	37.4	1.3	143.4	100.1	1.9	23.1	6.7	404.3	22.8	25.6	766.5	78.2	22.5	[R] 87.0	0.0	14.6	[R] 1,947.9
1987	710.6	311.3	39.7	1.1	151.6	111.2	1.2	23.2	7.6	420.9	19.9	24.6	801.0	164.4	33.1	[R] 83.4	0.0	-57.2	[R] 2,046.6
1988	699.0	331.1	40.1	1.1	162.6	114.6	1.9	24.6	7.4	438.7	19.6	24.4	835.1	162.8	21.3	[R] 86.7	0.0	-6.4	[R] 2,129.6
1989	676.8	325.9	32.9	1.1	163.8	98.5	1.8	27.2	7.5	439.0	16.7	23.8	812.4	267.7	[R i] 40.7	[R i] 100.9	[R i] 0.1	[R] -82.4	[R i] 2,141.8
1990	718.2	319.4	42.5	1.0	166.2	104.2	1.1	21.8	7.8	436.8	22.2	26.5	830.1	264.8	51.1	[R] 100.6	0.1	-106.4	[R] 2,177.7
1991	646.2	331.8	34.5	0.9	157.0	81.5	1.1	24.4	6.9	439.8	18.6	41.5	806.1	279.4	48.7	[R] 110.4	0.1	-39.3	[R] 2,183.2
1992	615.5	351.5	32.5	0.8	158.5	70.0	0.9	26.0	7.1	440.8	43.2	43.2	823.0	298.9	55.8	[R] 115.4	[R] 0.2	-34.3	[R] 2,225.7
1993	659.4	360.1	35.3	0.8	182.2	85.8	1.3	27.5	7.2	488.7	34.9	43.4	907.1	290.9	49.5	[R] 120.6	[R] 0.2	-14.4	[R] 2,373.0
1994	691.9	351.6	34.8	0.8	183.4	95.9	1.4	27.4	7.5	491.1	30.2	44.0	916.6	308.8	[R] 50.7	[R] 121.0	[R] 0.2	-57.9	[R] 2,382.8
1995	728.5	380.0	36.7	0.8	205.5	104.6	1.1	26.4	7.4	513.1	26.2	41.9	963.6	326.8	48.8	[R] 124.8	[R] 0.2	-52.0	[R] 2,520.8
1996	725.6	392.2	36.0	0.8	242.4	98.0	1.2	26.5	7.2	530.9	30.5	43.5	1,017.1	317.9	51.6	[R] 127.6	0.2	11.9	[R] 2,644.1
1997	771.9	371.4	32.4	0.8	217.5	86.4	1.1	26.8	7.6	533.6	27.3	47.2	980.6	323.1	45.9	120.9	0.2	-25.6	2,588.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 78. Residential Energy Consumption Estimates, Selected Years 1960-1997, Georgia

Year	Coal: Bituminous Coal and Lignite [a]	Coal: Anthracite [a]	Coal: Total	Natural Gas [b]	Petroleum: Distillate Fuel [a]	Petroleum: Kerosene [a]	Petroleum: LPG [a]	Petroleum: Total	Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	134	0	134	56	131	633	2,279	3,042	R 1,719	–	–	4,469	–	11,116	–
1965	68	0	68	67	211	460	3,092	3,764	R 1,173	–	–	6,936	–	16,560	–
1970	44	0	44	87	250	121	4,164	4,536	R 729	–	–	12,474	–	30,229	–
1975	18	0	18	87	298	34	3,896	4,229	R 758	–	–	16,457	–	39,696	–
1980	8	0	8	90	578	91	3,553	4,222	R 725	–	–	20,033	–	48,713	–
1985	13	1	14	84	353	257	3,952	4,562	R 1,150	–	–	23,505	–	55,222	–
1986	3	0	3	89	364	203	3,549	4,116	R 1,119	–	–	25,808	–	59,365	–
1987	13	0	13	101	343	130	3,701	4,173	R 953	–	–	26,991	–	61,672	–
1988	9	1	10	108	258	206	3,724	4,187	R 990	–	–	27,609	–	62,418	–
1989	4	(s)	5	104	267	177	4,093	4,537	R 1,027	–	–	28,349	–	R 63,696	–
1990	8	(s)	8	90	250	111	3,400	3,761	723	–	–	29,933	–	R 65,470	–
1991	3	(s)	3	97	178	113	3,651	3,943	761	–	–	30,187	–	R 65,713	–
1992	13	(s)	13	108	178	109	4,020	4,306	801	–	–	30,528	–	R 65,207	–
1993	8	(s)	8	116	236	136	4,196	4,568	R 875	–	–	33,867	–	71,554	–
1994	10	(s)	10	105	113	80	4,216	4,408	R 858	–	–	32,735	–	R 68,308	–
1995	21	0	21	115	159	126	4,001	4,285	R 952	–	–	35,812	–	R 74,608	–
1996	1	0	1	127	153	144	3,882	4,179	R 950	–	–	37,763	–	R 78,593	–
1997	6	0	6	114	82	135	3,882	4,099	692	–	–	36,831	–	76,489	–
	Trillion Btu														
1960	3.3	0.0	3.3	57.8	0.8	3.6	9.1	13.5	R 34.4	0.0	0.0	15.2	R 124.2	37.9	R 162.2
1965	1.7	0.0	1.7	69.9	1.2	2.6	12.4	16.2	R 23.5	0.0	0.0	23.7	R 134.9	56.5	R 191.4
1970	1.1	0.0	1.1	90.1	1.5	0.7	15.7	17.9	R 14.6	0.0	0.0	42.6	R 166.1	103.1	R 269.3
1975	0.4	0.0	0.4	89.5	1.7	0.2	14.5	16.4	R 15.2	0.0	0.0	56.2	R 177.6	135.4	R 313.1
1980	0.2	0.0	0.2	93.1	3.4	0.5	13.1	16.9	R 14.5	0.0	0.0	68.4	R 193.1	166.2	R 359.3
1985	0.3	(s)	0.3	86.4	2.1	1.5	14.2	17.8	R 23.0	0.0	0.0	80.2	R 207.7	188.4	R 396.1
1986	0.1	0.0	0.1	91.6	2.1	1.1	12.9	16.2	R 22.4	0.0	0.0	88.1	R 218.3	202.6	R 420.8
1987	0.3	0.0	0.3	103.2	2.0	0.7	13.5	16.3	R 19.1	0.0	0.0	92.1	R 231.0	210.4	R 441.4
1988	0.2	(s)	0.2	110.8	1.5	1.2	13.6	16.3	R 19.8	0.0	0.0	94.2	R 241.3	213.0	R 454.3
1989	0.1	(s)	0.1	106.4	1.6	1.0	15.1	17.6	R 20.5	[e] (s)	R [e] 0.1	96.7	R [e] 241.5	217.3	R [e] 458.8
1990	0.2	(s)	0.2	92.7	1.5	0.6	12.3	14.4	14.5	(s)	0.1	102.1	224.0	223.4	447.4
1991	0.1	(s)	0.1	99.3	1.0	0.6	13.2	14.9	15.2	(s)	0.1	103.0	R 232.6	224.2	R 456.8
1992	0.3	(s)	0.3	110.9	1.0	0.6	14.6	16.2	16.0	(s)	0.1	104.2	247.8	222.5	470.3
1993	0.2	(s)	0.2	118.8	1.4	0.8	15.1	17.3	R 17.5	(s)	0.1	115.6	R 269.5	244.1	R 513.6
1994	0.2	(s)	0.3	108.6	0.7	0.5	15.3	16.4	R 17.2	(s)	0.1	111.7	R 254.3	R 233.1	R 487.4
1995	0.5	0.0	0.5	117.7	0.9	0.7	14.5	16.1	19.0	(s)	0.1	122.2	R 275.7	R 254.6	R 530.3
1996	(s)	0.0	(s)	130.0	0.9	0.8	14.0	15.7	R 19.0	(s)	0.2	128.8	R 293.8	268.2	R 562.0
1997	0.1	0.0	0.1	117.5	0.5	0.8	14.0	15.3	13.8	0.1	0.2	125.7	272.6	261.0	533.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 79. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Georgia

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	249	0	249	21	373	206	402	269	59	1,308	R 33	–	R 2,765	–	R 6,878	–
1965	125	0	125	26	603	149	546	306	83	1,687	R 22	–	4,560	–	10,887	–
1970	82	0	82	39	713	39	735	349	108	1,945	R 14	–	8,174	–	19,807	–
1975	33	0	33	49	851	11	688	372	80	2,002	R 14	–	11,226	–	27,079	–
1980	14	0	14	59	315	12	627	363	10	1,327	R 17	–	11,965	–	R 29,094	–
1985	24	(s)	25	52	1,546	46	697	310	468	3,066	NA	–	R 17,009	–	R 39,962	–
1986	5	0	5	50	992	73	626	360	1,039	3,090	NA	–	R 18,249	–	R 41,978	–
1987	24	0	24	55	1,004	34	653	409	995	3,094	NA	–	R 19,400	–	R 44,328	–
1988	17	(s)	17	56	1,203	21	657	454	767	3,102	NA	–	R 20,684	–	R 46,762	–
1989	8	(s)	8	53	975	73	722	404	259	2,433	NA	–	R 22,248	–	R 49,988	–
1990	14	(s)	14	49	1,271	64	600	519	69	2,523	NA	–	R 23,715	–	R 51,870	–
1991	5	(s)	5	51	862	53	644	330	22	1,912	NA	–	R 24,086	–	R 52,431	–
1992	25	(s)	25	54	1,038	37	709	415	6	2,205	NA	–	R 24,594	–	R 52,533	–
1993	14	(s)	14	58	1,134	65	740	64	6	2,010	R 70	–	R 26,166	–	R 55,284	–
1994	18	(s)	18	54	1,035	149	744	171	7	2,106	R 72	–	R 27,149	–	R 56,653	–
1995	39	0	39	57	1,407	35	706	62	12	2,221	R 72	–	R 28,793	–	R 59,984	–
1996	2	0	2	61	1,172	31	685	62	11	1,962	R 78	–	R 30,273	–	R 63,004	–
1997	11	0	11	57	896	28	685	632	6	2,247	67	–	31,352	–	65,111	–
	Trillion Btu															
1960	6.2	0.0	6.2	22.1	2.2	1.2	1.6	1.4	0.4	6.7	R 0.7	0.0	9.4	R 45.1	23.5	R 68.6
1965	3.1	0.0	3.1	27.1	3.5	0.8	2.2	1.6	0.5	8.7	R 0.4	0.0	15.6	R 54.9	37.1	R 92.0
1970	2.0	0.0	2.0	39.9	4.2	0.2	2.8	1.8	0.7	9.7	R 0.3	0.0	27.9	R 79.7	67.6	R 147.3
1975	0.8	0.0	0.8	50.8	5.0	0.1	2.6	2.0	0.5	10.0	R 0.3	0.0	38.3	R 100.2	92.4	R 192.6
1980	0.3	0.0	0.3	60.6	1.8	0.1	2.3	1.9	0.1	6.2	R 0.3	0.0	40.8	R 108.3	99.3	R 207.6
1985	0.6	(s)	0.6	53.0	9.0	0.3	2.5	1.6	2.9	16.3	NA	0.0	R 58.0	128.0	R 136.3	R 264.3
1986	0.1	0.0	0.1	51.8	5.8	0.4	2.3	1.9	6.5	16.9	NA	0.0	62.3	131.1	R 143.2	R 274.3
1987	0.6	0.0	0.6	56.0	5.8	0.2	2.4	2.1	6.3	16.8	NA	0.0	66.2	R 139.6	R 151.2	R 290.9
1988	0.4	(s)	0.4	57.4	7.0	0.1	2.4	2.4	4.8	16.7	NA	0.0	70.6	145.1	159.6	R 304.7
1989	0.2	(s)	0.2	54.5	5.7	0.4	2.7	2.1	1.6	12.5	NA	[e] (s)	R 75.9	143.1	170.6	R 313.6
1990	0.4	(s)	0.4	50.8	7.4	0.4	2.2	2.7	0.4	13.1	NA	(s)	80.9	145.2	177.0	R 322.2
1991	0.1	(s)	0.1	52.4	5.0	0.3	2.3	1.7	0.1	9.5	NA	(s)	82.2	R 144.2	178.9	R 323.1
1992	0.6	(s)	0.6	55.2	6.0	0.2	2.6	2.2	(s)	11.0	NA	(s)	R 83.9	150.8	R 179.2	R 330.0
1993	0.4	(s)	0.4	59.1	6.6	0.4	2.7	0.3	(s)	10.0	R 1.4	(s)	89.3	R 160.1	R 188.6	R 348.8
1994	0.5	(s)	0.5	55.7	6.0	0.8	2.7	0.9	(s)	10.5	R 1.4	(s)	R 92.6	R 160.7	R 193.3	R 354.0
1995	1.0	0.0	1.0	58.0	8.2	0.2	2.6	0.3	0.1	11.3	R 1.4	(s)	R 98.2	R 170.0	R 204.7	R 374.7
1996	(s)	0.0	(s)	62.8	6.8	0.2	2.5	0.3	0.1	9.9	R 1.6	(s)	R 103.3	R 177.6	R 215.0	R 392.5
1997	0.3	0.0	0.3	58.8	5.2	0.2	2.5	3.3	(s)	11.2	1.3	(s)	107.0	178.6	222.2	400.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 80. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Georgia

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	548	76	2,482	2,043	715	1,507	289	936	4,909	273	13,153	63	–	–	4,713	–	11,723	–
1965	630	113	4,007	3,538	687	1,716	384	616	7,117	1,005	19,070	64	–	–	6,903	–	16,481	–
1970	506	141	3,916	4,014	296	2,430	474	124	8,457	1,031	20,741	58	–	–	10,853	–	26,300	–
1975	434	145	4,198	3,557	200	3,478	610	60	6,243	2,038	20,384	56	–	–	13,866	–	33,446	–
1980	679	155	4,795	3,993	449	3,188	632	26	5,361	5,272	23,717	54	–	–	19,195	–	46,676	–
1985	1,575	140	4,580	3,653	65	1,964	575	1,251	10,397	4,372	26,855	54	–	–	23,122	–	54,324	–
1986	1,801	128	5,641	3,984	63	1,979	562	1,160	1,550	4,667	19,605	54	–	–	24,367	–	56,050	–
1987	1,960	141	5,977	3,583	56	1,853	636	1,220	1,463	4,565	19,353	54	–	–	25,227	–	57,641	–
1988	2,115	150	6,048	3,401	110	2,213	613	1,153	1,723	4,490	19,751	54	–	–	25,984	–	58,743	–
1989	2,067	153	4,958	3,970	64	2,461	629	1,299	1,707	4,400	19,489	[f] NA	–	–	26,388	–	R 59,290	–
1990	2,232	162	6,398	4,068	23	1,916	647	1,288	2,030	4,880	21,250	NA	–	–	26,717	–	R 58,437	–
1991	2,101	167	5,192	3,433	28	2,340	579	1,173	1,747	7,626	22,118	NA	–	–	27,193	–	R 59,196	–
1992	1,787	172	4,897	2,797	10	2,346	590	1,223	3,425	8,003	23,290	NA	–	–	28,197	–	R 60,229	–
1993	1,720	167	5,324	3,838	22	2,560	601	712	2,804	8,043	23,904	NA	–	–	29,084	–	61,449	–
1994	1,933	174	5,251	3,472	14	2,339	628	777	2,857	8,151	23,490	NA	–	–	29,942	–	R 62,481	–
1995	1,949	184	5,526	4,831	35	2,441	617	829	2,639	7,774	24,692	NA	–	–	31,493	–	R 65,611	–
1996	1,985	182	5,428	5,562	37	2,638	599	907	3,503	8,112	26,787	NA	–	–	33,175	–	R 69,045	–
1997	2,046	175	4,890	5,028	24	2,723	633	890	3,122	8,737	26,046	NA	–	–	33,957	–	70,521	–
			Trillion Btu															
1960	13.9	78.6	16.5	11.9	4.1	6.0	1.8	4.9	30.9	1.6	77.6	0.7	R 36.2	0.0	16.1	R 223.0	40.0	R 263.0
1965	15.9	117.0	26.6	20.6	3.9	6.9	2.3	3.2	44.7	5.4	113.7	0.7	R 50.3	0.0	23.6	R 321.1	56.2	R 377.4
1970	12.0	145.3	26.0	23.4	1.7	9.2	2.9	0.7	53.2	5.6	122.5	0.6	R 56.9	0.0	37.0	R 374.3	89.7	R 464.1
1975	10.2	149.4	27.9	20.7	1.1	12.9	3.7	0.3	39.2	11.2	117.1	0.6	R 62.9	0.0	47.3	R 387.4	114.1	R 501.5
1980	16.5	160.1	31.8	23.3	2.5	11.7	3.8	0.1	33.7	28.8	135.8	0.6	R 40.8	0.0	65.5	R 419.4	159.3	R 578.6
1985	39.1	143.9	30.4	21.3	0.4	7.1	3.5	6.6	65.4	23.8	158.3	0.6	R 47.8	0.0	78.9	R 468.6	185.4	R 654.0
1986	44.9	131.9	37.4	23.2	0.4	7.2	3.4	6.1	9.7	25.6	113.0	0.6	R 64.6	0.0	83.1	R 438.1	191.2	R 629.4
1987	49.0	144.9	39.7	20.9	0.3	6.8	3.9	6.4	9.2	24.6	111.7	0.6	R 64.3	0.0	86.1	R 456.6	196.7	R 653.3
1988	52.9	154.2	40.1	19.8	0.6	8.1	3.7	6.1	10.8	24.4	113.6	0.6	R 66.9	0.0	88.7	R 476.8	200.4	R 677.3
1989	51.2	157.1	32.9	23.1	0.4	9.1	3.8	6.8	10.7	23.8	110.7	R f 0.3	R f 80.1	f 0.0	90.0	R f 489.4	R 202.3	R f 691.7
1990	56.1	166.4	42.5	23.7	0.1	6.9	3.9	6.8	12.8	26.5	123.2	0.3	R 85.8	0.0	91.2	R 522.9	199.4	R 722.3
1991	52.8	171.6	34.5	20.0	0.2	8.5	3.5	6.2	11.0	41.5	125.2	0.3	R 94.9	0.0	92.8	R 537.6	R 202.0	R 739.6
1992	44.9	176.5	32.5	16.3	0.1	8.5	3.6	6.4	21.5	43.2	132.1	0.6	R 99.0	0.0	96.2	R 549.4	205.5	R 754.9
1993	43.2	171.9	35.3	22.4	0.1	9.2	3.6	3.7	17.6	43.4	135.5	0.5	R 101.3	0.0	99.2	R 551.6	209.7	R 761.3
1994	48.5	179.1	34.8	20.2	0.1	8.5	3.8	4.1	18.0	44.0	133.5	0.6	R 102.3	0.0	102.2	R 566.1	213.2	R 779.3
1995	49.1	188.5	36.7	28.1	0.2	8.8	3.7	4.4	16.6	41.9	140.5	0.5	R 104.3	0.0	107.5	R 590.4	R 223.9	R 814.2
1996	49.9	185.9	36.0	32.4	0.2	9.5	3.6	4.8	22.0	43.5	152.1	R 0.6	R 107.1	0.0	113.2	R 608.7	235.6	R 844.3
1997	51.3	179.5	32.4	29.3	0.1	9.8	3.8	4.7	19.6	47.2	147.0	0.4	105.7	0.0	115.9	599.7	240.6	840.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 81. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Georgia

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	10	4	262	2,592	2,306	66	530	30,875	1,544	38,175	0	R 43	–	R 107	–
1965	2	5	928	4,177	2,158	69	583	38,215	1,162	47,292	0	0	–	0	–
1970	1	7	600	7,747	10,506	100	549	53,608	172	73,283	0	0	–	0	–
1975	(s)	4	399	10,331	12,887	106	516	65,110	427	89,776	0	0	–	0	–
1980	0	7	386	14,135	16,421	76	618	65,116	2,995	99,747	0	16	–	R 40	–
1985	0	5	212	18,031	16,236	212	562	71,432	1,009	107,695	0	R 61	–	R 142	–
1986	0	5	253	19,101	17,742	188	550	75,437	683	113,954	0	R 67	–	R 153	–
1987	0	6	218	20,949	19,691	130	621	78,490	499	120,600	0	R 62	–	R 142	–
1988	0	7	227	22,746	20,295	136	599	81,913	449	126,365	0	R 69	–	R 156	–
1989	0	7	210	22,595	17,451	117	615	81,868	666	123,522	R e 3,835	R 74	–	R 166	–
1990	0	7	196	22,731	18,439	105	632	81,341	1,325	124,769	4,429	R 75	–	R 165	–
1991	0	7	182	22,292	14,441	112	566	82,211	1,165	120,969	3,511	R 74	–	R 161	–
1992	0	8	166	22,995	12,422	110	577	82,268	3,376	121,914	4,267	R 73	–	R 155	–
1993	0	7	167	25,729	15,204	118	587	92,260	2,568	136,633	4,762	R 73	–	R 155	–
1994	0	7	160	26,568	16,936	249	614	92,545	1,873	138,945	1,343	R 87	–	R 181	–
1995	0	8	156	28,494	18,451	140	603	96,781	1,405	146,030	124	R 94	–	R 195	–
1996	0	8	168	34,173	17,293	121	586	100,094	1,258	153,692	0	R 96	–	R 200	–
1997	0	8	157	30,967	15,233	110	619	100,054	1,129	148,269	0	109	–	227	–
			Trillion Btu												
1960	0.2	3.7	1.3	15.1	12.4	0.3	3.2	162.2	9.7	204.2	0.0	0.1	208.3	0.4	208.6
1965	0.1	5.0	4.7	24.3	11.6	0.3	3.5	200.7	7.3	252.5	0.0	0.0	257.5	0.0	257.5
1970	(s)	7.1	3.0	45.1	59.0	0.4	3.3	281.6	1.1	393.5	0.0	0.0	400.6	0.0	400.6
1975	(s)	4.3	2.0	60.2	72.6	0.4	3.1	342.0	2.7	483.0	0.0	0.0	487.3	0.0	487.3
1980	0.0	7.6	1.9	82.3	92.6	0.3	3.7	342.1	18.8	541.8	0.0	0.1	549.4	0.1	549.6
1985	0.0	5.5	1.1	105.0	91.5	0.8	3.4	375.2	6.3	583.4	0.0	0.2	589.1	R 0.5	R 589.6
1986	0.0	5.4	1.3	111.3	100.1	0.7	3.3	396.3	4.3	617.2	0.0	0.2	R 622.9	0.5	R 623.4
1987	0.0	6.3	1.1	122.0	111.2	0.5	3.8	412.3	3.1	654.0	0.0	0.2	660.5	R 0.5	R 661.0
1988	0.0	7.1	1.1	132.5	114.6	0.5	3.6	430.3	2.8	685.5	0.0	0.2	692.8	0.5	R 693.3
1989	0.0	7.2	1.1	131.6	98.5	0.4	3.7	430.1	4.2	669.6	R e 0.3	R 0.3	R e 677.1	R 0.6	R e 677.6
1990	0.0	7.5	1.0	132.4	104.2	0.4	3.8	427.3	8.3	677.4	0.3	R 0.3	685.2	R 0.6	R 685.8
1991	0.0	7.6	0.9	129.9	81.5	0.4	3.4	431.9	7.3	655.3	0.3	R 0.3	R 663.2	0.5	R 663.7
1992	0.0	7.7	0.8	133.9	70.0	0.4	3.5	432.2	21.2	662.0	0.3	0.2	R 670.0	0.5	R 670.5
1993	0.0	7.2	0.8	149.9	85.8	0.4	3.6	484.6	16.1	741.3	0.4	R 0.3	R 748.8	R 0.5	R 749.3
1994	0.0	7.2	0.8	154.8	95.9	0.9	3.7	486.1	11.8	754.0	0.1	R 0.3	R 761.5	R 0.6	R 762.1
1995	0.0	7.9	0.8	166.0	104.6	0.5	3.7	508.4	8.8	792.8	(s)	R 0.3	800.9	R 0.7	R 801.6
1996	0.0	8.7	0.8	199.1	98.0	0.4	3.6	525.8	7.9	835.6	0.0	0.3	844.6	R 0.7	R 845.3
1997	0.0	8.2	0.8	180.4	86.4	0.4	3.8	525.6	7.1	804.4	0.0	0.4	812.9	0.8	813.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 82. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Georgia

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,608	0	2,608	25	39	1	0	40	0	2,243	0	0	0	–
1965	5,291	0	5,291	1	52	2	0	54	0	3,170	0	0	0	–
1970	7,498	0	7,498	59	1,542	58	0	1,600	0	2,461	0	0	0	–
1975	12,656	0	12,656	40	4,059	1,077	0	5,136	3,093	4,278	0	0	0	–
1980	21,191	0	21,191	4	670	415	0	1,085	8,436	4,369	0	0	0	–
1985	28,285	0	28,285	1	57	235	0	292	10,130	2,772	0	0	0	–
1986	26,652	0	26,652	6	356	169	0	525	7,238	2,097	0	0	0	–
1987	27,130	0	27,130	1	207	154	0	361	15,259	3,121	0	0	0	–
1988	26,513	0	26,513	2	180	315	0	494	15,149	2,011	0	0	0	–
1989	25,839	0	25,839	1	27	318	0	346	24,961	3,874	0	0	0	–
1990	27,812	0	27,812	2	115	218	0	333	24,797	4,887	0	0	0	–
1991	24,848	0	24,848	1	20	194	0	213	26,016	4,639	0	0	0	–
1992	23,656	0	23,656	1	69	199	0	268	27,996	5,342	0	0	0	–
1993	25,339	0	25,339	3	170	336	0	506	27,233	4,753	0	0	0	–
1994	27,293	0	27,293	1	61	297	0	358	28,927	4,857	0	0	0	–
1995	29,280	0	29,280	8	109	385	0	494	30,661	4,684	0	0	0	–
1996	29,170	0	29,170	5	84	555	0	640	29,925	4,936	0	0	0	–
1997	30,631	0	30,631	7	81	370	0	451	30,414	4,418	0	0	0	–
	Trillion Btu													
1960	65.3	0.0	65.3	26.2	0.2	(s)	0.0	0.3	0.0	24.1	0.0	0.0	0.0	115.9
1965	131.9	0.0	131.9	0.9	0.3	(s)	0.0	0.3	0.0	33.1	0.0	0.0	0.0	166.3
1970	178.1	0.0	178.1	60.5	9.7	0.3	0.0	10.0	0.0	25.8	0.0	0.0	0.0	274.5
1975	300.6	0.0	300.6	41.5	25.5	6.3	0.0	31.8	34.1	44.5	0.0	0.0	0.0	452.4
1980	504.5	0.0	504.5	3.8	4.2	2.4	0.0	6.6	92.0	45.4	0.0	0.0	0.0	652.3
1985	685.7	0.0	685.7	0.9	0.4	1.4	0.0	1.7	109.5	29.0	0.0	0.0	0.0	826.8
1986	647.4	0.0	647.4	5.9	2.2	1.0	0.0	3.2	78.2	21.9	0.0	0.0	0.0	756.7
1987	660.6	0.0	660.6	0.8	1.3	0.9	0.0	2.2	164.4	32.5	0.0	0.0	0.0	860.6
1988	645.5	0.0	645.5	1.6	1.1	1.8	0.0	3.0	162.8	20.8	0.0	0.0	0.0	833.5
1989	625.3	0.0	625.3	0.7	0.2	1.9	0.0	2.0	267.7	40.4	0.0	0.0	0.0	936.1
1990	661.5	0.0	661.5	2.0	0.7	1.3	0.0	2.0	264.8	50.8	0.0	0.0	0.0	981.2
1991	593.2	0.0	593.2	0.9	0.1	1.1	0.0	1.3	279.4	48.4	0.0	0.0	0.0	923.1
1992	569.6	0.0	569.6	1.2	0.4	1.2	0.0	1.6	298.9	55.2	0.0	0.0	0.0	926.6
1993	615.6	0.0	615.6	3.1	1.1	2.0	0.0	3.0	290.9	49.0	0.0	0.0	0.0	961.7
1994	642.7	0.0	642.7	1.1	0.4	1.7	0.0	2.1	308.8	50.1	0.0	0.0	0.0	1,004.8
1995	677.9	0.0	677.9	8.0	0.7	2.2	0.0	2.9	326.8	48.3	0.0	0.0	0.0	1,063.9
1996	675.6	0.0	675.6	4.8	0.5	3.2	0.0	3.8	317.9	51.0	0.0	0.0	0.0	1,053.2
1997	720.2	0.0	720.2	7.5	0.5	2.2	0.0	2.7	323.1	45.6	0.0	0.0	0.0	1,099.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 83. Energy Consumption Estimates by Source, Selected Years 1960-1997, Hawaii

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	0	0	29	2,640	886	4,321	91	112	38	3,429	4,766	553	16,864	0	27	–	–	0	–
1965	0	0	306	613	1,612	7,618	49	219	94	4,082	7,230	684	22,507	0	105	–	–	0	–
1970	0	0	377	133	1,695	14,273	153	938	71	5,691	10,154	643	34,129	0	108	–	–	0	–
1975	0	0	379	116	1,948	14,849	76	872	104	6,766	11,255	693	37,056	0	89	–	–	0	–
1980	0	3	285	199	5,987	14,116	9	1,573	94	7,231	13,196	815	43,505	0	86	–	–	0	–
1985	46	2	308	155	4,611	13,260	2	133	86	7,594	13,185	671	40,005	0	86	–	–	0	–
1986	16	2	272	279	4,584	10,176	3	126	84	7,878	14,326	1,203	38,931	0	78	–	–	0	–
1987	63	3	397	249	4,059	11,481	2	157	95	8,186	13,595	1,468	39,688	0	82	–	–	0	–
1988	50	3	351	281	5,914	11,972	(s)	178	91	8,476	16,935	1,921	46,122	0	81	–	–	0	–
1989	32	3	296	287	5,685	13,239	(s)	186	94	8,754	17,400	2,004	47,944	0	[i] NA	–	–	0	–
1990	28	3	381	272	6,822	12,646	(s)	178	96	8,670	17,433	2,156	48,655	0	NA	–	–	0	–
1991	37	3	383	261	7,239	11,123	(s)	214	86	8,970	15,418	1,803	45,499	0	NA	–	–	0	–
1992	47	3	431	243	5,588	9,993	(s)	651	88	8,870	16,271	2,230	44,365	0	NA	–	–	0	–
1993	73	3	444	198	4,837	8,891	1	884	90	9,060	12,361	2,026	38,791	0	NA	–	–	0	–
1994	86	3	407	210	5,063	9,472	1	1,619	94	9,343	12,931	2,221	41,361	0	NA	–	–	0	–
1995	192	3	438	218	5,017	9,940	1	1,317	92	9,416	12,348	2,115	40,902	0	NA	–	–	0	–
1996	169	3	401	165	4,418	10,087	1	1,354	89	9,374	10,379	2,501	38,769	0	NA	–	–	0	–
1997	145	3	396	121	4,287	10,217	1	1,367	94	9,358	9,879	2,483	38,203	0	NA	–	–	0	–
			Trillion Btu																
1960	0.0	0.0	0.2	13.3	5.2	23.5	0.5	0.4	0.2	18.0	30.0	3.3	94.7	0.0	0.3	0.0	0.0	0.0	95.0
1965	0.0	0.0	2.0	3.1	9.4	42.3	0.3	0.9	0.6	21.4	45.5	4.1	129.5	0.0	1.1	[R] 0.2	0.0	0.0	[R] 130.8
1970	0.0	0.0	2.5	0.7	9.9	80.1	0.9	3.5	0.4	29.9	63.8	3.9	195.5	0.0	1.1	[R] 0.4	0.0	0.0	[R] 197.1
1975	0.0	0.0	2.5	0.6	11.3	83.5	0.4	3.2	0.6	35.5	70.8	4.2	212.7	0.0	0.9	[R] 0.6	0.0	0.0	[R] 214.2
1980	0.0	3.0	1.9	1.0	34.9	79.2	0.1	5.8	0.6	38.0	83.0	4.9	249.3	0.0	0.9	[R] 11.9	0.0	0.0	[R] 265.1
1985	1.1	2.7	2.0	0.8	26.9	74.4	(s)	0.5	0.5	39.9	82.9	4.2	232.1	0.0	0.9	[R] 14.2	0.4	0.0	[R] 251.4
1986	0.4	2.7	1.8	1.4	26.7	57.0	(s)	0.5	0.5	41.4	90.1	7.6	226.9	0.0	0.8	[R] 6.7	0.4	0.0	[R] 237.9
1987	1.6	2.8	2.6	1.3	23.6	64.4	(s)	0.6	0.6	43.0	85.5	9.0	230.6	0.0	0.9	[R] 6.7	0.3	0.0	[R] 242.8
1988	1.2	2.8	2.3	1.4	34.5	67.2	(s)	0.7	0.6	44.5	106.5	11.7	269.3	0.0	0.8	[R] 7.0	0.3	0.0	[R] 281.5
1989	0.8	2.9	2.0	1.4	33.1	74.4	(s)	0.7	0.6	46.0	109.4	12.1	279.6	0.0	[R i] 0.6	[R i] 12.0	[R i] 1.2	0.0	[R i] 297.1
1990	0.7	3.0	2.5	1.4	39.7	71.1	(s)	0.6	0.6	45.5	109.6	13.0	284.0	0.0	0.6	[R] 10.9	0.9	0.0	[R] 300.1
1991	0.9	2.9	2.5	1.3	42.2	62.6	(s)	0.8	0.5	47.1	96.9	11.0	264.9	0.0	0.5	[R] 6.6	1.2	0.0	[R] 277.0
1992	1.2	2.9	2.9	1.2	32.6	56.5	(s)	2.4	0.5	46.6	102.3	13.4	258.3	0.0	0.6	[R] 6.4	1.2	0.0	[R] 270.5
1993	1.8	2.8	2.9	1.0	28.2	50.4	(s)	3.2	0.5	47.6	77.7	12.3	223.8	0.0	0.6	[R] 6.5	4.5	0.0	[R] 240.1
1994	1.8	2.9	2.7	1.1	29.5	53.7	(s)	5.9	0.6	49.1	81.3	13.4	237.2	0.0	1.5	[R] 8.7	5.2	0.0	[R] 257.4
1995	4.1	2.9	2.9	1.1	29.2	56.4	(s)	4.8	0.6	49.5	77.6	12.8	234.8	0.0	1.0	[R] 8.2	6.3	0.0	[R] 257.4
1996	3.6	2.8	2.7	0.8	25.7	57.2	(s)	4.9	0.5	49.2	65.3	15.0	221.4	0.0	1.1	[R] 8.3	6.6	0.0	[R] 243.9
1997	3.3	2.7	2.6	0.6	25.0	57.9	(s)	4.9	0.6	49.2	62.1	14.9	217.8	0.0	1.2	7.9	6.6	0.0	239.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 84. Residential Energy Consumption Estimates, Selected Years 1960-1997, Hawaii

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	0	(s)	0	57	58	0	–	–	514	–	1,550	–
1965	0	0	0	0	1	0	113	114	0	–	–	861	–	1,976	–
1970	0	0	0	0	1	0	447	449	0	–	–	1,285	–	3,021	–
1975	0	0	0	0	1	0	320	321	0	–	–	1,663	–	3,732	–
1980	0	0	0	1	1	0	430	431	0	–	–	1,841	–	4,103	–
1985	0	0	0	1	(s)	0	101	101	0	–	–	1,879	–	3,928	–
1986	0	0	0	1	1	0	95	96	0	–	–	1,962	–	3,998	–
1987	0	0	0	1	1	0	119	120	0	–	–	2,073	–	4,304	–
1988	0	0	0	1	2	0	134	136	0	–	–	2,151	–	4,539	–
1989	0	0	0	1	(s)	0	139	140	0	–	–	2,242	–	4,834	–
1990	0	0	0	1	(s)	0	127	128	0	–	–	2,324	–	4,734	–
1991	0	0	0	1	(s)	(s)	131	131	0	–	–	2,396	–	R 4,132	–
1992	0	0	0	1	(s)	(s)	413	413	0	–	–	2,438	–	3,711	–
1993	0	0	0	1	1	(s)	88	89	0	–	–	2,469	–	3,061	–
1994	0	0	0	1	1	(s)	90	91	0	–	–	2,557	–	2,859	–
1995	0	0	0	1	1	(s)	86	88	0	–	–	2,606	–	2,923	–
1996	0	0	0	1	(s)	(s)	107	107	0	–	–	2,676	–	3,023	–
1997	0	0	0	1	(s)	(s)	107	107	0	–	–	2,668	–	2,927	–
	Trillion Btu														
1960	0.0	0.0	0.0	0.0	(s)	0.0	0.2	0.2	0.0	0.0	0.0	1.8	2.0	5.3	7.3
1965	0.0	0.0	0.0	0.0	(s)	0.0	0.5	0.5	0.0	0.0	0.0	2.9	3.4	6.7	10.1
1970	0.0	0.0	0.0	0.0	(s)	0.0	1.7	1.7	0.0	0.0	0.0	4.4	6.1	10.3	16.4
1975	0.0	0.0	0.0	0.0	(s)	0.0	1.2	1.2	0.0	0.0	0.0	5.7	6.9	12.7	19.6
1980	0.0	0.0	0.0	1.4	(s)	0.0	1.6	1.6	0.0	0.0	0.0	6.3	9.2	14.0	23.2
1985	0.0	0.0	0.0	0.7	(s)	0.0	0.4	0.4	0.0	0.0	0.0	6.4	7.5	13.4	20.9
1986	0.0	0.0	0.0	0.6	(s)	0.0	0.3	0.4	0.0	0.0	0.0	6.7	7.7	13.6	21.3
1987	0.0	0.0	0.0	0.6	(s)	0.0	0.4	0.4	0.0	0.0	0.0	7.1	8.1	14.7	22.8
1988	0.0	0.0	0.0	0.6	(s)	0.0	0.5	0.5	0.0	0.0	0.0	7.3	8.4	15.5	23.9
1989	0.0	0.0	0.0	0.6	(s)	0.0	0.5	0.5	0.0	e 0.0	R e 0.7	7.7	R e 9.5	16.5	R e 26.0
1990	0.0	0.0	0.0	0.6	(s)	0.0	0.5	0.5	0.0	0.0	0.8	7.9	9.8	16.2	25.9
1991	0.0	0.0	0.0	0.6	(s)	(s)	0.5	0.5	0.0	0.0	0.8	8.2	10.1	14.1	24.2
1992	0.0	0.0	0.0	0.6	(s)	(s)	1.5	1.5	0.0	0.0	0.9	8.3	11.3	12.7	24.0
1993	0.0	0.0	0.0	0.6	(s)	(s)	0.3	0.3	0.0	0.0	0.9	8.4	10.3	10.4	20.7
1994	0.0	0.0	0.0	0.6	(s)	(s)	0.3	0.3	0.0	0.0	1.0	8.7	10.7	9.8	20.4
1995	0.0	0.0	0.0	0.6	(s)	(s)	0.3	0.3	0.0	0.0	1.1	8.9	10.9	10.0	20.8
1996	0.0	0.0	0.0	0.6	(s)	(s)	0.4	0.4	0.0	0.0	1.1	9.1	11.2	10.3	21.5
1997	0.0	0.0	0.0	0.5	(s)	(s)	0.4	0.4	0.0	0.0	1.2	9.1	11.2	10.0	21.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 85. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Hawaii

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	0	48	23	10	55	41	177	0	–	306	–	921	–
1965	0	0	0	0	71	39	20	59	31	220	0	–	495	–	1,136	–
1970	0	0	0	0	174	87	79	133	38	511	0	–	771	–	1,813	–
1975	0	0	0	0	84	45	57	98	15	299	0	–	1,109	–	2,489	–
1980	0	0	0	2	398	0	76	54	25	552	0	–	1,462	–	3,259	–
1985	0	0	0	2	136	1	18	47	21	223	NA	–	1,612	–	3,371	–
1986	0	0	0	2	181	3	17	46	67	313	NA	–	1,831	–	3,730	–
1987	0	0	0	2	483	2	21	44	53	604	NA	–	1,942	–	4,033	–
1988	0	0	0	2	604	(s)	24	53	1,762	2,443	NA	–	2,072	–	4,372	–
1989	0	0	0	2	495	(s)	25	52	1,470	2,042	NA	–	2,152	–	4,639	–
1990	0	0	0	2	507	(s)	22	59	837	1,426	NA	–	2,253	–	4,589	–
1991	0	0	0	2	613	(s)	23	49	19	703	NA	–	2,355	–	4,062	–
1992	0	0	0	2	437	(s)	73	45	1,063	1,618	NA	–	2,417	–	3,678	–
1993	0	0	0	2	279	1	15	11	35	341	0	–	2,419	–	3,000	–
1994	0	0	0	2	252	(s)	16	11	439	718	0	–	2,601	–	2,908	–
1995	0	0	0	2	253	(s)	15	11	63	343	0	–	2,779	–	3,116	–
1996	0	0	0	2	152	(s)	19	11	13	195	0	–	2,819	–	3,185	–
1997	0	0	0	2	308	(s)	19	11	11	350	0	–	2,839	–	3,114	–
	Trillion Btu															
1960	0.0	0.0	0.0	0.0	0.3	0.1	(s)	0.3	0.3	1.0	0.0	0.0	1.0	2.0	3.1	5.2
1965	0.0	0.0	0.0	0.0	0.4	0.2	0.1	0.3	0.2	1.2	0.0	0.0	1.7	2.9	3.9	6.8
1970	0.0	0.0	0.0	0.0	1.0	0.5	0.3	0.7	0.2	2.7	0.0	0.0	2.6	5.4	6.2	11.6
1975	0.0	0.0	0.0	0.0	0.5	0.3	0.2	0.5	0.1	1.6	0.0	0.0	3.8	5.4	8.5	13.8
1980	0.0	0.0	0.0	1.7	2.3	0.0	0.3	0.3	0.2	3.0	0.0	0.0	5.0	9.7	11.1	20.8
1985	0.0	0.0	0.0	2.0	0.8	(s)	0.1	0.2	0.1	1.2	NA	0.0	5.5	8.8	11.5	20.3
1986	0.0	0.0	0.0	2.0	1.1	(s)	0.1	0.2	0.4	1.8	NA	0.0	6.2	10.1	12.7	22.8
1987	0.0	0.0	0.0	2.2	2.8	(s)	0.1	0.2	0.3	3.5	NA	0.0	6.6	12.3	13.8	26.0
1988	0.0	0.0	0.0	2.2	3.5	(s)	0.1	0.3	11.1	15.0	NA	0.0	7.1	24.2	14.9	39.2
1989	0.0	0.0	0.0	2.3	2.9	(s)	0.1	0.3	9.2	12.5	NA	0.0	7.3	22.1	15.8	38.0
1990	0.0	0.0	0.0	2.4	3.0	(s)	0.1	0.3	5.3	8.6	NA	0.0	7.7	18.7	15.7	34.3
1991	0.0	0.0	0.0	2.3	3.6	(s)	0.1	0.3	0.1	4.0	NA	0.0	8.0	14.4	13.9	28.2
1992	0.0	0.0	0.0	2.3	2.5	(s)	0.3	0.2	6.7	9.7	NA	0.0	8.2	20.3	12.6	32.8
1993	0.0	0.0	0.0	2.3	1.6	(s)	0.1	0.1	0.2	2.0	0.0	0.0	8.3	12.5	10.2	22.7
1994	0.0	0.0	0.0	2.3	1.5	(s)	0.1	0.1	2.8	4.3	0.0	0.0	8.9	15.5	9.9	25.4
1995	0.0	0.0	0.0	2.3	1.5	(s)	0.1	0.1	0.4	2.0	0.0	0.0	9.5	13.8	10.6	24.4
1996	0.0	0.0	0.0	2.3	0.9	(s)	0.1	0.1	0.1	1.1	0.0	0.0	9.6	13.0	10.9	23.8
1997	0.0	0.0	0.0	1.8	1.8	(s)	0.1	0.1	0.1	2.0	0.0	0.0	9.7	13.5	10.6	24.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 86. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Hawaii

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	0	0	29	554	68	43	18	83	1,038	553	2,386	0	–	–	465	–	1,403	–
1965	0	0	306	635	10	82	21	76	1,712	684	3,526	83	–	–	1,096	–	2,516	–
1970	0	0	377	701	66	386	4	49	1,671	643	3,898	86	–	–	1,720	–	4,044	–
1975	0	0	379	603	31	472	30	53	1,346	693	3,607	71	–	–	2,538	–	5,696	–
1980	0	0	285	1,369	9	1,041	20	49	1,491	815	5,078	67	–	–	3,028	–	6,749	–
1985	46	0	308	471	(s)	9	18	104	1,344	671	2,925	67	–	–	3,143	–	6,571	–
1986	16	0	272	541	(s)	9	18	101	1,952	1,203	4,096	67	–	–	3,239	–	6,601	–
1987	63	0	397	776	(s)	11	20	108	1,332	1,468	4,113	67	–	–	3,284	–	6,820	–
1988	50	0	351	768	(s)	12	19	110	1,768	1,921	4,951	67	–	–	3,495	–	7,375	–
1989	32	0	296	514	(s)	13	20	129	1,439	2,004	4,414	[f] NA	–	–	3,576	–	7,709	–
1990	28	0	381	812	(s)	15	20	133	1,765	2,156	5,283	NA	–	–	3,734	–	7,605	–
1991	37	0	383	692	(s)	46	18	150	1,804	1,803	4,896	NA	–	–	3,773	–	6,507	–
1992	47	0	431	602	(s)	130	18	152	1,372	2,230	4,934	NA	–	–	3,811	–	5,800	–
1993	73	0	444	451	(s)	772	19	241	1,070	2,026	5,023	NA	–	–	3,770	–	4,675	–
1994	86	0	407	349	(s)	1,499	20	245	1,202	2,221	5,943	NA	–	–	3,791	–	4,238	–
1995	192	0	438	405	(s)	1,207	19	245	1,040	2,115	5,470	NA	–	–	3,803	–	4,265	–
1996	169	0	401	324	(s)	1,226	19	259	973	2,501	5,702	NA	–	–	3,884	–	4,388	–
1997	145	(s)	396	489	(s)	1,239	20	242	862	2,483	5,733	NA	–	–	3,856	–	4,231	–
			Trillion Btu															
1960	0.0	0.0	0.2	3.2	0.4	0.2	0.1	0.4	6.5	3.3	14.4	0.0	0.0	0.0	1.6	16.0	4.8	20.7
1965	0.0	0.0	2.0	3.7	0.1	0.3	0.1	0.4	10.8	4.1	21.5	0.9	[R] 0.2	0.0	3.7	[R] 26.3	8.6	[R] 34.9
1970	0.0	0.0	2.5	4.1	0.4	1.5	(s)	0.3	10.5	3.9	23.1	0.9	[R] 0.2	0.0	5.9	[R] 30.0	13.8	[R] 43.8
1975	0.0	0.0	2.5	3.5	0.2	1.8	0.2	0.3	8.5	4.2	21.0	0.7	[R] 0.3	0.0	8.7	[R] 30.7	19.4	[R] 50.2
1980	0.0	0.0	1.9	8.0	0.1	3.8	0.1	0.3	9.4	4.9	28.4	0.7	[R] 11.9	0.0	10.3	[R] 51.3	23.0	[R] 74.3
1985	1.1	0.0	2.0	2.7	(s)	(s)	0.1	0.5	8.4	4.2	18.1	0.7	[R] 13.9	0.0	10.7	[R] 44.6	22.4	[R] 67.0
1986	0.4	0.0	1.8	3.1	(s)	(s)	0.1	0.5	12.3	7.6	25.5	0.7	[R] 6.7	0.0	11.1	[R] 44.4	22.5	[R] 66.9
1987	1.6	0.0	2.6	4.5	(s)	(s)	0.1	0.6	8.4	9.0	25.3	0.7	[R] 6.7	0.0	11.2	[R] 45.5	23.3	[R] 68.7
1988	1.2	0.0	2.3	4.5	(s)	(s)	0.1	0.6	11.1	11.7	30.3	0.7	[R] 7.0	0.0	11.9	[R] 51.2	25.2	[R] 76.3
1989	0.8	0.0	2.0	3.0	(s)	(s)	0.1	0.7	9.0	12.1	26.9	[R f] 0.4	[R f] 11.8	[R f] 0.2	12.2	[R f] 52.3	26.3	[R f] 78.6
1990	0.7	0.0	2.5	4.7	(s)	0.1	0.1	0.7	11.1	13.0	32.2	0.4	[R] 10.8	0.1	12.7	[R] 57.0	25.9	[R] 82.9
1991	0.9	0.0	2.5	4.0	(s)	0.2	0.1	0.8	11.3	11.0	30.0	0.3	[R] 6.6	0.3	12.9	[R] 51.0	22.2	[R] 73.2
1992	1.2	0.0	2.9	3.5	(s)	0.5	0.1	0.8	8.6	13.4	29.7	0.5	[R] 6.4	0.3	13.0	[R] 51.1	19.8	[R] 70.9
1993	1.8	0.0	2.9	2.6	(s)	2.8	0.1	1.3	6.7	12.3	28.7	0.4	[R] 6.5	3.5	12.9	[R] 53.9	16.0	[R] 69.9
1994	1.8	0.0	2.7	2.0	(s)	5.5	0.1	1.3	7.6	13.4	32.5	1.3	[R] 8.7	4.2	12.9	[R] 61.5	14.5	[R] 76.0
1995	4.1	0.0	2.9	2.4	(s)	4.4	0.1	1.3	6.5	12.8	30.4	[R] 0.9	[R] 8.2	5.3	13.0	[R] 61.8	14.6	[R] 76.4
1996	3.6	0.0	2.7	1.9	(s)	4.4	0.1	1.4	6.1	15.0	31.6	0.9	[R] 8.3	5.5	13.3	[R] 63.2	15.0	[R] 78.2
1997	3.3	0.4	2.6	2.9	(s)	4.5	0.1	1.3	5.4	14.9	31.7	1.0	7.9	5.5	13.2	62.8	14.4	77.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 87. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Hawaii

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	0	0	2,640	247	4,321	2	19	3,290	968	11,487	0	0	–	0	–
1965	0	0	613	844	7,618	4	73	3,947	1,195	14,294	0	0	–	0	–
1970	0	0	133	722	14,273	26	68	5,508	1,744	22,473	0	0	–	0	–
1975	0	0	116	831	14,849	22	74	6,615	1,013	23,520	0	0	–	0	–
1980	0	0	199	3,331	14,116	26	74	7,129	1,441	26,317	0	0	–	0	–
1985	0	0	155	3,253	13,260	6	68	7,443	1,526	25,710	0	0	–	0	–
1986	0	0	279	3,038	10,176	5	66	7,730	1,557	22,851	0	0	–	0	–
1987	0	0	249	1,729	11,481	6	75	8,033	1,082	22,655	0	0	–	0	–
1988	0	0	281	3,267	11,972	9	72	8,313	1,634	25,548	0	0	–	0	–
1989	0	0	287	3,279	13,239	9	74	8,574	2,235	27,697	[e] 0	0	–	0	–
1990	0	0	272	3,870	12,646	13	76	8,477	2,694	28,049	0	0	–	0	–
1991	0	0	261	4,224	11,123	14	68	8,771	2,609	27,072	0	0	–	0	–
1992	0	0	243	2,597	9,993	35	69	8,674	3,799	25,410	0	0	–	0	–
1993	0	0	198	2,017	8,891	9	71	8,808	2,689	22,682	0	0	–	0	–
1994	0	0	210	2,362	9,472	14	74	9,088	2,980	24,201	0	0	–	0	–
1995	0	0	218	2,171	9,940	8	73	9,160	2,719	24,289	0	0	–	0	–
1996	0	0	165	1,641	10,087	2	71	9,104	714	21,784	0	0	–	0	–
1997	0	0	121	1,203	10,217	2	75	9,104	500	21,221	0	0	–	0	–
			Trillion Btu												
1960	0.0	0.0	13.3	1.4	23.5	(s)	0.1	17.3	6.1	61.8	0.0	0.0	61.8	0.0	61.8
1965	0.0	0.0	3.1	4.9	42.3	(s)	0.4	20.7	7.5	79.0	0.0	0.0	79.0	0.0	79.0
1970	0.0	0.0	0.7	4.2	80.1	0.1	0.4	28.9	11.0	125.3	0.0	0.0	125.3	0.0	125.3
1975	0.0	0.0	0.6	4.8	83.5	0.1	0.5	34.7	6.4	130.5	0.0	0.0	130.5	0.0	130.5
1980	0.0	0.0	1.0	19.4	79.2	0.1	0.5	37.4	9.1	146.7	0.0	0.0	146.7	0.0	146.7
1985	0.0	0.0	0.8	18.9	74.4	(s)	0.4	39.1	9.6	143.3	0.0	0.0	143.3	0.0	143.3
1986	0.0	0.0	1.4	17.7	57.0	(s)	0.4	40.6	9.8	126.9	0.0	0.0	126.9	0.0	126.9
1987	0.0	0.0	1.3	10.1	64.4	(s)	0.5	42.2	6.8	125.2	0.0	0.0	125.2	0.0	125.2
1988	0.0	0.0	1.4	19.0	67.2	(s)	0.4	43.7	10.3	142.0	0.0	0.0	142.0	0.0	142.0
1989	0.0	0.0	1.4	19.1	74.4	(s)	0.4	45.0	14.1	154.5	[e] 0.0	0.0	[e] 154.5	0.0	[e] 154.5
1990	0.0	0.0	1.4	22.5	71.1	(s)	0.5	44.5	16.9	156.9	0.0	0.0	156.9	0.0	156.9
1991	0.0	0.0	1.3	24.6	62.6	(s)	0.4	46.1	16.4	151.4	0.0	0.0	151.4	0.0	151.4
1992	0.0	0.0	1.2	15.1	56.5	0.1	0.4	45.6	23.9	142.9	0.0	0.0	142.9	0.0	142.9
1993	0.0	0.0	1.0	11.7	50.4	(s)	0.4	46.3	16.9	126.8	0.0	0.0	126.8	0.0	126.8
1994	0.0	0.0	1.1	13.8	53.7	0.1	0.4	47.7	18.7	135.5	0.0	0.0	135.5	0.0	135.5
1995	0.0	0.0	1.1	12.6	56.4	(s)	0.4	48.1	17.1	135.8	0.0	0.0	135.8	0.0	135.8
1996	0.0	0.0	0.8	9.6	57.2	(s)	0.4	47.8	4.5	120.3	0.0	0.0	120.3	0.0	120.3
1997	0.0	0.0	0.6	7.0	57.9	(s)	0.5	47.8	3.1	117.0	0.0	0.0	117.0	0.0	117.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 88. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Hawaii

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	0	2,719	37	0	2,756	0	27	0	0	0	–
1965	0	0	0	0	4,292	61	0	4,353	0	22	0	0	0	–
1970	0	0	0	0	6,702	96	0	6,798	0	22	24	0	0	–
1975	0	0	0	0	8,880	429	0	9,309	0	18	25	0	0	–
1980	0	0	0	0	10,239	888	0	11,127	0	20	0	0	0	–
1985	0	0	0	0	10,295	752	0	11,047	0	19	25	19	0	–
1986	0	0	0	0	10,751	824	0	11,575	0	12	0	18	0	–
1987	0	0	0	0	11,127	1,069	0	12,196	0	15	0	13	0	–
1988	0	0	0	0	11,771	1,274	0	13,044	0	14	0	16	0	–
1989	0	0	0	0	12,255	1,396	0	13,651	0	22	11	14	0	–
1990	0	0	0	0	12,138	1,632	0	13,769	0	23	6	0	0	–
1991	0	0	0	0	10,986	1,710	0	12,696	0	20	0	0	0	–
1992	0	0	0	0	10,037	1,952	0	11,989	0	10	0	0	0	–
1993	0	0	0	0	8,568	2,088	0	10,656	0	14	0	0	0	–
1994	0	0	0	0	8,310	2,100	0	10,409	0	19	0	0	0	–
1995	0	0	0	0	8,525	2,187	0	10,713	0	16	0	0	0	–
1996	0	0	0	0	8,679	2,301	0	10,980	0	18	0	0	0	–
1997	0	0	0	0	8,507	2,286	0	10,793	0	19	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	0.0	17.1	0.2	0.0	17.3	0.0	0.3	0.0	0.0	0.0	17.6
1965	0.0	0.0	0.0	0.0	27.0	0.4	0.0	27.3	0.0	0.2	0.0	0.0	0.0	27.6
1970	0.0	0.0	0.0	0.0	42.1	0.6	0.0	42.7	0.0	0.2	0.3	0.0	0.0	43.2
1975	0.0	0.0	0.0	0.0	55.8	2.5	0.0	58.3	0.0	0.2	0.3	0.0	0.0	58.8
1980	0.0	0.0	0.0	0.0	64.4	5.2	0.0	69.5	0.0	0.2	0.0	0.0	0.0	69.7
1985	0.0	0.0	0.0	0.0	64.7	4.4	0.0	69.1	0.0	0.2	0.3	0.4	0.0	70.0
1986	0.0	0.0	0.0	0.0	67.6	4.8	0.0	72.4	0.0	0.1	0.0	0.4	0.0	72.9
1987	0.0	0.0	0.0	0.0	70.0	6.2	0.0	76.2	0.0	0.2	0.0	0.3	0.0	76.6
1988	0.0	0.0	0.0	0.0	74.0	7.4	0.0	81.4	0.0	0.1	0.0	0.3	0.0	81.9
1989	0.0	0.0	0.0	0.0	77.0	8.1	0.0	85.2	0.0	0.2	0.1	0.3	0.0	85.8
1990	0.0	0.0	0.0	0.0	76.3	9.5	0.0	85.8	0.0	0.2	0.1	0.0	0.0	86.1
1991	0.0	0.0	0.0	0.0	69.1	10.0	0.0	79.0	0.0	0.2	0.0	0.0	0.0	79.2
1992	0.0	0.0	0.0	0.0	63.1	11.4	0.0	74.5	0.0	0.1	0.0	0.0	0.0	74.6
1993	0.0	0.0	0.0	0.0	53.9	12.2	0.0	66.0	0.0	0.1	0.0	0.0	0.0	66.2
1994	0.0	0.0	0.0	0.0	52.2	12.2	0.0	64.5	0.0	0.2	0.0	0.0	0.0	64.7
1995	0.0	0.0	0.0	0.0	53.6	12.7	0.0	66.3	0.0	0.2	0.0	0.0	0.0	66.5
1996	0.0	0.0	0.0	0.0	54.6	13.4	0.0	68.0	0.0	0.2	0.0	0.0	0.0	68.2
1997	0.0	0.0	0.0	0.0	53.5	13.3	0.0	66.8	0.0	0.2	0.0	0.0	0.0	67.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 89. Energy Consumption Estimates by Source, Selected Years 1960-1997, Idaho

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	699	22	491	133	4,072	899	107	455	147	6,965	205	9	13,484	0	6,165	–	–	-5	–
1965	673	34	710	177	4,803	870	521	560	160	7,654	356	8	15,819	0	6,640	–	–	4,753	–
1970	353	47	1,147	154	5,600	960	230	1,057	151	9,684	277	17	19,278	0	7,075	–	–	14,161	–
1975	647	60	880	120	7,560	950	145	1,184	163	11,288	684	0	22,973	0	10,274	–	–	11,347	–
1980	514	49	797	162	5,662	1,243	0	993	182	11,078	613	0	20,731	0	9,507	–	–	18,078	–
1985	486	39	632	80	5,584	1,122	7	778	166	10,672	86	0	19,126	0	10,919	–	–	21,495	–
1986	466	35	544	87	5,907	1,117	8	735	162	10,893	20	0	19,473	0	12,153	–	–	14,906	–
1987	494	37	499	76	6,385	1,154	9	621	183	10,727	64	0	19,720	0	8,146	–	–	28,030	–
1988	524	41	402	52	6,507	1,178	10	747	177	11,205	56	0	20,333	0	6,846	–	–	35,257	–
1989	533	46	831	55	6,865	1,239	4	839	181	11,527	45	0	21,585	0	[i] NA	–	–	[R] 30,474	–
1990	549	46	1,281	39	7,173	1,143	9	610	186	11,453	47	0	21,942	0	NA	–	–	[R] 30,830	–
1991	673	51	988	39	8,508	957	4	814	167	11,610	44	18	23,149	0	NA	–	–	[R] 31,589	–
1992	535	49	1,465	1	7,187	973	2	669	170	11,947	22	19	22,456	0	NA	–	–	[R] 39,847	–
1993	528	56	1,533	63	7,749	1,076	2	682	173	12,770	38	21	24,108	0	NA	–	–	30,612	–
1994	534	57	1,798	54	8,086	1,201	6	645	181	12,927	21	21	24,940	0	NA	–	–	[R] 38,710	–
1995	465	64	2,014	48	8,355	1,568	20	758	178	13,521	7	21	26,490	0	NA	–	–	[R] 29,941	–
1996	397	67	2,034	55	9,457	874	17	2,725	173	14,174	7	25	29,540	0	NA	–	–	[R] 27,368	–
1997	361	67	2,080	72	9,904	760	18	2,753	182	14,462	2	23	30,255	0	NA	–	–	23,990	–
			Trillion Btu																
1960	16.8	22.8	3.3	0.7	23.7	4.8	0.6	1.8	0.9	36.6	1.3	0.1	73.7	0.0	66.3	[R] 11.4	0.0	(s)	[R] 191.0
1965	15.9	36.1	4.7	0.9	28.0	4.7	3.0	2.2	1.0	40.2	2.2	(s)	86.9	0.0	69.4	[R] 10.4	0.0	16.2	[R] 234.9
1970	7.9	49.4	7.6	0.8	32.6	5.2	1.3	4.0	0.9	50.9	1.7	0.1	105.1	0.0	74.2	[R] 11.5	0.0	48.3	[R] 296.5
1975	13.4	63.8	5.8	0.6	44.0	5.2	0.8	4.4	1.0	59.3	4.3	0.0	125.5	0.0	106.9	[R] 11.1	0.0	38.7	[R] 359.4
1980	9.6	51.6	5.3	0.8	33.0	6.8	0.0	3.7	1.1	58.2	3.9	0.0	112.7	0.0	98.8	[R] 10.4	0.0	61.7	[R] 344.8
1985	8.9	41.1	4.2	0.4	32.5	6.1	(s)	2.8	1.0	56.1	0.5	0.0	103.7	0.0	114.1	[R] 12.7	0.0	73.3	[R] 353.8
1986	8.6	35.5	3.6	0.4	34.4	6.1	(s)	2.7	1.0	57.2	0.1	0.0	105.6	0.0	126.9	[R] 14.4	0.0	50.9	[R] 341.9
1987	8.9	37.8	3.3	0.4	37.2	6.3	0.1	2.3	1.1	56.4	0.4	0.0	107.4	0.0	84.9	[R] 12.4	0.0	95.6	[R] 346.9
1988	9.7	41.6	2.7	0.3	37.9	6.4	0.1	2.7	1.1	58.9	0.4	0.0	110.3	0.0	70.7	[R] 12.9	0.0	120.3	[R] 365.5
1989	9.8	46.9	5.5	0.3	40.0	6.8	(s)	3.1	1.1	60.6	0.3	0.0	117.6	0.0	[R i] 97.5	[R i] 15.8	[R i] 0.5	[R] 104.0	[R i] 392.1
1990	10.1	46.8	8.5	0.2	41.8	6.3	0.1	2.2	1.1	60.2	0.3	0.0	120.6	0.0	93.9	17.3	[R] 0.5	105.2	[R] 394.6
1991	12.3	52.7	6.6	0.2	49.6	5.3	(s)	2.9	1.0	61.0	0.3	0.1	126.9	0.0	[R] 92.0	[R] 18.8	[R] 0.5	[R] 107.8	[R] 411.3
1992	9.6	50.4	9.7	(s)	41.9	5.3	(s)	2.4	1.0	62.8	0.1	0.1	123.4	0.0	70.9	[R] 19.9	[R] 0.5	136.0	[R] 411.3
1993	9.8	58.3	10.2	0.3	45.1	5.9	(s)	2.5	1.0	67.1	0.2	0.1	132.5	0.0	[R] 101.3	[R] 20.1	[R] 0.5	104.4	[R] 427.2
1994	9.7	59.1	11.9	0.3	47.1	6.6	(s)	2.3	1.1	67.9	0.1	0.1	137.5	0.0	82.9	[R] 24.0	[R] 0.5	132.1	[R] 446.5
1995	8.9	65.7	13.4	0.2	48.7	8.6	0.1	2.7	1.1	71.0	(s)	0.1	146.0	0.0	[R] 113.7	[R] 25.2	[R] 0.5	102.2	[R] 462.4
1996	7.3	69.0	13.5	0.3	55.1	4.9	0.1	9.8	1.0	74.5	(s)	0.1	159.4	0.0	[R] 139.0	[R] 25.4	[R] 0.5	[R] 93.4	[R] 494.6
1997	6.4	69.0	13.8	0.4	57.7	4.3	0.1	10.0	1.1	76.0	(s)	0.1	163.4	0.0	151.0	24.7	0.5	81.9	497.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 90. Residential Energy Consumption Estimates, Selected Years 1960-1997, Idaho

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	166	0	166	2	663	0	314	977	R 278	–	–	1,463	–	3,639	–
1965	123	0	123	5	708	0	348	1,056	R 200	–	–	1,779	–	4,247	–
1970	63	0	63	8	837	0	711	1,548	R 146	–	–	2,354	–	5,706	–
1975	66	0	66	14	972	0	712	1,684	R 160	–	–	3,870	–	9,336	–
1980	40	0	40	7	485	0	316	801	R 144	–	–	4,936	–	12,003	–
1985	16	0	16	8	635	2	328	964	R 199	–	–	5,780	–	13,580	–
1986	13	0	13	7	634	5	288	927	R 193	–	–	5,433	–	12,497	–
1987	8	0	8	7	575	7	251	832	R 94	–	–	5,209	–	11,901	–
1988	27	0	27	8	615	7	326	948	R 98	–	–	5,449	–	12,319	–
1989	28	(s)	28	9	558	2	399	960	R 102	–	–	5,713	–	R 12,836	–
1990	21	0	21	9	530	5	318	853	102	–	–	5,626	–	12,306	–
1991	24	0	24	10	704	2	373	1,078	108	–	–	5,971	–	R 12,998	–
1992	18	0	18	10	570	2	297	869	113	–	–	5,739	–	12,258	–
1993	15	0	15	13	619	2	328	948	109	–	–	6,245	–	13,195	–
1994	14	(s)	14	12	524	2	307	833	107	–	–	6,222	–	R 12,983	–
1995	14	0	14	13	510	15	374	899	R 119	–	–	6,193	–	R 12,902	–
1996	10	0	10	15	526	13	449	988	R 119	–	–	6,508	–	R 13,544	–
1997	11	0	11	15	578	4	449	1,031	86	–	–	6,628	–	13,765	–
	Trillion Btu														
1960	4.1	0.0	4.1	2.3	3.9	0.0	1.3	5.1	R 5.6	0.0	0.0	5.0	R 22.0	12.4	R 34.5
1965	3.0	0.0	3.0	5.2	4.1	0.0	1.4	5.5	R 4.0	0.0	0.0	6.1	R 23.8	14.5	R 38.3
1970	1.5	0.0	1.5	8.2	4.9	0.0	2.7	7.6	R 2.9	0.0	0.0	8.0	R 28.2	19.5	R 47.7
1975	1.5	0.0	1.5	14.9	5.7	0.0	2.6	8.3	R 3.2	0.0	0.0	13.2	R 41.1	31.9	R 72.9
1980	0.9	0.0	0.9	7.8	2.8	0.0	1.2	4.0	R 2.9	0.0	0.0	16.8	R 32.4	41.0	R 73.3
1985	0.4	0.0	0.4	8.1	3.7	(s)	1.2	4.9	R 4.0	0.0	0.0	19.7	R 37.1	46.3	R 83.4
1986	0.3	0.0	0.3	7.4	3.7	(s)	1.0	4.8	R 3.9	0.0	0.0	18.5	R 34.9	42.6	R 77.5
1987	0.2	0.0	0.2	7.1	3.3	(s)	0.9	4.3	R 1.9	0.0	0.0	17.8	R 31.3	40.6	R 71.9
1988	0.6	0.0	0.6	7.8	3.6	(s)	1.2	4.8	R 2.0	0.0	0.0	18.6	R 33.8	42.0	R 75.8
1989	0.6	(s)	0.6	9.0	3.3	(s)	1.5	4.7	R 2.0	[e] 0.1	R [e] (s)	19.5	R [e] 36.0	43.8	R [e] 79.8
1990	0.5	0.0	0.5	8.8	3.1	(s)	1.2	4.3	2.0	0.1	(s)	19.2	R 34.9	42.0	R 76.9
1991	0.5	0.0	0.5	10.6	4.1	(s)	1.3	5.5	2.2	0.1	(s)	20.4	R 39.2	44.3	R 83.5
1992	0.4	0.0	0.4	9.9	3.3	(s)	1.1	4.4	2.3	0.1	(s)	19.6	R 36.7	41.8	R 78.5
1993	0.3	0.0	0.3	13.0	3.6	(s)	1.2	4.8	2.2	0.1	(s)	21.3	R 41.8	45.0	R 86.8
1994	0.3	(s)	0.3	12.8	3.1	(s)	1.1	4.2	2.1	0.1	(s)	21.2	R 40.7	44.3	R 85.0
1995	0.3	0.0	0.3	13.4	3.0	0.1	1.4	4.4	2.4	0.1	(s)	21.1	R 41.7	44.0	R 85.7
1996	0.2	0.0	0.2	15.4	3.1	0.1	1.6	4.8	2.4	0.1	(s)	22.2	R 45.0	46.2	R 91.3
1997	0.2	0.0	0.2	15.7	3.4	(s)	1.6	5.0	1.7	0.1	(s)	22.6	45.4	47.0	92.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 91. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Idaho

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	307	0	307	3	232	102	55	45	0	435	R 5	–	1,261	–	3,136	–
1965	228	0	228	5	248	500	61	52	0	862	R 4	–	1,290	–	3,079	–
1970	118	0	118	6	294	116	125	65	0	600	R 3	–	2,088	–	5,059	–
1975	123	0	123	12	341	81	126	90	0	637	R 3	–	3,530	–	8,515	–
1980	73	0	73	6	218	0	56	100	487	860	R 3	–	3,973	–	9,661	–
1985	30	0	30	9	366	3	58	134	25	586	NA	–	4,592	–	10,789	–
1986	24	0	24	9	285	2	51	136	3	476	NA	–	4,435	–	10,202	–
1987	15	0	15	8	422	2	44	141	10	619	NA	–	4,611	–	10,535	–
1988	49	0	49	8	431	1	57	376	7	873	NA	–	4,909	–	11,098	–
1989	52	(s)	52	9	348	(s)	70	356	26	802	NA	–	4,965	–	R 11,155	–
1990	39	0	39	9	340	1	56	148	19	565	NA	–	5,212	–	11,399	–
1991	44	0	44	10	434	(s)	66	345	1	846	NA	–	5,166	–	R 11,245	–
1992	33	0	33	9	414	(s)	52	312	14	793	NA	–	5,718	–	R 12,215	–
1993	28	0	28	11	339	(s)	58	38	30	464	9	–	5,253	–	11,098	–
1994	26	(s)	26	10	441	2	54	38	7	542	R 9	–	6,010	–	R 12,541	–
1995	25	0	25	10	454	3	66	38	4	566	R 9	–	5,584	–	R 11,632	–
1996	18	0	18	12	612	4	79	167	4	867	R 10	–	6,231	–	R 12,968	–
1997	20	0	20	11	467	1	79	39	1	587	8	–	6,285	–	13,052	–
	Trillion Btu															
1960	7.6	0.0	7.6	2.9	1.4	0.6	0.2	0.2	0.0	2.4	R 0.1	0.0	4.3	R 17.3	10.7	R 28.0
1965	5.6	0.0	5.6	5.4	1.4	2.8	0.2	0.3	0.0	4.8	R 0.1	0.0	4.4	R 20.3	10.5	R 30.8
1970	2.8	0.0	2.8	6.2	1.7	0.7	0.5	0.3	0.0	3.2	R 0.1	0.0	7.1	R 19.4	17.3	36.6
1975	2.8	0.0	2.8	12.8	2.0	0.5	0.5	0.5	0.0	3.4	R 0.1	0.0	12.0	31.1	29.1	R 60.2
1980	1.6	0.0	1.6	6.1	1.3	0.0	0.2	0.5	3.1	5.1	R 0.1	0.0	13.6	R 26.4	33.0	59.3
1985	0.7	0.0	0.7	9.4	2.1	(s)	0.2	0.7	0.2	3.2	NA	0.0	15.7	29.0	36.8	65.8
1986	0.5	0.0	0.5	8.7	1.7	(s)	0.2	0.7	(s)	2.6	NA	0.0	15.1	27.0	34.8	61.8
1987	0.3	0.0	0.3	7.7	2.5	(s)	0.2	0.7	0.1	3.4	NA	0.0	15.7	27.3	35.9	63.2
1988	1.1	0.0	1.1	8.4	2.5	(s)	0.2	2.0	(s)	4.7	NA	0.0	16.7	31.0	37.9	68.9
1989	1.1	(s)	1.1	9.3	2.0	(s)	0.3	1.9	0.2	4.3	NA	0.2	16.9	R 31.8	R 38.1	R 69.9
1990	0.9	0.0	0.9	8.8	2.0	(s)	0.2	0.8	0.1	3.1	NA	0.2	17.8	R 30.7	38.9	R 69.6
1991	1.0	0.0	1.0	9.9	2.5	(s)	0.2	1.8	(s)	4.6	NA	0.2	17.6	R 33.3	38.4	R 71.7
1992	0.7	0.0	0.7	9.2	2.4	(s)	0.2	1.6	0.1	4.3	NA	0.2	19.5	R 34.0	41.7	R 75.6
1993	0.6	0.0	0.6	11.1	2.0	(s)	0.2	0.2	0.2	2.6	0.2	0.2	17.9	R 32.5	37.9	R 70.4
1994	0.6	(s)	0.6	10.5	2.6	(s)	0.2	0.2	(s)	3.0	0.2	0.2	20.5	R 34.9	42.8	R 77.7
1995	0.5	0.0	0.5	10.7	2.6	(s)	0.2	0.2	(s)	3.1	R 0.2	0.2	19.1	33.7	39.7	R 73.4
1996	0.4	0.0	0.4	11.9	3.6	(s)	0.3	0.9	(s)	4.8	R 0.2	0.2	21.3	R 38.6	R 44.2	82.9
1997	0.4	0.0	0.4	11.8	2.7	(s)	0.3	0.2	(s)	3.2	0.2	0.2	21.4	37.2	44.5	81.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 92. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Idaho

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	222	17	491	2,529	5	79	19	930	153	9	4,217	(s)	–	–	2,849	–	7,087	–
1965	321	23	710	2,768	21	146	32	859	301	8	4,846	(s)	–	–	4,340	–	10,361	–
1970	171	29	1,147	3,206	114	212	32	626	275	17	5,630	0	–	–	6,052	–	14,665	–
1975	459	30	880	3,935	64	325	44	801	684	0	6,734	0	–	–	5,112	–	12,331	–
1980	401	32	797	2,209	0	598	44	639	126	0	4,413	0	–	–	4,798	–	11,667	–
1985	439	19	632	1,751	2	333	40	511	61	0	3,330	0	–	–	6,029	–	14,165	–
1986	429	16	544	2,133	1	331	39	488	17	0	3,554	0	–	–	5,923	–	13,625	–
1987	470	19	499	2,394	1	291	44	433	54	0	3,716	0	–	–	6,286	–	14,364	–
1988	448	21	402	2,458	1	324	43	408	50	0	3,684	0	–	–	6,807	–	15,389	–
1989	452	23	831	2,673	1	328	44	433	19	0	4,328	[f] NA	–	–	7,143	–	[R] 16,050	–
1990	489	23	1,281	2,726	3	187	45	352	28	0	4,623	NA	–	–	7,165	–	[R] 15,672	–
1991	604	27	988	3,744	2	336	40	439	43	18	5,611	NA	–	–	6,909	–	[R] 15,040	–
1992	484	27	1,465	2,458	1	284	41	388	8	19	4,664	NA	–	–	7,551	–	16,129	–
1993	486	29	1,533	2,289	1	262	42	339	8	21	4,494	NA	–	–	7,222	–	15,259	–
1994	494	30	1,798	2,522	1	234	44	378	14	21	5,012	NA	–	–	7,647	–	[R] 15,956	–
1995	426	34	2,014	2,623	2	291	43	400	3	21	5,396	NA	–	–	7,843	–	[R] 16,340	–
1996	369	35	2,034	2,922	1	2,174	42	412	2	25	7,612	NA	–	–	8,380	–	[R] 17,441	–
1997	331	35	2,080	3,126	13	2,204	44	425	1	23	7,916	NA	–	–	8,322	–	17,284	–
			Trillion Btu															
1960	5.0	17.1	3.3	14.7	(s)	0.3	0.1	4.9	1.0	0.1	24.4	(s)	[R] 5.7	0.0	9.7	[R] 61.9	24.2	[R] 86.1
1965	7.2	24.4	4.7	16.1	0.1	0.6	0.2	4.5	1.9	(s)	28.2	(s)	[R] 6.3	0.0	14.8	[R] 80.8	35.4	[R] 116.2
1970	3.6	30.6	7.6	18.7	0.6	0.8	0.2	3.3	1.7	0.1	33.0	0.0	[R] 8.5	0.0	20.6	[R] 96.4	50.0	[R] 146.4
1975	9.1	31.6	5.8	22.9	0.4	1.2	0.3	4.2	4.3	0.0	39.1	0.0	[R] 7.8	0.0	17.4	[R] 105.1	42.1	[R] 147.2
1980	7.1	33.3	5.3	12.9	0.0	2.2	0.3	3.4	0.8	0.0	24.8	0.0	[R] 7.5	0.0	16.4	[R] 89.0	39.8	[R] 128.9
1985	7.8	20.4	4.2	10.2	(s)	1.2	0.2	2.7	0.4	0.0	18.9	0.0	[R] 8.8	0.0	20.6	[R] 76.5	48.3	[R] 124.8
1986	7.8	16.6	3.6	12.4	(s)	1.2	0.2	2.6	0.1	0.0	20.2	0.0	[R] 10.5	0.0	20.2	[R] 75.3	46.5	[R] 121.8
1987	8.3	19.3	3.3	13.9	(s)	1.1	0.3	2.3	0.3	0.0	21.2	0.0	[R] 10.5	0.0	21.4	[R] 80.8	49.0	[R] 129.8
1988	8.0	21.1	2.7	14.3	(s)	1.2	0.3	2.1	0.3	0.0	20.9	0.0	[R] 10.9	0.0	23.2	[R] 84.2	52.5	[R] 136.7
1989	8.0	23.5	5.5	15.6	(s)	1.2	0.3	2.3	0.1	0.0	25.0	[R f] 4.2	[R f] 13.8	[R f] 0.3	24.4	[R f] 99.0	[R] 54.8	[R f] 153.8
1990	8.7	24.0	8.5	15.9	(s)	0.7	0.3	1.9	0.2	0.0	27.4	3.5	15.2	[R] 0.3	24.4	[R] 103.6	53.5	[R] 157.0
1991	10.7	27.5	6.6	21.8	(s)	1.2	0.2	2.3	0.3	0.1	32.5	4.5	[R] 16.6	[R] 0.3	23.6	[R] 115.7	51.3	[R] 167.0
1992	8.5	27.9	9.7	14.3	(s)	1.0	0.2	2.0	(s)	0.1	27.5	4.1	[R] 17.6	[R] 0.3	25.8	[R] 111.6	55.0	[R] 166.6
1993	8.8	30.3	10.2	13.3	(s)	0.9	0.3	1.8	0.1	0.1	26.7	7.2	[R] 17.7	[R] 0.3	24.6	[R] 115.6	52.1	[R] 167.6
1994	8.8	30.9	11.9	14.7	(s)	0.9	0.3	2.0	0.1	0.1	29.9	6.4	[R] 21.6	[R] 0.3	26.1	[R] 124.0	54.4	[R] 178.5
1995	8.1	35.0	13.4	15.3	(s)	1.1	0.3	2.1	(s)	0.1	32.2	[R] 9.7	[R] 22.6	[R] 0.3	26.8	[R] 134.6	[R] 55.8	[R] 190.4
1996	6.7	35.6	13.5	17.0	(s)	7.9	0.3	2.2	(s)	0.1	41.0	[R] 10.9	[R] 22.8	[R] 0.3	28.6	[R] 145.9	59.5	[R] 205.4
1997	5.7	36.1	13.8	18.2	0.1	8.0	0.3	2.2	(s)	0.1	42.7	10.7	22.8	0.3	28.4	146.7	59.0	205.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 93. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Idaho

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	4	(s)	133	648	899	7	127	5,990	52	7,856	0	0	–	0	–
1965	1	1	177	1,079	870	4	128	6,743	55	9,055	0	0	–	0	–
1970	(s)	4	154	1,263	960	9	119	8,993	2	11,500	0	0	–	0	–
1975	(s)	4	120	2,306	950	21	119	10,396	0	13,912	0	0	–	0	–
1980	0	4	162	2,750	1,243	23	138	10,339	0	14,655	0	0	–	0	–
1985	0	3	80	2,830	1,122	59	126	10,026	0	14,244	0	0	–	0	–
1986	0	3	87	2,854	1,117	65	123	10,270	0	14,515	0	0	–	0	–
1987	0	4	76	2,994	1,154	35	139	10,154	0	14,552	0	0	–	0	–
1988	0	4	52	3,001	1,178	41	134	10,421	0	14,827	0	0	–	0	–
1989	0	5	55	3,281	1,239	41	137	10,738	0	15,491	R e 621	0	–	0	–
1990	0	5	39	3,575	1,143	48	141	10,952	0	15,899	717	0	–	0	–
1991	0	5	39	3,626	957	40	126	10,826	0	15,614	568	0	–	0	–
1992	0	3	1	3,743	973	36	129	11,246	0	16,128	691	0	–	0	–
1993	0	4	63	4,503	1,076	34	131	12,394	0	18,201	771	0	–	0	–
1994	0	5	54	4,598	1,201	50	137	12,511	0	18,552	677	0	–	0	–
1995	0	6	48	4,768	1,568	27	135	13,083	0	19,629	438	0	–	0	–
1996	0	6	55	5,395	874	22	131	13,595	0	20,073	0	0	–	0	–
1997	0	5	72	5,733	760	20	138	13,998	0	20,721	0	0	–	0	–
			Trillion Btu												
1960	0.1	0.5	0.7	3.8	4.8	(s)	0.8	31.5	0.3	41.9	0.0	0.0	42.5	0.0	42.5
1965	(s)	1.1	0.9	6.3	4.7	(s)	0.8	35.4	0.3	48.4	0.0	0.0	49.6	0.0	49.6
1970	(s)	4.5	0.8	7.4	5.2	(s)	0.7	47.2	(s)	61.3	0.0	0.0	65.8	0.0	65.8
1975	(s)	4.5	0.6	13.4	5.2	0.1	0.7	54.6	0.0	74.6	0.0	0.0	79.1	0.0	79.1
1980	0.0	4.4	0.8	16.0	6.8	0.1	0.8	54.3	0.0	78.9	0.0	0.0	83.3	0.0	83.3
1985	0.0	3.1	0.4	16.5	6.1	0.2	0.8	52.7	0.0	76.6	0.0	0.0	79.7	0.0	79.7
1986	0.0	2.7	0.4	16.6	6.1	0.2	0.7	53.9	0.0	78.1	0.0	0.0	80.8	0.0	80.8
1987	0.0	3.6	0.4	17.4	6.3	0.1	0.8	53.3	0.0	78.4	0.0	0.0	82.1	0.0	82.1
1988	0.0	4.2	0.3	17.5	6.4	0.1	0.8	54.7	0.0	79.9	0.0	0.0	84.1	0.0	84.1
1989	0.0	5.1	0.3	19.1	6.8	0.2	0.8	56.4	0.0	83.6	R e (s)	0.0	e 88.7	0.0	e 88.7
1990	0.0	5.2	0.2	20.8	6.3	0.2	0.9	57.5	0.0	85.9	0.1	0.0	91.1	0.0	91.1
1991	0.0	4.7	0.2	21.1	5.3	0.1	0.8	56.9	0.0	84.4	(s)	0.0	89.1	0.0	89.1
1992	0.0	3.4	(s)	21.8	5.3	0.1	0.8	59.1	0.0	87.1	0.1	0.0	90.5	0.0	90.5
1993	0.0	3.9	0.3	26.2	5.9	0.1	0.8	65.1	0.0	98.5	0.1	0.0	102.4	0.0	102.4
1994	0.0	4.9	0.3	26.8	6.6	0.2	0.8	65.7	0.0	100.4	0.1	0.0	105.3	0.0	105.3
1995	0.0	6.6	0.2	27.8	8.6	0.1	0.8	68.7	0.0	106.3	(s)	0.0	112.8	0.0	112.8
1996	0.0	6.2	0.3	31.4	4.9	0.1	0.8	71.4	0.0	108.9	0.0	0.0	115.1	0.0	115.1
1997	0.0	5.4	0.4	33.4	4.3	0.1	0.8	73.5	0.0	112.5	0.0	0.0	117.9	0.0	117.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 94. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Idaho

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	0	0	(s)	0	(s)	0	6,165	0	0	0	–
1965	0	0	0	0	0	(s)	0	(s)	0	6,640	0	0	0	–
1970	0	0	0	0	0	1	0	1	0	7,075	0	0	0	–
1975	0	0	0	(s)	0	5	0	5	0	10,274	0	0	0	–
1980	0	0	0	(s)	0	(s)	0	(s)	0	9,507	0	0	0	–
1985	0	0	0	(s)	0	1	0	1	0	10,919	0	0	0	–
1986	0	0	0	(s)	0	1	0	1	0	12,153	0	0	0	–
1987	0	0	0	(s)	0	(s)	0	(s)	0	8,146	0	0	0	–
1988	0	0	0	0	0	1	0	1	0	6,846	0	0	0	–
1989	0	0	0	0	0	4	0	4	0	R 8,950	0	0	0	–
1990	0	0	0	0	0	2	0	2	0	8,689	0	0	0	–
1991	0	0	0	0	0	1	0	1	0	8,385	0	0	0	–
1992	0	0	0	0	0	1	0	1	0	6,459	0	0	0	–
1993	0	0	0	0	0	(s)	0	(s)	0	9,124	0	0	0	–
1994	0	0	0	0	0	(s)	0	(s)	0	7,417	0	0	0	–
1995	0	0	0	0	0	1	0	1	0	10,093	0	0	0	–
1996	0	0	0	0	0	(s)	0	(s)	0	12,391	0	0	0	–
1997	0	0	0	0	0	(s)	0	(s)	0	13,611	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	66.3	0.0	0.0	0.0	66.3
1965	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	69.4	0.0	0.0	0.0	69.4
1970	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	74.2	0.0	0.0	0.0	74.3
1975	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	0.0	106.9	0.0	0.0	0.0	107.0
1980	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	0.0	98.8	0.0	0.0	0.0	98.8
1985	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	0.0	114.1	0.0	0.0	0.0	114.1
1986	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	0.0	126.9	0.0	0.0	0.0	127.0
1987	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	0.0	84.9	0.0	0.0	0.0	84.9
1988	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	70.7	0.0	0.0	0.0	70.7
1989	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	93.4	0.0	0.0	0.0	93.4
1990	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	90.4	0.0	0.0	0.0	90.6
1991	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	R 87.5	0.0	0.0	0.0	R 87.8
1992	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	66.8	0.0	0.0	0.0	67.4
1993	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	94.1	0.0	0.0	0.0	94.4
1994	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	76.5	0.0	0.0	0.0	R 77.3
1995	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	R 104.1	0.0	0.0	0.0	104.2
1996	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	128.1	0.0	0.0	0.0	128.7
1997	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	0.0	140.3	0.0	0.0	0.0	141.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 95. Energy Consumption Estimates by Source, Selected Years 1960-1997, Illinois

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	39,674	518	7,244	3,733	42,592	4,356	5,369	14,958	2,672	78,026	26,533	12,578	198,061	254	185	–	–	-18,487	–
1965	44,715	757	9,751	383	41,011	12,176	5,337	18,763	2,616	88,769	23,091	18,923	220,821	965	175	–	–	-8,786	–
1970	42,136	1,174	12,651	264	44,495	22,644	3,583	28,481	3,255	107,084	27,949	22,957	273,365	2,514	166	–	–	5,391	–
1975	40,374	1,095	10,213	82	51,249	24,769	2,622	35,135	3,120	118,637	28,142	27,915	301,883	22,315	122	–	–	-4,391	–
1980	40,147	1,090	8,094	132	36,704	19,664	606	38,811	3,473	109,062	28,271	29,427	274,245	27,742	138	–	–	4,045	–
1985	37,706	962	7,502	212	32,189	2,748	755	27,168	3,160	111,114	6,508	20,048	211,404	39,106	136	–	–	6,167	–
1986	37,176	924	6,185	209	35,132	2,054	405	32,529	3,090	108,641	8,316	23,855	220,416	42,614	141	–	–	-223	–
1987	35,648	873	6,315	159	34,129	1,997	303	41,884	3,493	110,508	6,964	25,707	231,459	50,194	107	–	–	-3,412	–
1988	34,006	965	5,604	187	33,662	3,956	350	45,341	3,369	116,048	5,908	28,476	242,901	69,166	65	–	–	-31,788	–
1989	32,457	996	8,052	192	34,565	4,497	367	12,389	3,455	115,548	4,048	28,341	211,455	74,820	[i] NA	–	–	[R] -47,746	–
1990	33,904	939	8,339	164	42,529	3,952	174	12,471	3,556	105,948	3,622	30,916	211,669	71,887	NA	–	–	[R] -49,381	–
1991	34,677	988	7,917	176	36,149	6,437	203	14,539	3,181	104,380	3,454	32,315	208,751	71,866	NA	–	–	[R] -38,893	–
1992	31,599	993	9,293	176	36,377	7,399	142	12,482	3,243	106,297	2,354	36,324	214,086	73,742	NA	–	–	[R] -42,960	–
1993	38,135	1,031	6,310	231	38,385	9,170	176	21,649	3,302	109,587	2,282	35,075	226,168	78,373	NA	–	–	-80,258	–
1994	39,077	1,025	7,798	204	33,949	9,619	201	24,708	3,452	111,255	2,712	36,703	230,599	72,654	NA	–	–	[R] -62,061	–
1995	39,623	1,079	7,457	215	37,535	10,360	293	25,822	3,392	111,207	1,463	34,906	232,651	78,481	NA	–	–	[R] -66,983	–
1996	44,431	1,119	9,127	202	37,926	12,076	398	23,924	3,292	111,554	2,010	37,655	238,165	69,774	NA	–	–	[R] -62,517	–
1997	47,621	1,077	8,350	197	39,186	12,497	367	24,166	3,478	113,343	1,448	39,121	242,151	51,069	NA	–	–	-20,563	–
			Trillion Btu																
1960	914.7	536.1	48.1	18.8	248.1	24.4	30.4	60.0	16.2	409.9	166.8	75.3	1,098.1	3.0	2.0	[R] 31.0	0.0	-63.1	[R] 2,521.8
1965	1,014.5	778.7	64.7	1.9	238.9	68.8	30.3	75.3	15.9	466.3	145.2	109.8	1,217.0	11.4	1.8	[R] 33.2	0.0	-30.0	[R] 3,026.6
1970	920.3	1,203.2	84.0	1.3	259.2	128.2	20.3	107.6	19.7	562.5	175.7	133.2	1,491.7	27.6	1.7	[R] 39.3	0.0	18.4	[R] 3,702.3
1975	845.6	1,123.6	67.8	0.4	298.5	140.2	14.9	130.5	18.9	623.2	176.9	163.5	1,634.9	245.8	1.3	[R] 41.6	0.0	-15.0	[R] 3,877.7
1980	844.5	1,113.7	53.7	0.7	213.8	111.3	3.4	142.6	21.1	572.9	177.7	170.1	1,467.3	302.6	1.4	[R] 83.9	0.0	13.8	[R] 3,827.2
1985	811.1	1,000.5	49.8	1.1	187.5	15.4	4.3	97.9	19.2	583.7	40.9	116.9	1,116.6	422.9	1.4	[R] 88.2	0.0	21.0	[R] 3,461.8
1986	804.2	943.7	41.0	1.1	204.6	11.5	2.3	118.4	18.7	570.7	52.3	138.8	1,159.5	460.2	1.5	[R] 77.7	0.0	-0.8	[R] 3,445.9
1987	783.2	886.5	41.9	0.8	198.8	11.1	1.7	153.3	21.2	580.5	43.8	148.1	1,201.1	540.9	1.1	[R] 82.3	0.0	-11.6	[R] 3,483.6
1988	745.2	982.8	37.2	0.9	196.1	22.2	2.0	165.6	20.4	609.6	37.1	164.6	1,255.8	743.1	0.7	[R] 85.5	0.0	-108.5	[R] 3,704.5
1989	714.2	1,017.4	53.4	1.0	201.3	25.3	2.1	45.6	21.0	607.0	25.5	163.0	1,145.2	802.4	[R i] 1.2	[R i] 93.5	[R i] 0.3	[R] -162.9	[R i] 3,600.6
1990	747.9	960.1	55.3	0.8	247.7	22.3	1.0	45.2	21.6	556.5	22.8	178.0	1,151.2	767.8	1.5	[R] 65.1	[R] 0.3	-168.5	[R] 3,513.1
1991	757.7	1,006.4	52.5	0.9	210.6	36.3	1.2	52.5	19.3	548.3	21.7	185.3	1,128.6	771.8	1.4	[R] 63.8	[R] 1.9	[R] -132.7	[R] 3,589.2
1992	692.5	1,011.3	61.7	0.9	211.9	41.8	0.8	45.2	19.7	558.4	14.8	207.1	1,162.2	787.4	1.4	[R] 68.9	[R] 0.4	-146.6	[R] 3,565.7
1993	812.4	1,052.9	41.9	1.2	223.6	51.9	1.0	78.1	20.0	575.7	14.3	200.3	1,207.9	837.2	[R] 1.4	[R] 54.6	[R] 0.4	-273.8	[R] 3,679.6
1994	818.9	1,046.4	51.7	1.0	197.8	54.4	1.1	89.8	20.9	584.4	17.1	209.7	1,228.0	775.7	1.3	[R] 76.3	[R] 0.4	-211.8	[R] 3,718.8
1995	816.9	1,100.1	49.5	1.1	218.6	58.7	1.7	93.6	20.6	584.2	9.2	199.5	1,236.6	836.4	1.3	[R] 77.9	[R] 0.4	[R] -228.5	[R] 3,827.6
1996	906.9	1,140.6	60.6	1.0	220.9	68.5	2.3	86.4	20.0	586.0	12.6	214.5	1,272.8	741.2	1.1	[R] 76.7	[R] 0.5	-213.3	[R] 3,916.5
1997	964.2	1,099.7	55.4	1.0	228.3	70.9	2.1	87.4	21.1	595.4	9.1	223.1	1,293.6	542.5	1.1	83.6	0.5	-70.2	3,900.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 96. Residential Energy Consumption Estimates, Selected Years 1960-1997, Illinois

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	2,229	4	2,233	232	15,330	2,052	5,192	22,574	R 739	–	–	9,969	–	24,797	–
1965	1,380	3	1,383	342	13,154	2,518	5,989	21,661	R 550	–	–	14,173	–	33,839	–
1970	768	2	770	439	11,980	1,336	8,616	21,932	R 634	–	–	22,533	–	54,604	–
1975	268	1	268	479	12,384	1,225	9,145	22,754	R 681	–	–	26,366	–	63,599	–
1980	65	1	65	478	3,512	161	4,051	7,724	R 2,360	–	–	29,930	–	72,780	–
1985	94	1	94	447	2,258	568	3,518	6,343	R 2,327	–	–	29,976	–	70,425	–
1986	94	0	94	437	2,196	202	3,027	5,425	R 2,265	–	–	30,965	–	71,228	–
1987	100	1	101	408	1,907	150	3,279	5,335	R 2,502	–	–	31,995	–	73,106	–
1988	94	1	94	462	2,122	217	3,049	5,387	R 2,599	–	–	33,980	–	76,821	–
1989	107	1	108	500	1,581	208	3,506	5,294	R 2,696	–	–	32,378	–	R 72,748	–
1990	92	1	93	442	1,200	101	3,209	4,510	1,608	–	–	32,871	–	R 71,897	–
1991	89	2	91	467	1,228	117	3,797	5,141	1,694	–	–	35,964	–	R 78,289	–
1992	98	1	99	475	999	61	3,661	4,720	R 1,783	–	–	32,367	–	R 69,136	–
1993	91	(s)	91	495	741	81	3,883	4,705	R 908	–	–	35,226	–	74,425	–
1994	90	(s)	90	474	807	72	3,771	4,650	R 890	–	–	35,706	–	R 74,508	–
1995	78	1	78	501	822	84	3,871	4,777	R 988	–	–	38,386	–	R 79,970	–
1996	65	1	66	539	756	96	4,625	5,477	R 986	–	–	37,535	–	R 78,118	–
1997	103	(s)	103	497	750	109	4,625	5,484	717	–	–	37,246	–	77,351	–
	Trillion Btu														
1960	53.6	0.1	53.7	240.2	89.3	11.6	20.8	121.8	R 14.8	0.0	0.0	34.0	R 464.5	84.6	R 549.1
1965	33.0	0.1	33.1	351.9	76.6	14.3	24.0	114.9	R 11.0	0.0	0.0	48.4	R 559.3	115.5	R 674.7
1970	17.7	(s)	17.8	450.1	69.8	7.6	32.6	109.9	R 12.7	0.0	0.0	76.9	R 667.4	186.3	R 853.7
1975	6.0	(s)	6.0	491.0	72.1	6.9	34.0	113.1	R 13.6	0.0	0.0	90.0	R 713.7	217.0	R 930.7
1980	1.4	(s)	1.4	489.0	20.5	0.9	14.9	36.3	R 47.2	0.0	0.0	102.1	R 676.0	248.3	R 924.3
1985	2.1	(s)	2.1	464.5	13.2	3.2	12.7	29.0	R 46.5	0.0	0.0	102.3	R 644.4	240.3	R 884.7
1986	2.1	0.0	2.1	446.2	12.8	1.1	11.0	25.0	R 45.3	0.0	0.0	105.7	R 624.2	243.0	R 867.3
1987	2.3	(s)	2.3	414.0	11.1	0.8	12.0	24.0	R 50.0	0.0	0.0	109.2	R 599.4	249.4	R 848.9
1988	2.1	(s)	2.1	470.7	12.4	1.2	11.1	24.7	R 52.0	0.0	0.0	115.9	R 665.4	262.1	R 927.5
1989	2.4	(s)	2.4	511.0	9.2	1.2	12.9	23.3	R 53.9	e 0.2	R e (s)	110.5	R e 701.4	R 248.2	R e 949.6
1990	2.1	(s)	2.1	451.9	7.0	0.6	11.6	19.2	32.2	0.3	(s)	112.2	R 617.8	245.3	R 863.1
1991	2.0	(s)	2.1	475.8	7.2	0.7	13.7	21.5	33.9	0.3	(s)	122.7	R 656.4	267.1	R 923.5
1992	2.2	(s)	2.3	483.9	5.8	0.3	13.3	19.4	R 35.7	0.3	0.1	110.4	R 652.1	235.9	R 888.0
1993	2.1	(s)	2.1	505.8	4.3	0.5	14.0	18.8	R 18.2	0.3	0.1	120.2	R 665.3	253.9	R 919.3
1994	2.0	(s)	2.0	483.7	4.7	0.4	13.7	18.8	R 17.8	0.3	0.1	121.8	R 644.6	254.2	R 898.8
1995	1.7	(s)	1.8	510.9	4.8	0.5	14.0	19.3	R 19.8	0.3	0.1	131.0	R 683.1	R 272.9	R 955.9
1996	1.5	(s)	1.5	549.0	4.4	0.5	16.7	21.7	19.7	0.4	0.1	128.1	R 720.4	R 266.5	R 986.9
1997	2.4	(s)	2.4	507.8	4.4	0.6	16.7	21.7	14.3	0.4	0.1	127.1	673.8	263.9	937.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 97. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Illinois

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	4,139	3	4,142	47	4,834	78	916	358	8,336	14,523	R 14	–	R 10,002	–	R 24,878	–
1965	2,563	2	2,565	129	4,148	96	1,057	469	7,453	13,223	R 10	–	R 15,059	–	R 35,956	–
1970	1,427	1	1,428	193	3,778	51	1,520	533	7,627	13,509	R 12	–	R 22,406	–	R 54,296	–
1975	497	1	498	216	3,905	47	1,614	678	4,960	11,203	R 13	–	R 28,097	–	R 67,774	–
1980	120	(s)	121	228	2,100	16	715	1,008	2,633	6,471	R 57	–	R 31,579	–	R 76,791	–
1985	174	(s)	175	214	3,975	96	621	549	343	5,583	NA	–	R 32,578	–	R 76,539	–
1986	174	0	174	205	1,985	98	534	575	890	4,082	NA	–	R 33,609	–	R 77,310	–
1987	186	(s)	187	191	1,648	42	579	553	911	3,733	NA	–	R 35,811	–	R 81,825	–
1988	174	(s)	175	215	1,956	59	538	546	579	3,678	NA	–	R 37,698	–	R 85,226	–
1989	199	(s)	199	196	1,409	63	619	469	228	2,789	NA	–	R 38,019	–	R 85,423	–
1990	171	(s)	172	200	1,548	26	566	560	207	2,908	NA	–	R 38,999	–	R 85,300	–
1991	165	1	166	194	1,689	40	670	399	39	2,838	NA	–	R 40,771	–	R 88,753	–
1992	183	1	184	197	1,801	34	646	374	43	2,900	NA	–	R 38,844	–	R 82,970	–
1993	169	(s)	170	203	1,994	32	685	132	56	2,898	R 73	–	R 41,901	–	R 88,529	–
1994	166	(s)	167	198	2,214	50	665	161	67	3,158	R 75	–	R 43,615	–	R 91,013	–
1995	144	(s)	145	204	2,021	80	683	138	46	2,968	R 75	–	R 45,201	–	R 94,169	–
1996	121	1	121	218	1,843	67	816	184	193	3,104	R 81	–	R 45,577	–	R 94,856	–
1997	192	(s)	192	203	2,336	108	816	224	132	3,616	70	–	46,402	–	96,365	–
	Trillion Btu															
1960	99.5	0.1	99.6	48.9	28.2	0.4	3.7	1.9	52.4	86.6	R 0.3	0.0	34.1	R 269.5	R 84.9	R 354.3
1965	61.3	(s)	61.3	132.7	24.2	0.5	4.2	2.5	46.9	78.3	R 0.2	0.0	51.4	R 323.9	R 122.7	R 446.6
1970	33.0	(s)	33.0	198.3	22.0	0.3	5.7	2.8	47.9	78.8	R 0.2	0.0	R 76.4	386.7	R 185.3	R 572.0
1975	11.2	(s)	11.2	221.3	22.7	0.3	6.0	3.6	31.2	63.8	R 0.3	0.0	95.9	R 392.4	231.2	R 623.6
1980	2.7	(s)	2.7	233.2	12.2	0.1	2.6	5.3	16.6	36.8	R 1.1	0.0	R 107.7	R 381.5	R 262.0	R 643.5
1985	3.9	(s)	3.9	222.1	23.2	0.5	2.2	2.9	2.2	31.0	NA	0.0	R 111.2	R 368.1	R 261.2	R 629.3
1986	3.9	0.0	3.9	209.3	11.6	0.6	1.9	3.0	5.6	22.7	NA	0.0	R 114.7	R 350.5	R 263.8	R 614.3
1987	4.2	(s)	4.2	193.9	9.6	0.2	2.1	2.9	5.7	20.6	NA	0.0	R 122.2	R 340.9	R 279.2	R 620.1
1988	3.9	(s)	3.9	219.1	11.4	0.3	2.0	2.9	3.6	20.2	NA	0.0	R 128.6	R 371.9	R 290.8	R 662.7
1989	4.5	(s)	4.5	200.5	8.2	0.4	2.3	2.5	1.4	14.7	NA	0.0	R 129.7	R 349.5	R 291.5	R 640.9
1990	3.8	(s)	3.9	204.7	9.0	0.1	2.1	2.9	1.3	15.5	NA	0.0	R 133.1	R 357.1	R 291.0	R 648.1
1991	3.7	(s)	3.8	197.5	9.8	0.2	2.4	2.1	0.2	14.8	NA	0.0	R 139.1	R 355.2	R 302.8	R 658.0
1992	4.2	(s)	4.2	200.5	10.5	0.2	2.3	2.0	0.3	15.3	NA	0.0	R 132.5	R 352.5	R 283.1	R 635.6
1993	3.8	(s)	3.8	207.4	11.6	0.2	2.5	0.7	0.4	15.3	R 1.5	0.0	R 143.0	R 371.0	R 302.1	R 673.1
1994	3.7	(s)	3.7	201.7	12.9	0.3	2.4	0.8	0.4	16.9	R 1.5	0.0	R 148.8	R 372.6	R 310.5	R 683.1
1995	3.2	(s)	3.3	207.9	11.8	0.5	2.5	0.7	0.3	15.7	R 1.5	0.0	R 154.2	382.6	R 321.3	R 703.9
1996	2.7	(s)	2.7	222.2	10.7	0.4	2.9	1.0	1.2	16.2	R 1.6	0.0	R 155.5	R 398.3	R 323.6	R 722.0
1997	4.4	(s)	4.4	207.2	13.6	0.6	3.0	1.2	0.8	19.2	1.4	0.0	158.3	390.4	328.8	719.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 98. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Illinois

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	13,842	186	7,244	13,545	3,239	8,534	1,340	6,476	16,835	12,578	69,790	19	–	–	13,722	–	34,131	–
1965	15,669	238	9,751	12,074	2,723	11,399	1,321	6,512	15,064	18,923	77,766	17	–	–	18,708	–	44,668	–
1970	10,928	381	12,651	10,836	2,196	17,818	2,015	6,017	16,694	22,957	91,186	20	–	–	25,647	–	62,151	–
1975	7,257	352	10,213	11,138	1,351	23,889	1,668	4,290	15,728	27,915	96,192	19	–	–	30,330	–	73,160	–
1980	5,350	349	8,094	7,842	429	33,867	1,959	3,505	12,598	29,427	97,720	17	–	–	35,158	–	85,492	–
1985	5,829	285	7,502	6,373	91	22,607	1,782	1,738	3,410	20,048	63,551	17	–	–	36,178	–	84,997	–
1986	6,064	268	6,185	9,259	105	28,590	1,743	1,572	3,175	23,855	74,484	17	–	–	36,786	–	84,617	–
1987	6,467	265	6,315	9,600	112	37,717	1,970	1,570	2,716	25,707	85,707	17	–	–	36,575	–	83,571	–
1988	7,056	269	5,604	7,841	75	41,418	1,900	1,497	2,973	28,476	89,783	17	–	–	37,942	–	85,779	–
1989	6,393	279	8,052	6,907	96	7,998	1,949	1,418	2,228	28,341	56,989	[f] NA	–	–	38,481	–	[R] 86,461	–
1990	6,243	276	8,339	7,616	47	8,368	2,006	1,264	1,741	30,916	60,296	NA	–	–	39,299	–	[R] 85,955	–
1991	6,666	303	7,917	7,678	47	9,761	1,794	1,342	851	32,315	61,705	NA	–	–	39,712	–	[R] 86,448	–
1992	6,052	300	9,293	8,493	47	7,857	1,829	1,212	373	36,324	65,428	NA	–	–	40,898	–	[R] 87,359	–
1993	6,130	305	6,310	7,089	64	16,800	1,863	1,590	536	35,075	69,327	NA	–	–	40,249	–	85,039	–
1994	6,222	305	7,798	7,663	78	19,741	1,947	1,515	608	36,703	76,052	NA	–	–	41,765	–	[R] 87,153	–
1995	5,937	322	7,457	8,479	129	20,981	1,913	1,500	369	34,520	75,349	NA	–	–	42,251	–	[R] 88,022	–
1996	6,154	322	9,127	7,797	235	18,251	1,857	1,464	602	37,414	76,747	NA	–	–	42,050	–	[R] 87,516	–
1997	6,309	318	8,350	8,593	150	18,514	1,962	1,489	691	39,102	78,850	NA	–	–	42,375	–	88,003	–
			Trillion Btu															
1960	338.8	192.7	48.1	78.9	18.4	34.2	8.1	34.0	105.8	75.3	402.9	0.2	[R] 16.0	0.0	46.8	[R] 997.4	116.5	[R] 1,113.9
1965	381.7	244.6	64.7	70.3	15.4	45.7	8.0	34.2	94.7	109.8	442.9	0.2	[R] 22.0	0.0	63.8	[R] 1,155.2	152.4	[R] 1,307.6
1970	260.2	390.5	84.0	63.1	12.5	67.3	12.2	31.6	105.0	133.2	508.8	0.2	[R] 26.4	0.0	87.5	[R] 1,273.6	212.1	[R] 1,485.7
1975	172.9	361.4	67.8	64.9	7.7	88.7	10.1	22.5	98.9	163.5	524.1	0.2	[R] 27.7	0.0	103.5	[R] 1,189.9	249.6	[R] 1,439.5
1980	127.7	357.0	53.7	45.7	2.4	124.4	11.9	18.4	79.2	170.1	505.8	0.2	[R] 35.6	0.0	120.0	[R] 1,146.2	291.7	[R] 1,437.9
1985	142.3	296.3	49.8	37.1	0.5	81.5	10.8	9.1	21.4	116.9	327.2	0.2	[R] 41.7	0.0	123.4	[R] 931.1	290.0	[R] 1,221.1
1986	148.2	273.5	41.0	53.9	0.6	104.1	10.6	8.3	20.0	138.8	377.3	0.2	[R] 32.4	0.0	125.5	[R] 957.0	288.7	[R] 1,245.7
1987	158.5	268.6	41.9	55.9	0.6	138.0	11.9	8.2	17.1	148.1	421.8	0.2	[R] 32.2	0.0	124.8	[R] 1,006.1	285.1	[R] 1,291.2
1988	171.6	274.1	37.2	45.7	0.4	151.3	11.5	7.9	18.7	164.6	437.2	0.2	[R] 33.5	0.0	129.5	[R] 1,046.1	292.7	[R] 1,338.8
1989	155.8	285.0	53.4	40.2	0.5	29.5	11.8	7.4	14.0	163.0	320.0	[R f] 0.7	[R f] 28.9	[f] 0.0	131.3	[R f] 921.7	[R] 295.0	[R f] 1,216.7
1990	150.8	281.8	55.3	44.4	0.3	30.3	12.2	6.6	10.9	178.0	338.0	0.9	[R] 20.6	0.0	134.1	[R] 926.3	293.3	[R] 1,219.6
1991	156.8	308.6	52.5	44.7	0.3	35.3	10.9	7.1	5.4	185.3	341.4	0.9	[R] 20.1	1.6	135.5	[R] 964.8	[R] 295.0	[R] 1,259.8
1992	147.1	305.9	61.7	49.5	0.3	28.5	11.1	6.4	2.3	207.1	366.7	0.9	[R] 21.3	0.0	139.5	[R] 981.5	298.1	[R] 1,279.5
1993	148.6	311.6	41.9	41.3	0.4	60.6	11.3	8.4	3.4	200.3	367.5	0.9	[R] 21.7	0.0	137.3	[R] 987.6	290.2	[R] 1,277.8
1994	149.4	311.6	51.7	44.6	0.4	71.8	11.8	8.0	3.8	209.7	401.9	0.8	[R] 40.6	0.0	142.5	[R] 1,046.8	[R] 297.4	[R] 1,344.2
1995	144.6	328.0	49.5	49.4	0.7	76.0	11.6	7.9	2.3	197.1	394.6	0.8	[R] 42.4	0.0	144.2	[R] 1,054.6	300.3	[R] 1,354.9
1996	150.1	328.5	60.6	45.4	1.3	65.9	11.3	7.7	3.8	213.0	409.0	0.9	[R] 44.1	0.0	143.5	[R] 1,076.1	298.6	[R] 1,374.7
1997	155.1	324.6	55.4	50.1	0.8	66.9	11.9	7.8	4.3	223.0	420.3	0.9	52.8	0.0	144.6	1,098.2	300.3	1,398.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 99. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Illinois

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	239	10	3,733	8,721	4,356	316	1,333	71,193	1,168	90,819	0	R 308	–	R 767	–
1965	51	13	383	11,509	12,176	318	1,295	81,788	423	107,891	0	R 302	–	R 722	–
1970	17	28	264	15,234	22,644	526	1,239	100,534	408	140,850	0	R 296	–	R 717	–
1975	1	14	82	20,488	24,271	486	1,452	113,669	215	160,662	0	R 262	–	R 632	–
1980	0	15	132	22,560	19,508	178	1,514	104,550	279	148,721	0	R 282	–	R 685	–
1985	0	11	212	19,147	2,748	423	1,378	108,826	187	132,921	0	R 379	–	R 891	–
1986	0	8	209	21,233	2,054	377	1,347	106,493	86	131,799	0	R 398	–	R 916	–
1987	0	7	159	20,549	1,997	310	1,523	108,384	102	133,024	0	R 408	–	R 932	–
1988	0	13	187	21,191	3,956	336	1,469	114,006	350	141,494	0	R 421	–	R 951	–
1989	0	14	192	24,213	4,497	267	1,506	113,661	57	144,394	R e 139,811	R 422	–	R 949	–
1990	0	12	164	31,675	3,952	328	1,550	104,123	52	141,843	161,472	R 408	–	R 892	–
1991	0	11	176	25,059	6,437	312	1,387	102,638	13	136,023	127,996	R 422	–	R 919	–
1992	0	11	176	24,718	7,399	319	1,414	104,710	32	138,768	155,564	R 411	–	R 879	–
1993	0	12	231	28,093	9,170	281	1,440	107,865	37	147,117	173,605	R 410	–	R 866	–
1994	0	14	204	22,640	9,619	531	1,505	109,579	51	144,128	214,718	R 404	–	R 843	–
1995	0	13	215	25,674	10,360	287	1,479	109,570	36	147,621	177,816	R 393	–	R 818	–
1996	0	14	202	26,982	12,076	232	1,435	109,906	31	150,864	129,290	R 427	–	R 888	–
1997	0	15	197	26,955	12,497	211	1,516	111,630	48	153,054	194,393	426	–	885	–
			Trillion Btu												
1960	5.7	10.4	18.8	50.8	24.4	1.3	8.1	374.0	7.3	484.7	0.0	1.1	501.9	R 2.6	R 504.5
1965	1.2	13.8	1.9	67.0	68.8	1.3	7.9	429.6	2.7	579.2	0.0	1.0	R 595.2	R 2.5	R 597.6
1970	0.4	28.7	1.3	88.7	128.2	2.0	7.5	528.1	2.6	758.4	0.0	R 1.0	R 788.5	R 2.4	R 790.9
1975	(s)	14.6	0.4	119.3	137.4	1.8	8.8	597.1	1.4	866.2	0.0	0.9	881.8	2.2	883.9
1980	0.0	14.9	0.7	131.4	110.4	0.7	9.2	549.2	1.8	803.3	0.0	R 1.0	819.1	R 2.3	R 821.5
1985	0.0	11.6	1.1	111.5	15.4	1.5	8.4	571.7	1.2	710.7	0.0	R 1.3	R 723.6	R 3.0	R 726.7
1986	0.0	8.5	1.1	123.7	11.5	1.4	8.2	559.4	0.5	705.7	0.0	R 1.4	R 715.5	R 3.1	R 718.6
1987	0.0	6.9	0.8	119.7	11.1	1.1	9.2	569.3	0.6	712.0	0.0	R 1.4	R 720.2	R 3.2	R 723.4
1988	0.0	13.0	0.9	123.4	22.2	1.2	8.9	598.9	2.2	757.8	0.0	R 1.4	R 772.3	R 3.2	R 775.5
1989	0.0	13.8	1.0	141.0	25.3	1.0	9.1	597.1	0.4	774.8	R e 10.7	R 1.4	R e 790.1	R 3.2	R e 793.4
1990	0.0	12.4	0.8	184.5	22.3	1.2	9.4	547.0	0.3	765.5	12.3	R 1.4	R 779.2	R 3.0	R 782.3
1991	0.0	11.3	0.9	146.0	36.3	1.1	8.4	539.2	0.1	732.0	9.8	R 1.4	R 744.7	R 3.1	R 747.8
1992	0.0	11.5	0.9	144.0	41.8	1.2	8.6	550.0	0.2	746.7	11.9	R 1.4	R 759.6	R 3.0	R 762.6
1993	0.0	11.9	1.2	163.6	51.9	1.0	8.7	566.6	0.2	793.3	13.3	R 1.4	R 806.5	R 3.0	R 809.5
1994	0.0	14.1	1.0	131.9	54.4	1.9	9.1	575.6	0.3	774.3	16.4	R 1.4	R 789.9	R 2.9	R 792.7
1995	0.0	13.5	1.1	149.5	58.7	1.0	9.0	575.6	0.2	795.2	13.6	R 1.3	R 810.0	R 2.8	R 812.8
1996	0.0	14.7	1.0	157.2	68.5	0.8	8.7	577.3	0.2	813.7	9.9	R 1.5	R 829.9	R 3.0	R 832.9
1997	0.0	14.8	1.0	157.0	70.9	0.8	9.2	586.4	0.3	825.5	14.9	1.5	841.8	3.0	844.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 100. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Illinois

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	19,218	0	19,218	42	194	161	0	355	254	166	0	0	0	–
1965	25,047	0	25,047	35	152	126	0	278	965	158	3	0	0	–
1970	28,993	0	28,993	132	3,221	2,667	0	5,888	2,514	146	(s)	0	0	–
1975	32,350	0	32,350	34	7,239	3,833	0	11,072	22,315	104	0	0	0	–
1980	34,611	0	34,611	19	12,762	847	0	13,608	27,742	121	0	0	0	–
1985	31,608	0	31,608	6	2,569	436	0	3,005	39,106	119	0	0	0	–
1986	30,844	0	30,844	6	4,165	459	0	4,624	42,614	124	0	0	0	–
1987	28,894	0	28,894	3	3,235	425	0	3,660	50,194	90	0	0	0	–
1988	26,681	0	26,681	6	2,007	552	0	2,559	69,166	48	0	0	0	–
1989	25,758	0	25,758	7	1,535	455	0	1,990	74,820	50	0	0	0	–
1990	27,396	0	27,396	9	1,622	491	0	2,113	71,887	61	0	0	0	–
1991	27,754	0	27,754	13	2,550	495	0	3,044	71,866	53	0	0	0	–
1992	25,264	0	25,264	9	1,906	365	0	2,271	73,742	52	8	0	0	–
1993	31,744	0	31,744	16	1,653	469	0	2,122	78,373	40	0	0	0	–
1994	32,599	0	32,599	35	1,986	624	0	2,611	72,654	45	0	0	0	–
1995	33,463	0	33,463	39	1,013	539	385	1,938	78,481	48	68	0	0	–
1996	38,091	0	38,091	26	1,184	548	241	1,973	69,774	22	134	0	0	–
1997	41,017	0	41,017	45	577	551	19	1,147	51,069	17	24	0	0	–
	Trillion Btu													
1960	416.9	0.0	416.9	43.8	1.2	0.9	0.0	2.2	3.0	1.8	0.0	0.0	0.0	467.6
1965	537.2	0.0	537.2	35.6	1.0	0.7	0.0	1.7	11.4	1.7	(s)	0.0	0.0	587.6
1970	608.9	0.0	608.9	135.7	20.3	15.5	0.0	35.8	27.6	1.5	(s)	0.0	0.0	809.5
1975	655.4	0.0	655.4	35.2	45.5	22.2	0.0	67.8	245.8	1.1	0.0	0.0	0.0	1,005.2
1980	712.7	0.0	712.7	19.6	80.2	4.9	0.0	85.1	302.6	1.3	0.0	0.0	0.0	1,121.4
1985	662.8	0.0	662.8	6.0	16.2	2.5	0.0	18.7	422.9	1.2	0.0	0.0	0.0	1,111.6
1986	650.0	0.0	650.0	6.2	26.2	2.7	0.0	28.9	460.2	1.3	0.0	0.0	0.0	1,146.6
1987	618.2	0.0	618.2	3.3	20.3	2.5	0.0	22.8	540.9	0.9	0.0	0.0	0.0	1,186.1
1988	567.5	0.0	567.5	5.8	12.6	3.2	0.0	15.8	743.1	0.5	0.0	0.0	0.0	1,332.7
1989	551.5	0.0	551.5	7.1	9.6	2.7	0.0	12.3	802.4	0.5	0.0	0.0	0.0	1,373.8
1990	591.1	0.0	591.1	9.3	10.2	2.9	0.0	13.1	767.8	0.6	0.0	0.0	0.0	1,381.9
1991	595.1	0.0	595.1	13.1	16.0	2.9	0.0	18.9	771.8	R 0.6	0.0	0.0	0.0	1,399.5
1992	539.0	0.0	539.0	9.4	12.0	2.1	0.0	14.1	787.4	0.5	0.1	0.0	0.0	1,350.6
1993	657.8	0.0	657.8	16.3	10.4	2.7	0.0	13.1	837.2	0.4	0.0	0.0	0.0	1,524.8
1994	663.8	0.0	663.8	35.3	12.5	3.6	0.0	16.1	775.7	0.5	0.0	0.0	0.0	1,491.3
1995	667.3	0.0	667.3	39.8	6.4	3.1	2.3	11.8	836.4	0.5	0.7	0.0	0.0	1,556.5
1996	752.5	0.0	752.5	26.2	7.4	3.2	1.5	12.1	741.2	0.2	1.4	0.0	0.0	1,533.6
1997	802.4	0.0	802.4	45.3	3.6	3.2	0.1	7.0	542.5	0.2	0.2	0.0	0.0	1,397.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 101. Energy Consumption Estimates by Source, Selected Years 1960-1997, Indiana

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	32,599	212	3,277	453	25,707	1,316	3,899	5,751	1,181	43,595	13,076	9,955	108,209	0	100	–	–	-31,833	–
1965	37,350	358	4,283	1,110	25,948	1,848	3,444	6,654	1,458	48,051	13,033	11,840	117,670	0	94	–	–	-38,137	–
1970	42,776	545	6,101	367	29,379	2,558	2,130	8,978	1,583	58,905	9,769	14,363	134,133	0	495	–	–	-27,768	–
1975	46,210	477	6,067	217	32,655	2,619	841	12,335	1,604	64,639	15,007	14,369	150,353	0	444	–	–	114	–
1980	50,485	489	5,165	260	30,795	2,151	659	7,961	1,788	60,192	14,615	12,920	136,505	0	474	–	–	-9,357	–
1985	53,291	433	5,336	393	30,776	15,445	731	4,947	1,627	57,936	3,768	11,055	132,015	0	426	–	–	-27,809	–
1986	50,643	395	6,063	434	31,807	18,611	731	6,143	1,591	59,993	4,308	10,135	139,815	0	506	–	–	-23,880	–
1987	51,385	413	7,600	378	31,649	19,141	601	6,094	1,799	63,316	3,594	11,714	145,885	0	507	–	–	-16,737	–
1988	55,830	457	6,941	432	28,745	16,546	712	6,753	1,735	64,140	3,130	13,295	142,429	0	441	–	–	-24,254	–
1989	57,388	462	6,396	288	33,122	17,557	650	8,113	1,779	61,701	3,256	13,264	146,126	0	[i] NA	–	–	[R] -33,072	–
1990	61,701	451	8,552	302	32,718	17,889	368	9,563	1,831	61,930	3,881	14,787	151,821	0	NA	–	–	[R] -64,933	–
1991	60,790	457	7,058	302	32,418	17,228	406	9,508	1,638	61,302	3,239	15,563	148,663	0	NA	–	–	[R] -56,301	–
1992	58,765	483	6,210	252	31,959	16,001	298	7,045	1,670	61,975	4,112	18,531	148,052	0	NA	–	–	[R] -55,986	–
1993	60,353	518	9,501	201	33,109	16,366	347	7,778	1,701	65,531	2,925	16,130	153,588	0	NA	–	–	-50,366	–
1994	59,996	519	10,219	149	35,828	17,299	429	7,134	1,778	66,838	3,045	17,045	159,763	0	NA	–	–	[R] -58,114	–
1995	62,631	535	7,085	144	35,339	17,344	330	6,788	1,747	70,100	1,862	16,428	157,168	0	NA	–	–	[R] -52,023	–
1996	64,021	574	8,528	171	35,679	12,576	441	7,782	1,695	69,578	1,350	18,582	156,384	0	NA	–	–	[R] -50,742	–
1997	66,042	557	9,233	136	38,407	10,991	459	7,861	1,791	69,828	1,509	19,333	159,549	0	NA	–	–	-67,270	–
			Trillion Btu																
1960	795.1	219.8	21.7	2.3	149.7	7.1	22.1	23.1	7.2	229.0	82.2	59.7	604.1	0.0	1.1	[R] 23.5	0.0	-108.6	[R] 1,535.0
1965	900.6	357.5	28.4	5.6	151.1	10.2	19.5	26.7	8.8	252.4	81.9	70.2	655.0	0.0	1.0	[R] 22.1	0.0	-130.1	[R] 1,806.0
1970	1,006.8	548.6	40.5	1.9	171.1	14.2	12.1	33.9	9.6	309.4	61.4	85.0	739.1	0.0	5.2	[R] 23.3	0.0	-94.7	[R] 2,228.4
1975	1,061.2	472.6	40.3	1.1	190.2	14.6	4.8	45.8	9.7	339.6	94.3	85.1	825.5	0.0	4.6	[R] 26.7	0.0	0.4	[R] 2,391.0
1980	1,157.0	483.9	34.3	1.3	179.4	12.0	3.7	29.2	10.8	316.2	91.9	76.2	755.1	0.0	4.9	[R] 41.2	0.0	-31.9	[R] 2,410.1
1985	1,193.3	436.4	35.4	2.0	179.3	87.4	4.1	17.8	9.9	304.3	23.7	65.1	729.0	0.0	4.5	[R] 43.6	0.0	-94.9	[R] 2,311.8
1986	1,130.1	398.7	40.2	2.2	185.3	105.3	4.1	22.4	9.7	315.1	27.1	60.5	771.9	0.0	5.3	[R] 35.8	0.0	-81.5	[R] 2,260.4
1987	1,166.6	416.3	50.4	1.9	184.4	108.3	3.4	22.3	10.9	332.6	22.6	69.2	806.0	0.0	5.3	[R] 38.3	0.0	-57.1	[R] 2,375.3
1988	1,267.2	463.7	46.1	2.2	167.4	93.6	4.0	24.7	10.5	336.9	19.7	78.5	783.6	0.0	4.6	[R] 39.8	0.0	-82.8	[R] 2,476.1
1989	1,286.4	469.4	42.4	1.5	192.9	99.3	3.7	29.9	10.8	324.1	20.5	77.9	803.0	0.0	[i] 4.7	[R i] 43.5	[R i] 0.5	[R] -112.8	[R i] 2,490.1
1990	1,361.8	459.1	56.7	1.5	190.6	101.3	2.1	34.7	11.1	325.3	24.4	86.9	834.6	0.0	4.6	[R] 34.4	[R] 0.5	-221.6	[R] 2,468.1
1991	1,340.1	463.7	46.8	1.5	188.8	97.5	2.3	34.4	9.9	322.0	20.4	90.7	814.3	0.0	4.2	[R] 34.2	[R] 0.6	[R] -192.1	[R] 2,460.7
1992	1,296.5	488.8	41.2	1.3	186.2	90.5	1.7	25.5	10.1	325.6	25.9	107.6	815.5	0.0	5.8	[R] 36.6	[R] 0.6	-191.0	[R] 2,447.7
1993	1,318.5	524.5	63.1	1.0	192.9	92.7	2.0	28.0	10.3	344.2	18.4	93.5	846.1	0.0	4.6	[R] 29.6	[R] 0.6	-171.8	[R] 2,546.3
1994	1,299.0	526.1	67.8	0.8	208.7	98.0	2.4	25.9	10.8	351.1	19.1	98.8	883.5	0.0	4.2	[R] 41.9	[R] 0.7	-198.3	[R] 2,551.4
1995	1,341.9	541.7	47.0	0.7	205.8	98.3	1.9	24.6	10.6	368.2	11.7	95.3	864.2	0.0	4.8	[R] 45.5	[R] 0.7	[R] -177.5	[R] 2,614.3
1996	1,372.1	579.8	56.6	0.9	207.8	71.3	2.5	28.1	10.3	365.5	8.5	107.7	859.2	0.0	4.6	[R] 43.2	[R] 0.8	-173.1	[R] 2,683.0
1997	1,427.3	563.3	61.3	0.7	223.7	62.3	2.6	28.4	10.9	366.8	9.5	112.1	878.3	0.0	5.8	42.5	0.9	-229.5	2,683.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 102. Residential Energy Consumption Estimates, Selected Years 1960-1997, Indiana

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	740	4	744	76	8,536	3,370	3,389	15,296	R 770	–	–	6,371	–	15,847	–
1965	378	3	380	114	8,146	2,498	3,993	14,637	R 580	–	–	8,651	–	20,656	–
1970	245	2	247	159	8,027	1,837	6,312	16,175	R 567	–	–	13,488	–	32,686	–
1975	315	1	315	163	8,647	717	6,665	16,029	R 562	–	–	16,375	–	39,499	–
1980	77	1	78	164	5,398	492	3,351	9,241	R 1,149	–	–	19,262	–	46,839	–
1985	183	1	184	146	2,558	466	2,340	5,364	R 1,142	–	–	19,803	–	46,526	–
1986	190	1	192	140	2,882	393	2,602	5,878	R 1,111	–	–	20,508	–	47,174	–
1987	189	1	190	139	2,762	403	2,973	6,138	R 1,239	–	–	21,171	–	48,373	–
1988	220	1	221	154	2,794	519	3,386	6,699	R 1,287	–	–	22,486	–	50,836	–
1989	181	1	182	156	2,314	532	4,083	6,929	R 1,335	–	–	22,281	–	R 50,062	–
1990	192	1	193	140	1,719	278	3,494	5,492	802	–	–	22,111	–	R 48,362	–
1991	150	3	152	146	1,937	316	3,490	5,743	844	–	–	24,220	–	R 52,724	–
1992	143	2	145	153	1,897	186	3,422	5,505	888	–	–	22,837	–	R 48,780	–
1993	117	3	120	164	2,110	253	3,769	6,132	R 460	–	–	24,978	–	52,775	–
1994	123	2	125	157	1,827	275	3,698	5,801	R 451	–	–	25,048	–	R 52,269	–
1995	98	3	102	161	1,595	215	3,768	5,578	R 501	–	–	26,560	–	R 55,333	–
1996	122	5	127	180	1,467	288	4,484	6,240	R 500	–	–	26,860	–	R 55,902	–
1997	136	5	140	169	1,339	303	4,484	6,126	364	–	–	26,550	–	55,139	–
	Trillion Btu														
1960	17.8	0.1	17.9	78.7	49.7	19.1	13.6	82.4	R 15.4	0.0	0.0	21.7	R 216.1	54.1	R 270.2
1965	9.0	0.1	9.1	114.2	47.5	14.2	16.0	77.6	R 11.6	0.0	0.0	29.5	R 242.1	70.5	R 312.6
1970	5.7	(s)	5.7	159.7	46.8	10.4	23.9	81.0	R 11.3	0.0	0.0	46.0	R 303.7	111.5	R 415.3
1975	7.0	(s)	7.0	161.2	50.4	4.1	24.8	79.2	R 11.2	0.0	0.0	55.9	R 314.5	134.8	R 449.3
1980	1.7	(s)	1.7	161.9	31.4	2.8	12.3	46.5	R 23.0	0.0	0.0	65.7	R 298.8	159.8	R 458.6
1985	4.1	(s)	4.1	147.4	14.9	2.6	8.4	26.0	R 22.8	0.0	0.0	67.6	R 267.9	158.7	R 426.6
1986	4.3	(s)	4.3	141.4	16.8	2.2	9.5	28.5	R 22.2	0.0	0.0	70.0	R 266.4	161.0	R 427.3
1987	4.3	(s)	4.3	140.3	16.1	2.3	10.9	29.3	R 24.8	0.0	0.0	72.2	R 270.9	165.0	R 435.9
1988	5.0	(s)	5.0	155.9	16.3	2.9	12.4	31.6	R 25.7	0.0	0.0	76.7	R 295.0	173.5	R 468.4
1989	4.0	(s)	4.1	158.4	13.5	3.0	15.0	31.5	R 26.7	e 0.5	R e (s)	76.0	R e 297.2	170.8	R e 468.0
1990	4.3	(s)	4.3	143.1	10.0	1.6	12.7	24.3	16.0	0.5	(s)	75.4	R 263.6	165.0	R 428.7
1991	3.4	0.1	3.4	148.5	11.3	1.8	12.6	25.7	16.9	0.5	(s)	82.6	R 277.7	179.9	R 457.6
1992	3.2	(s)	3.3	154.4	11.1	1.1	12.4	24.5	17.8	0.6	(s)	77.9	R 278.4	166.4	R 444.9
1993	2.6	0.1	2.7	166.1	12.3	1.4	13.6	27.3	9.2	0.6	(s)	85.2	R 291.2	180.1	R 471.2
1994	2.8	0.1	2.8	159.5	10.6	1.6	13.4	25.6	9.0	0.6	(s)	85.5	R 283.1	178.3	R 461.4
1995	2.2	0.1	2.3	163.0	9.3	1.2	13.7	24.2	10.0	0.6	(s)	90.6	R 290.7	188.8	R 479.5
1996	2.7	0.1	2.8	181.9	8.5	1.6	16.2	26.4	10.0	0.7	(s)	91.6	R 313.4	190.7	R 504.2
1997	3.0	0.1	3.1	171.0	7.8	1.7	16.2	25.7	7.3	0.7	(s)	90.6	298.4	188.1	486.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 103. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Indiana

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	1,373	3	1,376	20	2,968	328	598	168	1,394	5,456	R 15	–	2,900	–	7,213	–
1965	702	2	703	42	2,832	243	705	171	1,520	5,472	R 11	–	4,243	–	10,132	–
1970	455	1	456	78	2,791	179	1,114	251	844	5,178	R 11	–	6,520	–	15,800	–
1975	584	1	585	71	3,007	70	1,176	120	1,645	6,017	R 11	–	9,071	–	21,881	–
1980	144	(s)	144	70	1,985	31	591	223	2,431	5,262	R 28	–	10,423	–	25,345	–
1985	340	(s)	340	70	2,637	133	413	352	388	3,923	NA	–	12,257	–	28,797	–
1986	353	1	354	65	1,839	137	459	487	243	3,166	NA	–	12,933	–	29,749	–
1987	351	1	351	65	1,396	50	525	465	278	2,713	NA	–	13,455	–	30,743	–
1988	409	1	410	72	1,338	78	598	453	241	2,707	NA	–	15,715	–	35,529	–
1989	336	1	336	74	1,155	40	721	429	353	2,697	NA	–	15,863	–	R 35,641	–
1990	356	1	357	67	1,071	35	617	561	63	2,346	NA	–	R 16,116	–	R 35,249	–
1991	278	2	280	68	1,176	43	616	353	205	2,393	NA	–	R 17,014	–	R 37,038	–
1992	265	1	266	73	1,415	59	604	333	18	2,429	NA	–	R 16,688	–	R 35,646	–
1993	217	2	219	78	1,619	48	665	289	38	2,660	R 37	–	R 17,524	–	R 37,024	–
1994	229	1	231	76	1,536	67	653	260	41	2,556	R 38	–	R 17,982	–	R 37,524	–
1995	183	2	185	83	1,193	70	665	175	32	2,135	R 38	–	R 18,654	–	R 38,862	–
1996	227	3	230	87	978	69	791	159	14	2,011	R 41	–	R 18,822	–	R 39,173	–
1997	252	3	255	82	1,159	87	791	171	9	2,218	35	–	19,030	–	39,522	–
	Trillion Btu															
1960	33.0	0.1	33.1	20.7	17.3	1.9	2.4	0.9	8.8	31.2	R 0.3	0.0	9.9	R 95.2	24.6	R 119.8
1965	16.8	(s)	16.8	42.2	16.5	1.4	2.8	0.9	9.6	31.2	R 0.2	0.0	14.5	R 104.9	34.6	R 139.5
1970	10.5	(s)	10.5	78.0	16.3	1.0	4.2	1.3	5.3	28.1	R 0.2	0.0	22.2	R 139.1	53.9	R 193.0
1975	12.9	(s)	12.9	69.8	17.5	0.4	4.4	0.6	10.3	33.3	R 0.2	0.0	31.0	R 147.1	74.7	R 221.8
1980	3.1	(s)	3.2	69.3	11.6	0.2	2.2	1.2	15.3	30.4	R 0.6	0.0	35.6	R 138.9	86.5	R 225.4
1985	7.6	(s)	7.6	70.2	15.4	0.8	1.5	1.8	2.4	21.9	NA	0.0	41.8	141.5	98.3	239.7
1986	7.9	(s)	7.9	65.4	10.7	0.8	1.7	2.6	1.5	17.2	NA	0.0	44.1	134.7	101.5	236.2
1987	8.0	(s)	8.0	65.5	8.1	0.3	1.9	2.4	1.7	14.5	NA	0.0	45.9	133.9	104.9	238.8
1988	9.2	(s)	9.3	72.8	7.8	0.4	2.2	2.4	1.5	14.3	NA	0.0	53.6	150.0	121.2	271.2
1989	7.5	(s)	7.5	74.8	6.7	0.2	2.7	2.3	2.2	14.1	NA	0.0	54.1	150.5	121.6	272.1
1990	8.0	(s)	8.0	68.4	6.2	0.2	2.2	2.9	0.4	12.0	NA	0.0	55.0	143.5	120.3	R 263.7
1991	6.2	(s)	6.3	69.4	6.9	0.2	2.2	1.9	1.3	12.5	NA	0.0	58.1	146.2	126.4	272.5
1992	5.9	(s)	6.0	73.5	8.2	0.3	2.2	1.8	0.1	12.6	NA	0.0	56.9	149.1	121.6	270.7
1993	4.9	(s)	5.0	79.1	9.4	0.3	2.4	1.5	0.2	13.9	R 0.7	0.0	59.8	R 158.4	126.3	R 284.7
1994	5.2	(s)	5.2	76.8	8.9	0.4	2.4	1.4	0.3	13.3	R 0.8	0.1	61.4	R 157.5	128.0	285.6
1995	4.1	0.1	4.1	83.7	6.9	0.4	2.4	0.9	0.2	10.9	R 0.8	0.1	R 63.6	R 163.2	132.6	R 295.8
1996	5.0	0.1	5.1	88.4	5.7	0.4	2.9	0.8	0.1	9.9	R 0.8	0.1	64.2	R 168.6	133.7	R 302.2
1997	5.6	0.1	5.7	82.6	6.8	0.5	2.9	0.9	0.1	11.1	0.7	0.2	64.9	165.2	134.8	300.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 104. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Indiana

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	16,702	102	3,277	9,976	202	1,716	489	2,813	11,229	9,955	39,656	(s)	–	–	8,226	–	20,461	–
1965	18,093	180	4,283	9,766	703	1,904	843	2,686	10,866	11,840	42,893	0	–	–	12,360	–	29,510	–
1970	19,394	268	6,101	10,180	115	1,455	974	2,238	8,391	14,109	43,562	0	–	–	17,952	–	43,504	–
1975	18,006	223	6,067	9,324	55	4,369	842	1,263	11,688	14,369	47,976	0	–	–	26,675	–	64,343	–
1980	16,599	245	5,165	5,053	136	3,930	1,096	752	11,984	12,920	41,036	0	–	–	30,730	–	74,725	–
1985	14,457	211	5,336	4,502	131	2,046	998	901	3,348	11,055	28,318	0	–	–	31,784	–	74,674	–
1986	12,788	183	6,063	5,372	201	2,935	975	831	4,016	9,896	30,290	0	–	–	30,950	–	71,194	–
1987	13,857	201	7,600	5,688	148	2,465	1,103	838	3,203	11,434	32,479	0	–	–	32,999	–	75,400	–
1988	15,139	219	6,941	4,265	115	2,620	1,063	803	2,735	12,971	31,513	0	–	–	33,474	–	75,677	–
1989	14,492	220	6,396	4,817	78	3,157	1,091	757	2,691	12,824	31,812	[f] NA	–	–	34,747	–	[R] 78,069	–
1990	13,496	228	8,552	4,555	54	5,300	1,123	625	3,620	13,831	37,660	NA	–	–	35,743	–	[R] 78,178	–
1991	12,638	228	7,058	5,332	47	5,243	1,004	709	2,944	15,217	37,554	NA	–	–	35,787	–	[R] 77,904	–
1992	11,416	246	6,210	5,489	54	2,857	1,024	639	3,886	18,230	38,388	NA	–	–	37,439	–	[R] 79,969	–
1993	11,178	263	9,501	4,758	45	3,216	1,043	739	2,547	16,130	37,980	NA	–	–	39,415	–	83,277	–
1994	9,085	270	10,219	5,158	87	2,549	1,090	836	2,778	17,045	39,761	NA	–	–	40,763	–	[R] 85,061	–
1995	10,255	275	7,085	5,150	45	2,250	1,071	849	1,591	16,346	34,388	NA	–	–	41,777	–	[R] 87,034	–
1996	10,810	289	8,528	4,736	84	2,394	1,039	808	1,039	18,284	36,912	NA	–	–	43,203	–	[R] 89,915	–
1997	10,801	291	9,233	5,326	70	2,483	1,098	847	1,097	18,425	38,581	NA	–	–	43,550	–	90,443	–
			Trillion Btu															
1960	431.8	106.1	21.7	58.1	1.1	6.9	3.0	14.8	70.6	59.7	235.9	(s)	[R] 7.8	0.0	28.1	[R] 809.6	69.8	[R] 879.5
1965	466.3	179.8	28.4	56.9	4.0	7.6	5.1	14.1	68.3	70.2	254.7	0.0	[R] 10.3	0.0	42.2	[R] 953.2	100.7	[R] 1,053.9
1970	490.9	270.1	40.5	59.3	0.6	5.5	5.9	11.8	52.8	83.5	259.8	0.0	[R] 11.7	0.0	61.3	[R] 1,093.8	148.4	[R] 1,242.3
1975	461.6	221.1	40.3	54.3	0.3	16.2	5.1	6.6	73.5	85.1	281.4	0.0	[R] 15.3	0.0	91.0	[R] 1,070.4	219.5	[R] 1,289.9
1980	423.9	242.0	34.3	29.4	0.8	14.4	6.6	3.9	75.3	76.2	241.0	0.0	[R] 17.7	0.0	104.9	[R] 1,029.5	255.0	[R] 1,284.5
1985	365.1	212.8	35.4	26.2	0.7	7.4	6.1	4.7	21.1	65.1	166.7	0.0	[R] 20.7	0.0	108.4	[R] 873.8	254.8	[R] 1,128.5
1986	321.1	184.9	40.2	31.3	1.1	10.7	5.9	4.4	25.2	59.1	178.0	0.0	[R] 13.5	0.0	105.6	[R] 803.1	242.9	[R] 1,046.0
1987	349.5	203.2	50.4	33.1	0.8	9.0	6.7	4.4	20.1	67.6	192.2	0.0	[R] 13.5	0.0	112.6	[R] 871.0	257.3	[R] 1,128.3
1988	385.0	222.1	46.1	24.8	0.7	9.6	6.5	4.2	17.2	76.6	185.5	0.0	[R] 14.0	0.0	114.2	[R] 920.8	258.2	[R] 1,179.0
1989	368.1	223.5	42.4	28.1	0.4	11.6	6.6	4.0	16.9	75.3	185.4	[f] 0.0	[R f] 12.2	[f] 0.0	118.6	[R f] 907.7	[R] 266.4	[R f] 1,174.1
1990	342.8	232.3	56.7	26.5	0.3	19.2	6.8	3.3	22.8	81.2	216.8	0.0	[R] 13.0	0.0	122.0	[R] 926.9	266.7	[R] 1,193.6
1991	321.6	231.0	46.8	31.1	0.3	18.9	6.1	3.7	18.5	88.6	214.0	0.0	[R] 13.1	0.0	122.1	[R] 901.8	265.8	[R] 1,167.6
1992	289.5	248.3	41.2	32.0	0.3	10.4	6.2	3.4	24.4	105.8	223.6	0.0	[R] 13.7	0.0	127.7	[R] 902.9	[R] 272.9	[R] 1,175.7
1993	281.5	266.7	63.1	27.7	0.3	11.6	6.3	3.9	16.0	93.5	222.4	0.0	[R] 13.9	0.0	134.5	[R] 918.9	284.1	[R] 1,203.1
1994	225.8	273.6	67.8	30.0	0.5	9.3	6.6	4.4	17.5	98.8	234.9	0.0	[R] 26.5	0.0	139.1	[R] 899.9	290.2	[R] 1,190.1
1995	258.5	278.8	47.0	30.0	0.3	8.2	6.5	4.5	10.0	94.8	201.2	0.0	[R] 27.7	0.0	142.5	[R] 908.7	[R] 297.0	[R] 1,205.6
1996	269.3	292.4	56.6	27.6	0.5	8.6	6.3	4.2	6.5	105.9	216.3	0.0	[R] 28.8	0.0	147.4	[R] 954.2	306.8	[R] 1,261.0
1997	271.1	293.9	61.3	31.0	0.4	9.0	6.7	4.5	6.9	106.7	226.3	0.0	29.6	0.0	148.6	969.5	308.6	1,278.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 105. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Indiana

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	294	5	453	4,097	1,316	47	692	40,615	350	47,570	0	1	–	2	–
1965	60	8	1,110	5,124	1,848	52	615	45,194	583	54,526	0	0	–	0	–
1970	31	11	367	8,123	2,558	97	610	56,417	330	68,501	0	0	–	0	–
1975	3	10	217	11,200	2,619	125	763	63,256	331	78,510	0	0	–	0	–
1980	0	9	260	17,629	2,151	88	692	59,217	200	80,236	0	0	–	0	–
1985	0	5	393	20,665	15,445	148	630	56,684	31	93,996	0	0	–	0	–
1986	0	6	434	21,390	18,611	146	616	58,675	49	99,921	0	0	–	0	–
1987	0	6	378	21,451	19,141	131	696	62,014	113	103,923	0	0	–	0	–
1988	0	9	432	19,970	16,546	149	671	62,885	154	100,807	0	0	–	0	–
1989	0	8	288	24,466	17,557	152	689	60,515	212	103,878	R e 60,638	0	–	0	–
1990	0	8	302	24,950	17,889	153	709	60,744	197	104,944	70,032	R 12	–	R 27	–
1991	0	5	302	23,622	17,228	159	634	60,240	90	102,275	55,513	R 12	–	R 27	–
1992	0	5	252	22,893	16,001	162	646	61,003	208	101,165	67,470	R 13	–	R 27	–
1993	0	7	201	24,229	16,366	128	658	64,502	340	106,423	75,295	R 14	–	R 30	–
1994	0	7	149	26,895	17,299	234	688	65,742	226	111,233	73,435	R 14	–	R 30	–
1995	0	8	144	27,059	17,344	104	676	69,076	238	114,642	91,446	R 15	–	R 31	–
1996	0	13	171	28,145	12,576	112	656	68,611	298	110,569	46,662	R 15	–	R 32	–
1997	0	11	136	30,260	10,991	102	693	68,809	403	111,394	64,722	16	–	33	–
	Trillion Btu														
1960	7.1	5.2	2.3	23.9	7.1	0.2	4.2	213.3	2.2	253.2	0.0	(s)	265.5	(s)	265.5
1965	1.4	8.0	5.6	29.8	10.2	0.2	3.7	237.4	3.7	290.6	0.0	0.0	300.1	0.0	300.1
1970	0.7	11.2	1.9	47.3	14.2	0.4	3.7	296.4	2.1	365.9	0.0	0.0	377.8	0.0	377.8
1975	0.1	9.5	1.1	65.2	14.6	0.5	4.6	332.3	2.1	420.4	0.0	0.0	430.0	0.0	430.0
1980	0.0	8.8	1.3	102.7	12.0	0.3	4.2	311.1	1.3	432.8	0.0	0.0	441.6	0.0	441.6
1985	0.0	4.9	2.0	120.4	87.4	0.5	3.8	297.8	0.2	512.0	0.0	0.0	516.9	0.0	516.9
1986	0.0	5.9	2.2	124.6	105.3	0.5	3.7	308.2	0.3	544.9	0.0	0.0	550.8	0.0	550.8
1987	0.0	6.0	1.9	125.0	108.3	0.5	4.2	325.8	0.7	566.3	0.0	0.0	572.3	0.0	572.3
1988	0.0	9.4	2.2	116.3	93.6	0.5	4.1	330.3	1.0	548.0	0.0	0.0	557.4	0.0	557.4
1989	0.0	8.6	1.5	142.5	99.3	0.6	4.2	317.9	1.3	567.3	R e 4.6	0.0	e 575.9	0.0	e 575.9
1990	0.0	8.6	1.5	145.3	101.3	0.6	4.3	319.1	1.2	573.3	5.4	(s)	582.0	0.1	R 582.1
1991	0.0	4.7	1.5	137.6	97.5	0.6	3.8	316.4	0.6	558.0	4.2	(s)	562.8	0.1	562.9
1992	0.0	4.8	1.3	133.4	90.5	0.6	3.9	320.4	1.3	551.4	5.2	(s)	556.3	0.1	556.4
1993	0.0	6.9	1.0	141.1	92.7	0.5	4.0	338.8	2.1	580.2	5.8	(s)	587.2	0.1	587.3
1994	0.0	7.0	0.8	156.7	98.0	0.9	4.2	345.3	1.4	607.2	5.6	(s)	614.3	0.1	R 614.4
1995	0.0	7.8	0.7	157.6	98.3	0.4	4.1	362.9	1.5	625.5	7.0	R 0.1	633.3	0.1	633.4
1996	0.0	12.7	0.9	163.9	71.3	0.4	4.0	360.4	1.9	602.8	3.6	R 0.1	615.5	0.1	615.6
1997	0.0	11.0	0.7	176.3	62.3	0.4	4.2	361.5	2.5	607.8	4.9	0.1	618.8	0.1	618.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 106. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Indiana

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	13,483	0	13,483	9	103	130	0	232	0	100	0	0	0	–
1965	18,113	0	18,113	13	63	80	0	142	0	94	0	0	0	–
1970	22,648	0	22,648	30	204	257	255	716	0	495	0	0	0	–
1975	27,301	0	27,301	11	1,344	477	0	1,821	0	444	0	0	0	–
1980	33,664	0	33,664	2	0	730	0	730	0	474	0	0	0	–
1985	38,310	0	38,310	1	0	414	0	414	0	426	0	0	0	–
1986	37,309	0	37,309	1	0	323	239	562	0	506	0	0	0	–
1987	36,987	0	36,987	1	0	352	279	632	0	507	0	0	0	–
1988	40,060	0	40,060	3	0	379	324	703	0	441	0	0	0	–
1989	42,378	0	42,378	4	0	370	440	810	0	450	0	0	0	–
1990	47,654	0	47,654	7	0	423	956	1,379	0	441	0	0	0	–
1991	47,720	0	47,720	10	0	351	346	698	0	399	0	0	0	–
1992	46,937	0	46,937	8	0	264	301	565	0	562	0	0	0	–
1993	48,836	0	48,836	6	0	393	0	393	0	448	0	0	0	–
1994	50,554	0	50,554	9	0	412	0	412	0	407	0	0	0	–
1995	52,089	0	52,089	8	0	342	82	424	0	467	0	0	0	–
1996	52,855	0	52,855	4	0	353	298	652	0	448	0	0	0	–
1997	54,845	0	54,845	5	0	322	908	1,230	0	562	0	0	0	–
								Trillion Btu						
1960	305.2	0.0	305.2	9.1	0.6	0.8	0.0	1.4	0.0	1.1	0.0	0.0	0.0	316.8
1965	406.9	0.0	406.9	13.3	0.4	0.5	0.0	0.9	0.0	1.0	0.0	0.0	0.0	422.0
1970	498.9	0.0	498.9	29.7	1.3	1.5	1.5	4.3	0.0	5.2	0.0	0.0	0.0	538.1
1975	579.6	0.0	579.6	11.0	8.5	2.8	0.0	11.2	0.0	4.6	0.0	0.0	0.0	606.4
1980	728.2	0.0	728.2	1.9	0.0	4.3	0.0	4.3	0.0	4.9	0.0	0.0	0.0	739.3
1985	816.5	0.0	816.5	1.1	0.0	2.4	0.0	2.4	0.0	4.5	0.0	0.0	0.0	824.5
1986	796.9	0.0	796.9	1.1	0.0	1.9	1.4	3.3	0.0	5.3	0.0	0.0	0.0	806.6
1987	804.7	0.0	804.7	1.3	0.0	2.1	1.7	3.7	0.0	5.3	0.0	0.0	0.0	815.0
1988	868.0	0.0	868.0	3.5	0.0	2.2	2.0	4.2	0.0	4.6	0.0	0.0	0.0	880.2
1989	906.8	0.0	906.8	4.1	0.0	2.2	2.7	4.8	0.0	4.7	0.0	0.0	0.0	920.3
1990	1,006.6	0.0	1,006.6	6.6	0.0	2.5	5.8	8.2	0.0	4.6	0.0	0.0	0.0	1,026.1
1991	1,008.8	0.0	1,008.8	10.1	0.0	2.0	2.1	4.1	0.0	4.2	0.0	0.0	0.0	1,027.1
1992	997.7	0.0	997.7	7.8	0.0	1.5	1.8	3.4	0.0	5.8	0.0	0.0	0.0	1,014.7
1993	1,029.4	0.0	1,029.4	5.7	0.0	2.3	0.0	2.3	0.0	4.6	0.0	0.0	0.0	1,042.0
1994	1,065.1	0.0	1,065.1	9.2	0.0	2.4	0.0	2.4	0.0	4.2	0.0	0.0	0.0	1,080.9
1995	1,077.0	0.0	1,077.0	8.5	0.0	2.0	0.5	2.5	0.0	4.8	0.0	0.0	0.0	1,092.8
1996	1,094.8	0.0	1,094.8	4.4	0.0	2.1	1.8	3.9	0.0	4.6	0.0	0.0	0.0	1,107.8
1997	1,147.5	0.0	1,147.5	4.8	0.0	1.9	5.5	7.3	0.0	5.8	0.0	0.0	0.0	1,165.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 107. Energy Consumption Estimates by Source, Selected Years 1960-1997, Iowa

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	5,257	187	2,579	366	11,163	195	2,587	5,017	713	29,463	1,071	44	53,197	0	881	–	–	-2,370	–
1965	5,722	248	2,569	358	11,068	232	1,523	7,448	698	30,792	531	542	55,760	0	928	–	–	3,241	–
1970	6,166	349	2,914	256	13,677	725	490	11,038	700	35,701	401	627	66,528	0	935	–	–	1,618	–
1975	6,407	346	2,294	191	14,553	835	214	13,645	655	39,042	608	986	73,024	2,291	879	–	–	13,729	–
1980	12,340	270	1,699	184	15,930	813	171	11,167	714	35,394	415	5,236	71,721	2,563	946	–	–	13,041	–
1985	14,342	226	2,023	83	15,490	592	155	8,507	649	31,465	182	1,778	60,925	1,927	2,048	–	–	6,022	–
1986	13,862	207	2,038	151	15,962	595	115	8,774	635	31,355	508	877	61,009	2,993	953	–	–	8,942	–
1987	15,191	203	1,788	110	15,762	779	110	6,098	718	31,687	117	905	58,075	2,523	971	–	–	6,760	–
1988	16,114	239	2,213	145	15,946	713	107	6,612	692	32,509	258	868	60,063	3,163	699	–	–	4,806	–
1989	17,126	226	1,710	111	14,961	750	71	7,174	710	32,574	183	847	59,092	3,139	[i] NA	–	–	[R] 3,835	–
1990	17,929	218	1,537	99	15,223	891	81	6,355	731	31,684	126	937	57,663	3,012	NA	–	–	[R] 593	–
1991	18,741	233	1,563	82	14,605	892	51	7,255	654	32,471	96	676	58,346	4,147	NA	–	–	[R] -1,868	–
1992	17,992	231	1,406	75	16,370	803	42	8,978	666	31,713	107	748	60,908	3,405	NA	–	–	[R] 422	–
1993	19,188	248	1,354	70	16,970	720	71	15,651	679	32,703	164	756	69,139	3,235	NA	–	–	1,659	–
1994	19,341	248	1,964	69	18,531	897	60	15,663	709	33,887	182	688	72,650	4,107	NA	–	–	[R] -525	–
1995	20,636	262	1,636	72	18,879	1,046	69	16,989	697	34,418	94	640	74,540	3,730	NA	–	–	[R] -737	–
1996	21,171	273	2,052	71	20,276	819	54	10,319	676	35,909	96	684	70,957	3,924	NA	–	–	[R] 898	–
1997	21,719	255	2,623	78	20,553	793	63	10,424	715	35,577	73	692	71,592	4,149	NA	–	–	1,873	–
			Trillion Btu																
1960	115.9	193.7	17.1	1.8	65.0	1.0	14.7	20.1	4.3	154.8	6.7	0.2	285.9	0.0	9.5	[R] 6.4	0.0	-8.1	[R] 603.3
1965	126.6	250.0	17.0	1.8	64.5	1.3	8.6	29.9	4.2	161.7	3.3	2.9	295.3	0.0	9.7	[R] 5.5	0.0	11.1	[R] 698.1
1970	130.9	351.8	19.3	1.3	79.7	4.1	2.8	41.7	4.2	187.5	2.5	3.3	346.4	0.0	9.8	[R] 6.3	0.0	5.5	[R] 850.7
1975	131.6	348.6	15.2	1.0	84.8	4.7	1.2	50.7	4.0	205.1	3.8	5.4	375.8	25.2	9.1	[R] 7.9	0.0	46.8	[R] 945.0
1980	234.4	270.4	11.3	0.9	92.8	4.6	1.0	41.0	4.3	185.9	2.6	28.7	373.1	28.0	9.8	[R] 49.7	0.0	44.5	[R] 1,009.9
1985	268.8	228.4	13.4	0.4	90.2	3.3	0.9	30.7	3.9	165.3	1.1	9.6	318.9	20.8	21.4	[R] 55.2	0.0	20.5	[R] 934.1
1986	262.1	209.0	13.5	0.8	93.0	3.3	0.7	31.9	3.9	164.7	3.2	4.7	319.7	32.3	10.0	[R] 39.3	0.0	30.5	[R] 902.8
1987	287.3	204.7	11.9	0.6	91.8	4.4	0.6	22.3	4.4	166.5	0.7	4.9	308.0	27.2	10.1	[R] 37.6	0.0	23.1	[R] 898.0
1988	306.1	240.8	14.7	0.7	92.9	4.0	0.6	24.1	4.2	170.8	1.6	4.7	318.3	34.0	7.2	[R] 39.0	0.0	16.4	[R] 961.8
1989	319.0	228.2	11.3	0.6	87.1	4.2	0.4	26.4	4.3	171.1	1.2	4.6	311.2	33.7	[R i] 7.2	[R i] 38.8	[R i] 0.1	[R] 13.1	[R i] 947.0
1990	331.7	219.7	10.2	0.5	88.7	5.0	0.5	23.0	4.4	166.4	0.8	5.1	304.6	32.2	9.1	[R] 30.5	[R] 0.1	2.0	[R] 925.1
1991	346.4	235.0	10.4	0.4	85.1	5.0	0.3	26.2	4.0	170.6	0.6	3.6	306.2	44.5	9.4	[R] 30.6	[R] 0.1	-6.4	[R] 962.0
1992	326.7	231.9	9.3	0.4	95.4	4.5	0.2	32.5	4.0	166.6	0.7	4.0	317.7	36.4	10.3	[R] 32.7	[R] 0.1	1.4	[R] 952.5
1993	339.9	248.8	9.0	0.4	98.9	4.1	0.4	56.4	4.1	171.8	1.0	4.0	350.1	34.6	7.7	[R] 32.8	[R] 0.1	5.7	[R] 1,014.3
1994	346.9	250.3	13.0	0.3	107.9	5.1	0.3	56.9	4.3	178.0	1.1	3.7	370.8	43.9	[R] 11.1	[R] 56.7	[R] 0.2	-1.8	[R] 1,072.2
1995	368.8	263.6	10.9	0.4	110.0	5.9	0.4	61.5	4.2	180.8	0.6	3.4	378.1	39.8	10.3	[R] 59.1	[R] 0.2	-2.5	[R] 1,111.7
1996	380.5	274.3	13.6	0.4	118.1	4.6	0.3	37.3	4.1	188.6	0.6	3.7	371.3	41.7	9.7	[R] 58.8	[R] 0.2	3.1	[R] 1,135.9
1997	390.0	257.1	17.4	0.4	119.7	4.5	0.4	37.7	4.3	186.9	0.5	3.7	375.5	44.1	8.3	59.4	0.3	6.4	1,136.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 108. Residential Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	319	0	319	58	2,610	2,301	3,312	8,223	R 163	–	–	3,720	–	9,253	–
1965	171	0	171	77	2,347	1,327	4,741	8,416	R 108	–	–	5,044	–	12,042	–
1970	62	0	62	96	2,232	325	6,826	9,383	R 99	–	–	6,480	–	15,703	–
1975	49	0	49	94	1,802	138	6,799	8,740	R 115	–	–	8,338	–	20,112	–
1980	32	0	32	85	2,388	47	3,890	6,325	R 619	–	–	10,038	–	24,409	–
1985	97	1	98	79	1,435	115	2,996	4,546	R 575	–	–	9,851	–	23,144	–
1986	89	1	89	74	1,388	75	3,267	4,730	R 560	–	–	10,008	–	23,021	–
1987	117	1	119	65	1,218	57	2,523	3,799	R 485	–	–	10,045	–	22,952	–
1988	130	9	138	76	1,116	78	3,073	4,266	R 504	–	–	10,677	–	24,138	–
1989	60	2	63	77	1,065	41	3,372	4,479	R 523	–	–	10,394	–	R 23,354	–
1990	85	1	86	71	797	24	2,742	3,563	348	–	–	10,513	–	R 22,995	–
1991	78	(s)	78	79	887	34	3,359	4,279	366	–	–	11,159	–	R 24,292	–
1992	22	1	23	75	779	20	3,401	4,199	R 385	–	–	10,290	–	21,980	–
1993	23	3	26	83	821	33	3,955	4,809	R 318	–	–	11,103	–	23,459	–
1994	13	2	15	78	973	19	3,925	4,917	R 312	–	–	11,062	–	R 23,083	–
1995	31	0	31	82	844	25	3,964	4,832	R 346	–	–	11,640	–	R 24,249	–
1996	78	0	78	88	785	30	4,717	5,532	R 346	–	–	11,537	–	R 24,011	–
1997	131	0	131	82	768	28	4,717	5,513	252	–	–	11,673	–	24,243	–
	Trillion Btu														
1960	6.8	0.0	6.8	60.5	15.2	13.0	13.3	41.5	R 3.3	0.0	0.0	12.7	R 124.7	31.6	R 156.3
1965	3.6	0.0	3.6	78.0	13.7	7.5	19.0	40.2	R 2.2	0.0	0.0	17.2	R 141.3	41.1	R 182.3
1970	1.3	0.0	1.3	97.1	13.0	1.8	25.8	40.6	R 2.0	0.0	0.0	22.1	R 163.1	53.6	R 216.7
1975	0.9	0.0	0.9	95.1	10.5	0.8	25.3	36.5	R 2.3	0.0	0.0	28.4	R 163.3	68.6	R 231.9
1980	0.6	0.0	0.6	85.2	13.9	0.3	14.3	28.5	R 12.4	0.0	0.0	34.2	R 160.9	83.3	R 244.2
1985	2.1	(s)	2.1	79.6	8.4	0.7	10.8	19.8	R 11.5	0.0	0.0	33.6	R 146.6	79.0	R 225.6
1986	1.9	(s)	1.9	74.9	8.1	0.4	11.9	20.4	R 11.2	0.0	0.0	34.1	R 142.6	78.5	R 221.1
1987	2.4	(s)	2.5	65.8	7.1	0.3	9.2	16.7	R 9.7	0.0	0.0	34.3	R 128.9	78.3	R 207.2
1988	2.7	0.2	2.9	76.6	6.5	0.4	11.2	18.2	R 10.1	0.0	0.0	36.4	R 144.2	82.4	R 226.6
1989	1.4	0.1	1.4	78.3	6.2	0.2	12.4	18.9	R 10.5	e 0.1	R e (s)	35.5	R e 144.5	79.7	R e 224.2
1990	2.0	(s)	2.1	71.9	4.6	0.1	9.9	14.7	7.0	0.1	(s)	35.9	R 131.6	78.5	210.0
1991	1.9	(s)	1.9	79.4	5.2	0.2	12.1	17.5	7.3	0.1	(s)	38.1	R 144.3	82.9	R 227.2
1992	0.5	(s)	0.5	75.2	4.5	0.1	12.3	17.0	7.7	0.1	(s)	35.1	R 135.6	75.0	R 210.6
1993	0.5	0.1	0.6	83.7	4.8	0.2	14.3	19.2	6.4	0.1	(s)	37.9	147.8	80.0	R 227.9
1994	0.3	0.1	0.4	78.9	5.7	0.1	14.3	20.0	R 6.2	0.1	(s)	37.7	R 143.4	78.8	222.1
1995	0.8	0.0	0.8	82.6	4.9	0.1	14.4	19.4	R 6.9	0.1	(s)	39.7	R 149.6	82.7	R 232.3
1996	1.9	0.0	1.9	88.6	4.6	0.2	17.0	21.8	6.9	0.1	(s)	39.4	R 158.7	81.9	R 240.6
1997	3.1	0.0	3.1	82.4	4.5	0.2	17.1	21.7	5.0	0.1	(s)	39.8	152.2	82.7	234.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 109. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	592	0	592	28	1,046	94	584	178	232	2,135	R 3	–	1,812	–	4,506	–
1965	318	0	318	39	941	54	837	194	135	2,161	R 2	–	2,797	–	6,679	–
1970	116	0	116	57	895	13	1,205	271	65	2,449	R 2	–	3,655	–	8,857	–
1975	90	0	90	67	722	6	1,200	323	115	2,366	R 2	–	5,121	–	12,353	–
1980	59	0	59	51	751	5	686	350	79	1,871	R 15	–	5,502	–	13,379	–
1985	179	1	180	48	1,124	7	529	237	1	1,898	NA	–	6,306	–	14,816	–
1986	165	(s)	165	44	681	2	577	273	39	1,571	NA	–	6,551	–	15,068	–
1987	218	1	219	38	759	6	445	266	18	1,494	NA	–	6,717	–	15,347	–
1988	241	6	247	45	685	5	542	339	20	1,591	NA	–	7,136	–	16,133	–
1989	112	2	113	46	490	6	595	233	33	1,357	NA	–	7,301	–	R 16,404	–
1990	158	1	159	44	495	38	484	142	31	1,190	NA	–	7,532	–	R 16,474	–
1991	145	(s)	145	47	563	3	593	727	9	1,895	NA	–	7,938	–	R 17,280	–
1992	40	1	41	46	488	4	600	645	37	1,775	NA	–	7,783	–	16,625	–
1993	42	2	44	50	356	7	698	637	5	1,703	R 26	–	8,536	–	18,034	–
1994	24	1	25	48	391	13	693	35	1	1,132	R 26	–	8,753	–	R 18,266	–
1995	58	0	58	50	449	3	700	35	0	1,186	R 26	–	8,890	–	R 18,521	–
1996	144	0	144	55	361	4	832	244	1	1,442	R 28	–	8,673	–	R 18,051	–
1997	243	0	243	50	339	8	832	445	0	1,625	24	–	8,944	–	18,574	–
	Trillion Btu															
1960	12.6	0.0	12.6	28.8	6.1	0.5	2.3	0.9	1.5	11.4	R 0.1	0.0	6.2	R 59.1	15.4	74.4
1965	6.7	0.0	6.7	39.1	5.5	0.3	3.4	1.0	0.9	11.0	(s)	0.0	9.5	66.4	22.8	89.2
1970	2.4	0.0	2.4	57.8	5.2	0.1	4.6	1.4	0.4	11.7	(s)	0.0	12.5	84.3	30.2	114.5
1975	1.6	0.0	1.6	67.5	4.2	(s)	4.5	1.7	0.7	11.1	(s)	0.0	17.5	97.7	42.1	R 139.9
1980	1.2	0.0	1.2	50.7	4.4	(s)	2.5	1.8	0.5	9.3	R 0.3	0.0	18.8	R 80.2	45.6	R 125.9
1985	3.8	(s)	3.9	48.2	6.5	(s)	1.9	1.2	(s)	9.7	NA	0.0	21.5	83.3	50.6	133.8
1986	3.5	(s)	3.5	44.1	4.0	(s)	2.1	1.4	0.2	7.8	NA	0.0	22.4	77.7	51.4	129.2
1987	4.5	(s)	4.5	38.4	4.4	(s)	1.6	1.4	0.1	7.6	NA	0.0	22.9	73.4	52.4	125.8
1988	4.9	0.2	5.1	45.3	4.0	(s)	2.0	1.8	0.1	7.9	NA	0.0	24.3	82.6	55.0	137.6
1989	2.5	(s)	2.6	46.7	2.9	(s)	2.2	1.2	0.2	6.5	NA	0.0	24.9	80.7	56.0	136.6
1990	3.8	(s)	3.8	44.3	2.9	0.2	1.8	0.7	0.2	5.8	NA	0.0	25.7	79.6	56.2	135.8
1991	3.5	(s)	3.5	47.0	3.3	(s)	2.1	3.8	0.1	9.3	NA	0.0	27.1	86.9	59.0	145.8
1992	0.9	(s)	1.0	46.3	2.8	(s)	2.2	3.4	0.2	8.7	NA	0.0	26.6	82.5	56.7	139.2
1993	1.0	0.1	1.0	50.5	2.1	(s)	2.5	3.3	(s)	8.0	R 0.5	0.0	29.1	R 89.2	61.5	R 150.7
1994	0.6	(s)	0.6	48.3	2.3	0.1	2.5	0.2	(s)	5.1	R 0.5	0.1	29.9	R 84.4	62.3	R 146.8
1995	1.4	0.0	1.4	50.6	2.6	(s)	2.5	0.2	0.0	5.3	R 0.5	0.1	30.3	R 88.3	63.2	R 151.5
1996	3.5	0.0	3.5	54.9	2.1	(s)	3.0	1.3	(s)	6.4	R 0.6	0.1	29.6	R 95.2	61.6	R 156.8
1997	5.7	0.0	5.7	50.6	2.0	(s)	3.0	2.3	0.0	7.4	0.5	0.2	30.5	94.9	63.4	158.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 110. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,193	43	2,579	5,536	192	1,098	196	5,797	573	44	16,016	2	–	–	2,676	–	6,657	–
1965	2,464	68	2,569	5,607	142	1,815	218	5,373	354	542	16,620	2	–	–	3,719	–	8,879	–
1970	1,955	99	2,914	5,884	152	2,949	220	5,391	261	627	18,398	1	–	–	5,338	–	12,936	–
1975	1,333	121	2,294	4,670	70	5,593	155	3,791	279	986	17,838	1	–	–	6,626	–	15,984	–
1980	1,505	115	1,699	4,698	119	6,557	192	2,612	273	5,236	21,385	1	–	–	9,318	–	22,658	–
1985	1,572	87	2,023	4,788	33	4,893	175	1,703	179	1,778	15,571	1	–	–	9,520	–	22,367	–
1986	1,563	80	2,038	5,849	39	4,789	171	1,508	469	877	15,739	1	–	–	9,797	–	22,535	–
1987	1,857	88	1,788	4,957	47	3,082	193	1,490	92	905	12,553	1	–	–	10,264	–	23,453	–
1988	1,808	102	2,213	5,136	24	2,951	186	1,407	238	868	13,024	1	–	–	11,025	–	24,924	–
1989	2,351	89	1,710	4,110	24	3,156	191	1,304	150	847	11,492	[f] NA	–	–	11,017	–	[R] 24,753	–
1990	2,353	90	1,537	4,137	19	3,087	196	1,072	95	937	11,080	NA	–	–	11,392	–	[R] 24,918	–
1991	2,672	97	1,563	4,604	15	3,255	176	1,160	87	676	11,536	NA	–	–	11,684	–	[R] 25,435	–
1992	2,571	101	1,406	6,221	18	4,932	179	1,052	70	748	14,625	NA	–	–	12,134	–	[R] 25,919	–
1993	2,494	103	1,354	6,150	31	10,944	182	799	160	756	20,378	NA	–	–	12,465	–	26,336	–
1994	2,735	109	1,964	6,680	28	10,894	191	1,108	181	688	21,734	NA	–	–	13,224	–	[R] 27,595	–
1995	2,761	115	1,636	6,091	41	12,267	187	1,038	94	640	21,994	NA	–	–	13,771	–	[R] 28,689	–
1996	3,085	114	2,052	6,334	20	4,678	182	1,105	95	684	15,149	NA	–	–	14,789	–	[R] 30,779	–
1997	3,151	107	2,623	6,859	27	4,790	192	1,092	73	692	16,349	NA	–	–	15,531	–	32,254	–
			Trillion Btu															
1960	51.7	44.9	17.1	32.2	1.1	4.4	1.2	30.5	3.6	0.2	90.3	(s)	[R] 2.8	0.0	9.1	[R] 198.8	22.7	[R] 221.6
1965	57.5	68.9	17.0	32.7	0.8	7.3	1.3	28.2	2.2	2.9	92.4	(s)	[R] 2.9	0.0	12.7	[R] 234.5	30.3	[R] 264.8
1970	43.0	99.9	19.3	34.3	0.9	11.1	1.3	28.3	1.6	3.3	100.2	(s)	[R] 3.9	0.0	18.2	[R] 265.1	44.1	[R] 309.3
1975	28.4	122.5	15.2	27.2	0.4	20.8	0.9	19.9	1.8	5.4	91.6	(s)	[R] 5.1	0.0	22.6	[R] 270.2	54.5	[R] 324.7
1980	32.4	114.9	11.3	27.4	0.7	24.1	1.2	13.7	1.7	28.7	108.7	(s)	[R] 36.8	0.0	31.8	[R] 324.5	77.3	[R] 401.8
1985	35.6	88.0	13.4	27.9	0.2	17.6	1.1	8.9	1.1	9.6	79.9	(s)	[R] 43.1	0.0	32.5	[R] 279.0	76.3	[R] 355.3
1986	35.5	81.2	13.5	34.1	0.2	17.4	1.0	7.9	3.0	4.7	81.9	(s)	[R] 27.3	0.0	33.4	[R] 259.3	76.9	[R] 336.2
1987	42.5	89.1	11.9	28.9	0.3	11.3	1.2	7.8	0.6	4.9	66.7	(s)	[R] 27.2	0.0	35.0	[R] 260.5	80.0	[R] 340.5
1988	41.7	102.7	14.7	29.9	0.1	10.8	1.1	7.4	1.5	4.7	70.2	(s)	[R] 28.3	0.0	37.6	[R] 280.6	85.0	[R] 365.6
1989	54.0	90.3	11.3	23.9	0.1	11.6	1.2	6.9	0.9	4.6	60.6	[R f] 0.2	[R f] 23.9	[f] 0.0	37.6	[R f] 266.5	[R] 84.5	[R f] 351.0
1990	53.1	90.9	10.2	24.1	0.1	11.2	1.2	5.6	0.6	5.1	58.1	0.2	[R] 18.6	0.0	38.9	[R] 259.7	85.0	[R] 344.7
1991	59.3	98.2	10.4	26.8	0.1	11.8	1.1	6.1	0.5	3.6	60.4	0.2	[R] 19.2	0.0	39.9	[R] 277.2	86.8	[R] 363.9
1992	52.9	101.2	9.3	36.2	0.1	17.9	1.1	5.5	0.4	4.0	74.6	0.2	[R] 20.2	0.0	41.4	[R] 290.4	88.4	[R] 378.8
1993	50.3	102.9	9.0	35.8	0.2	39.5	1.1	4.2	1.0	4.0	94.8	0.1	[R] 20.5	0.0	42.5	[R] 311.2	89.9	[R] 401.0
1994	55.0	109.6	13.0	38.9	0.2	39.6	1.2	5.8	1.1	3.7	103.5	0.2	[R] 43.8	0.0	45.1	[R] 357.2	[R] 94.2	[R] 451.3
1995	57.9	115.7	10.9	35.5	0.2	44.4	1.1	5.5	0.6	3.4	101.6	0.1	[R] 45.8	0.0	47.0	[R] 368.1	97.9	[R] 466.0
1996	65.7	114.7	13.6	36.9	0.1	16.9	1.1	5.8	0.6	3.7	78.7	0.2	[R] 47.5	0.0	50.5	[R] 357.2	105.0	[R] 462.2
1997	66.0	108.4	17.4	40.0	0.2	17.3	1.2	5.7	0.5	3.7	85.9	0.1	49.0	0.0	53.0	362.5	110.1	472.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 111. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Iowa

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	36	9	366	1,711	195	23	516	23,488	227	26,526	0	0	–	0	–
1965	8	11	358	1,991	232	55	480	25,224	15	28,354	0	0	–	0	–
1970	3	18	256	4,339	725	58	480	30,039	26	35,923	0	0	–	0	–
1975	(s)	16	191	6,851	835	53	501	34,929	0	43,359	0	0	–	0	–
1980	0	13	184	7,924	813	34	522	32,432	0	41,909	0	0	–	0	–
1985	0	10	83	8,042	592	90	475	29,525	0	38,807	0	0	–	0	–
1986	0	7	151	7,940	595	141	464	29,574	0	38,865	0	0	–	0	–
1987	0	8	110	8,713	779	48	525	29,932	8	40,114	0	0	–	0	–
1988	0	11	145	8,886	713	46	506	30,763	0	41,059	0	0	–	0	–
1989	0	10	111	9,184	750	51	519	31,036	(s)	41,652	R e 54,642	0	–	0	–
1990	0	9	99	9,671	891	42	534	30,470	(s)	41,708	63,107	0	–	0	–
1991	0	7	82	8,442	892	49	478	30,584	0	40,528	50,024	0	–	0	–
1992	0	7	75	8,792	803	46	487	30,016	0	40,219	60,799	0	–	0	–
1993	0	7	70	9,521	720	54	496	31,266	0	42,128	67,850	0	–	0	–
1994	0	11	69	10,305	897	151	519	32,744	0	44,684	77,134	0	–	0	–
1995	0	11	72	11,349	1,046	58	510	33,345	0	46,380	74,525	0	–	0	–
1996	0	13	71	12,662	819	92	495	34,561	0	48,700	47,761	0	–	0	–
1997	0	11	78	12,377	793	84	522	34,040	0	47,894	60,091	0	–	0	–
			Trillion Btu												
1960	0.9	9.2	1.8	10.0	1.0	0.1	3.1	123.4	1.4	140.9	0.0	0.0	151.0	0.0	151.0
1965	0.2	11.2	1.8	11.6	1.3	0.2	2.9	132.5	0.1	150.4	0.0	0.0	161.7	0.0	161.7
1970	0.1	18.5	1.3	25.3	4.1	0.2	2.9	157.8	0.2	191.7	0.0	0.0	210.2	0.0	210.2
1975	(s)	16.2	1.0	39.9	4.7	0.2	3.0	183.5	0.0	232.3	0.0	0.0	248.5	0.0	248.5
1980	0.0	12.7	0.9	46.2	4.6	0.1	3.2	170.4	0.0	225.3	0.0	0.0	238.0	0.0	238.0
1985	0.0	10.5	0.4	46.8	3.3	0.3	2.9	155.1	0.0	208.9	0.0	0.0	219.3	0.0	219.3
1986	0.0	7.3	0.8	46.2	3.3	0.5	2.8	155.4	0.0	209.0	0.0	0.0	216.4	0.0	216.4
1987	0.0	8.2	0.6	50.8	4.4	0.2	3.2	157.2	0.1	216.3	0.0	0.0	224.5	0.0	224.5
1988	0.0	10.7	0.7	51.8	4.0	0.2	3.1	161.6	0.0	221.3	0.0	0.0	232.0	0.0	232.0
1989	0.0	10.6	0.6	53.5	4.2	0.2	3.1	163.0	(s)	224.6	R e 4.2	0.0	e 235.2	0.0	e 235.2
1990	0.0	9.2	0.5	56.3	5.0	0.2	3.2	160.1	(s)	225.3	4.8	0.0	234.5	0.0	234.5
1991	0.0	6.7	0.4	49.2	5.0	0.2	2.9	160.7	0.0	218.3	3.8	0.0	225.0	0.0	225.0
1992	0.0	7.0	0.4	51.2	4.5	0.2	3.0	157.7	0.0	216.9	4.6	0.0	223.9	0.0	223.9
1993	0.0	7.4	0.4	55.5	4.1	0.2	3.0	164.2	0.0	227.3	5.2	0.0	234.7	0.0	234.7
1994	0.0	10.8	0.3	60.0	5.1	0.5	3.1	172.0	0.0	241.1	5.9	0.0	251.9	0.0	251.9
1995	0.0	11.1	0.4	66.1	5.9	0.2	3.1	175.2	0.0	250.9	5.7	0.0	262.0	0.0	262.0
1996	0.0	12.7	0.4	73.8	4.6	0.3	3.0	181.5	0.0	263.6	3.6	0.0	276.4	0.0	276.4
1997	0.0	11.4	0.4	72.1	4.5	0.3	3.2	178.8	0.0	259.3	4.6	0.0	270.7	0.0	270.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 112. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Iowa

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,118	0	2,118	49	39	259	0	298	0	879	25	0	0	–
1965	2,760	0	2,760	52	27	183	0	210	0	926	30	0	0	–
1970	4,030	0	4,030	78	49	327	0	375	0	934	38	0	0	–
1975	4,936	0	4,936	47	214	507	0	722	2,291	877	40	0	0	–
1980	10,745	0	10,745	7	63	168	0	231	2,563	945	29	0	0	–
1985	12,491	0	12,491	2	2	101	0	103	1,927	2,047	60	0	0	–
1986	12,044	0	12,044	1	0	105	0	105	2,993	952	70	0	0	–
1987	12,997	0	12,997	3	0	115	0	115	2,523	970	67	0	0	–
1988	13,921	0	13,921	5	0	123	0	123	3,163	698	57	0	0	–
1989	14,598	0	14,598	2	0	112	0	112	3,139	672	24	0	0	–
1990	15,331	0	15,331	3	0	123	0	123	3,012	857	17	0	0	–
1991	15,846	0	15,846	4	0	109	0	109	4,147	883	20	0	0	–
1992	15,357	0	15,357	2	0	90	0	90	3,405	981	14	0	0	–
1993	16,623	0	16,623	4	0	122	0	122	3,235	737	20	0	0	–
1994	16,565	0	16,565	3	0	183	0	183	4,107	1,053	28	0	(s)	–
1995	17,785	0	17,785	4	0	148	0	148	3,730	991	20	0	(s)	–
1996	17,864	0	17,864	3	0	134	0	134	3,924	918	23	0	(s)	–
1997	18,194	0	18,194	4	0	211	0	211	4,149	795	22	0	(s)	–
	Trillion Btu													
1960	44.0	0.0	44.0	50.3	0.2	1.5	0.0	1.8	0.0	9.5	0.3	0.0	0.0	105.8
1965	58.6	0.0	58.6	52.8	0.2	1.1	0.0	1.2	0.0	9.7	0.3	0.0	0.0	122.6
1970	84.2	0.0	84.2	78.6	0.3	1.9	0.0	2.2	0.0	9.8	0.4	0.0	0.0	175.2
1975	100.6	0.0	100.6	47.3	1.3	3.0	0.0	4.3	25.2	9.1	0.4	0.0	0.0	187.0
1980	200.2	0.0	200.2	6.9	0.4	1.0	0.0	1.4	28.0	9.8	0.3	0.0	0.0	246.6
1985	227.3	0.0	227.3	2.1	(s)	0.6	0.0	0.6	20.8	21.4	0.6	0.0	0.0	272.9
1986	221.3	0.0	221.3	1.4	0.0	0.6	0.0	0.6	32.3	9.9	0.7	0.0	0.0	266.3
1987	237.9	0.0	237.9	3.3	0.0	0.7	0.0	0.7	27.2	10.1	0.7	0.0	0.0	279.8
1988	256.5	0.0	256.5	5.5	0.0	0.7	0.0	0.7	34.0	7.2	0.6	0.0	0.0	304.4
1989	261.0	0.0	261.0	2.4	0.0	0.7	0.0	0.7	33.7	7.0	0.2	0.0	0.0	305.0
1990	272.6	0.0	272.6	3.5	0.0	0.7	0.0	0.7	32.2	8.9	0.2	0.0	0.0	318.1
1991	281.8	0.0	281.8	3.7	0.0	0.6	0.0	0.6	44.5	9.2	0.2	0.0	0.0	340.0
1992	272.3	0.0	272.3	2.3	0.0	0.5	0.0	0.5	36.4	10.1	0.1	0.0	0.0	321.8
1993	287.9	0.0	287.9	4.3	0.0	0.7	0.0	0.7	34.6	7.6	0.2	0.0	0.0	335.3
1994	291.0	0.0	291.0	2.7	0.0	1.1	0.0	1.1	43.9	10.9	0.3	0.0	(s)	R 349.8
1995	308.7	0.0	308.7	3.6	0.0	0.9	0.0	0.9	39.8	10.2	0.2	0.0	(s)	363.4
1996	309.3	0.0	309.3	3.4	0.0	0.8	0.0	0.8	41.7	9.5	0.2	0.0	(s)	364.9
1997	315.2	0.0	315.2	4.1	0.0	1.2	0.0	1.2	44.1	8.2	0.2	0.0	(s)	373.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 113. Energy Consumption Estimates by Source, Selected Years 1960-1997, Kansas

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	675	361	2,198	170	4,739	952	696	5,590	737	23,712	2,403	6,577	47,774	0	20	–	–	-4,181	–
1965	644	443	3,061	493	5,257	1,053	1,813	6,521	770	25,525	1,066	7,119	52,677	0	13	–	–	-3,746	–
1970	458	576	2,188	326	7,550	1,561	306	8,009	655	28,849	1,127	7,355	57,926	0	7	–	–	-5,106	–
1975	3,117	499	2,162	177	11,273	1,310	100	8,857	773	32,004	6,365	8,539	71,560	0	5	–	–	-5,045	–
1980	10,370	488	3,019	221	14,764	2,466	492	8,404	1,011	29,584	1,498	8,734	70,194	0	8	–	–	-9,085	–
1985	14,715	355	1,700	137	15,040	4,424	57	24,510	920	28,209	86	5,908	80,992	3,856	9	–	–	-13,553	–
1986	14,359	313	2,657	162	14,319	7,038	75	16,615	900	28,453	487	6,075	76,780	6,959	8	–	–	-20,105	–
1987	15,194	328	2,614	121	16,713	4,285	72	16,113	1,017	29,123	353	6,524	76,934	6,471	9	–	–	-21,902	–
1988	14,951	353	4,378	148	16,591	4,176	42	19,029	981	30,819	811	7,687	84,661	6,650	12	–	–	-20,333	–
1989	14,963	341	3,109	156	15,785	3,833	56	18,889	1,006	29,852	370	7,763	80,819	9,709	[i] NA	–	–	[R] -29,449	–
1990	15,175	353	3,875	136	16,561	3,701	27	15,565	1,035	28,626	232	7,870	77,630	7,874	NA	–	–	[R] -25,080	–
1991	14,881	371	3,721	124	15,714	3,296	24	13,293	926	28,041	128	6,069	71,336	5,859	NA	–	–	[R] -17,248	–
1992	14,227	343	3,715	142	15,154	4,164	33	16,816	944	27,821	180	6,695	75,664	8,491	NA	–	–	[R] -19,226	–
1993	17,386	392	3,635	151	16,268	3,617	36	8,269	962	28,480	373	5,658	67,448	7,900	NA	–	–	-28,905	–
1994	17,158	418	4,741	142	15,770	1,981	17	7,754	1,005	29,073	190	6,218	66,891	8,529	NA	–	–	[R] -30,102	–
1995	16,521	368	3,911	146	19,446	2,414	28	4,924	988	29,402	31	5,971	67,261	10,062	NA	–	–	[R] -29,759	–
1996	19,084	363	3,581	177	16,964	2,009	37	10,131	959	30,927	292	6,417	71,494	8,205	NA	–	–	[R] -33,855	–
1997	17,673	335	2,115	247	17,142	2,130	58	10,234	1,013	30,695	260	6,454	70,349	8,430	NA	–	–	-24,899	–
			Trillion Btu																
1960	15.7	373.7	14.6	0.9	27.6	5.1	3.9	22.4	4.5	124.6	15.1	39.5	258.1	0.0	0.2	[R] 3.9	0.0	-14.3	[R] 637.4
1965	15.3	440.8	20.3	2.5	30.6	5.7	10.3	26.2	4.7	134.1	6.7	42.7	283.7	0.0	0.1	[R] 3.4	0.0	-12.8	[R] 730.5
1970	10.7	574.5	14.5	1.6	44.0	8.6	1.7	30.3	4.0	151.5	7.1	43.9	307.2	0.0	0.1	[R] 3.7	0.0	-17.4	[R] 878.8
1975	62.3	490.7	14.3	0.9	65.7	7.2	0.6	32.9	4.7	168.1	40.0	51.0	385.4	0.0	(s)	[R] 5.8	0.0	-17.2	[R] 927.0
1980	191.6	482.0	20.0	1.1	86.0	13.8	2.8	30.9	6.1	155.4	9.4	52.0	377.5	0.0	0.1	[R] 10.9	0.0	-31.0	[R] 1,031.0
1985	259.5	354.8	11.3	0.7	87.6	24.8	0.3	88.3	5.6	148.2	0.5	35.3	402.7	41.7	0.1	[R] 10.1	(s)	-46.2	[R] 1,022.6
1986	251.7	308.0	17.6	0.8	83.4	39.7	0.4	60.5	5.5	149.5	3.1	36.7	397.2	75.1	0.1	[R] 13.4	(s)	-68.6	[R] 976.8
1987	267.4	343.2	17.3	0.6	97.4	24.1	0.4	59.0	6.2	153.0	2.2	38.8	398.9	69.7	0.1	[R] 12.3	(s)	-74.7	[R] 1,016.9
1988	269.3	348.0	29.1	0.7	96.6	23.4	0.2	69.5	5.9	161.9	5.1	45.7	438.2	71.4	0.1	[R] 12.8	(s)	-69.4	[R] 1,070.5
1989	266.5	338.6	20.6	0.8	91.9	21.5	0.3	69.6	6.1	156.8	2.3	45.8	415.8	104.1	[R i] 0.2	[R i] 12.9	[R i] 0.1	-100.5	[R i] 1,037.2
1990	272.6	352.6	25.7	0.7	96.5	20.7	0.2	56.4	6.3	150.4	1.5	46.4	404.7	84.1	0.2	[R] 9.2	[R] 0.1	-85.6	[R] 1,037.5
1991	268.7	373.2	24.7	0.6	91.5	18.3	0.1	48.0	5.6	147.3	0.8	36.3	373.4	62.9	0.2	[R] 9.5	[R] 0.1	[R] -58.8	[R] 1,028.8
1992	254.3	338.8	24.7	0.7	88.3	23.2	0.2	60.9	5.7	146.1	1.1	39.7	390.6	90.7	0.1	[R] 10.0	[R] 0.1	-65.6	[R] 1,018.6
1993	301.9	386.5	24.1	0.8	94.8	20.2	0.2	29.8	5.8	149.6	2.3	33.6	361.3	84.4	0.1	[R] 9.4	[R] 0.1	-98.6	[R] 1,044.6
1994	300.0	417.2	31.5	0.7	91.9	11.0	0.1	28.2	6.1	152.7	1.2	36.9	360.3	91.1	0.1	[R] 12.0	[R] 0.2	-102.7	[R] 1,077.6
1995	289.6	369.1	26.0	0.7	113.3	13.7	0.2	17.8	6.0	154.4	0.2	35.5	367.8	107.2	0.1	[R] 12.8	[R] 0.2	[R] -101.5	[R] 1,044.9
1996	338.6	362.0	23.8	0.9	98.8	11.4	0.2	36.6	5.8	162.5	1.8	38.0	379.7	87.2	0.1	[R] 12.9	[R] 0.2	-115.5	[R] 1,065.1
1997	310.8	334.5	14.0	1.2	99.9	12.1	0.3	37.0	6.1	161.2	1.6	38.2	371.7	89.6	0.1	11.3	0.2	-85.0	1,033.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 114. Residential Energy Consumption Estimates, Selected Years 1960-1997, Kansas

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	22	0	22	73	53	303	3,447	3,804	R 157	–	–	2,360	–	5,869	–
1965	6	0	6	87	50	1,285	3,991	5,327	R 102	–	–	3,251	–	7,762	–
1970	4	0	4	97	53	116	4,825	4,994	R 80	–	–	5,348	–	12,960	–
1975	0	0	0	98	96	60	4,563	4,719	R 93	–	–	5,695	–	13,736	–
1980	2	0	2	85	150	5	2,083	2,237	R 526	–	–	7,189	–	17,481	–
1985	(s)	0	(s)	78	65	27	1,469	1,561	R 501	–	–	8,195	–	19,252	–
1986	(s)	0	(s)	71	24	18	1,208	1,251	R 487	–	–	8,346	–	19,198	–
1987	(s)	0	(s)	70	21	19	1,285	1,325	R 436	–	–	8,617	–	19,689	–
1988	(s)	(s)	(s)	76	30	20	1,435	1,485	R 453	–	–	9,121	–	20,620	–
1989	2	0	2	76	32	18	1,453	1,502	R 470	–	–	8,898	–	R 19,992	–
1990	(s)	0	(s)	71	24	11	1,182	1,218	317	–	–	9,515	–	R 20,811	–
1991	(s)	(s)	(s)	75	23	10	1,305	1,338	334	–	–	9,933	–	R 21,624	–
1992	(s)	0	(s)	72	29	13	1,079	1,121	352	–	–	8,873	–	R 18,953	–
1993	8	0	8	85	27	20	1,092	1,139	R 293	–	–	9,986	–	21,099	–
1994	11	0	11	74	27	8	1,054	1,089	287	–	–	10,131	–	R 21,140	–
1995	13	0	13	76	15	13	1,469	1,497	318	–	–	10,356	–	R 21,574	–
1996	27	0	27	85	18	19	1,748	1,784	318	–	–	10,672	–	R 22,211	–
1997	1	0	1	69	37	12	1,748	1,797	231	–	–	10,862	–	22,558	–
	Trillion Btu														
1960	0.5	0.0	0.5	76.1	0.3	1.7	13.8	15.9	R 3.1	0.0	0.0	8.1	R 103.6	20.0	R 123.6
1965	0.1	0.0	0.1	86.4	0.3	7.3	16.0	23.6	R 2.0	0.0	0.0	11.1	R 123.2	26.5	R 149.7
1970	0.1	0.0	0.1	97.1	0.3	0.7	18.2	19.2	R 1.6	0.0	0.0	18.2	R 136.2	44.2	R 180.5
1975	0.0	0.0	0.0	96.6	0.6	0.3	17.0	17.9	R 1.9	0.0	0.0	19.4	R 135.7	46.9	R 182.6
1980	(s)	0.0	(s)	84.8	0.9	(s)	7.7	8.6	R 10.5	0.0	0.0	24.5	R 128.4	59.6	R 188.1
1985	(s)	0.0	(s)	78.3	0.4	0.2	5.3	5.8	R 10.0	0.0	0.0	28.0	R 122.2	65.7	R 187.8
1986	(s)	0.0	(s)	69.6	0.1	0.1	4.4	4.6	R 9.7	0.0	0.0	28.5	R 112.5	65.5	R 178.0
1987	(s)	0.0	(s)	73.1	0.1	0.1	4.7	4.9	R 8.7	0.0	0.0	29.4	R 116.1	67.2	R 183.3
1988	(s)	(s)	(s)	75.3	0.2	0.1	5.2	5.5	R 9.1	0.0	0.0	31.1	R 121.0	70.4	R 191.4
1989	(s)	0.0	(s)	75.5	0.2	0.1	5.3	5.6	R 9.4	e (s)	R e (s)	30.4	R e 121.0	68.2	R e 189.2
1990	(s)	0.0	(s)	71.3	0.1	0.1	4.3	4.5	6.3	(s)	(s)	32.5	R 114.7	71.0	185.7
1991	(s)	(s)	(s)	75.7	0.1	0.1	4.7	4.9	6.7	(s)	(s)	33.9	121.2	73.8	195.0
1992	(s)	0.0	(s)	70.6	0.2	0.1	3.9	4.2	7.0	(s)	(s)	30.3	R 112.2	64.7	176.8
1993	0.2	0.0	0.2	83.9	0.2	0.1	3.9	4.2	R 5.9	(s)	(s)	34.1	128.2	72.0	200.2
1994	0.3	0.0	0.3	74.1	0.2	(s)	3.8	4.0	5.7	(s)	(s)	34.6	R 118.8	72.1	R 190.9
1995	0.3	0.0	0.3	76.1	0.1	0.1	5.3	5.5	6.4	(s)	(s)	35.3	123.7	73.6	197.3
1996	0.7	0.0	0.7	85.2	0.1	0.1	6.3	6.5	6.4	(s)	(s)	36.4	135.2	75.8	R 211.0
1997	(s)	0.0	(s)	69.5	0.2	0.1	6.3	6.6	4.6	(s)	(s)	37.1	117.9	77.0	194.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 115. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Kansas

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	40	0	40	41	115	87	608	179	47	1,036	R 3	–	1,727	–	4,296	–
1965	11	0	11	38	109	367	704	204	19	1,403	R 2	–	2,597	–	6,200	–
1970	7	0	7	53	115	33	851	215	34	1,249	R 2	–	3,967	–	9,614	–
1975	0	0	0	52	209	17	805	268	36	1,335	R 2	–	5,614	–	13,542	–
1980	3	0	3	59	360	10	368	279	0	1,016	R 13	–	6,806	–	16,550	–
1985	1	0	1	57	698	10	259	177	0	1,145	NA	–	8,174	–	19,205	–
1986	1	0	1	56	342	9	213	174	9	747	NA	–	8,361	–	19,232	–
1987	1	0	1	54	271	15	227	190	(s)	703	NA	–	8,547	–	19,529	–
1988	(s)	(s)	(s)	61	385	10	253	167	1	815	NA	–	9,000	–	20,347	–
1989	4	0	4	59	333	16	256	153	10	769	NA	–	9,127	–	R 20,507	–
1990	(s)	0	(s)	56	283	6	209	162	27	687	NA	–	9,547	–	R 20,881	–
1991	(s)	(s)	(s)	59	363	4	230	124	7	728	NA	–	9,935	–	R 21,628	–
1992	(s)	0	(s)	54	502	4	190	109	22	827	NA	–	9,746	–	R 20,817	–
1993	15	0	15	56	645	7	193	55	30	929	R 24	–	10,120	–	21,381	–
1994	21	0	21	52	499	4	186	76	2	766	R 24	–	10,482	–	R 21,873	–
1995	25	0	25	53	608	6	259	74	12	959	R 24	–	10,645	–	R 22,177	–
1996	51	0	51	57	562	5	308	99	2	976	R 26	–	11,388	–	R 23,700	–
1997	2	0	2	41	501	28	308	90	0	927	22	–	12,043	–	25,010	–
	Trillion Btu															
1960	0.9	0.0	0.9	42.6	0.7	0.5	2.4	0.9	0.3	4.8	R 0.1	0.0	5.9	R 54.3	14.7	68.9
1965	0.2	0.0	0.2	38.3	0.6	2.1	2.8	1.1	0.1	6.7	(s)	0.0	8.9	R 54.2	21.2	75.3
1970	0.1	0.0	0.1	52.5	0.7	0.2	3.2	1.1	0.2	5.4	(s)	0.0	13.5	R 71.7	32.8	R 104.5
1975	0.0	0.0	0.0	50.8	1.2	0.1	3.0	1.4	0.2	5.9	(s)	0.0	19.2	R 75.9	46.2	122.1
1980	0.1	0.0	0.1	58.5	2.1	0.1	1.4	1.5	0.0	5.0	R 0.3	0.0	23.2	R 87.0	56.5	R 143.5
1985	(s)	0.0	(s)	56.5	4.1	0.1	0.9	0.9	0.0	6.0	NA	0.0	27.9	90.4	65.5	155.9
1986	(s)	0.0	(s)	54.9	2.0	0.1	0.8	0.9	0.1	3.8	NA	0.0	28.5	87.3	65.6	152.9
1987	(s)	0.0	(s)	56.2	1.6	0.1	0.8	1.0	(s)	3.5	NA	0.0	29.2	88.9	66.6	155.5
1988	(s)	(s)	(s)	60.2	2.2	0.1	0.9	0.9	(s)	4.1	NA	0.0	30.7	95.1	69.4	164.5
1989	0.1	0.0	0.1	58.2	1.9	0.1	0.9	0.8	0.1	3.8	NA	[e] (s)	31.1	93.2	R 70.0	163.2
1990	(s)	0.0	(s)	56.0	1.6	(s)	0.8	0.9	0.2	3.5	NA	(s)	32.6	92.1	71.2	163.3
1991	(s)	(s)	(s)	59.2	2.1	(s)	0.8	0.7	(s)	3.7	NA	(s)	33.9	96.8	73.8	170.6
1992	(s)	0.0	(s)	53.3	2.9	(s)	0.7	0.6	0.1	4.3	NA	0.1	33.3	R 91.0	71.0	R 162.0
1993	0.3	0.0	0.3	55.3	3.8	(s)	0.7	0.3	0.2	5.0	R 0.5	0.1	34.5	R 95.7	73.0	R 168.7
1994	0.5	0.0	0.5	52.2	2.9	(s)	0.7	0.4	(s)	4.0	R 0.5	0.1	35.8	R 93.1	74.6	R 167.7
1995	0.6	0.0	0.6	53.3	3.5	(s)	0.9	0.4	0.1	5.0	R 0.5	0.1	36.3	R 95.8	75.7	R 171.5
1996	1.2	0.0	1.2	57.1	3.3	(s)	1.1	0.5	(s)	4.9	R 0.5	0.1	38.9	R 102.8	80.9	R 183.7
1997	(s)	0.0	(s)	41.3	2.9	0.2	1.1	0.5	0.0	4.7	0.4	0.2	41.1	87.7	85.3	173.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 116. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Kansas

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	175	121	2,198	1,405	306	1,321	230	4,557	1,924	6,577	18,518	0	–	–	2,932	–	7,293	–
1965	148	155	3,061	1,553	160	1,530	303	3,535	755	7,119	18,017	0	–	–	3,902	–	9,318	–
1970	103	184	2,188	2,515	157	1,985	207	2,777	701	7,355	17,886	0	–	–	4,548	–	11,022	–
1975	134	152	2,162	3,532	23	3,125	253	2,406	2,178	8,535	22,214	0	–	–	6,214	–	14,990	–
1980	331	191	3,019	3,476	477	5,844	408	1,198	1,004	8,734	24,159	0	–	–	7,845	–	19,076	–
1985	363	161	1,700	3,908	20	22,687	371	1,064	66	5,908	35,724	0	–	–	7,167	–	16,839	–
1986	261	139	2,657	4,575	47	15,093	363	929	464	6,075	30,202	0	–	–	7,128	–	16,396	–
1987	252	158	2,614	4,297	38	14,490	410	978	327	6,524	29,678	0	–	–	7,266	–	16,603	–
1988	208	154	4,378	4,459	12	17,201	396	846	689	7,687	35,667	0	–	–	7,708	–	17,425	–
1989	183	144	3,109	3,924	22	16,996	406	837	306	7,763	33,362	[f] NA	–	–	7,797	–	[R] 17,519	–
1990	157	158	3,875	3,912	10	14,032	418	765	184	7,870	31,064	NA	–	–	8,087	–	17,688	–
1991	148	168	3,721	4,580	11	11,649	374	755	118	6,069	27,276	NA	–	–	8,284	–	[R] 18,033	–
1992	158	175	3,715	4,546	15	15,448	381	675	157	6,695	31,631	NA	–	–	8,451	–	18,050	–
1993	137	196	3,635	5,103	10	6,885	388	892	303	5,658	22,873	NA	–	–	8,702	–	18,386	–
1994	137	233	4,741	5,387	6	6,364	405	943	175	6,218	24,240	NA	–	–	9,001	–	[R] 18,784	–
1995	138	177	3,911	5,207	10	3,140	398	995	19	5,971	19,651	NA	–	–	9,356	–	[R] 19,491	–
1996	154	159	3,581	4,892	13	8,054	387	1,021	135	6,417	24,499	NA	–	–	9,231	–	[R] 19,211	–
1997	137	159	2,115	5,580	19	8,158	408	1,055	171	6,454	23,960	NA	–	–	9,365	–	19,449	–
			Trillion Btu															
1960	4.0	125.7	14.6	8.2	1.7	5.3	1.4	23.9	12.1	39.5	106.7	0.0	[R] 0.7	0.0	10.0	[R] 247.0	24.9	[R] 271.9
1965	3.3	154.3	20.3	9.0	0.9	6.1	1.8	18.6	4.7	42.7	104.2	0.0	[R] 1.3	0.0	13.3	[R] 276.5	31.8	[R] 308.2
1970	2.2	184.1	14.5	14.7	0.9	7.5	1.3	14.6	4.4	43.9	101.7	0.0	[R] 2.0	0.0	15.5	[R] 305.6	37.6	[R] 343.2
1975	2.7	148.8	14.3	20.6	0.1	11.6	1.5	12.6	13.7	51.0	125.5	0.0	[R] 3.9	0.0	21.2	[R] 302.1	51.1	[R] 353.3
1980	7.1	189.7	20.0	20.2	2.7	21.5	2.5	6.3	6.3	52.0	131.5	0.0	[R] 0.1	0.0	26.8	[R] 355.2	65.1	[R] 420.3
1985	7.8	161.3	11.3	22.8	0.1	81.7	2.3	5.6	0.4	35.3	159.5	0.0	[R] 0.1	0.0	24.5	[R] 353.1	57.5	[R] 410.6
1986	5.6	136.9	17.6	26.6	0.3	54.9	2.2	4.9	2.9	36.7	146.2	0.0	[R] 3.6	0.0	24.3	[R] 316.7	55.9	[R] 372.6
1987	5.5	165.6	17.3	25.0	0.2	53.0	2.5	5.1	2.1	38.8	144.1	0.0	[R] 3.6	0.0	24.8	[R] 343.6	56.6	[R] 400.2
1988	4.6	151.8	29.1	26.0	0.1	62.8	2.4	4.4	4.3	45.7	174.7	0.0	[R] 3.7	0.0	26.3	[R] 361.2	59.5	[R] 420.6
1989	4.1	143.3	20.6	22.9	0.1	62.6	2.5	4.4	1.9	45.8	160.8	[R f] 0.1	[R f] 3.2	[f] 0.0	26.6	[R f] 338.0	59.8	[R f] 397.8
1990	3.8	157.8	25.7	22.8	0.1	50.9	2.5	4.0	1.2	46.4	153.5	0.1	[R] 2.4	0.0	27.6	[R] 345.2	60.4	[R] 405.6
1991	3.6	170.0	24.7	26.7	0.1	42.1	2.3	4.0	0.7	36.3	136.8	0.1	[R] 2.5	0.0	28.3	[R] 341.3	61.5	[R] 402.8
1992	3.9	172.4	24.7	26.5	0.1	56.0	2.3	3.5	1.0	39.7	153.7	0.1	[R] 2.6	0.0	28.8	[R] 361.5	61.6	[R] 423.1
1993	3.2	193.3	24.1	29.7	0.1	24.8	2.4	4.7	1.9	33.6	121.3	0.1	[R] 2.6	0.0	29.7	[R] 350.2	62.7	[R] 412.9
1994	3.3	232.4	31.5	31.4	(s)	23.1	2.5	5.0	1.1	36.9	131.4	0.1	[R] 5.4	0.0	30.7	[R] 403.3	64.1	[R] 467.4
1995	3.3	177.5	26.0	30.3	0.1	11.4	2.4	5.2	0.1	35.5	111.0	0.1	[R] 5.6	0.0	31.9	[R] 329.4	66.5	[R] 395.9
1996	3.9	159.1	23.8	28.5	0.1	29.1	2.3	5.4	0.8	38.0	127.9	0.1	[R] 5.8	0.0	31.5	[R] 328.4	[R] 65.5	[R] 394.0
1997	3.4	159.2	14.0	32.5	0.1	29.5	2.5	5.5	1.1	38.2	123.4	0.1	6.0	0.0	32.0	324.1	66.4	390.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 117. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Kansas

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	3	43	170	3,056	952	215	507	18,976	190	24,065	0	0	–	0	–
1965	(s)	50	493	3,473	1,053	295	467	21,786	137	27,704	0	0	–	0	–
1970	(s)	73	326	4,691	1,561	348	448	25,857	8	33,238	0	0	–	0	–
1975	(s)	69	177	5,898	1,310	364	520	29,331	17	37,615	0	0	–	0	–
1980	0	52	221	10,397	2,466	110	603	28,107	2	41,906	0	0	–	0	–
1985	0	38	137	10,173	4,424	95	549	26,968	0	42,347	0	0	–	0	–
1986	0	32	162	9,204	7,038	101	537	27,350	(s)	44,391	0	0	–	0	–
1987	0	31	121	11,992	4,285	111	607	27,956	0	45,071	0	0	–	0	–
1988	0	42	148	11,556	4,176	140	585	29,807	0	46,411	0	0	–	0	–
1989	0	43	156	11,304	3,833	185	600	28,862	0	44,940	R e 4,931	0	–	0	–
1990	0	41	136	12,213	3,701	142	618	27,700	0	44,509	5,695	0	–	0	–
1991	0	33	124	10,595	3,296	108	553	27,162	0	41,838	4,515	0	–	0	–
1992	0	29	142	9,975	4,164	99	563	27,037	0	41,981	5,487	0	–	0	–
1993	0	33	151	10,367	3,617	100	574	27,533	0	42,341	6,123	0	–	0	–
1994	0	32	142	9,727	1,981	151	600	28,054	0	40,655	5,720	0	–	0	–
1995	0	35	146	13,466	2,414	56	589	28,333	0	45,004	4,535	0	–	0	–
1996	0	38	177	11,317	2,009	22	572	29,807	0	43,904	2,799	0	–	0	–
1997	0	39	247	10,860	2,130	20	604	29,551	0	43,412	2,896	0	–	0	–
			Trillion Btu												
1960	0.1	44.3	0.9	17.8	5.1	0.9	3.1	99.7	1.2	128.6	0.0	0.0	172.9	0.0	172.9
1965	(s)	49.5	2.5	20.2	5.7	1.2	2.8	114.4	0.9	147.7	0.0	0.0	197.2	0.0	197.2
1970	(s)	73.2	1.6	27.3	8.6	1.3	2.7	135.8	0.1	177.5	0.0	0.0	250.7	0.0	250.7
1975	(s)	68.0	0.9	34.4	7.2	1.4	3.2	154.1	0.1	201.1	0.0	0.0	269.1	0.0	269.1
1980	0.0	52.0	1.1	60.6	13.8	0.4	3.7	147.6	(s)	227.2	0.0	0.0	279.2	0.0	279.2
1985	0.0	38.1	0.7	59.3	24.8	0.3	3.3	141.7	0.0	230.1	0.0	0.0	268.2	0.0	268.2
1986	0.0	32.0	0.8	53.6	39.7	0.4	3.3	143.7	(s)	241.4	0.0	0.0	273.4	0.0	273.4
1987	0.0	32.3	0.6	69.9	24.1	0.4	3.7	146.9	0.0	245.5	0.0	0.0	277.8	0.0	277.8
1988	0.0	41.8	0.7	67.3	23.4	0.5	3.5	156.6	0.0	252.1	0.0	0.0	294.0	0.0	294.0
1989	0.0	43.0	0.8	65.8	21.5	0.7	3.6	151.6	0.0	244.0	R e 0.4	0.0	e 287.0	0.0	e 287.0
1990	0.0	40.6	0.7	71.1	20.7	0.5	3.7	145.5	0.0	242.3	0.4	0.0	282.9	0.0	282.9
1991	0.0	33.3	0.6	61.7	18.3	0.4	3.4	142.7	0.0	227.1	0.3	0.0	260.4	0.0	260.4
1992	0.0	28.8	0.7	58.1	23.2	0.4	3.4	142.0	0.0	227.8	0.4	0.0	256.7	0.0	256.7
1993	0.0	33.0	0.8	60.4	20.2	0.4	3.5	144.6	0.0	229.8	0.5	0.0	262.8	0.0	262.8
1994	0.0	31.7	0.7	56.7	11.0	0.5	3.6	147.4	0.0	219.9	0.4	0.0	251.7	0.0	251.7
1995	0.0	34.8	0.7	78.4	13.7	0.2	3.6	148.8	0.0	245.5	0.3	0.0	280.2	0.0	280.2
1996	0.0	38.2	0.9	65.9	11.4	0.1	3.5	156.6	0.0	238.3	0.2	0.0	276.5	0.0	276.5
1997	0.0	39.2	1.2	63.3	12.1	0.1	3.7	155.2	0.0	235.6	0.2	0.0	274.7	0.0	274.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 118. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Kansas

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	435	0	435	82	241	110	0	351	0	20	0	0	0	–
1965	478	0	478	113	156	71	0	226	0	13	0	0	0	–
1970	344	0	344	168	385	175	0	560	0	7	0	0	0	–
1975	2,983	0	2,983	128	4,134	1,539	4	5,676	0	5	0	0	0	–
1980	10,034	0	10,034	101	492	382	0	875	0	8	0	0	0	–
1985	14,351	0	14,351	21	20	195	0	215	3,856	9	0	0	(s)	–
1986	14,097	0	14,097	15	15	174	0	188	6,959	8	0	0	(s)	–
1987	14,942	0	14,942	16	25	131	0	156	6,471	9	0	0	(s)	–
1988	14,742	0	14,742	19	121	161	0	283	6,650	12	0	0	(s)	–
1989	14,774	0	14,774	19	54	191	0	246	9,709	10	0	0	(s)	–
1990	15,018	0	15,018	27	22	130	0	152	7,874	12	0	0	(s)	–
1991	14,732	0	14,732	36	4	153	0	156	5,859	9	0	0	(s)	–
1992	14,068	0	14,068	14	2	103	0	104	8,491	0	0	0	(s)	–
1993	17,226	0	17,226	22	40	126	0	166	7,900	0	0	0	(s)	–
1994	16,989	0	16,989	27	12	129	0	142	8,529	0	0	0	(s)	–
1995	16,345	0	16,345	28	1	150	0	151	10,062	0	0	0	(s)	–
1996	18,852	0	18,852	23	155	176	0	331	8,205	0	0	0	0	–
1997	17,534	0	17,534	26	89	163	0	252	8,430	0	0	0	0	–
	Trillion Btu													
1960	10.3	0.0	10.3	85.1	1.5	0.6	0.0	2.2	0.0	0.2	0.0	0.0	0.0	97.8
1965	11.6	0.0	11.6	112.4	1.0	0.4	0.0	1.4	0.0	0.1	0.0	0.0	0.0	125.5
1970	8.3	0.0	8.3	167.5	2.4	1.0	0.0	3.4	0.0	0.1	0.0	0.0	0.0	179.4
1975	59.5	0.0	59.5	126.7	26.0	9.0	(s)	35.0	0.0	(s)	0.0	0.0	0.0	221.2
1980	184.3	0.0	184.3	97.0	3.1	2.2	0.0	5.3	0.0	0.1	0.0	0.0	0.0	286.7
1985	251.7	0.0	251.7	20.5	0.1	1.1	0.0	1.3	41.7	0.1	0.0	0.0	(s)	315.2
1986	246.1	0.0	246.1	14.6	0.1	1.0	0.0	1.1	75.1	0.1	0.0	0.0	(s)	337.0
1987	261.9	0.0	261.9	15.9	0.2	0.8	0.0	0.9	69.7	0.1	0.0	0.0	(s)	348.5
1988	264.7	0.0	264.7	18.8	0.8	0.9	0.0	1.7	71.4	0.1	0.0	0.0	(s)	356.7
1989	262.3	0.0	262.3	18.6	0.3	1.1	0.0	1.5	104.1	0.1	0.0	0.0	(s)	386.5
1990	268.8	0.0	268.8	26.9	0.1	0.8	0.0	0.9	84.1	0.1	0.0	0.0	(s)	380.8
1991	265.1	0.0	265.1	35.0	(s)	0.9	0.0	0.9	62.9	0.1	0.0	0.0	(s)	364.0
1992	250.4	0.0	250.4	13.6	(s)	0.6	0.0	0.6	90.7	0.0	0.0	0.0	(s)	355.2
1993	298.1	0.0	298.1	21.1	0.3	0.7	0.0	1.0	84.4	0.0	0.0	0.0	(s)	404.6
1994	295.9	0.0	295.9	26.8	0.1	0.8	0.0	0.8	91.1	0.0	0.0	0.0	(s)	414.6
1995	285.4	0.0	285.4	27.4	(s)	0.9	0.0	0.9	107.2	0.0	0.0	0.0	(s)	420.9
1996	332.8	0.0	332.8	22.5	1.0	1.0	0.0	2.0	87.2	0.0	0.0	0.0	0.0	444.5
1997	307.4	0.0	307.4	25.3	0.6	1.0	0.0	1.5	89.6	0.0	0.0	0.0	0.0	423.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 119. Energy Consumption Estimates by Source, Selected Years 1960-1997, Kentucky

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	12,006	149	1,482	652	4,850	497	1,585	4,152	544	21,535	337	2,556	38,188	0	2,633	–	–	38,952	–
1965	17,584	172	2,112	1,052	5,567	1,284	2,375	5,869	755	25,780	600	4,382	49,776	0	2,464	–	–	1,224	–
1970	23,558	248	3,090	330	8,211	3,089	3,094	9,564	842	33,581	1,063	7,672	70,536	0	3,174	–	–	-26,029	–
1975	25,556	208	2,622	129	10,924	2,150	1,577	10,977	1,048	40,816	2,169	9,178	81,589	0	3,463	–	–	8,996	–
1980	27,728	202	2,021	112	22,906	2,897	2,912	10,223	1,057	39,829	1,012	13,775	96,744	0	2,940	–	–	-2,827	–
1985	31,066	173	1,872	66	21,768	3,434	1,507	5,539	962	39,924	622	7,509	83,202	0	2,941	–	–	-21,176	–
1986	32,185	167	2,285	85	20,417	3,549	1,088	5,118	940	42,518	739	6,992	83,732	0	2,734	–	–	-37,637	–
1987	32,085	172	2,701	62	20,534	4,827	649	6,750	1,063	43,068	852	8,555	89,061	0	2,948	–	–	-35,172	–
1988	35,263	184	2,616	62	24,693	4,985	977	6,719	1,025	44,133	569	8,988	94,766	0	2,423	–	–	-46,481	–
1989	32,889	189	2,764	53	28,135	5,071	943	6,329	1,052	43,428	474	8,816	97,066	0	[i] NA	–	–	[R] -20,163	–
1990	34,449	184	3,032	51	23,408	5,713	567	6,154	1,082	43,040	545	9,749	93,341	0	NA	–	–	[R] -24,478	–
1991	34,517	187	2,801	51	22,666	6,368	551	6,709	968	43,766	458	18,234	102,573	0	NA	–	–	[R] -20,537	–
1992	34,704	190	2,537	55	25,603	6,882	505	6,427	987	44,786	422	20,910	109,113	0	NA	–	–	[R] -17,526	–
1993	39,095	203	2,550	40	27,952	5,705	612	5,815	1,005	45,756	336	19,702	109,473	0	NA	–	–	-39,623	–
1994	38,090	208	2,843	46	28,041	6,343	562	5,673	1,050	46,180	329	20,458	111,526	0	NA	–	–	[R] -25,733	–
1995	39,516	224	2,778	44	29,108	6,305	647	5,607	1,032	48,104	204	19,868	113,698	0	NA	–	–	[R] -24,544	–
1996	40,862	236	2,714	47	28,350	5,590	670	6,620	1,002	43,543	247	21,283	110,068	0	NA	–	–	[R] -25,032	–
1997	42,228	228	3,417	28	29,335	4,556	735	6,688	1,058	50,174	169	21,898	118,058	0	NA	–	–	-34,554	–
			Trillion Btu																
1960	286.6	153.8	9.8	3.3	28.2	2.7	9.0	16.7	3.3	113.1	2.1	15.2	203.4	0.0	28.3	[R] 22.4	0.0	132.9	[R] 827.5
1965	415.5	176.7	14.0	5.3	32.4	7.2	13.5	23.5	4.6	135.4	3.8	25.1	264.8	0.0	25.8	[R] 21.7	0.0	4.2	[R] 908.6
1970	527.0	252.3	20.5	1.7	47.8	17.4	17.5	36.1	5.1	176.4	6.7	43.9	373.1	0.0	33.3	[R] 23.7	0.0	-88.8	[R] 1,120.7
1975	558.3	209.2	17.4	0.6	63.6	12.1	8.9	40.8	6.4	214.4	13.6	52.7	430.6	0.0	36.0	[R] 30.8	0.0	30.7	[R] 1,295.7
1980	641.7	204.1	13.4	0.6	133.4	16.3	16.5	37.6	6.4	209.2	6.4	77.8	517.6	0.0	30.5	[R] 21.0	0.0	-9.6	[R] 1,405.3
1985	716.9	177.7	12.4	0.3	126.8	19.3	8.5	20.0	5.8	209.7	3.9	43.8	450.7	0.0	30.7	[R] 37.0	0.0	-72.3	[R] 1,340.8
1986	749.9	173.5	15.2	0.4	118.9	20.0	6.2	18.6	5.7	223.3	4.6	41.3	454.4	0.0	28.6	[R] 44.8	0.0	-128.4	[R] 1,322.7
1987	746.7	178.3	17.9	0.3	119.6	27.3	3.7	24.7	6.4	226.2	5.4	50.3	481.8	0.0	30.7	[R] 40.9	0.0	-120.0	[R] 1,358.4
1988	821.8	190.9	17.4	0.3	143.8	28.2	5.5	24.5	6.2	231.8	3.6	52.9	514.3	0.0	25.0	[R] 42.5	0.0	-158.6	[R] 1,435.9
1989	765.0	195.9	18.3	0.3	163.9	28.7	5.3	23.3	6.4	228.1	3.0	51.7	529.0	0.0	[i] 45.9	[R i] 41.4	[R i] 0.2	[R] -68.8	[R i] 1,507.1
1990	804.3	191.7	20.1	0.3	136.4	32.3	3.2	22.3	6.6	226.1	3.4	57.3	507.9	0.0	32.9	[R] 26.8	[R] 0.2	-83.5	[R] 1,478.5
1991	804.6	196.3	18.6	0.3	132.0	36.0	3.1	24.2	5.9	229.9	2.9	103.2	556.1	0.0	[R] 38.2	[R] 27.6	[R] 0.3	-70.1	[R] 1,551.4
1992	813.6	200.9	16.8	0.3	149.1	38.9	2.9	23.3	6.0	235.3	2.7	118.2	593.5	0.0	39.0	[R] 29.2	[R] 0.3	-59.8	[R] 1,614.8
1993	922.4	213.1	16.9	0.2	162.8	32.3	3.5	21.0	6.1	240.4	2.1	111.1	596.4	0.0	32.5	[R] 26.8	[R] 0.3	-135.2	[R] 1,654.3
1994	897.5	221.3	18.9	0.2	163.3	35.9	3.2	20.6	6.4	242.6	2.1	115.5	608.6	0.0	41.4	[R] 26.7	[R] 0.4	-87.8	[R] 1,707.3
1995	927.6	245.6	18.4	0.2	169.6	35.7	3.7	20.3	6.3	252.7	1.3	112.2	620.4	0.0	35.3	[R] 28.2	[R] 0.4	[R] -83.7	[R] 1,773.3
1996	951.8	248.0	18.0	0.2	165.1	31.7	3.8	23.9	6.1	228.7	1.6	119.9	599.1	0.0	[R] 36.1	[R] 28.9	[R] 0.5	-85.4	[R] 1,778.6
1997	985.2	239.3	22.7	0.1	170.9	25.8	4.2	24.2	6.4	263.6	1.1	123.4	642.4	0.0	34.9	25.9	0.5	-117.9	1,809.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 120. Residential Energy Consumption Estimates, Selected Years 1960-1997, Kentucky

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours			
1960	237	29	266	63	242	897	1,396	2,534	R 744	–	–	2,760	–	6,866	–
1965	157	18	176	64	278	1,653	1,594	3,526	R 562	–	–	3,763	–	8,984	–
1970	179	11	190	86	403	2,077	3,356	5,836	R 505	–	–	6,987	–	16,932	–
1975	99	6	105	79	442	1,073	3,740	5,255	R 542	–	–	9,586	–	23,122	–
1980	98	4	102	74	820	1,751	2,063	4,633	R 483	–	–	13,075	–	31,794	–
1985	87	0	87	60	824	833	1,586	3,244	R 1,197	–	–	14,539	–	34,159	–
1986	102	0	102	59	682	672	1,649	3,003	R 1,165	–	–	15,307	–	35,210	–
1987	100	2	101	59	760	446	2,358	3,564	R 974	–	–	16,080	–	36,742	–
1988	127	(s)	127	64	887	645	2,146	3,678	R 1,012	–	–	16,811	–	38,006	–
1989	83	(s)	83	65	745	583	2,223	3,551	R 1,050	–	–	16,922	–	R 38,021	–
1990	53	(s)	53	56	644	321	1,825	2,791	683	–	–	16,814	–	R 36,775	–
1991	65	(s)	65	59	703	378	2,152	3,233	719	–	–	18,644	–	R 40,587	–
1992	74	(s)	74	62	769	365	2,027	3,160	757	–	–	17,787	–	R 37,992	–
1993	92	2	94	67	779	396	2,347	3,522	573	–	–	19,223	–	40,615	–
1994	99	1	100	63	816	390	2,270	3,477	R 562	–	–	19,481	–	R 40,651	–
1995	46	0	46	66	781	415	2,260	3,455	R 624	–	–	20,537	–	R 42,785	–
1996	41	0	41	70	672	438	2,689	3,799	622	–	–	21,353	–	R 44,441	–
1997	124	(s)	124	66	697	486	2,689	3,871	453	–	–	20,998	–	43,608	–
	Trillion Btu														
1960	5.8	0.7	6.5	65.2	1.4	5.1	5.6	12.1	R 14.9	0.0	0.0	9.4	R 108.1	23.4	R 131.5
1965	3.8	0.4	4.3	65.9	1.6	9.4	6.4	17.4	R 11.2	0.0	0.0	12.8	R 111.6	30.7	R 142.3
1970	4.2	0.3	4.4	87.9	2.3	11.8	12.7	26.8	R 10.1	0.0	0.0	23.8	R 153.1	57.8	R 210.9
1975	2.3	0.1	2.4	79.8	2.6	6.1	13.9	22.6	R 10.8	0.0	0.0	32.7	R 148.3	78.9	R 227.2
1980	2.3	0.1	2.4	74.9	4.8	9.9	7.6	22.3	R 9.7	0.0	0.0	44.6	R 153.9	108.5	R 262.4
1985	2.1	0.0	2.1	61.9	4.8	4.7	5.7	15.2	R 23.9	0.0	0.0	49.6	R 152.8	116.6	R 269.4
1986	2.5	0.0	2.5	61.6	4.0	3.8	6.0	13.8	R 23.3	0.0	0.0	52.2	R 153.5	120.1	R 273.6
1987	2.4	(s)	2.5	61.3	4.4	2.5	8.6	15.6	R 19.5	0.0	0.0	54.9	R 153.7	125.4	R 279.1
1988	3.1	(s)	3.1	66.4	5.2	3.7	7.8	16.7	R 20.2	0.0	0.0	57.4	R 163.8	129.7	R 293.4
1989	2.0	(s)	2.0	67.6	4.3	3.3	8.2	15.8	R 21.0	[e] 0.2	R [e] (s)	57.7	R [e] 164.4	129.7	R [e] 294.1
1990	1.3	(s)	1.3	58.3	3.8	1.8	6.6	12.2	13.7	0.2	(s)	57.4	R 143.1	125.5	R 268.5
1991	1.6	(s)	1.6	62.3	4.1	2.1	7.8	14.0	14.4	0.3	(s)	63.6	R 156.1	138.5	R 294.6
1992	1.8	(s)	1.8	65.5	4.5	2.1	7.3	13.9	15.1	0.3	(s)	60.7	R 157.3	129.6	R 287.0
1993	2.3	(s)	2.3	70.1	4.5	2.2	8.5	15.2	11.5	0.3	(s)	65.6	R 165.1	138.6	R 303.6
1994	2.5	(s)	2.5	66.4	4.8	2.2	8.3	15.2	11.2	0.3	(s)	66.5	R 162.1	138.7	R 300.8
1995	1.1	0.0	1.1	72.5	4.5	2.4	8.2	15.1	12.5	0.3	(s)	70.1	R 171.6	146.0	R 317.6
1996	1.0	0.0	1.0	73.7	3.9	2.5	9.7	16.1	12.4	0.3	(s)	72.9	R 176.4	151.6	R 328.0
1997	2.9	(s)	2.9	69.4	4.1	2.8	9.7	16.5	9.1	0.3	(s)	71.6	169.8	148.8	318.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 121. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Kentucky

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	440	19	460	18	501	176	246	336	4	1,263	R 14	–	1,590	–	3,955	–
1965	292	12	305	21	576	325	281	268	8	1,459	R 11	–	2,166	–	5,171	–
1970	332	7	339	42	835	408	592	263	11	2,110	R 9	–	3,465	–	8,396	–
1975	183	4	187	38	915	211	660	275	7	2,069	R 10	–	6,489	–	15,652	–
1980	182	3	185	39	2,632	622	364	250	19	3,887	R 12	–	8,432	–	20,504	–
1985	162	0	162	34	1,521	92	280	377	1	2,271	NA	–	9,465	–	22,237	–
1986	190	0	190	33	1,024	149	291	404	32	1,900	NA	–	9,913	–	22,803	–
1987	185	1	186	33	533	67	416	419	1	1,436	NA	–	10,248	–	23,415	–
1988	235	(s)	235	36	976	143	379	404	39	1,940	NA	–	10,821	–	24,464	–
1989	154	(s)	154	36	649	164	392	393	(s)	1,598	NA	–	11,392	–	R 25,596	–
1990	98	(s)	98	32	656	94	322	445	(s)	1,517	NA	–	11,740	–	R 25,678	–
1991	121	(s)	122	34	716	102	380	319	0	1,516	NA	–	12,610	–	R 27,451	–
1992	138	(s)	138	35	878	58	358	277	0	1,570	NA	–	12,198	–	R 26,054	–
1993	171	1	172	38	662	78	414	40	2	1,197	R 46	–	12,606	–	26,634	–
1994	184	1	185	37	988	73	401	40	2	1,503	R 47	–	12,956	–	R 27,035	–
1995	85	0	85	39	1,203	117	399	42	0	1,762	R 47	–	13,521	–	R 28,168	–
1996	76	0	76	41	1,209	111	475	40	(s)	1,835	R 51	–	13,736	–	R 28,587	–
1997	230	(s)	230	39	989	113	475	40	0	1,617	44	–	15,238	–	31,645	–
	Trillion Btu															
1960	10.7	0.5	11.2	18.9	2.9	1.0	1.0	1.8	(s)	6.7	R 0.3	0.0	5.4	R 42.5	13.5	R 56.0
1965	7.1	0.3	7.4	21.9	3.4	1.8	1.1	1.4	(s)	7.8	R 0.2	0.0	7.4	R 44.7	17.6	R 62.4
1970	7.8	0.2	8.0	43.2	4.9	2.3	2.2	1.4	0.1	10.9	R 0.2	0.0	11.8	R 74.0	28.6	R 102.7
1975	4.3	0.1	4.3	38.8	5.3	1.2	2.5	1.4	(s)	10.5	R 0.2	0.0	22.1	R 76.0	53.4	R 129.4
1980	4.3	0.1	4.4	39.7	15.3	3.5	1.3	1.3	0.1	21.6	R 0.2	0.0	28.8	R 94.7	70.0	R 164.7
1985	3.9	0.0	3.9	34.8	8.9	0.5	1.0	2.0	(s)	12.4	NA	0.0	32.3	83.4	75.9	159.3
1986	4.7	0.0	4.7	33.9	6.0	0.8	1.1	2.1	0.2	10.2	NA	0.0	33.8	82.6	77.8	160.4
1987	4.5	(s)	4.6	34.5	3.1	0.4	1.5	2.2	(s)	7.2	NA	0.0	35.0	81.3	79.9	161.2
1988	5.7	(s)	5.7	37.0	5.7	0.8	1.4	2.1	0.2	10.2	NA	0.0	36.9	89.9	83.5	173.4
1989	3.6	(s)	3.6	37.6	3.8	0.9	1.4	2.1	(s)	8.2	NA	0.0	38.9	88.3	87.3	175.6
1990	2.4	(s)	2.4	33.1	3.8	0.5	1.2	2.3	(s)	7.9	NA	0.0	40.1	83.4	87.6	171.0
1991	3.0	(s)	3.0	35.3	4.2	0.6	1.4	1.7	0.0	7.8	NA	0.0	43.0	89.1	R 93.7	182.8
1992	3.4	(s)	3.4	37.5	5.1	0.3	1.3	1.5	0.0	8.2	NA	0.0	41.6	90.7	88.9	179.6
1993	4.2	(s)	4.3	39.6	3.9	0.4	1.5	0.2	(s)	6.0	R 0.9	0.0	43.0	R 93.9	90.9	R 184.7
1994	4.6	(s)	4.6	39.0	5.8	0.4	1.5	0.2	(s)	7.8	R 0.9	0.1	44.2	R 96.7	92.2	R 189.0
1995	2.1	0.0	2.1	42.3	7.0	0.7	1.4	0.2	0.0	9.3	R 0.9	0.1	46.1	R 101.0	96.1	R 197.1
1996	1.9	0.0	1.9	43.0	7.0	0.6	1.7	0.2	(s)	9.6	R 1.0	0.1	46.9	R 102.5	97.5	R 200.0
1997	5.4	(s)	5.4	40.6	5.8	0.6	1.7	0.2	0.0	8.3	0.9	0.2	52.0	107.3	108.0	215.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 122. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Kentucky

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	3,754	46	1,482	1,558	512	2,476	138	485	289	2,556	9,495	0	–	–	23,818	–	59,243	–
1965	4,879	58	2,112	1,987	397	3,957	346	430	536	4,382	14,148	0	–	–	20,893	–	49,884	–
1970	4,325	75	3,090	2,078	608	5,562	474	209	786	7,672	20,479	0	–	–	20,586	–	49,887	–
1975	2,898	66	2,622	3,346	293	6,511	518	195	2,059	9,178	24,721	0	–	–	31,006	–	74,790	–
1980	3,058	66	2,021	6,433	539	7,784	539	89	857	13,775	32,035	0	–	–	28,280	–	68,767	–
1985	3,732	63	1,872	5,622	582	3,574	490	843	621	7,509	21,114	0	–	–	26,564	–	62,409	–
1986	3,358	55	2,285	4,987	267	3,098	479	822	707	6,992	19,638	0	–	–	24,476	–	56,301	–
1987	3,228	58	2,701	5,456	136	3,904	542	845	851	8,555	22,992	0	–	–	24,459	–	55,887	–
1988	3,083	63	2,616	5,221	189	4,121	523	784	530	8,988	22,972	0	–	–	26,446	–	59,789	–
1989	3,542	66	2,764	4,787	196	3,641	536	839	473	8,816	22,055	[f] NA	–	–	30,173	–	[R] 67,793	–
1990	3,431	72	3,032	5,211	152	3,941	552	848	544	9,749	24,029	NA	–	–	32,543	–	[R] 71,180	–
1991	2,898	74	2,801	5,226	72	4,125	493	865	458	18,234	32,274	NA	–	–	32,939	–	[R] 71,704	–
1992	2,777	76	2,537	5,792	82	3,986	503	861	422	20,910	35,093	NA	–	–	37,084	–	[R] 79,210	–
1993	3,565	79	2,550	5,257	138	2,997	512	1,043	334	19,702	32,532	NA	–	–	36,320	–	76,737	–
1994	3,241	86	2,843	6,400	99	2,909	535	1,114	328	20,458	34,686	NA	–	–	40,049	–	[R] 83,571	–
1995	3,679	93	2,778	6,614	115	2,902	526	1,168	204	19,868	34,174	NA	–	–	40,490	–	[R] 84,354	–
1996	3,674	97	2,714	6,181	121	3,411	511	1,199	247	21,283	35,668	NA	–	–	41,930	–	[R] 87,264	–
1997	3,593	98	3,417	6,019	136	3,482	540	1,230	169	21,898	36,891	NA	–	–	40,600	–	84,315	–
			Trillion Btu															
1960	95.9	47.7	9.8	9.1	2.9	9.9	0.8	2.5	1.8	15.2	52.1	0.0	[R] 7.3	0.0	81.3	[R] 284.3	202.1	[R] 486.4
1965	123.9	60.0	14.0	11.6	2.3	15.9	2.1	2.3	3.4	25.1	76.5	0.0	[R] 10.2	0.0	71.3	[R] 342.0	170.2	[R] 512.2
1970	105.9	76.1	20.5	12.1	3.4	21.0	2.9	1.1	4.9	43.9	109.9	0.0	[R] 13.4	0.0	70.2	[R] 375.6	170.2	[R] 545.8
1975	71.1	66.6	17.4	19.5	1.7	24.2	3.1	1.0	12.9	52.7	132.6	0.0	[R] 19.8	0.0	105.8	[R] 395.9	255.2	[R] 651.1
1980	76.1	66.4	13.4	37.5	3.1	28.6	3.3	0.5	5.4	77.8	169.4	0.0	[R] 11.1	0.0	96.5	[R] 419.6	234.6	[R] 654.2
1985	94.2	65.1	12.4	32.8	3.3	12.9	3.0	4.4	3.9	43.8	116.5	0.0	[R] 13.0	0.0	90.6	[R] 379.4	212.9	[R] 592.4
1986	85.1	56.6	15.2	29.0	1.5	11.3	2.9	4.3	4.4	41.3	110.0	0.0	[R] 21.5	0.0	83.5	[R] 356.8	192.1	[R] 548.9
1987	82.8	59.9	17.9	31.8	0.8	14.3	3.3	4.4	5.4	50.3	128.1	0.0	[R] 21.4	0.0	83.5	[R] 375.7	190.7	[R] 566.3
1988	79.3	65.4	17.4	30.4	1.1	15.0	3.2	4.1	3.3	52.9	127.4	0.0	[R] 22.3	0.0	90.2	[R] 384.7	204.0	[R] 588.7
1989	90.3	68.9	18.3	27.9	1.1	13.4	3.3	4.4	3.0	51.7	123.1	[f] 0.0	[R f] 18.8	[f] 0.0	102.9	[R f] 404.1	[R] 231.3	[R f] 635.4
1990	87.1	74.4	20.1	30.4	0.9	14.3	3.3	4.5	3.4	57.3	134.1	0.0	[R] 11.3	0.0	111.0	[R] 418.0	242.9	[R] 660.8
1991	73.8	77.6	18.6	30.4	0.4	14.9	3.0	4.5	2.9	103.2	177.9	0.0	11.7	0.0	112.4	[R] 453.4	[R] 244.7	698.0
1992	71.3	80.9	16.8	33.7	0.5	14.4	3.1	4.5	2.7	118.2	193.9	0.0	[R] 12.3	0.0	126.5	[R] 484.9	270.3	[R] 755.1
1993	90.9	83.1	16.9	30.6	0.8	10.8	3.1	5.5	2.1	111.1	181.0	0.0	[R] 12.5	0.0	123.9	[R] 491.3	261.8	[R] 753.1
1994	82.8	91.2	18.9	37.3	0.6	10.6	3.2	5.8	2.1	115.5	193.9	0.0	[R] 13.7	0.0	136.6	[R] 518.2	285.1	[R] 803.4
1995	94.2	102.4	18.4	38.5	0.7	10.5	3.2	6.1	1.3	112.2	190.9	0.0	[R] 14.4	0.0	138.2	[R] 540.1	287.8	[R] 828.0
1996	93.7	101.7	18.0	36.0	0.7	12.3	3.1	6.3	1.6	119.9	197.9	0.0	[R] 15.0	0.0	143.1	[R] 551.4	[R] 297.7	[R] 849.1
1997	91.1	103.1	22.7	35.1	0.8	12.6	3.3	6.5	1.1	123.4	205.3	0.0	15.4	0.0	138.5	553.5	287.7	841.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 123. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Kentucky

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	60	19	652	2,549	497	34	405	20,715	35	24,886	0	0	–	0	–
1965	15	28	1,052	2,725	1,284	36	409	25,082	42	30,630	0	0	–	0	–
1970	7	36	330	4,891	3,089	54	368	33,109	145	41,986	0	0	–	0	–
1975	(s)	24	129	6,215	2,150	66	530	40,346	2	49,437	0	0	–	0	–
1980	0	21	112	12,795	2,897	13	518	39,490	136	55,961	0	0	–	0	–
1985	0	14	66	13,530	3,434	98	471	38,704	0	56,304	0	0	–	0	–
1986	0	20	85	13,488	3,549	81	461	41,291	0	58,955	0	0	–	0	–
1987	0	21	62	13,559	4,827	71	521	41,804	0	60,844	0	0	–	0	–
1988	0	21	62	17,407	4,985	73	503	42,945	0	65,974	0	0	–	0	–
1989	0	21	53	21,724	5,071	73	516	42,196	0	69,632	R e 20,720	0	–	0	–
1990	0	25	51	16,685	5,713	65	531	41,748	0	64,792	23,930	0	–	0	–
1991	0	20	51	15,793	6,368	52	475	42,583	0	65,322	18,969	0	–	0	–
1992	0	16	55	17,969	6,882	57	484	43,648	0	69,095	23,054	0	–	0	–
1993	0	19	40	21,040	5,705	56	493	44,674	0	72,008	25,728	0	–	0	–
1994	0	23	46	19,519	6,343	93	515	45,027	0	71,542	10,758	0	–	0	–
1995	0	25	44	20,228	6,305	47	506	46,894	0	74,024	5,332	0	–	0	–
1996	0	26	47	19,980	5,590	47	491	42,303	0	68,458	5,544	0	–	0	–
1997	0	23	28	21,364	4,556	42	519	48,904	0	75,414	6,791	0	–	0	–
			Trillion Btu												
1960	1.5	19.6	3.3	14.8	2.7	0.1	2.5	108.8	0.2	132.5	0.0	0.0	153.5	0.0	153.5
1965	0.4	28.4	5.3	15.9	7.2	0.1	2.5	131.8	0.3	163.0	0.0	0.0	191.8	0.0	191.8
1970	0.2	36.3	1.7	28.5	17.4	0.2	2.2	173.9	0.9	224.8	0.0	0.0	261.3	0.0	261.3
1975	(s)	23.7	0.6	36.2	12.1	0.2	3.2	211.9	(s)	264.4	0.0	0.0	288.1	0.0	288.1
1980	0.0	21.1	0.6	74.5	16.3	(s)	3.1	207.4	0.9	302.9	0.0	0.0	324.0	0.0	324.0
1985	0.0	14.7	0.3	78.8	19.3	0.4	2.9	203.3	0.0	305.0	0.0	0.0	319.8	0.0	319.8
1986	0.0	20.9	0.4	78.6	20.0	0.3	2.8	216.9	0.0	319.0	0.0	0.0	339.9	0.0	339.9
1987	0.0	22.2	0.3	79.0	27.3	0.3	3.2	219.6	0.0	329.6	0.0	0.0	351.8	0.0	351.8
1988	0.0	21.6	0.3	101.4	28.2	0.3	3.0	225.6	0.0	358.8	0.0	0.0	380.4	0.0	380.4
1989	0.0	21.4	0.3	126.5	28.7	0.3	3.1	221.7	0.0	380.5	R e 1.6	0.0	e 402.0	0.0	e 402.0
1990	0.0	25.6	0.3	97.2	32.3	0.2	3.2	219.3	0.0	352.5	1.8	0.0	378.1	0.0	378.1
1991	0.0	20.9	0.3	92.0	36.0	0.2	2.9	223.7	0.0	355.1	1.4	0.0	376.0	0.0	376.0
1992	0.0	16.8	0.3	104.7	38.9	0.2	2.9	229.3	0.0	376.3	1.8	0.0	393.1	0.0	393.1
1993	0.0	19.9	0.2	122.6	32.3	0.2	3.0	234.7	0.0	392.9	2.0	0.0	412.8	0.0	412.8
1994	0.0	24.3	0.2	113.7	35.9	0.3	3.1	236.5	0.0	389.8	0.8	0.0	414.1	0.0	414.1
1995	0.0	27.4	0.2	117.8	35.7	0.2	3.1	246.3	0.0	403.4	0.4	0.0	430.8	0.0	430.8
1996	0.0	27.8	0.2	116.4	31.7	0.2	3.0	222.2	0.0	373.7	0.4	0.0	401.5	0.0	401.5
1997	0.0	24.0	0.1	124.4	25.8	0.2	3.1	256.9	0.0	410.6	0.5	0.0	434.6	0.0	434.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 124. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Kentucky

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	7,466	0	7,466	2	9	(s)	0	10	0	2,633	0	0	0	–
1965	12,210	0	12,210	(s)	14	(s)	0	14	0	2,464	0	0	0	–
1970	18,698	0	18,698	9	121	4	0	124	0	3,174	0	0	0	–
1975	22,366	0	22,366	(s)	100	7	0	108	0	3,463	0	0	0	–
1980	24,383	0	24,383	2	0	227	0	227	0	2,940	0	0	0	–
1985	27,085	0	27,085	1	0	270	0	270	0	2,941	0	0	0	–
1986	28,535	0	28,535	(s)	0	236	0	236	0	2,734	0	0	0	–
1987	28,569	0	28,569	(s)	0	225	0	225	0	2,948	0	0	0	–
1988	31,818	0	31,818	(s)	0	202	0	202	0	2,423	0	0	0	–
1989	29,109	0	29,109	(s)	0	230	0	230	0	4,404	0	0	0	–
1990	30,867	0	30,867	(s)	0	212	0	212	0	3,160	0	0	0	–
1991	31,432	0	31,432	(s)	0	228	0	228	0	3,658	0	0	0	–
1992	31,715	0	31,715	(s)	0	195	0	195	0	3,767	0	0	0	–
1993	35,264	0	35,264	(s)	0	214	0	214	0	3,155	0	0	0	–
1994	34,564	0	34,564	(s)	0	317	0	317	0	4,014	0	0	0	–
1995	35,707	0	35,707	1	0	282	0	282	0	3,423	0	0	0	–
1996	37,071	0	37,071	2	0	308	0	308	0	3,497	0	0	0	–
1997	38,281	0	38,281	2	0	266	0	266	0	3,380	0	0	0	–
	Trillion Btu													
1960	171.5	0.0	171.5	2.4	0.1	(s)	0.0	0.1	0.0	28.3	0.0	0.0	0.0	202.3
1965	279.5	0.0	279.5	0.5	0.1	(s)	0.0	0.1	0.0	25.8	0.0	0.0	0.0	305.8
1970	408.6	0.0	408.6	8.7	0.8	(s)	0.0	0.8	0.0	33.3	0.0	0.0	0.0	451.3
1975	480.4	0.0	480.4	0.3	0.6	(s)	0.0	0.7	0.0	36.0	0.0	0.0	0.0	517.4
1980	558.8	0.0	558.8	1.9	0.0	1.3	0.0	1.3	0.0	30.5	0.0	0.0	0.0	592.6
1985	616.7	0.0	616.7	1.1	0.0	1.6	0.0	1.6	0.0	30.7	0.0	0.0	0.0	650.2
1986	657.6	0.0	657.6	0.4	0.0	1.4	0.0	1.4	0.0	28.6	0.0	0.0	0.0	688.0
1987	656.9	0.0	656.9	0.3	0.0	1.3	0.0	1.3	0.0	30.7	0.0	0.0	0.0	689.2
1988	733.6	0.0	733.6	0.5	0.0	1.2	0.0	1.2	0.0	25.0	0.0	0.0	0.0	760.3
1989	669.1	0.0	669.1	0.3	0.0	1.3	0.0	1.3	0.0	45.9	0.0	0.0	0.0	716.7
1990	713.5	0.0	713.5	0.3	0.0	1.2	0.0	1.2	0.0	32.9	0.0	0.0	0.0	747.9
1991	726.2	0.0	726.2	0.2	0.0	1.3	0.0	1.3	0.0	R 38.2	0.0	0.0	0.0	765.9
1992	737.1	0.0	737.1	0.3	0.0	1.1	0.0	1.1	0.0	39.0	0.0	0.0	0.0	777.4
1993	825.0	0.0	825.0	0.3	0.0	1.2	0.0	1.2	0.0	32.5	0.0	0.0	0.0	859.0
1994	807.6	0.0	807.6	0.4	0.0	1.8	0.0	1.8	0.0	41.4	0.0	0.0	0.0	851.2
1995	830.2	0.0	830.2	0.9	0.0	1.6	0.0	1.6	0.0	35.3	0.0	0.0	0.0	868.0
1996	855.3	0.0	855.3	1.9	0.0	1.8	0.0	1.8	0.0	R 36.1	0.0	0.0	0.0	895.1
1997	885.9	0.0	885.9	2.2	0.0	1.5	0.0	1.5	0.0	34.9	0.0	0.0	0.0	924.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 125. Energy Consumption Estimates by Source, Selected Years 1960-1997, Louisiana

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	0	970	2,201	847	10,710	3,207	927	21,646	1,259	22,550	8,769	16,736	88,852	0	0	–	–	-2,067	–
1965	(s)	1,110	2,539	1,055	8,357	6,097	803	31,150	1,483	27,404	7,889	22,547	109,325	0	0	–	–	362	–
1970	0	1,841	2,210	447	11,799	5,879	2,509	47,555	1,590	34,850	11,118	32,167	150,124	0	0	–	–	321	–
1975	0	1,789	2,812	295	21,502	6,082	2,418	52,953	1,826	43,192	28,410	54,576	214,065	0	0	–	–	2,064	–
1980	111	1,794	1,946	255	22,579	8,644	5,711	52,872	1,999	47,157	64,084	91,100	296,347	0	0	–	–	36,712	–
1985	9,217	1,386	1,835	171	33,602	12,803	187	70,430	1,819	49,302	24,717	53,471	248,339	2,457	0	–	–	64,216	–
1986	10,459	1,439	1,792	166	34,958	17,838	226	60,686	1,779	49,922	26,518	67,716	261,599	10,637	0	–	–	30,227	–
1987	10,391	1,501	2,275	132	36,641	18,874	72	53,296	2,011	48,217	24,093	72,876	258,487	12,324	0	–	–	31,746	–
1988	12,848	1,446	2,398	122	38,908	21,424	258	52,569	1,939	48,817	26,675	79,515	272,626	13,785	0	–	–	15,560	–
1989	12,471	1,538	2,315	115	37,049	22,321	168	50,617	1,989	46,885	26,075	79,668	267,202	12,391	[i] NA	–	–	[R] 29,481	–
1990	12,547	1,571	1,672	108	39,230	25,879	81	47,504	2,047	43,967	23,302	86,024	269,813	14,197	NA	–	–	[R] 19,845	–
1991	12,965	1,508	1,498	93	34,796	32,179	87	51,957	1,831	43,005	26,096	73,338	264,880	13,956	NA	–	–	[R] 24,032	–
1992	13,674	1,546	1,689	87	31,546	26,950	46	54,256	1,867	45,117	30,253	83,254	275,065	10,356	NA	–	–	[R] 29,854	–
1993	13,676	1,578	1,860	219	35,151	25,124	62	55,642	1,901	46,073	27,878	81,920	275,830	14,398	NA	–	–	23,023	–
1994	14,100	1,624	1,682	132	38,762	32,225	49	67,586	1,987	45,627	24,555	84,052	296,655	12,779	NA	–	–	[R] 24,861	–
1995	13,357	1,718	1,652	87	32,699	28,853	37	66,974	1,953	47,247	23,418	80,401	283,321	15,686	NA	–	–	[R] 15,215	–
1996	12,534	1,664	1,720	81	39,288	29,030	54	68,385	1,895	50,871	26,988	89,318	307,630	15,765	NA	–	–	[R] 45,225	–
1997	13,874	1,659	5,289	98	35,276	30,459	122	69,078	2,002	46,918	21,961	92,783	303,986	13,511	NA	–	–	39,572	–
			Trillion Btu																
1960	0.0	1,003.8	14.6	4.3	62.4	17.4	5.3	86.8	7.6	118.5	55.1	100.3	472.2	0.0	0.0	[R] 39.0	0.0	-7.1	[R] 1,507.9
1965	(s)	1,156.4	16.8	5.3	48.7	33.8	4.6	124.9	9.0	144.0	49.6	134.1	570.8	0.0	0.0	[R] 38.3	0.0	1.2	[R] 1,766.8
1970	0.0	1,894.2	14.7	2.3	68.7	32.6	14.2	179.7	9.6	183.1	69.9	189.7	764.5	0.0	0.0	[R] 41.6	0.0	1.1	[R] 2,701.4
1975	0.0	1,854.8	18.7	1.5	125.2	33.9	13.7	196.7	11.1	226.9	178.6	318.3	1,124.6	0.0	0.0	[R] 42.4	0.0	7.0	[R] 3,028.8
1980	2.5	1,862.2	12.9	1.3	131.5	48.4	32.4	194.3	12.1	247.7	402.9	521.2	1,604.7	0.0	0.0	[R] 60.6	0.0	125.3	[R] 3,655.2
1985	159.1	1,441.8	12.2	0.9	195.7	72.0	1.1	253.8	11.0	259.0	155.4	313.0	1,274.0	26.6	0.0	[R] 63.9	0.0	219.1	[R] 3,184.5
1986	171.9	1,496.1	11.9	0.8	203.6	100.5	1.3	220.9	10.8	262.2	166.7	393.1	1,371.9	114.9	0.0	[R] 88.5	0.0	103.1	[R] 3,346.5
1987	172.4	1,560.7	15.1	0.7	213.4	106.3	0.4	195.0	12.2	253.3	151.5	419.2	1,367.2	132.8	0.0	[R] 89.7	0.0	108.3	[R] 3,431.0
1988	212.1	1,506.4	15.9	0.6	226.6	120.7	1.5	192.0	11.8	256.4	167.7	457.9	1,451.1	148.1	0.0	[R] 93.3	0.0	53.1	[R] 3,464.1
1989	207.0	1,604.6	15.4	0.6	215.8	125.8	1.0	186.4	12.1	246.3	163.9	456.4	1,423.6	132.9	[i] 0.0	[R i] 105.4	[R i] 0.2	[R] 100.6	[R i] 3,573.7
1990	208.5	1,636.9	11.1	0.5	228.5	146.1	0.5	172.2	12.4	231.0	146.5	492.4	1,441.2	151.6	6.9	[R] 103.5	[R] 0.2	67.7	[R] 3,615.8
1991	214.3	1,579.0	9.9	0.5	202.7	181.9	0.5	187.8	11.1	225.9	164.1	422.5	1,406.8	149.9	6.9	[R] 111.1	[R] 0.2	[R] 82.0	[R] 3,549.6
1992	223.5	1,613.8	11.2	0.4	183.8	152.3	0.3	196.6	11.3	237.0	190.2	477.1	1,460.2	110.6	[R] 6.9	[R] 115.4	[R] 0.2	[R] 101.9	[R] 3,631.8
1993	222.7	1,636.8	12.3	1.1	204.8	142.0	0.4	200.6	11.5	242.0	175.3	471.1	1,461.1	153.8	12.8	[R] 116.7	[R] 0.2	78.6	[R] 3,682.0
1994	230.8	1,688.7	11.2	0.7	225.8	182.6	0.3	245.7	12.1	239.7	154.4	481.9	1,554.1	136.4	10.1	[R] 118.5	[R] 0.3	84.8	[R] 3,822.8
1995	217.5	1,778.0	11.0	0.4	190.5	163.6	0.2	242.6	11.8	248.2	147.2	460.9	1,476.5	167.2	9.9	[R] 122.8	[R] 0.3	[R] 51.9	[R] 3,823.5
1996	205.6	1,737.7	11.4	0.4	228.9	164.6	0.3	247.1	11.5	267.2	169.7	511.1	1,612.2	167.5	[R] 10.1	[R] 127.8	[R] 0.4	154.3	[R] 4,015.3
1997	225.4	1,855.0	35.1	0.5	205.5	172.7	0.7	249.8	12.1	246.5	138.1	531.2	1,592.1	143.5	15.3	126.3	0.4	135.0	4,093.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 126. Residential Energy Consumption Estimates, Selected Years 1960-1997, Louisiana

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	56	11	7	1,567	1,585	R 453	–	–	3,014	–	7,498	–
1965	0	0	0	61	6	14	2,159	2,178	R 304	–	–	5,161	–	12,323	–
1970	0	0	0	86	6	20	2,709	2,735	R 219	–	–	9,334	–	22,620	–
1975	0	0	0	96	10	21	2,086	2,117	R 257	–	–	11,923	–	28,761	–
1980	1	0	1	73	5	0	1,147	1,152	R 552	–	–	16,832	–	40,930	–
1985	0	0	0	61	8	18	989	1,014	R 308	–	–	20,168	–	47,383	–
1986	0	(s)	(s)	58	9	16	1,060	1,084	R 300	–	–	20,263	–	46,611	–
1987	0	0	0	61	2	10	1,012	1,024	R 375	–	–	19,986	–	45,667	–
1988	0	(s)	(s)	60	2	12	963	977	R 389	–	–	20,134	–	45,518	–
1989	0	0	0	58	8	32	904	944	R 404	–	–	20,515	–	R 46,093	–
1990	0	0	0	53	9	13	774	797	421	–	–	21,434	–	R 46,880	–
1991	0	(s)	(s)	55	2	14	825	840	444	–	–	21,577	–	R 46,970	–
1992	0	0	0	55	(s)	9	1,058	1,067	467	–	–	21,188	–	R 45,257	–
1993	0	1	1	57	(s)	7	712	719	408	–	–	22,430	–	47,391	–
1994	0	0	0	53	13	5	683	701	400	–	–	22,629	–	R 47,220	–
1995	2	0	2	53	1	9	626	636	444	–	–	24,116	–	R 50,242	–
1996	0	0	0	57	1	17	791	809	443	–	–	24,311	–	R 50,596	–
1997	(s)	0	(s)	53	(s)	92	791	883	322	–	–	24,502	–	50,884	–
	Trillion Btu														
1960	0.0	0.0	0.0	57.8	0.1	(s)	6.3	6.4	R 9.1	0.0	0.0	10.3	R 83.5	25.6	R 109.1
1965	0.0	0.0	0.0	63.6	(s)	0.1	8.7	8.8	R 6.1	0.0	0.0	17.6	R 96.1	42.0	R 138.1
1970	0.0	0.0	0.0	88.6	(s)	0.1	10.2	10.4	R 4.4	0.0	0.0	31.8	R 135.3	77.2	R 212.4
1975	0.0	0.0	0.0	99.3	0.1	0.1	7.7	7.9	R 5.1	0.0	0.0	40.7	R 153.0	98.1	R 251.1
1980	(s)	0.0	(s)	75.8	(s)	0.0	4.2	4.2	R 11.0	0.0	0.0	57.4	R 148.6	139.7	R 288.2
1985	0.0	0.0	0.0	63.0	(s)	0.1	3.6	3.7	R 6.2	0.0	0.0	68.8	R 141.7	161.7	R 303.3
1986	0.0	(s)	(s)	60.4	0.1	0.1	3.9	4.0	R 6.0	0.0	0.0	69.1	R 139.5	159.0	R 298.6
1987	0.0	0.0	0.0	63.8	(s)	0.1	3.7	3.8	R 7.5	0.0	0.0	68.2	R 143.3	155.8	R 299.1
1988	0.0	(s)	(s)	62.2	(s)	0.1	3.5	3.6	R 7.8	0.0	0.0	68.7	R 142.3	155.3	R 297.6
1989	0.0	0.0	0.0	60.2	(s)	0.2	3.3	3.6	R 8.1	e 0.1	R e 0.1	70.0	R e 142.0	R 157.3	R e 299.2
1990	0.0	0.0	0.0	55.6	0.1	0.1	2.8	2.9	8.4	0.1	0.1	73.1	R 140.3	R 160.0	R 300.2
1991	0.0	(s)	(s)	57.2	(s)	0.1	3.0	3.1	8.9	0.1	0.1	73.6	R 143.0	R 160.3	R 303.2
1992	0.0	0.0	0.0	57.7	(s)	0.1	3.8	3.9	9.3	0.1	0.1	72.3	R 143.4	154.4	R 297.8
1993	0.0	(s)	(s)	58.6	(s)	(s)	2.6	2.6	8.2	0.2	0.1	76.5	R 146.2	161.7	R 307.9
1994	0.0	0.0	0.0	55.0	0.1	(s)	2.5	2.6	8.0	0.1	0.1	77.2	R 143.0	161.1	R 304.1
1995	(s)	0.0	(s)	54.3	(s)	0.1	2.3	2.3	8.9	0.1	0.1	82.3	R 148.1	171.4	R 319.5
1996	0.0	0.0	0.0	59.1	(s)	0.1	2.9	3.0	8.9	0.2	0.1	82.9	R 154.1	172.6	R 326.8
1997	(s)	0.0	(s)	59.8	(s)	0.5	2.9	3.4	6.4	0.2	0.1	83.6	153.5	173.6	327.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 127. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Louisiana

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	23	1,604	156	276	259	304	2,599	R 9	–	2,493	–	R 6,202	–
1965	0	0	0	23	815	305	381	299	206	2,006	R 6	–	4,890	–	R 11,675	–
1970	0	0	0	70	838	445	478	381	502	2,645	R 4	–	8,427	–	R 20,421	–
1975	0	0	0	51	1,458	467	368	465	1,830	4,588	R 5	–	9,225	–	22,253	–
1980	3	0	3	40	399	549	202	168	13,466	14,784	R 13	–	12,809	–	31,147	–
1985	0	0	0	30	3,743	65	174	235	575	4,793	NA	–	16,548	–	R 38,877	–
1986	0	(s)	(s)	28	4,029	21	187	239	231	4,707	NA	–	R 16,552	–	R 38,075	–
1987	0	0	0	28	1,880	21	179	249	267	2,596	NA	–	16,181	–	R 36,971	–
1988	0	(s)	(s)	27	1,296	110	170	237	215	2,028	NA	–	R 16,315	–	R 36,885	–
1989	0	0	0	27	845	35	159	222	253	1,515	NA	–	R 16,562	–	R 37,212	–
1990	0	0	0	25	1,091	21	137	318	40	1,606	NA	–	16,528	–	R 36,150	–
1991	0	(s)	(s)	25	899	22	146	258	121	1,445	NA	–	16,541	–	R 36,007	–
1992	0	0	0	28	606	10	187	245	6	1,054	NA	–	R 16,441	–	35,118	–
1993	0	(s)	(s)	25	865	26	126	41	(s)	1,057	R 33	–	16,884	–	R 35,672	–
1994	0	0	0	24	865	13	121	41	0	1,039	R 33	–	R 17,630	–	R 36,790	–
1995	3	0	3	24	213	6	110	41	0	370	R 33	–	18,016	–	R 37,532	–
1996	0	0	0	26	118	7	140	41	1	307	R 36	–	R 18,411	–	R 38,317	–
1997	(s)	0	(s)	26	222	3	140	41	0	405	31	–	18,888	–	39,227	–
	Trillion Btu															
1960	0.0	0.0	0.0	24.3	9.3	0.9	1.1	1.4	1.9	14.6	R 0.2	0.0	8.5	R 47.6	21.2	R 68.8
1965	0.0	0.0	0.0	23.5	4.7	1.7	1.5	1.6	1.3	10.9	R 0.1	0.0	16.7	R 51.2	39.8	R 91.0
1970	0.0	0.0	0.0	72.4	4.9	2.5	1.8	2.0	3.2	14.4	R 0.1	0.0	28.8	R 115.6	69.7	185.2
1975	0.0	0.0	0.0	52.3	8.5	2.6	1.4	2.4	11.5	26.5	R 0.1	0.0	31.5	R 110.3	75.9	R 186.2
1980	0.1	0.0	0.1	41.5	2.3	3.1	0.7	0.9	84.7	91.7	R 0.3	0.0	43.7	R 177.2	106.3	R 283.5
1985	0.0	0.0	0.0	31.4	21.8	0.4	0.6	1.2	3.6	27.7	NA	0.0	56.5	115.5	R 132.6	248.1
1986	0.0	(s)	(s)	29.1	23.5	0.1	0.7	1.3	1.5	27.0	NA	0.0	56.5	112.5	129.9	242.4
1987	0.0	0.0	0.0	28.9	10.9	0.1	0.7	1.3	1.7	14.7	NA	0.0	55.2	98.9	R 126.1	225.0
1988	0.0	(s)	(s)	28.6	7.6	0.6	0.6	1.2	1.3	11.4	NA	0.0	55.7	95.7	125.9	221.5
1989	0.0	0.0	0.0	28.3	4.9	0.2	0.6	1.2	1.6	8.5	NA	0.0	56.5	93.3	R 127.0	R 220.3
1990	0.0	0.0	0.0	26.0	6.4	0.1	0.5	1.7	0.3	8.9	NA	0.0	56.4	R 91.2	123.3	214.6
1991	0.0	(s)	(s)	26.7	5.2	0.1	0.5	1.4	0.8	8.0	NA	0.0	56.4	91.1	R 122.9	214.0
1992	0.0	0.0	0.0	29.7	3.5	0.1	0.7	1.3	(s)	5.6	NA	0.0	56.1	91.4	119.8	211.2
1993	0.0	(s)	(s)	26.1	5.0	0.1	0.5	0.2	(s)	5.9	R 0.7	0.0	57.6	R 90.2	121.7	R 211.9
1994	0.0	0.0	0.0	25.1	5.0	0.1	0.4	0.2	0.0	5.8	R 0.7	0.1	60.2	R 91.8	125.5	R 217.3
1995	0.1	0.0	0.1	24.6	1.2	(s)	0.4	0.2	0.0	1.9	R 0.7	0.1	61.5	R 88.8	R 128.1	R 216.9
1996	0.0	0.0	0.0	26.9	0.7	(s)	0.5	0.2	(s)	1.5	R 0.7	0.1	62.8	R 92.0	130.7	R 222.8
1997	(s)	0.0	(s)	29.1	1.3	(s)	0.5	0.2	0.0	2.0	0.6	0.2	64.4	96.3	133.8	230.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 128. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Louisiana

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	0	739	2,201	3,383	764	19,606	559	562	485	16,736	44,296	0	–	–	4,326	–	10,761	–
1965	0	797	2,539	3,129	484	28,451	821	548	353	22,547	58,873	0	–	–	5,905	–	14,100	–
1970	0	1,281	2,210	4,241	2,044	44,017	1,052	302	819	32,167	86,852	0	–	–	11,637	–	28,201	–
1975	0	1,224	2,812	6,391	1,931	50,191	1,299	173	4,046	54,576	121,419	0	–	–	14,969	–	36,108	–
1980	107	1,182	1,946	8,543	5,162	51,364	1,278	62	12,363	91,100	171,819	0	–	–	23,233	–	56,495	–
1985	457	968	1,835	9,540	104	69,158	1,163	486	6,806	53,471	142,563	0	–	–	23,952	–	56,274	–
1986	263	1,039	1,792	11,931	189	59,345	1,137	393	1,747	67,716	144,249	0	–	–	22,474	–	51,696	–
1987	362	1,113	2,275	13,422	41	52,014	1,286	374	2,183	72,876	144,472	0	–	–	22,986	–	52,521	–
1988	547	1,052	2,398	14,068	136	51,355	1,240	344	2,872	79,515	151,929	0	–	–	23,559	–	53,261	–
1989	702	1,159	2,315	11,903	101	49,482	1,272	292	1,423	79,668	146,455	[f] NA	–	–	24,762	–	[R] 55,636	–
1990	799	1,168	1,672	13,455	47	46,519	1,309	337	1,146	86,024	150,509	NA	–	–	25,862	–	[R] 56,566	–
1991	559	1,120	1,498	12,826	52	50,912	1,171	356	1,125	73,338	141,278	NA	–	–	26,584	–	[R] 57,870	–
1992	597	1,153	1,689	11,390	27	52,948	1,194	345	1,003	82,381	150,976	NA	–	–	27,466	–	[R] 58,668	–
1993	586	1,196	1,860	12,251	29	54,735	1,216	656	311	79,170	150,228	NA	–	–	28,439	–	60,086	–
1994	621	1,206	1,682	13,525	31	66,667	1,271	796	232	83,141	167,344	NA	–	–	29,870	–	[R] 62,330	–
1995	422	1,254	1,652	9,383	22	66,176	1,249	771	388	80,401	160,042	NA	–	–	30,692	–	[R] 63,941	–
1996	84	1,262	1,720	10,995	30	67,406	1,212	773	757	89,318	172,211	NA	–	–	32,544	–	[R] 67,731	–
1997	67	1,232	5,289	8,965	27	68,104	1,280	825	1,034	92,783	178,307	NA	–	–	32,493	–	67,479	–
			Trillion Btu															
1960	0.0	764.9	14.6	19.7	4.3	78.6	3.4	3.0	3.0	100.3	226.9	0.0	[R] 29.8	0.0	14.8	[R] 1,036.4	36.7	[R] 1,073.1
1965	0.0	830.0	16.8	18.2	2.7	114.1	5.0	2.9	2.2	134.1	296.1	0.0	[R] 32.1	0.0	20.1	[R] 1,178.4	48.1	[R] 1,226.5
1970	0.0	1,318.4	14.7	24.7	11.6	166.3	6.4	1.6	5.1	189.7	420.1	0.0	[R] 37.2	0.0	39.7	[R] 1,815.4	96.2	[R] 1,911.6
1975	0.0	1,263.1	18.7	37.2	10.9	186.5	7.9	0.9	25.4	318.3	605.8	0.0	[R] 37.1	0.0	51.1	[R] 1,957.1	123.2	[R] 2,080.3
1980	2.4	1,225.4	12.9	49.8	29.3	188.7	7.8	0.3	77.7	521.2	887.6	0.0	[R] 49.3	0.0	79.3	[R] 2,244.0	192.8	[R] 2,436.8
1985	11.0	1,005.1	12.2	55.6	0.6	249.2	7.1	2.6	42.8	313.0	682.9	0.0	[R] 57.8	0.0	81.7	[R] 1,838.5	192.0	[R] 2,030.5
1986	6.3	1,079.1	11.9	69.5	1.1	216.0	6.9	2.1	11.0	393.1	711.6	0.0	[R] 82.5	0.0	76.7	[R] 1,956.2	176.4	[R] 2,132.6
1987	8.7	1,157.0	15.1	78.2	0.2	190.3	7.8	2.0	13.7	419.2	726.6	0.0	[R] 82.2	0.0	78.4	[R] 2,052.8	179.2	[R] 2,232.0
1988	10.5	1,095.1	15.9	81.9	0.8	187.5	7.5	1.8	18.1	457.9	771.4	0.0	[R] 85.5	0.0	80.4	[R] 2,043.0	181.7	[R] 2,224.7
1989	14.2	1,208.4	15.4	69.3	0.6	182.2	7.7	1.5	8.9	456.4	742.1	[f] 0.0	[R f] 96.7	[f] 0.0	84.5	[R f] 2,146.0	189.8	[R f] 2,335.8
1990	16.0	1,216.4	11.1	78.4	0.3	168.6	7.9	1.8	7.2	492.4	767.7	6.9	[R] 94.4	0.0	88.2	[R] 2,189.6	193.0	[R] 2,382.6
1991	10.3	1,174.0	9.9	74.7	0.3	184.0	7.1	1.9	7.1	422.5	707.5	6.9	[R] 101.7	0.0	90.7	[R] 2,091.0	[R] 197.5	[R] 2,288.4
1992	11.1	1,204.1	11.2	66.3	0.2	191.9	7.2	1.8	6.3	471.8	756.8	[R] 6.9	[R] 105.4	0.0	93.7	[R] 2,178.0	200.2	[R] 2,378.2
1993	10.8	1,239.4	12.3	71.4	0.2	197.4	7.4	3.4	2.0	454.5	748.5	12.8	[R] 107.2	0.0	97.0	[R] 2,215.8	205.0	[R] 2,420.8
1994	11.4	1,253.0	11.2	78.8	0.2	242.3	7.7	4.2	1.5	476.4	822.2	10.1	[R] 108.9	0.0	101.9	[R] 2,307.5	[R] 212.7	[R] 2,520.2
1995	7.7	1,295.4	11.0	54.7	0.1	239.8	7.6	4.1	2.4	460.9	780.5	9.9	[R] 112.7	0.0	104.7	[R] 2,310.8	[R] 218.2	[R] 2,529.0
1996	2.1	1,317.9	11.4	64.0	0.2	243.5	7.4	4.1	4.8	511.1	846.5	[R] 10.1	[R] 118.1	0.0	111.0	[R] 2,405.7	231.1	[R] 2,636.8
1997	1.7	1,397.6	35.1	52.2	0.2	246.3	7.8	4.3	6.5	531.2	883.5	15.3	119.2	0.0	110.9	2,528.1	230.2	2,758.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 129. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Louisiana

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	0	32	847	5,690	3,207	197	700	21,729	7,944	40,314	0	R 25	–	R 63	–
1965	0	54	1,055	4,387	6,097	159	661	26,557	7,297	46,213	0	7	–	17	–
1970	0	71	447	6,655	5,879	350	539	34,167	9,699	57,736	0	R 4	–	R 8	–
1975	0	61	295	13,554	6,082	307	527	42,554	16,835	80,154	0	3	–	R 6	–
1980	0	74	255	12,457	8,644	159	721	46,927	31,159	100,321	0	3	–	R 8	–
1985	0	42	171	20,179	12,803	109	656	48,581	17,277	99,777	0	3	–	R 7	–
1986	0	46	166	18,913	17,838	94	641	49,290	23,908	110,850	0	3	–	R 7	–
1987	0	51	132	21,269	18,874	91	725	47,594	21,593	110,278	0	R 3	–	R 7	–
1988	0	57	122	23,395	21,424	81	699	48,236	23,192	117,150	0	3	–	R 7	–
1989	0	50	115	23,997	22,321	71	717	46,372	24,174	117,767	R e 7,475	2	–	R 5	–
1990	0	56	108	24,516	25,879	73	738	43,312	22,041	116,667	8,633	R 3	–	R 6	–
1991	0	54	93	20,997	32,179	74	660	42,391	24,835	121,229	6,843	R 3	–	R 6	–
1992	0	54	87	19,475	26,950	64	673	44,527	29,226	121,001	8,317	3	–	R 6	–
1993	0	56	219	21,966	25,124	69	685	45,377	26,933	120,373	9,282	R 3	–	R 6	–
1994	0	63	132	24,261	32,225	115	716	44,791	23,987	126,226	12,980	3	–	R 7	–
1995	0	65	87	23,024	28,853	61	704	46,434	23,016	122,181	7,647	3	–	R 7	–
1996	0	68	81	27,976	29,030	48	683	50,057	25,922	133,796	1,840	3	–	R 7	–
1997	0	72	98	26,003	30,459	44	722	46,053	19,902	123,280	800	3	–	6	–
			Trillion Btu												
1960	0.0	32.8	4.3	33.1	17.4	0.8	4.2	114.1	49.9	223.9	0.0	0.1	256.8	0.2	257.0
1965	0.0	56.4	5.3	25.6	33.8	0.6	4.0	139.5	45.9	254.7	0.0	(s)	311.1	0.1	311.1
1970	0.0	73.4	2.3	38.8	32.6	1.3	3.3	179.5	61.0	318.7	0.0	(s)	392.1	(s)	392.1
1975	0.0	63.0	1.5	79.0	33.9	1.1	3.2	223.5	105.8	448.0	0.0	(s)	511.0	(s)	511.1
1980	0.0	77.0	1.3	72.6	48.4	0.6	4.4	246.5	195.9	569.6	0.0	(s)	646.6	(s)	646.7
1985	0.0	43.9	0.9	117.5	72.0	0.4	4.0	255.2	108.6	558.6	0.0	(s)	602.5	(s)	602.5
1986	0.0	47.8	0.8	110.2	100.5	0.3	3.9	258.9	150.3	625.0	0.0	(s)	672.9	(s)	672.9
1987	0.0	53.5	0.7	123.9	106.3	0.3	4.4	250.0	135.8	621.4	0.0	(s)	674.9	(s)	674.9
1988	0.0	58.9	0.6	136.3	120.7	0.3	4.2	253.4	145.8	661.4	0.0	(s)	720.3	(s)	720.3
1989	0.0	52.0	0.6	139.8	125.8	0.3	4.3	243.6	152.0	666.4	R e 0.6	(s)	e 718.4	(s)	e 718.4
1990	0.0	58.1	0.5	142.8	146.1	0.3	4.5	227.5	138.6	660.3	0.7	(s)	718.4	(s)	718.4
1991	0.0	56.2	0.5	122.3	181.9	0.3	4.0	222.7	156.1	687.7	0.5	(s)	743.9	(s)	744.0
1992	0.0	56.4	0.4	113.4	152.3	0.2	4.1	233.9	183.7	688.1	0.6	(s)	744.5	(s)	744.6
1993	0.0	58.2	1.1	128.0	142.0	0.2	4.2	238.4	169.3	683.2	0.7	(s)	741.4	(s)	741.4
1994	0.0	65.7	0.7	141.3	182.6	0.4	4.3	235.3	150.8	715.4	1.0	(s)	781.1	(s)	781.2
1995	0.0	66.9	0.4	134.1	163.6	0.2	4.3	243.9	144.7	691.2	0.6	(s)	758.1	(s)	758.2
1996	0.0	70.8	0.4	163.0	164.6	0.2	4.1	263.0	163.0	758.2	0.1	(s)	829.0	(s)	829.0
1997	0.0	81.2	0.5	151.5	172.7	0.2	4.4	241.9	125.1	696.2	0.1	(s)	777.4	(s)	777.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 130. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Louisiana

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	120	36	22	0	58	0	0	0	0	0	–
1965	(s)	0	(s)	176	34	20	0	54	0	0	0	0	0	–
1970	0	0	0	332	98	58	0	156	0	0	0	0	0	–
1975	0	0	0	356	5,699	88	0	5,787	0	0	0	0	0	–
1980	0	0	0	425	7,096	1,174	0	8,270	0	0	0	0	0	–
1985	8,760	0	8,760	285	59	132	0	191	2,457	0	0	0	0	–
1986	10,196	0	10,196	268	631	77	0	709	10,637	0	0	0	0	–
1987	10,029	0	10,029	247	49	69	0	118	12,324	0	0	0	0	–
1988	12,301	0	12,301	250	396	147	0	543	13,785	0	0	0	0	–
1989	11,770	0	11,770	245	225	297	0	521	12,391	0	0	0	0	–
1990	11,748	0	11,748	269	75	159	0	234	14,197	0	0	0	0	–
1991	12,406	0	12,406	254	16	73	0	89	13,956	0	0	0	0	–
1992	13,077	0	13,077	255	18	75	873	966	10,356	0	0	0	0	–
1993	13,089	0	13,089	244	634	69	2,749	3,452	14,398	0	0	0	0	–
1994	13,479	0	13,479	277	336	98	911	1,345	12,779	0	0	0	0	–
1995	12,930	0	12,930	323	13	78	0	91	15,686	0	0	0	0	–
1996	12,450	0	12,450	252	308	198	0	507	15,765	0	0	0	0	–
1997	13,807	0	13,807	277	1,024	86	0	1,111	13,511	0	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	124.0	0.2	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	124.4
1965	(s)	0.0	(s)	182.9	0.2	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	183.3
1970	0.0	0.0	0.0	341.4	0.6	0.3	0.0	1.0	0.0	0.0	0.0	0.0	0.0	342.3
1975	0.0	0.0	0.0	377.1	35.8	0.5	0.0	36.3	0.0	0.0	0.0	0.0	0.0	413.5
1980	0.0	0.0	0.0	442.4	44.6	6.8	0.0	51.5	0.0	0.0	0.0	0.0	0.0	493.9
1985	148.1	0.0	148.1	298.4	0.4	0.8	0.0	1.1	26.6	0.0	0.0	0.0	0.0	474.3
1986	165.6	0.0	165.6	279.6	4.0	0.5	0.0	4.4	114.9	0.0	0.0	0.0	0.0	564.5
1987	163.7	0.0	163.7	257.5	0.3	0.4	0.0	0.7	132.8	0.0	0.0	0.0	0.0	554.7
1988	201.5	0.0	201.5	261.6	2.5	0.9	0.0	3.3	148.1	0.0	0.0	0.0	0.0	614.6
1989	192.7	0.0	192.7	255.8	1.4	1.7	0.0	3.1	132.9	0.0	0.0	0.0	0.0	584.5
1990	192.5	0.0	192.5	280.8	0.5	0.9	0.0	1.4	151.6	0.0	0.0	0.0	0.0	626.4
1991	204.0	0.0	204.0	264.9	0.1	0.4	0.0	0.5	149.9	0.0	0.0	0.0	0.0	619.4
1992	212.4	0.0	212.4	265.9	0.1	0.4	5.3	5.8	110.6	0.0	0.0	0.0	0.0	594.7
1993	211.8	0.0	211.8	254.5	4.0	0.4	16.6	20.9	153.8	0.0	0.0	0.0	0.0	641.1
1994	219.3	0.0	219.3	289.9	2.1	0.6	5.5	8.2	136.4	0.0	0.0	0.0	0.0	653.8
1995	209.7	0.0	209.7	336.8	0.1	0.5	0.0	0.5	167.2	0.0	0.0	0.0	0.0	714.2
1996	203.5	0.0	203.5	263.0	1.9	1.2	0.0	3.1	167.5	0.0	0.0	0.0	0.0	637.0
1997	223.7	0.0	223.7	287.4	6.4	0.5	0.0	6.9	143.5	0.0	0.0	0.0	0.0	661.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 131. Energy Consumption Estimates by Source, Selected Years 1960-1997, Maine

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	794	0	729	57	7,415	1,904	2,294	442	175	8,378	5,408	10	26,811	0	2,993	–	–	-489	–
1965	316	0	745	89	9,220	1,812	2,052	550	169	9,131	6,340	25	30,132	0	2,290	–	–	-360	–
1970	91	1	701	93	11,822	2,300	1,783	635	169	11,025	11,605	72	40,206	0	3,369	–	–	928	–
1975	56	2	696	71	11,505	1,988	1,036	963	167	12,645	9,929	0	39,001	4,502	4,100	–	–	-7,464	–
1980	124	2	435	82	10,628	1,875	504	874	196	11,768	8,557	0	34,919	4,404	6,176	–	–	-8,605	–
1985	206	3	2,185	41	9,581	1,639	1,042	674	179	12,548	7,900	0	35,789	5,354	3,379	–	–	2,200	–
1986	375	2	734	58	11,495	1,615	669	1,038	175	13,436	12,812	0	42,031	6,242	5,582	–	–	-8,279	–
1987	273	3	852	53	11,961	1,813	710	1,303	197	14,105	9,252	0	40,246	4,043	6,421	–	–	-2,208	–
1988	277	3	1,586	66	13,714	2,103	999	1,608	190	15,368	12,129	0	47,764	5,017	5,930	–	–	-3,098	–
1989	271	4	1,000	68	12,269	2,249	946	1,570	195	14,194	11,888	0	44,379	6,942	[i] NA	–	–	[R] -5,528	–
1990	265	4	645	62	11,993	2,528	657	1,391	201	14,126	10,709	0	42,312	4,861	NA	–	–	[R] 1,421	–
1991	374	5	988	42	10,366	2,374	743	1,475	180	14,125	10,196	145	40,634	6,264	NA	–	–	[R] -304	–
1992	856	5	1,064	41	10,899	1,904	553	1,234	183	14,123	9,647	151	39,800	5,358	NA	–	–	[R] 3,490	–
1993	449	5	1,083	37	12,767	1,488	967	1,368	187	14,391	9,353	153	41,794	5,740	NA	–	–	5,422	–
1994	464	5	480	35	13,581	992	982	1,383	195	14,512	11,486	158	43,805	6,632	NA	–	–	[R] -1,834	–
1995	282	5	482	35	14,513	841	1,281	1,545	192	14,368	9,537	153	42,946	198	NA	–	–	[R] 13,050	–
1996	234	6	379	28	15,221	891	1,536	1,792	186	14,959	9,717	163	44,872	5,062	NA	–	–	[R] 16	–
1997	194	6	557	36	15,139	954	1,506	1,811	197	15,987	10,033	172	46,390	0	NA	–	–	11,506	–
			Trillion Btu																
1960	20.4	0.0	4.8	0.3	43.2	10.2	13.0	1.8	1.1	44.0	34.0	0.1	152.4	0.0	32.2	[R] 29.2	0.0	-1.7	[R] 232.5
1965	8.0	0.0	4.9	0.4	53.7	9.7	11.6	2.2	1.0	48.0	39.9	0.1	171.6	0.0	23.9	[R] 30.0	0.0	-1.2	[R] 232.4
1970	2.2	1.3	4.7	0.5	68.9	12.5	10.1	2.4	1.0	57.9	73.0	0.4	231.3	0.0	35.4	[R] 29.5	0.0	3.2	[R] 302.8
1975	1.3	2.0	4.6	0.4	67.0	10.8	5.9	3.6	1.0	66.4	62.4	0.0	222.1	49.6	42.7	[R] 32.7	0.0	-25.5	[R] 324.9
1980	3.0	2.3	2.9	0.4	61.9	10.2	2.9	3.2	1.2	61.8	53.8	0.0	198.3	48.0	64.2	[R] 127.1	0.0	-29.4	[R] 413.6
1985	5.1	2.6	14.5	0.2	55.8	8.9	5.9	2.4	1.1	65.9	49.7	0.0	204.5	57.9	35.3	[R] 146.4	0.0	7.5	[R] 459.3
1986	9.3	2.5	4.9	0.3	67.0	8.8	3.8	3.8	1.1	70.6	80.5	0.0	240.7	67.4	58.3	[R] 137.5	0.0	-28.2	[R] 487.4
1987	6.8	2.7	5.7	0.3	69.7	9.9	4.0	4.8	1.2	74.1	58.2	0.0	227.7	43.6	66.9	[R] 135.4	0.0	-7.5	[R] 475.6
1988	6.9	3.3	10.5	0.3	79.9	11.6	5.7	5.9	1.2	80.7	76.3	0.0	272.0	53.9	61.2	[R] 140.8	0.0	-10.6	[R] 527.5
1989	6.8	3.7	6.6	0.3	71.5	12.4	5.4	5.8	1.2	74.6	74.7	0.0	252.5	74.4	[R i] 51.7	[R i] 152.1	[R i] 0.1	-18.9	[R i] 528.0
1990	6.6	4.4	4.3	0.3	69.9	14.0	3.7	5.0	1.2	74.2	67.3	0.0	240.0	51.9	[R] 64.7	[R] 136.3	0.1	[R] 4.8	[R] 510.7
1991	9.4	4.8	6.6	0.2	60.4	13.2	4.2	5.3	1.1	74.2	64.1	0.8	230.0	67.3	[R] 60.9	[R] 143.6	0.1	-1.0	[R] 516.4
1992	21.5	5.2	7.1	0.2	63.5	10.5	3.1	4.5	1.1	74.2	60.7	0.8	225.7	57.2	[R] 56.4	[R] 150.9	0.1	11.9	[R] 530.9
1993	11.2	5.0	7.2	0.2	74.4	8.3	5.5	4.9	1.1	75.6	58.8	0.8	236.8	61.3	55.1	[R] 154.6	0.1	18.5	[R] 543.3
1994	11.6	5.1	3.2	0.2	79.1	5.6	5.6	5.0	1.2	76.2	72.2	0.9	249.2	70.8	[R] 58.7	[R] 147.7	0.1	[R] -6.3	[R] 546.9
1995	7.1	5.5	3.2	0.2	84.5	4.8	7.3	5.6	1.2	75.5	60.0	0.8	243.0	2.1	[R] 66.5	[R] 152.0	0.1	[R] 44.5	[R] 537.7
1996	5.9	5.8	2.5	0.1	88.7	5.1	8.7	6.5	1.1	78.6	61.1	0.9	253.2	53.8	[R] 76.4	[R] 152.9	0.1	[R] 0.1	[R] 556.4
1997	4.8	6.3	3.7	0.2	88.2	5.4	8.5	6.5	1.2	84.0	63.1	0.9	261.7	0.0	68.7	151.0	0.1	39.3	553.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 132. Residential Energy Consumption Estimates, Selected Years 1960-1997, Maine

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	41	54	95	0	4,727	2,091	342	7,160	R 426	–	–	993	–	2,471	–
1965	24	34	58	0	6,139	1,691	381	8,210	R 322	–	–	1,224	–	2,922	–
1970	3	21	24	1	7,877	1,649	383	9,909	R 222	–	–	1,723	–	4,175	–
1975	2	11	13	1	7,646	932	604	9,182	R 292	–	–	2,487	–	5,999	–
1980	4	8	12	1	6,372	405	395	7,173	R 355	–	–	2,998	–	7,290	–
1985	12	10	21	1	4,881	910	348	6,139	R 304	–	–	3,419	–	8,033	–
1986	17	8	25	1	5,683	625	510	6,817	R 295	–	–	3,578	–	8,230	–
1987	12	8	21	1	5,462	630	805	6,898	R 218	–	–	3,726	–	8,513	–
1988	10	5	16	1	5,970	785	905	7,659	R 227	–	–	3,904	–	8,825	–
1989	6	5	11	1	5,678	804	921	7,403	R 235	–	–	4,009	–	R 9,008	–
1990	11	7	18	1	5,039	563	863	6,464	215	–	–	3,932	–	R 8,601	–
1991	(s)	7	7	1	5,157	593	939	6,689	226	–	–	3,817	–	R 8,309	–
1992	9	6	15	1	5,282	473	767	6,522	238	–	–	3,830	–	8,180	–
1993	6	5	11	1	5,722	741	952	7,414	R 250	–	–	3,872	–	8,181	–
1994	0	4	4	1	5,642	758	985	7,385	R 245	–	–	3,692	–	R 7,704	–
1995	0	2	2	1	7,384	1,089	1,120	9,593	R 272	–	–	3,629	–	R 7,560	–
1996	0	2	2	1	7,657	1,370	1,253	10,281	R 271	–	–	3,679	–	R 7,657	–
1997	0	2	2	1	7,644	1,310	1,253	10,207	197	–	–	3,659	–	7,599	–
	Trillion Btu														
1960	1.0	1.3	2.4	0.0	27.5	11.9	1.4	40.8	R 8.5	0.0	0.0	3.4	R 55.0	8.4	R 63.5
1965	0.6	0.8	1.4	0.0	35.8	9.6	1.5	46.9	R 6.4	0.0	0.0	4.2	R 58.9	10.0	R 68.9
1970	0.1	0.5	0.6	0.5	45.9	9.4	1.4	56.7	R 4.4	0.0	0.0	5.9	R 68.1	14.2	R 82.3
1975	(s)	0.2	0.3	0.7	44.5	5.3	2.2	52.1	R 5.8	0.0	0.0	8.5	R 67.4	20.5	R 87.9
1980	0.1	0.2	0.3	0.6	37.1	2.3	1.5	40.9	R 7.1	0.0	0.0	10.2	R 59.0	24.9	R 83.9
1985	0.3	0.2	0.5	0.5	28.4	5.2	1.3	34.8	R 6.1	0.0	0.0	11.7	R 53.6	27.4	R 81.0
1986	0.4	0.2	0.6	0.6	33.1	3.5	1.9	38.5	R 5.9	0.0	0.0	12.2	R 57.8	28.1	R 85.9
1987	0.3	0.2	0.5	0.5	31.8	3.6	2.9	38.3	R 4.4	0.0	0.0	12.7	R 56.5	29.0	R 85.5
1988	0.3	0.1	0.4	0.6	34.8	4.4	3.3	42.5	R 4.5	0.0	0.0	13.3	R 61.4	30.1	R 91.5
1989	0.2	0.1	0.3	0.6	33.1	4.6	3.4	41.0	R 4.7	e 0.0	R e 0.1	13.7	R e 60.4	30.7	R e 91.1
1990	0.3	0.2	0.5	0.7	29.3	3.2	3.1	35.7	4.3	0.0	0.1	13.4	54.6	29.3	83.9
1991	(s)	0.2	0.2	0.7	30.0	3.4	3.4	36.8	4.5	0.0	0.1	13.0	55.3	R 28.4	83.7
1992	0.2	0.1	0.4	0.9	30.8	2.7	2.8	36.2	4.8	0.0	0.1	13.1	55.4	27.9	83.3
1993	0.1	0.1	0.3	0.9	33.3	4.2	3.4	41.0	R 5.0	0.0	0.1	13.2	60.4	27.9	R 88.4
1994	0.0	0.1	0.1	0.9	32.9	4.3	3.6	40.7	R 4.9	0.0	0.1	12.6	59.3	26.3	85.6
1995	0.0	(s)	(s)	0.9	43.0	6.2	4.1	53.2	5.4	0.0	0.1	12.4	72.1	25.8	97.9
1996	0.0	0.1	0.1	1.0	44.6	7.8	4.5	56.9	5.4	0.0	0.1	12.6	76.0	26.1	R 102.2
1997	0.0	0.1	0.1	1.0	44.5	7.4	4.5	56.5	3.9	0.0	0.1	12.5	74.1	25.9	100.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 133. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Maine

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	76	36	111	0	996	100	60	29	145	1,331	R 8	–	542	–	1,349	–
1965	44	23	67	0	1,294	81	67	34	72	1,549	R 6	–	819	–	1,956	–
1970	6	14	19	(s)	1,660	79	68	40	292	2,139	R 4	–	975	–	2,364	–
1975	4	7	11	1	1,611	45	107	40	334	2,136	R 6	–	1,568	–	3,781	–
1980	8	5	13	1	1,840	70	70	48	682	2,710	R 9	–	1,717	–	4,175	–
1985	21	6	28	1	969	99	61	104	1,040	2,273	NA	–	2,338	–	5,493	–
1986	32	5	38	1	1,562	26	90	105	1,461	3,243	NA	–	2,490	–	5,728	–
1987	23	6	28	1	1,484	41	142	93	707	2,467	NA	–	2,642	–	6,036	–
1988	19	4	22	1	1,788	159	160	104	1,880	4,091	NA	–	2,744	–	6,204	–
1989	11	3	14	2	1,621	94	162	116	1,914	3,907	NA	–	2,826	–	R 6,349	–
1990	20	5	25	2	1,688	68	152	101	2,166	4,176	NA	–	2,847	–	6,226	–
1991	1	5	6	2	1,444	125	166	54	2,464	4,252	NA	–	2,857	–	R 6,219	–
1992	17	4	21	2	1,715	66	135	50	1,257	3,223	NA	–	2,900	–	6,195	–
1993	11	4	15	2	2,262	174	168	12	740	3,355	R 20	–	3,040	–	6,424	–
1994	0	2	2	2	2,292	152	174	12	772	3,401	R 21	–	2,962	–	6,181	–
1995	0	1	1	2	2,212	161	198	12	375	2,958	R 21	–	2,973	–	R 6,194	–
1996	0	2	2	3	2,458	148	221	12	516	3,356	R 22	–	3,276	–	6,817	–
1997	0	2	2	3	2,426	157	221	12	599	3,414	19	–	3,343	–	6,942	–
	Trillion Btu															
1960	1.9	0.9	2.8	0.0	5.8	0.6	0.2	0.2	0.9	7.7	R 0.2	0.0	1.9	R 12.5	4.6	R 17.1
1965	1.1	0.5	1.7	0.0	7.5	0.5	0.3	0.2	0.5	8.9	R 0.1	0.0	2.8	R 13.5	6.7	R 20.2
1970	0.1	0.3	0.5	0.4	9.7	0.4	0.3	0.2	1.8	12.4	R 0.1	0.0	3.3	R 16.7	8.1	R 24.8
1975	0.1	0.2	0.3	0.5	9.4	0.3	0.4	0.2	2.1	12.3	R 0.1	0.0	5.3	R 18.6	12.9	R 31.5
1980	0.2	0.1	0.3	0.9	10.7	0.4	0.3	0.3	4.3	15.9	R 0.2	0.0	5.9	R 23.1	14.2	R 37.4
1985	0.5	0.1	0.7	1.2	5.6	0.6	0.2	0.5	6.5	13.5	NA	0.0	8.0	23.3	18.7	42.1
1986	0.8	0.1	0.9	1.3	9.1	0.1	0.3	0.6	9.2	19.3	NA	0.0	8.5	30.0	19.5	49.5
1987	0.6	0.1	0.7	1.3	8.6	0.2	0.5	0.5	4.4	14.3	NA	0.0	9.0	25.4	20.6	46.0
1988	0.5	0.1	0.6	1.5	10.4	0.9	0.6	0.5	11.8	24.3	NA	0.0	9.4	35.7	21.2	56.9
1989	0.3	0.1	0.4	1.7	9.4	0.5	0.6	0.6	12.0	23.2	NA	0.0	9.6	34.9	21.7	R 56.6
1990	0.5	0.1	0.6	1.7	9.8	0.4	0.6	0.5	13.6	24.9	NA	0.0	9.7	36.9	21.2	58.2
1991	(s)	0.1	0.1	1.9	8.4	0.7	0.6	0.3	15.5	25.5	NA	0.0	9.7	37.2	21.2	58.5
1992	0.4	0.1	0.5	2.2	10.0	0.4	0.5	0.3	7.9	19.0	NA	0.0	9.9	31.7	21.1	52.8
1993	0.3	0.1	0.4	2.3	13.2	1.0	0.6	0.1	4.6	19.5	R 0.4	0.0	10.4	R 33.0	21.9	R 54.9
1994	0.0	0.1	0.1	2.4	13.4	0.9	0.6	0.1	4.9	19.8	R 0.4	0.0	10.1	R 32.8	21.1	R 53.8
1995	0.0	(s)	(s)	2.5	12.9	0.9	0.7	0.1	2.4	16.9	R 0.4	0.0	10.1	R 30.0	21.1	R 51.1
1996	0.0	(s)	(s)	2.6	14.3	0.8	0.8	0.1	3.2	19.3	R 0.4	0.0	11.2	R 33.5	23.3	R 56.8
1997	0.0	(s)	(s)	2.8	14.1	0.9	0.8	0.1	3.8	19.6	0.4	0.0	11.4	34.2	23.7	57.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 134. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Maine

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	562	0	729	402	103	38	42	166	2,639	10	4,130	906	–	–	1,246	–	3,100	–
1965	191	0	745	500	280	100	54	145	1,270	25	3,117	697	–	–	1,715	–	4,094	–
1970	48	(s)	701	805	54	182	55	137	5,128	72	7,134	940	–	–	2,370	–	5,743	–
1975	32	1	696	682	59	250	59	79	5,848	0	7,674	832	–	–	2,477	–	5,976	–
1980	99	1	435	762	29	400	65	76	4,047	0	5,812	974	–	–	3,470	–	8,438	–
1985	157	1	2,185	456	34	249	59	124	3,407	0	6,514	974	–	–	4,067	–	9,555	–
1986	312	1	734	555	19	416	57	131	6,920	0	8,831	974	–	–	4,135	–	9,512	–
1987	224	1	852	918	39	340	65	137	4,175	0	6,526	974	–	–	4,351	–	9,942	–
1988	239	1	1,586	1,236	55	514	63	132	4,976	0	8,562	974	–	–	4,616	–	10,436	–
1989	246	1	1,000	1,077	49	456	64	140	4,751	0	7,536	[f] NA	–	–	4,599	–	[R] 10,333	–
1990	222	2	645	708	27	358	66	94	4,856	0	6,754	NA	–	–	4,750	–	10,389	–
1991	361	2	988	778	26	353	59	100	5,330	145	7,780	NA	–	–	4,709	–	[R] 10,251	–
1992	820	2	1,064	752	14	316	60	102	6,021	151	8,480	NA	–	–	4,753	–	10,152	–
1993	423	2	1,083	1,258	52	235	61	146	6,952	153	9,942	NA	–	–	5,040	–	10,648	–
1994	458	2	480	1,415	72	202	64	163	9,202	158	11,758	NA	–	–	4,952	–	[R] 10,333	–
1995	279	2	482	1,163	31	216	63	169	7,493	153	9,770	NA	–	–	4,959	–	[R] 10,332	–
1996	230	2	379	1,355	17	310	61	176	7,853	163	10,315	NA	–	–	4,772	–	9,931	–
1997	190	3	557	1,293	39	329	65	179	6,821	172	9,455	NA	–	–	4,957	–	10,295	–
			Trillion Btu															
1960	14.5	0.0	4.8	2.3	0.6	0.2	0.3	0.9	16.6	0.1	25.7	9.7	[R] 20.5	0.0	4.3	[R] 74.7	10.6	[R] 85.3
1965	4.9	0.0	4.9	2.9	1.6	0.4	0.3	0.8	8.0	0.1	19.0	7.3	[R] 23.5	0.0	5.9	[R] 60.6	14.0	[R] 74.5
1970	1.2	0.4	4.7	4.7	0.3	0.7	0.3	0.7	32.2	0.4	44.0	9.9	[R] 25.0	0.0	8.1	[R] 88.4	19.6	[R] 108.0
1975	0.8	0.7	4.6	4.0	0.3	0.9	0.4	0.4	36.8	0.0	47.4	8.7	[R] 26.8	0.0	8.5	[R] 92.7	20.4	[R] 113.1
1980	2.4	0.8	2.9	4.4	0.2	1.5	0.4	0.4	25.4	0.0	35.2	10.1	[R] 119.8	0.0	11.8	[R] 180.1	28.8	[R] 208.9
1985	3.9	0.9	14.5	2.7	0.2	0.9	0.4	0.7	21.4	0.0	40.7	10.2	[R] 140.3	0.0	13.9	[R] 209.8	32.6	[R] 242.5
1986	7.7	0.7	4.9	3.2	0.1	1.5	0.3	0.7	43.5	0.0	54.3	10.2	[R] 131.6	0.0	14.1	[R] 218.5	32.5	[R] 251.0
1987	5.6	0.9	5.7	5.3	0.2	1.2	0.4	0.7	26.3	0.0	39.8	10.1	[R] 131.0	0.0	14.8	[R] 202.3	33.9	[R] 236.2
1988	5.9	1.2	10.5	7.2	0.3	1.9	0.4	0.7	31.3	0.0	52.3	10.1	[R] 136.3	0.0	15.7	[R] 221.5	35.6	[R] 257.1
1989	6.1	1.4	6.6	6.3	0.3	1.7	0.4	0.7	29.9	0.0	45.9	[R f] 18.1	[R f] 147.4	[f] 0.0	15.7	[R f] 234.5	[R] 35.3	[R f] 269.8
1990	5.5	2.0	4.3	4.1	0.2	1.3	0.4	0.5	30.5	0.0	41.3	[R] 20.4	[R] 132.0	0.0	16.2	[R] 217.4	35.4	[R] 252.9
1991	9.0	2.2	6.6	4.5	0.1	1.3	0.4	0.5	33.5	0.8	47.7	[R] 19.7	[R] 139.0	0.0	16.1	[R] 233.7	35.0	[R] 268.7
1992	20.6	2.1	7.1	4.4	0.1	1.1	0.4	0.5	37.9	0.8	52.2	[R] 18.8	[R] 146.2	0.0	16.2	[R] 256.0	34.6	[R] 290.7
1993	10.6	1.8	7.2	7.3	0.3	0.8	0.4	0.8	43.7	0.8	61.3	[R] 17.4	[R] 149.2	0.0	17.2	[R] 257.5	36.3	[R] 293.8
1994	11.4	1.8	3.2	8.2	0.4	0.7	0.4	0.9	57.9	0.9	72.5	19.1	[R] 142.4	0.0	16.9	[R] 264.2	35.3	[R] 299.5
1995	7.0	2.0	3.2	6.8	0.2	0.8	0.4	0.9	47.1	0.8	60.1	[R] 17.8	[R] 146.1	0.0	16.9	[R] 250.0	[R] 35.3	[R] 285.3
1996	5.8	2.2	2.5	7.9	0.1	1.1	0.4	0.9	49.4	0.9	63.2	[R] 22.5	[R] 147.0	0.0	16.3	[R] 256.9	33.9	[R] 290.8
1997	4.7	2.6	3.7	7.5	0.2	1.2	0.4	0.9	42.9	0.9	57.8	19.7	146.7	0.0	16.9	248.3	35.1	283.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 135. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Maine

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	10	0	57	1,251	1,904	1	133	8,183	776	12,305	0	0	–	0	–
1965	1	0	89	1,199	1,812	2	116	8,952	625	12,794	0	0	–	0	–
1970	(s)	0	93	1,385	2,300	3	114	10,848	1,415	16,158	0	0	–	0	–
1975	(s)	0	71	1,524	1,988	3	108	12,526	934	17,155	0	0	–	0	–
1980	0	(s)	82	1,593	1,875	9	132	11,644	209	15,544	0	0	–	0	–
1985	0	(s)	41	3,247	1,639	15	120	12,320	21	17,403	0	0	–	0	–
1986	0	(s)	58	3,662	1,615	23	117	13,201	72	18,748	0	0	–	0	–
1987	0	(s)	53	4,063	1,813	15	133	13,875	53	20,005	0	0	–	0	–
1988	0	(s)	66	4,670	2,103	30	128	15,132	418	22,547	0	0	–	0	–
1989	0	(s)	68	3,848	2,249	30	131	13,939	199	20,465	[e] 0	0	–	0	–
1990	0	(s)	62	4,539	2,528	17	135	13,931	149	21,362	0	0	–	0	–
1991	0	(s)	42	2,965	2,374	17	121	13,971	116	19,606	0	0	–	0	–
1992	0	(s)	41	3,126	1,904	15	123	13,971	156	19,337	0	0	–	0	–
1993	0	(s)	37	3,510	1,488	13	125	14,233	285	19,691	0	0	–	0	–
1994	0	(s)	35	4,213	992	22	131	14,337	236	19,967	0	0	–	0	–
1995	0	(s)	35	3,725	841	11	129	14,187	207	19,135	0	0	–	0	–
1996	0	0	28	3,738	891	7	125	14,771	205	19,766	0	(s)	–	(s)	–
1997	0	0	36	3,763	954	7	132	15,796	110	20,798	0	(s)	–	(s)	–
			Trillion Btu												
1960	0.3	0.0	0.3	7.3	10.2	(s)	0.8	43.0	4.9	66.4	0.0	0.0	66.7	0.0	66.7
1965	(s)	0.0	0.4	7.0	9.7	(s)	0.7	47.0	3.9	68.8	0.0	0.0	68.8	0.0	68.8
1970	(s)	0.0	0.5	8.1	12.5	(s)	0.7	57.0	8.9	87.6	0.0	0.0	87.6	0.0	87.6
1975	(s)	0.0	0.4	8.9	10.8	(s)	0.7	65.8	5.9	92.4	0.0	0.0	92.4	0.0	92.4
1980	0.0	0.1	0.4	9.3	10.2	(s)	0.8	61.2	1.3	83.2	0.0	0.0	83.3	0.0	83.3
1985	0.0	(s)	0.2	18.9	8.9	0.1	0.7	64.7	0.1	93.7	0.0	0.0	93.7	0.0	93.7
1986	0.0	(s)	0.3	21.3	8.8	0.1	0.7	69.3	0.5	101.0	0.0	0.0	101.0	0.0	101.0
1987	0.0	(s)	0.3	23.7	9.9	0.1	0.8	72.9	0.3	107.9	0.0	0.0	107.9	0.0	107.9
1988	0.0	(s)	0.3	27.2	11.6	0.1	0.8	79.5	2.6	122.1	0.0	0.0	122.1	0.0	122.1
1989	0.0	(s)	0.3	22.4	12.4	0.1	0.8	73.2	1.3	110.6	[e] 0.0	0.0	[e] 110.6	0.0	[e] 110.6
1990	0.0	(s)	0.3	26.4	14.0	0.1	0.8	73.2	0.9	115.8	0.0	0.0	115.8	0.0	115.8
1991	0.0	(s)	0.2	17.3	13.2	0.1	0.7	73.4	0.7	105.6	0.0	0.0	105.6	0.0	105.6
1992	0.0	(s)	0.2	18.2	10.5	0.1	0.7	73.4	1.0	104.1	0.0	0.0	104.1	0.0	104.1
1993	0.0	(s)	0.2	20.4	8.3	(s)	0.8	74.8	1.8	106.3	0.0	0.0	106.3	0.0	106.3
1994	0.0	(s)	0.2	24.5	5.6	0.1	0.8	75.3	1.5	108.0	0.0	0.0	108.0	0.0	108.0
1995	0.0	0.1	0.2	21.7	4.8	(s)	0.8	74.5	1.3	103.3	0.0	0.0	103.4	0.0	103.4
1996	0.0	0.0	0.1	21.8	5.1	(s)	0.8	77.6	1.3	106.6	0.0	(s)	106.6	(s)	106.6
1997	0.0	0.0	0.2	21.9	5.4	(s)	0.8	83.0	0.7	112.0	0.0	(s)	112.0	(s)	112.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 136. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Maine

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	17	0	17	0	1,847	38	0	1,885	0	2,087	0	0	0	–
1965	0	0	0	0	4,373	89	0	4,462	0	1,593	0	0	0	–
1970	0	0	0	0	4,770	95	0	4,865	0	2,429	0	0	0	–
1975	0	0	0	0	2,812	42	0	2,854	4,502	3,268	0	0	0	–
1980	0	0	0	0	3,620	61	0	3,680	4,404	5,203	0	0	0	–
1985	0	0	0	0	3,432	28	0	3,461	5,354	2,405	0	0	0	–
1986	0	0	0	0	4,359	33	0	4,392	6,242	4,608	0	0	0	–
1987	0	0	0	0	4,317	35	0	4,351	4,043	5,448	0	0	0	–
1988	0	0	0	0	4,855	51	0	4,906	5,017	4,956	0	0	0	–
1989	0	0	0	0	5,023	46	0	5,069	6,942	R 3,221	0	0	0	–
1990	0	0	0	0	3,537	19	0	3,557	4,861	4,259	0	0	0	–
1991	0	0	0	0	2,286	22	0	2,307	6,264	3,948	0	0	0	–
1992	0	0	0	0	2,213	24	0	2,237	5,358	3,636	0	0	0	–
1993	0	0	0	0	1,377	16	0	1,392	5,740	3,661	0	0	0	–
1994	0	0	0	0	1,275	18	0	1,294	6,632	3,831	0	0	0	–
1995	0	0	0	0	1,462	29	0	1,490	198	4,720	(s)	0	0	–
1996	0	0	0	0	1,142	12	0	1,154	5,062	5,221	1	0	0	–
1997	0	0	0	0	2,503	13	0	2,517	0	4,755	0	0	0	–
	Trillion Btu													
1960	0.5	0.0	0.5	0.0	11.6	0.2	0.0	11.8	0.0	22.5	0.0	0.0	0.0	34.8
1965	0.0	0.0	0.0	0.0	27.5	0.5	0.0	28.0	0.0	16.7	0.0	0.0	0.0	44.7
1970	0.0	0.0	0.0	0.0	30.0	0.6	0.0	30.5	0.0	25.5	0.0	0.0	0.0	56.0
1975	0.0	0.0	0.0	0.0	17.7	0.2	0.0	17.9	49.6	34.0	0.0	0.0	0.0	101.5
1980	0.0	0.0	0.0	0.0	22.8	0.4	0.0	23.1	48.0	54.0	0.0	0.0	0.0	125.2
1985	0.0	0.0	0.0	0.0	21.6	0.2	0.0	21.7	57.9	25.1	0.0	0.0	0.0	104.8
1986	0.0	0.0	0.0	0.0	27.4	0.2	0.0	27.6	67.4	48.1	0.0	0.0	0.0	143.1
1987	0.0	0.0	0.0	0.0	27.1	0.2	0.0	27.3	43.6	56.8	0.0	0.0	0.0	127.7
1988	0.0	0.0	0.0	0.0	30.5	0.3	0.0	30.8	53.9	51.2	0.0	0.0	0.0	135.9
1989	0.0	0.0	0.0	0.0	31.6	0.3	0.0	31.8	74.4	R 33.6	0.0	0.0	0.0	145.5
1990	0.0	0.0	0.0	0.0	22.2	0.1	0.0	22.4	51.9	44.3	0.0	0.0	0.0	120.5
1991	0.0	0.0	0.0	0.0	14.4	0.1	0.0	14.5	67.3	41.2	0.0	0.0	0.0	124.4
1992	0.0	0.0	0.0	0.0	13.9	0.1	0.0	14.1	57.2	37.6	0.0	0.0	0.0	111.0
1993	0.0	0.0	0.0	0.0	8.7	0.1	0.0	8.7	61.3	37.7	0.0	0.0	0.0	108.4
1994	0.0	0.0	0.0	0.0	8.0	0.1	0.0	8.1	70.8	39.5	0.0	0.0	0.0	128.5
1995	0.0	0.0	0.0	0.0	9.2	0.2	0.0	9.4	2.1	R 48.7	(s)	0.0	0.0	R 77.1
1996	0.0	0.0	0.0	0.0	7.2	0.1	0.0	7.3	53.8	54.0	(s)	0.0	0.0	123.2
1997	0.0	0.0	0.0	0.0	15.7	0.1	0.0	15.8	0.0	49.0	0.0	0.0	0.0	86.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 137. Energy Consumption Estimates by Source, Selected Years 1960-1997, Maryland

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	8,530	71	1,813	279	12,870	2,457	2,445	1,051	565	22,552	16,835	978	61,844	0	1,358	–	–	1,813	–
1965	12,372	99	3,289	474	16,967	2,856	2,371	1,473	627	27,510	15,510	1,697	72,774	0	1,141	–	–	-5,190	–
1970	12,216	156	2,798	309	19,817	4,477	2,331	1,841	624	37,159	22,046	2,895	94,297	0	1,907	–	–	4,900	–
1975	7,761	140	3,246	205	21,034	3,049	1,193	2,395	763	43,688	26,941	2,166	104,680	4,386	2,311	–	–	9,915	–
1980	9,312	160	2,638	173	21,908	3,522	1,168	2,060	724	44,003	16,480	2,504	95,181	10,947	1,270	–	–	18,497	–
1985	10,012	151	4,520	76	17,717	3,901	1,247	1,805	659	45,632	7,916	2,640	86,112	9,926	1,524	–	–	31,970	–
1986	10,750	153	5,211	101	17,385	3,889	936	1,428	644	46,914	7,282	3,552	87,343	12,828	1,876	–	–	23,020	–
1987	11,311	169	4,823	87	18,077	3,771	1,209	1,741	729	48,215	9,077	4,432	92,161	10,070	1,612	–	–	36,495	–
1988	11,757	173	4,350	94	18,551	4,481	1,526	1,695	703	49,125	10,417	4,288	95,229	11,734	1,328	–	–	32,515	–
1989	11,541	190	4,500	83	20,581	4,384	1,006	2,135	721	49,629	15,112	3,486	101,638	2,719	[i] NA	–	–	[R] 51,181	–
1990	11,193	172	5,008	74	17,003	3,637	466	1,965	742	47,415	9,881	4,027	90,218	1,251	NA	–	–	[R] 62,318	–
1991	10,709	173	3,703	75	17,313	3,293	476	2,018	663	48,448	9,368	3,814	89,173	9,036	NA	–	–	[R] 45,951	–
1992	9,713	181	3,509	96	18,355	3,061	378	2,635	676	49,044	7,836	4,559	90,150	10,664	NA	–	–	[R] 40,870	–
1993	10,268	181	4,684	102	19,724	3,000	621	2,479	689	49,602	9,703	4,025	94,629	12,301	NA	–	–	36,450	–
1994	10,491	184	4,363	71	19,463	3,229	672	2,835	720	50,699	9,039	4,133	95,222	11,235	NA	–	–	[R] 36,940	–
1995	11,198	194	4,236	48	19,189	3,430	801	2,687	708	51,475	3,921	4,057	90,553	12,938	NA	–	–	[R] 40,528	–
1996	11,366	193	3,610	35	22,124	3,897	802	2,930	687	51,800	4,383	4,283	94,551	12,093	NA	–	–	[R] 43,138	–
1997	11,261	207	5,619	43	20,214	4,096	865	2,959	725	53,594	4,026	4,273	96,415	13,213	NA	–	–	39,496	–
			Trillion Btu																
1960	226.6	73.3	12.0	1.4	75.0	13.5	13.9	4.2	3.4	118.5	105.8	5.7	353.4	0.0	14.6	[R] 23.8	0.0	6.2	[R] 697.9
1965	327.4	101.0	21.8	2.4	98.8	15.7	13.4	5.9	3.8	144.5	97.5	9.4	413.4	0.0	11.9	[R] 27.1	0.0	-17.7	[R] 863.1
1970	311.3	159.6	18.6	1.6	115.4	25.0	13.2	7.0	3.8	195.2	138.6	16.2	534.4	0.0	20.0	[R] 31.8	0.0	16.7	[R] 1,073.8
1975	197.2	141.9	21.5	1.0	122.5	16.9	6.8	8.9	4.6	229.5	169.4	12.4	593.6	48.3	24.0	[R] 31.8	0.0	33.8	[R] 1,070.6
1980	235.7	163.4	17.5	0.9	127.6	19.5	6.6	7.6	4.4	231.1	103.6	14.1	533.0	119.4	13.2	[R] 32.3	0.0	63.1	[R] 1,160.2
1985	256.2	156.0	30.0	0.4	103.2	21.7	7.1	6.5	4.0	239.7	49.8	14.9	477.2	107.3	15.9	[R] 41.9	0.0	109.1	[R] 1,163.6
1986	275.0	158.0	34.6	0.5	101.3	21.6	5.3	5.2	3.9	246.4	45.8	19.9	484.6	138.5	19.6	[R] 60.5	0.0	78.5	[R] 1,214.8
1987	288.9	174.3	32.0	0.4	105.3	21.0	6.9	6.4	4.4	253.3	57.1	25.1	511.8	108.5	16.8	[R] 57.5	0.0	124.5	[R] 1,282.3
1988	301.2	178.4	28.9	0.5	108.1	25.0	8.7	6.2	4.3	258.1	65.5	24.4	529.4	126.1	13.7	[R] 59.8	0.0	110.9	[R] 1,319.6
1989	295.1	195.8	29.9	0.4	119.9	24.5	5.7	7.9	4.4	260.7	95.0	19.6	567.9	29.2	[i] 18.5	[R i] 57.8	[R i] 0.1	[R] 174.6	[R i] 1,339.0
1990	286.4	177.1	33.2	0.4	99.0	20.3	2.6	7.1	4.5	249.1	62.1	22.8	501.2	13.4	23.9	[R] 33.6	[R] 0.1	212.6	[R] 1,248.3
1991	274.8	177.8	24.6	0.4	100.9	18.4	2.7	7.3	4.0	254.5	58.9	21.5	493.1	97.0	14.7	[R] 31.3	[R] 0.1	[R] 156.8	[R] 1,245.6
1992	247.5	186.4	23.3	0.5	106.9	17.1	2.1	9.6	4.1	257.6	49.3	25.8	496.3	113.9	18.9	[R] 32.9	[R] 0.1	139.4	[R] 1,235.4
1993	261.7	185.7	31.1	0.5	114.9	16.8	3.5	8.9	4.2	260.6	61.0	22.6	524.1	131.4	17.1	[R] 35.1	[R] 0.1	124.4	[R] 1,279.5
1994	268.9	189.4	28.9	0.4	113.4	18.2	3.8	10.3	4.4	266.3	56.8	23.3	525.9	119.9	20.7	[R] 34.5	[R] 0.1	126.0	[R] 1,285.6
1995	289.6	199.1	28.1	0.2	111.8	19.4	4.5	9.7	4.3	270.4	24.7	22.9	496.1	137.9	14.9	[R] 37.1	[R] 0.1	[R] 138.3	[R] 1,312.9
1996	292.2	198.1	24.0	0.2	128.9	22.1	4.5	10.6	4.2	272.1	27.6	24.1	518.2	128.5	25.4	[R] 37.9	[R] 0.1	147.2	[R] 1,347.4
1997	290.2	214.5	37.3	0.2	117.7	23.2	4.9	10.7	4.4	281.5	25.3	24.1	529.4	140.4	16.4	34.5	0.2	134.8	1,360.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 138. Residential Energy Consumption Estimates, Selected Years 1960-1997, Maryland

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	78	37	116	46	6,053	2,234	617	8,903	R 406	–	–	2,772	–	6,895	–
1965	68	23	91	57	7,191	2,177	893	10,261	R 328	–	–	4,384	–	10,466	–
1970	20	14	35	73	8,234	2,166	1,007	11,407	R 377	–	–	7,690	–	18,635	–
1975	7	8	15	69	8,453	1,014	1,242	10,708	R 452	–	–	9,660	–	23,300	–
1980	10	5	15	68	8,797	830	740	10,367	R 558	–	–	12,119	–	29,469	–
1985	40	4	44	68	5,023	1,113	987	7,123	R 862	–	–	14,319	–	33,642	–
1986	42	4	46	72	4,818	828	758	6,404	R 839	–	–	15,819	–	36,388	–
1987	59	4	64	71	5,521	1,136	949	7,605	R 690	–	–	17,218	–	39,342	–
1988	40	5	45	75	5,921	1,316	897	8,134	R 717	–	–	18,483	–	41,787	–
1989	18	2	20	75	5,139	813	1,101	7,053	R 744	–	–	19,069	–	R 42,845	–
1990	16	2	18	66	4,284	385	1,088	5,757	518	–	–	19,102	–	R 41,780	–
1991	14	2	16	69	4,181	396	1,215	5,792	546	–	–	20,295	–	R 44,181	–
1992	4	1	5	75	4,458	316	1,365	6,139	575	–	–	19,762	–	R 42,212	–
1993	4	3	6	77	5,230	509	1,404	7,143	R 619	–	–	21,546	–	45,523	–
1994	11	3	14	77	4,985	393	1,431	6,809	607	–	–	21,666	–	R 45,211	–
1995	100	7	107	77	4,766	535	1,647	6,948	R 673	–	–	22,234	–	R 46,320	–
1996	14	1	15	86	5,895	593	1,766	8,254	R 672	–	–	22,986	–	R 47,838	–
1997	18	2	20	78	5,176	597	1,766	7,539	489	–	–	21,937	–	45,557	–
	Trillion Btu														
1960	2.0	0.9	2.9	47.5	35.3	12.7	2.5	50.4	R 8.1	0.0	0.0	9.5	R 118.4	23.5	R 141.9
1965	1.7	0.6	2.3	58.1	41.9	12.3	3.6	57.8	R 6.6	0.0	0.0	15.0	R 139.7	35.7	R 175.4
1970	0.5	0.3	0.8	74.5	48.0	12.3	3.8	64.0	R 7.5	0.0	0.0	26.2	R 173.2	63.6	R 236.8
1975	0.2	0.2	0.3	70.1	49.2	5.7	4.6	59.6	R 9.0	0.0	0.0	33.0	R 172.0	79.5	R 251.5
1980	0.2	0.1	0.4	69.4	51.2	4.7	2.7	58.7	R 11.2	0.0	0.0	41.4	R 181.0	100.5	R 281.5
1985	1.0	0.1	1.1	70.7	29.3	6.3	3.6	39.1	R 17.2	0.0	0.0	48.9	R 177.1	114.8	R 291.8
1986	1.0	0.1	1.1	74.5	28.1	4.7	2.8	35.5	R 16.8	0.0	0.0	54.0	R 181.9	124.2	R 306.0
1987	1.5	0.1	1.6	73.0	32.2	6.4	3.5	42.1	R 13.8	0.0	0.0	58.7	R 189.2	134.2	R 323.5
1988	1.0	0.1	1.1	77.3	34.5	7.5	3.3	45.2	R 14.3	0.0	0.0	63.1	R 201.1	142.6	R 343.6
1989	0.4	(s)	0.5	77.4	29.9	4.6	4.1	38.6	R 14.9	e 0.1	R e (s)	65.1	R e 196.6	R 146.2	R e 342.8
1990	0.4	0.1	0.4	68.2	25.0	2.2	3.9	31.1	10.4	0.1	(s)	65.2	R 175.4	R 142.6	R 317.9
1991	0.3	(s)	0.4	71.0	24.4	2.2	4.4	31.0	10.9	0.1	(s)	69.2	182.6	150.7	R 333.4
1992	0.1	(s)	0.1	77.1	26.0	1.8	4.9	32.7	11.5	0.1	(s)	67.4	R 189.0	144.0	333.0
1993	0.1	0.1	0.2	79.0	30.5	2.9	5.1	38.4	12.4	0.1	(s)	73.5	R 203.6	155.3	R 358.9
1994	0.3	0.1	0.3	79.0	29.0	2.2	5.2	36.5	12.1	0.1	(s)	73.9	R 202.0	R 154.3	R 356.3
1995	2.5	0.2	2.7	78.4	27.8	3.0	6.0	36.8	13.5	0.1	(s)	75.9	R 207.3	158.0	R 365.4
1996	0.4	(s)	0.4	88.0	34.3	3.4	6.4	44.1	R 13.4	0.1	(s)	78.4	224.4	163.2	R 387.7
1997	0.5	(s)	0.5	80.1	30.1	3.4	6.4	39.9	9.8	0.1	(s)	74.8	205.3	155.4	360.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 139. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Maryland

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	146	25	170	8	2,357	72	109	72	2,442	5,052	R 8	–	R 2,696	–	R 6,706	–
1965	126	16	142	13	2,800	70	158	90	1,920	5,039	R 6	–	3,937	–	9,401	–
1970	38	10	48	26	3,206	70	178	103	1,498	5,054	R 7	–	6,347	–	15,380	–
1975	14	5	19	25	3,291	33	219	120	1,169	4,833	R 9	–	8,573	–	20,680	–
1980	18	4	22	29	2,865	20	131	121	1,159	4,296	R 13	–	R 9,387	–	R 22,827	–
1985	74	3	77	24	1,942	89	174	170	252	2,628	NA	–	R 9,621	–	R 22,603	–
1986	78	2	80	24	1,541	49	134	174	867	2,766	NA	–	R 10,256	–	R 23,591	–
1987	110	3	113	26	1,935	23	167	181	1,829	4,134	NA	–	R 10,861	–	R 24,815	–
1988	74	4	78	26	1,862	63	158	169	719	2,972	NA	–	R 11,535	–	R 26,078	–
1989	33	1	34	27	2,004	89	194	197	1,293	3,778	NA	–	R 10,641	–	R 23,909	–
1990	29	1	30	24	2,095	48	192	231	556	3,122	NA	–	R 11,021	–	R 24,106	–
1991	25	1	26	38	2,297	52	214	118	133	2,816	NA	–	R 11,259	–	R 24,509	–
1992	7	1	8	42	2,575	42	241	103	478	3,439	NA	–	R 11,355	–	R 24,254	–
1993	7	2	9	44	2,689	85	248	31	193	3,246	R 50	–	R 12,006	–	R 25,365	–
1994	20	2	22	44	3,063	213	253	31	217	3,776	R 51	–	R 13,914	–	R 29,034	–
1995	185	5	190	47	2,999	210	291	32	121	3,652	R 51	–	R 23,730	–	R 49,438	–
1996	26	1	27	46	3,317	151	312	32	109	3,920	R 55	–	R 23,780	–	R 49,492	–
1997	33	1	35	50	2,560	227	312	31	51	3,181	47	–	24,070	–	49,987	–
	Trillion Btu															
1960	3.7	0.6	4.3	8.3	13.7	0.4	0.4	0.4	15.4	30.3	R 0.2	0.0	9.2	R 52.2	22.9	R 75.1
1965	3.1	0.4	3.5	13.3	16.3	0.4	0.6	0.5	12.1	29.9	R 0.1	0.0	13.4	R 60.3	32.1	R 92.4
1970	0.9	0.2	1.1	26.5	18.7	0.4	0.7	0.5	9.4	29.7	R 0.1	0.0	21.7	R 79.1	52.5	R 131.6
1975	0.3	0.1	0.4	25.5	19.2	0.2	0.8	0.6	7.4	28.2	R 0.2	0.0	29.3	R 83.5	70.6	R 154.1
1980	0.4	0.1	0.5	29.1	16.7	0.1	0.5	0.6	7.3	25.2	R 0.3	0.0	32.0	R 87.2	77.9	R 165.1
1985	1.8	0.1	1.9	25.0	11.3	0.5	0.6	0.9	1.6	14.9	NA	0.0	32.8	74.6	R 77.1	R 151.7
1986	1.9	0.1	2.0	24.7	9.0	0.3	0.5	0.9	5.5	16.1	NA	0.0	35.0	77.8	R 80.5	R 158.3
1987	2.7	0.1	2.8	26.4	11.3	0.1	0.6	0.9	11.5	24.5	NA	0.0	37.1	R 90.7	R 84.7	R 175.4
1988	1.8	0.1	1.9	26.7	10.8	0.4	0.6	0.9	4.5	17.2	NA	0.0	39.4	85.2	R 89.0	R 174.2
1989	0.8	(s)	0.9	27.7	11.7	0.5	0.7	1.0	8.1	22.1	NA	0.0	R 36.3	87.0	R 81.6	R 168.5
1990	0.7	(s)	0.8	24.7	12.2	0.3	0.7	1.2	3.5	17.9	NA	0.0	R 37.6	R 80.9	82.3	R 163.2
1991	0.6	(s)	0.7	39.1	13.4	0.3	0.8	0.6	0.8	15.9	NA	0.0	R 38.4	94.1	R 83.6	R 177.7
1992	0.2	(s)	0.2	43.6	15.0	0.2	0.9	0.5	3.0	19.7	NA	0.0	R 38.7	R 102.2	R 82.8	R 185.0
1993	0.2	(s)	0.2	44.8	15.7	0.5	0.9	0.2	1.2	18.4	R 1.0	0.0	41.0	R 105.4	R 86.5	R 192.0
1994	0.5	(s)	0.6	45.5	17.8	1.2	0.9	0.2	1.4	21.5	R 1.0	0.0	R 47.5	R 116.0	R 99.1	R 215.1
1995	4.6	0.1	4.7	48.0	17.5	1.2	1.1	0.2	0.8	20.6	R 1.0	0.0	R 81.0	R 155.4	R 168.7	R 324.1
1996	0.7	(s)	0.7	47.1	19.3	0.9	1.1	0.2	0.7	22.2	R 1.1	0.0	R 81.1	R 152.2	R 168.9	R 321.1
1997	0.8	(s)	0.9	51.5	14.9	1.3	1.1	0.2	0.3	17.8	0.9	0.0	82.1	153.2	170.6	323.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 140. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Maryland

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	5,067	16	1,813	2,093	138	317	247	670	10,333	978	16,589	1	–	–	3,269	–	8,131	–
1965	6,101	28	3,289	3,177	124	412	316	439	8,296	1,697	17,750	1	–	–	5,073	–	12,113	–
1970	6,174	44	2,798	3,248	95	624	325	261	6,672	2,895	16,918	(s)	–	–	8,469	–	20,524	–
1975	3,854	43	3,246	3,434	146	888	456	293	4,983	2,166	15,614	0	–	–	9,069	–	21,875	–
1980	3,367	54	2,638	3,297	318	1,163	414	145	2,669	2,504	13,148	0	–	–	13,057	–	31,750	–
1985	2,846	55	4,520	2,547	44	584	377	299	1,022	2,640	12,032	0	–	–	15,312	–	35,974	–
1986	2,664	53	5,211	2,087	58	501	368	322	949	3,552	13,049	0	–	–	15,808	–	36,362	–
1987	2,906	58	4,823	1,663	50	593	417	333	803	4,432	13,114	0	–	–	16,745	–	38,262	–
1988	2,614	64	4,350	1,718	146	583	402	352	1,060	4,288	12,898	0	–	–	17,446	–	39,441	–
1989	2,414	66	4,500	2,105	104	782	412	343	985	3,486	12,718	[f] NA	–	–	19,456	–	[R] 43,714	–
1990	2,200	62	5,008	1,733	33	633	424	297	1,241	4,027	13,396	NA	–	–	19,308	–	[R] 42,232	–
1991	2,034	47	3,703	1,556	28	547	379	285	777	3,814	11,089	NA	–	–	19,448	–	[R] 42,336	–
1992	706	50	3,509	1,408	19	928	387	275	1,073	4,559	12,159	NA	–	–	19,768	–	[R] 42,225	–
1993	732	49	4,684	1,787	27	713	394	290	1,244	4,025	13,163	NA	–	–	20,201	–	42,680	–
1994	738	48	4,363	1,697	66	1,055	412	294	1,252	4,133	13,271	NA	–	–	19,037	–	[R] 39,726	–
1995	760	49	4,236	1,682	57	701	405	328	740	4,057	12,207	NA	–	–	10,057	–	[R] 20,952	–
1996	785	50	3,610	2,087	58	803	393	343	1,384	4,283	12,960	NA	–	–	10,098	–	[R] 21,017	–
1997	790	66	5,619	1,765	41	837	415	363	856	4,273	14,169	NA	–	–	10,128	–	21,033	–
	Trillion Btu																	
1960	135.0	16.6	12.0	12.2	0.8	1.3	1.5	3.5	65.0	5.7	102.0	(s)	[R] 15.6	0.0	11.2	[R] 280.2	27.7	[R] 308.0
1965	162.4	28.3	21.8	18.5	0.7	1.7	1.9	2.3	52.2	9.4	108.5	(s)	[R] 20.4	0.0	17.3	[R] 336.9	41.3	[R] 378.2
1970	162.7	44.9	18.6	18.9	0.5	2.4	2.0	1.4	41.9	16.2	101.8	(s)	[R] 24.1	0.0	28.9	[R] 362.3	70.0	[R] 432.4
1975	102.2	43.6	21.5	20.0	0.8	3.3	2.8	1.5	31.3	12.4	93.7	0.0	[R] 22.6	0.0	30.9	[R] 293.0	74.6	[R] 367.7
1980	88.6	55.5	17.5	19.2	1.8	4.3	2.5	0.8	16.8	14.1	76.9	0.0	[R] 20.9	0.0	44.6	[R] 286.5	108.3	[R] 394.8
1985	74.8	56.5	30.0	14.8	0.2	2.1	2.3	1.6	6.4	14.9	72.4	0.0	[R] 24.5	0.0	52.2	[R] 280.4	122.7	[R] 403.2
1986	69.9	54.4	34.6	12.2	0.3	1.8	2.2	1.7	6.0	19.9	78.7	0.0	[R] 43.3	0.0	53.9	[R] 300.3	124.1	[R] 424.4
1987	75.9	60.4	32.0	9.7	0.3	2.2	2.5	1.8	5.0	25.1	78.6	0.0	[R] 43.2	0.0	57.1	[R] 315.2	130.5	[R] 445.7
1988	68.6	66.2	28.9	10.0	0.8	2.1	2.4	1.8	6.7	24.4	77.2	0.0	[R] 44.9	0.0	59.5	[R] 316.4	134.6	[R] 451.0
1989	63.3	68.3	29.9	12.3	0.6	2.9	2.5	1.8	6.2	19.6	75.7	[f] 0.0	[R f] 42.8	[f] 0.0	66.4	[R f] 316.4	[R] 149.2	[R f] 465.6
1990	57.4	63.5	33.2	10.1	0.2	2.3	2.6	1.6	7.8	22.8	80.6	0.0	[R] 23.2	0.0	65.9	[R] 290.5	144.1	[R] 434.6
1991	52.8	48.3	24.6	9.1	0.2	2.0	2.3	1.5	4.9	21.5	66.0	0.0	[R] 20.4	0.0	66.4	[R] 253.9	[R] 144.5	[R] 398.3
1992	17.8	51.1	23.3	8.2	0.1	3.4	2.3	1.4	6.7	25.8	71.3	0.0	[R] 21.4	0.0	67.4	[R] 229.0	144.1	[R] 373.1
1993	18.5	50.2	31.1	10.4	0.2	2.6	2.4	1.5	7.8	22.6	78.6	0.0	[R] 21.7	0.0	68.9	[R] 237.8	145.6	[R] 383.5
1994	18.8	49.1	28.9	9.9	0.4	3.8	2.5	1.5	7.9	23.3	78.3	0.0	[R] 21.4	0.0	65.0	[R] 232.5	135.5	[R] 368.0
1995	19.2	50.2	28.1	9.8	0.3	2.5	2.5	1.7	4.7	22.9	72.5	0.0	[R] 22.4	0.0	34.3	[R] 198.6	71.5	[R] 270.1
1996	19.7	51.4	24.0	12.2	0.3	2.9	2.4	1.8	8.7	24.1	76.4	0.0	[R] 23.1	0.0	34.5	[R] 205.1	71.7	[R] 276.8
1997	19.8	68.2	37.3	10.3	0.2	3.0	2.5	1.9	5.4	24.1	84.7	0.0	23.5	0.0	34.6	230.8	71.8	302.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 141. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Maryland

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	89	1	279	2,352	2,457	9	318	21,810	3,893	31,117	0	R 19	–	R 48	–
1965	20	1	474	3,774	2,856	10	310	26,981	5,024	39,429	0	0	–	0	–
1970	10	2	309	4,184	4,477	32	299	36,795	3,931	50,027	0	0	–	0	–
1975	1	2	205	5,244	2,973	46	307	43,275	2,807	54,856	0	0	–	0	–
1980	0	4	173	5,848	3,512	26	310	43,737	4,514	58,121	0	R 23	–	R 55	–
1985	0	2	76	7,375	3,901	60	282	45,163	1,511	58,368	0	R 75	–	R 176	–
1986	0	2	101	8,191	3,889	35	276	46,419	1,211	60,122	0	R 78	–	R 180	–
1987	0	2	87	8,152	3,771	32	312	47,702	2,082	62,137	0	R 84	–	R 192	–
1988	0	3	94	8,193	4,481	56	301	48,603	2,629	64,358	0	R 100	–	R 226	–
1989	0	2	83	10,078	4,384	57	309	49,088	2,427	66,427	[e] 0	R 92	–	R 207	–
1990	0	2	74	8,293	3,637	52	318	46,887	1,850	61,111	0	R 102	–	R 224	–
1991	0	3	75	8,727	3,293	42	284	48,045	1,373	61,840	0	R 106	–	R 230	–
1992	0	2	96	9,457	3,061	101	290	48,665	1,631	63,301	0	R 104	–	R 222	–
1993	0	2	102	9,425	3,000	115	295	49,281	1,291	63,509	0	R 120	–	R 254	–
1994	0	3	71	8,678	3,229	97	308	50,374	988	63,745	0	R 135	–	R 281	–
1995	0	3	48	9,068	3,430	48	303	51,115	946	64,958	3,146	R 137	–	R 285	–
1996	0	3	35	10,044	3,897	49	294	51,425	768	66,513	2,658	R 133	–	R 277	–
1997	0	3	43	10,075	4,096	45	311	53,200	739	68,508	3,131	130	–	270	–
			Trillion Btu												
1960	2.3	0.9	1.4	13.7	13.5	(s)	1.9	114.6	24.5	169.6	0.0	0.1	172.8	0.2	173.0
1965	0.5	1.2	2.4	22.0	15.7	(s)	1.9	141.7	31.6	215.4	0.0	0.0	217.1	0.0	217.1
1970	0.2	2.1	1.6	24.4	25.0	0.1	1.8	193.3	24.7	270.8	0.0	0.0	273.1	0.0	273.1
1975	(s)	2.2	1.0	30.5	16.5	0.2	1.9	227.3	17.6	295.1	0.0	0.0	297.3	0.0	297.3
1980	0.0	4.0	0.9	34.1	19.5	0.1	1.9	229.8	28.4	314.5	0.0	0.1	318.6	0.2	318.8
1985	0.0	2.3	0.4	43.0	21.7	0.2	1.7	237.2	9.5	313.7	0.0	R 0.3	R 316.3	R 0.6	R 316.9
1986	0.0	2.1	0.5	47.7	21.6	0.1	1.7	243.8	7.6	323.1	0.0	R 0.3	325.5	R 0.6	R 326.1
1987	0.0	2.2	0.4	47.5	21.0	0.1	1.9	250.6	13.1	334.6	0.0	R 0.3	337.0	R 0.7	R 337.7
1988	0.0	2.7	0.5	47.7	25.0	0.2	1.8	255.3	16.5	347.1	0.0	0.3	R 350.1	R 0.8	R 350.8
1989	0.0	2.3	0.4	58.7	24.5	0.2	1.9	257.9	15.3	358.8	[e] 0.0	0.3	R e 361.4	R 0.7	R e 362.1
1990	0.0	2.5	0.4	48.3	20.3	0.2	1.9	246.3	11.6	329.0	0.0	0.3	331.8	R 0.8	R 332.6
1991	0.0	2.6	0.4	50.8	18.4	0.2	1.7	252.4	8.6	332.5	0.0	R 0.4	335.4	R 0.8	R 336.2
1992	0.0	2.5	0.5	55.1	17.1	0.4	1.8	255.6	10.3	340.7	0.0	R 0.4	343.5	R 0.8	R 344.3
1993	0.0	2.5	0.5	54.9	16.8	0.4	1.8	258.9	8.1	341.4	0.0	R 0.4	344.3	R 0.9	R 345.2
1994	0.0	2.6	0.4	50.6	18.2	0.4	1.9	264.6	6.2	342.2	0.0	R 0.5	R 345.2	R 1.0	R 346.2
1995	0.0	2.9	0.2	52.8	19.4	0.2	1.8	268.5	5.9	349.0	0.2	R 0.5	R 352.4	R 1.0	R 353.4
1996	0.0	2.7	0.2	58.5	22.1	0.2	1.8	270.1	4.8	357.7	0.2	R 0.5	R 360.9	R 0.9	R 361.9
1997	0.0	3.3	0.2	58.7	23.2	0.2	1.9	279.5	4.6	368.3	0.2	0.4	372.0	0.9	372.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 142. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Maryland

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	3,088	0	3,088	(s)	166	16	0	182	0	1,356	0	0	0	–
1965	6,018	0	6,018	(s)	269	26	0	295	0	1,140	0	0	0	–
1970	5,950	0	5,950	11	9,946	945	0	10,891	0	1,906	0	0	0	–
1975	3,873	0	3,873	(s)	17,982	688	0	18,669	4,386	2,311	0	0	0	–
1980	5,908	0	5,908	5	8,139	1,111	0	9,250	10,947	1,270	0	0	0	–
1985	7,046	0	7,046	1	5,131	830	0	5,961	9,926	1,524	16	0	0	–
1986	7,961	0	7,961	2	4,254	748	0	5,002	12,828	1,876	38	0	0	–
1987	8,228	0	8,228	12	4,363	807	0	5,170	10,070	1,612	51	0	0	–
1988	9,020	0	9,020	5	6,009	857	0	6,866	11,734	1,328	57	0	0	–
1989	9,074	0	9,074	19	10,407	1,255	0	11,662	2,719	1,778	14	0	0	–
1990	8,945	0	8,945	18	6,234	598	0	6,832	1,251	2,299	0	0	0	–
1991	8,632	0	8,632	16	7,084	552	0	7,637	9,036	1,407	0	0	0	–
1992	8,993	0	8,993	12	4,654	458	0	5,111	10,664	1,825	0	0	0	–
1993	9,521	0	9,521	9	6,975	592	0	7,567	12,301	1,658	0	0	0	–
1994	9,717	0	9,717	13	6,581	1,040	0	7,621	11,235	2,010	0	0	0	–
1995	10,141	0	10,141	19	2,115	674	0	2,789	12,938	1,442	0	0	0	–
1996	10,540	0	10,540	8	2,121	782	0	2,903	12,093	2,457	0	0	0	–
1997	10,417	0	10,417	11	2,380	638	0	3,018	13,213	1,588	0	0	0	–
	Trillion Btu													
1960	82.2	0.0	82.2	0.1	1.0	0.1	0.0	1.1	0.0	14.6	0.0	0.0	0.0	98.0
1965	158.7	0.0	158.7	0.1	1.7	0.1	0.0	1.8	0.0	11.9	0.0	0.0	0.0	172.5
1970	146.4	0.0	146.4	11.7	62.5	5.5	0.0	68.0	0.0	20.0	0.0	0.0	0.0	246.2
1975	94.2	0.0	94.2	0.4	113.0	4.0	0.0	117.0	48.3	24.0	0.0	0.0	0.0	284.0
1980	146.3	0.0	146.3	5.4	51.2	6.5	0.0	57.6	119.4	13.2	0.0	0.0	0.0	341.8
1985	178.4	0.0	178.4	1.4	32.3	4.8	0.0	37.1	107.3	15.9	0.2	0.0	0.0	340.4
1986	202.0	0.0	202.0	2.3	26.7	4.4	0.0	31.1	138.5	19.6	0.4	0.0	0.0	394.0
1987	208.6	0.0	208.6	12.3	27.4	4.7	0.0	32.1	108.5	16.8	0.5	0.0	0.0	378.8
1988	229.6	0.0	229.6	5.6	37.8	5.0	0.0	42.8	126.1	13.7	0.6	0.0	0.0	418.2
1989	230.4	0.0	230.4	20.0	65.4	7.3	0.0	72.7	29.2	18.5	0.1	0.0	0.0	371.1
1990	227.8	0.0	227.8	18.3	39.2	3.5	0.0	42.7	13.4	23.9	0.0	0.0	0.0	326.0
1991	220.9	0.0	220.9	16.8	44.5	3.2	0.0	47.8	97.0	14.7	0.0	0.0	0.0	397.2
1992	229.4	0.0	229.4	12.1	29.3	2.7	0.0	31.9	113.9	18.9	0.0	0.0	0.0	406.1
1993	242.8	0.0	242.8	9.2	43.9	3.5	0.0	47.3	131.4	17.1	0.0	0.0	0.0	447.8
1994	249.2	0.0	249.2	13.3	41.4	6.1	0.0	47.4	119.9	20.7	0.0	0.0	0.0	450.6
1995	263.0	0.0	263.0	19.6	13.3	3.9	0.0	17.2	137.9	14.9	0.0	0.0	0.0	452.5
1996	271.5	0.0	271.5	8.8	13.3	4.6	0.0	17.9	128.5	25.4	0.0	0.0	0.0	452.0
1997	269.0	0.0	269.0	11.5	15.0	3.7	0.0	18.7	140.4	16.4	0.0	0.0	0.0	455.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 143. Energy Consumption Estimates by Source, Selected Years 1960-1997, Massachusetts

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	4,559	78	2,270	968	51,240	1,209	5,718	1,148	799	34,993	39,108	1,067	138,520	34	982	–	–	-711	–
1965	4,932	114	2,867	1,702	55,825	3,166	3,496	1,511	915	39,752	54,207	1,120	164,561	966	664	–	–	-6,364	–
1970	910	147	2,843	276	59,239	7,864	2,103	1,820	947	49,527	86,130	1,121	211,870	1,209	753	–	–	-7,191	–
1975	1,016	154	1,832	228	58,665	8,009	867	2,315	786	54,630	65,975	1,127	194,432	3,781	417	–	–	6,757	–
1980	874	183	1,231	274	37,613	8,573	698	2,125	841	51,443	54,143	2,312	159,253	3,232	158	–	–	11,452	–
1985	4,176	219	1,051	134	33,072	6,984	737	1,719	765	54,847	36,075	2,268	137,652	6,133	4,574	–	–	5,631	–
1986	3,785	186	1,114	145	35,559	6,913	826	2,279	748	56,380	49,646	2,178	155,789	2,420	4,020	–	–	19,222	–
1987	4,487	227	1,479	123	37,791	7,850	623	2,634	846	57,692	38,070	2,247	149,356	1,136	5,155	–	–	22,363	–
1988	4,463	211	1,763	127	36,766	9,320	418	2,373	816	59,344	38,420	2,167	151,514	1,117	3,084	–	–	35,337	–
1989	4,641	249	1,426	118	40,378	10,005	392	2,567	837	58,290	38,087	2,116	154,215	3,015	[i] NA	–	–	[R] 25,453	–
1990	4,337	258	1,339	97	33,697	9,806	308	2,631	861	56,125	32,066	2,337	139,265	5,070	NA	–	–	[R] 28,422	–
1991	4,451	252	1,976	45	33,188	9,398	369	1,919	770	54,488	30,533	2,277	134,964	4,417	NA	–	–	[R] 31,306	–
1992	4,257	295	1,567	45	35,150	7,880	424	1,869	785	55,436	27,386	2,426	132,967	4,742	NA	–	–	[R] 38,680	–
1993	3,811	312	1,454	85	36,629	7,728	378	2,102	800	56,065	24,361	2,444	132,046	4,339	NA	–	–	51,750	–
1994	3,932	337	886	73	35,313	7,433	336	2,056	836	56,871	21,079	2,397	127,278	3,859	NA	–	–	[R] 48,450	–
1995	4,113	362	1,249	84	36,635	6,636	275	2,143	821	58,775	13,942	2,270	122,831	4,486	NA	–	–	[R] 57,745	–
1996	4,477	358	1,270	90	34,929	6,873	209	2,507	797	59,794	15,500	2,381	124,350	5,324	NA	–	–	[R] 59,673	–
1997	4,891	380	916	87	35,596	7,298	257	2,532	842	60,912	22,497	2,522	133,461	4,310	NA	–	–	45,419	–
			Trillion Btu																
1960	118.8	80.6	15.1	4.9	298.5	6.7	32.4	4.6	4.8	183.8	245.9	6.3	803.0	0.4	10.6	[R] 42.8	0.0	-2.4	[R] 1,053.7
1965	127.9	115.7	19.0	8.6	325.2	17.8	19.8	6.1	5.6	208.8	340.8	6.0	957.7	11.4	6.9	[R] 48.7	0.0	-21.7	[R] 1,246.6
1970	21.4	149.1	18.9	1.4	345.1	44.5	11.9	6.9	5.7	260.2	541.5	6.0	1,242.0	13.3	7.9	[R] 57.1	0.0	-24.5	[R] 1,466.3
1975	24.5	154.6	12.2	1.2	341.7	45.3	4.9	8.6	4.8	287.0	414.8	6.1	1,126.5	41.6	4.3	[R] 49.0	0.0	23.1	[R] 1,423.6
1980	22.8	185.5	8.2	1.4	219.1	48.5	4.0	7.8	5.1	270.2	340.4	12.6	917.2	35.3	1.6	[R] 67.1	0.0	39.1	[R] 1,268.7
1985	110.2	224.8	7.0	0.7	192.6	39.5	4.2	6.2	4.6	288.1	226.8	12.2	781.9	66.3	47.8	[R] 67.7	0.0	19.2	[R] 1,317.9
1986	99.8	191.2	7.4	0.7	207.1	39.1	4.7	8.3	4.5	296.2	312.1	11.8	891.9	26.1	42.0	[R] 28.9	0.0	65.6	[R] 1,345.5
1987	117.6	233.4	9.8	0.6	220.1	44.4	3.5	9.6	5.1	303.1	239.3	12.1	847.8	12.2	53.7	[R] 22.0	0.0	76.3	[R] 1,363.0
1988	116.9	217.3	11.7	0.6	214.2	52.7	2.4	8.7	4.9	311.7	241.5	11.7	860.2	12.0	31.8	[R] 22.9	0.0	120.6	[R] 1,381.6
1989	120.7	258.9	9.5	0.6	235.2	56.6	2.2	9.5	5.1	306.2	239.5	11.4	875.7	32.3	[R i] 21.5	[R i] 37.6	[R i] 0.2	[R] 86.8	[R i] 1,438.2
1990	113.1	268.0	8.9	0.5	196.3	55.5	1.7	9.5	5.2	294.8	201.6	12.7	786.7	54.1	22.7	[R] 66.4	0.2	97.0	[R] 1,412.8
1991	116.8	261.3	13.1	0.2	193.3	52.8	2.1	6.9	4.7	286.2	192.0	12.3	763.7	47.4	[R] 20.2	[R] 51.9	0.2	106.8	[R] 1,372.8
1992	111.0	305.9	10.4	0.2	204.7	44.5	2.4	6.8	4.8	291.2	172.2	13.0	750.3	50.6	17.3	[R] 54.9	0.2	132.0	[R] 1,426.4
1993	98.5	324.2	9.6	0.4	213.4	43.7	2.1	7.6	4.8	294.5	153.2	13.2	742.5	46.3	16.7	[R] 58.2	[R] 0.3	176.6	[R] 1,467.7
1994	100.7	346.1	5.9	0.4	205.7	42.1	1.9	7.5	5.1	298.7	132.5	12.9	712.7	41.2	28.6	[R] 56.9	[R] 0.3	165.3	[R] 1,468.3
1995	104.4	371.7	8.3	0.4	213.4	37.6	1.6	7.8	5.0	308.7	87.7	12.2	682.7	47.8	11.0	[R] 60.6	[R] 0.3	197.0	[R] 1,481.3
1996	113.1	367.5	8.4	0.5	203.5	39.0	1.2	9.1	4.8	314.1	97.4	12.7	690.7	56.6	16.8	[R] 68.5	[R] 0.3	203.6	[R] 1,521.0
1997	122.9	388.6	6.1	0.4	207.3	41.4	1.5	9.2	5.1	320.0	141.4	13.6	746.0	45.8	14.0	56.2	0.4	155.0	1,534.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 144. Residential Energy Consumption Estimates, Selected Years 1960-1997, Massachusetts

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	141	253	394	45	34,305	4,858	752	39,915	R 427	–	–	4,190	–	10,423	–
1965	37	159	195	65	37,082	2,682	926	40,689	R 378	–	–	5,766	–	13,767	–
1970	9	97	105	83	38,530	1,434	933	40,897	R 459	–	–	9,335	–	22,621	–
1975	6	51	57	90	37,860	591	1,006	39,456	R 491	–	–	10,648	–	25,684	–
1980	14	37	50	94	22,712	323	675	23,710	R 1,559	–	–	11,571	–	28,137	–
1985	17	52	70	98	17,968	577	1,021	19,566	R 1,322	–	–	12,907	–	30,324	–
1986	9	31	40	102	18,492	501	1,137	20,129	R 1,287	–	–	13,608	–	31,302	–
1987	3	28	31	105	18,576	530	1,359	20,465	R 940	–	–	14,475	–	33,075	–
1988	9	22	31	109	18,536	300	1,336	20,171	R 977	–	–	15,511	–	35,067	–
1989	9	17	26	112	20,531	270	1,587	22,388	R 1,013	–	–	15,772	–	R 35,438	–
1990	12	18	29	107	17,287	163	1,358	18,808	904	–	–	15,581	–	R 34,080	–
1991	2	13	15	103	16,640	151	1,229	18,020	952	–	–	15,379	–	R 33,479	–
1992	14	11	25	120	18,812	259	1,219	20,291	1,002	–	–	15,560	–	R 33,236	–
1993	6	16	22	121	20,527	250	1,344	22,120	R 1,027	–	–	15,785	–	33,351	–
1994	1	12	13	120	19,764	218	1,389	21,372	R 1,006	–	–	16,049	–	R 33,490	–
1995	3	10	14	106	19,425	130	1,451	21,006	R 1,117	–	–	15,993	–	R 33,318	–
1996	5	11	16	114	18,625	148	1,640	20,413	R 1,115	–	–	16,256	–	R 33,832	–
1997	5	9	14	112	18,916	190	1,640	20,746	812	–	–	16,274	–	33,798	–
	Trillion Btu														
1960	3.5	6.2	9.8	46.6	199.8	27.5	3.0	230.4	R 8.5	0.0	0.0	14.3	R 309.6	35.6	R 345.2
1965	0.9	3.9	4.8	65.7	216.0	15.2	3.7	234.9	R 7.6	0.0	0.0	19.7	R 332.6	47.0	R 379.6
1970	0.2	2.3	2.5	83.6	224.4	8.1	3.5	236.1	R 9.2	0.0	0.0	31.8	R 363.2	77.2	R 440.4
1975	0.1	1.1	1.3	90.6	220.5	3.3	3.7	227.6	R 9.8	0.0	0.0	36.3	R 365.6	87.6	R 453.3
1980	0.3	0.8	1.2	96.0	132.3	1.8	2.5	136.6	R 31.2	0.0	0.0	39.5	R 304.4	96.0	R 400.4
1985	0.4	1.2	1.6	100.1	104.7	3.3	3.7	111.6	R 26.4	0.0	0.0	44.0	R 283.9	103.5	R 387.3
1986	0.2	0.7	1.0	104.9	107.7	2.8	4.1	114.7	R 25.7	0.0	0.0	46.4	R 292.8	106.8	R 399.6
1987	0.1	0.7	0.8	108.0	108.2	3.0	5.0	116.2	R 18.8	0.0	0.0	49.4	R 293.1	112.9	R 406.0
1988	0.2	0.6	0.8	111.9	108.0	1.7	4.9	114.5	R 19.5	0.0	0.0	52.9	R 299.7	119.6	R 419.4
1989	0.2	0.5	0.7	115.6	119.6	1.5	5.8	127.0	R 20.3	e 0.0	R e 0.2	53.8	R e 317.5	120.9	R e 438.5
1990	0.3	0.4	0.7	110.5	100.7	0.9	4.9	106.5	18.1	0.0	0.2	53.2	289.2	116.3	405.4
1991	(s)	0.3	0.4	106.9	96.9	0.9	4.4	102.2	19.0	0.0	0.2	52.5	281.2	114.2	395.4
1992	0.3	0.3	0.6	124.2	109.6	1.5	4.4	115.5	20.0	0.0	0.2	53.1	313.6	113.4	427.0
1993	0.1	0.4	0.5	125.9	119.6	1.4	4.8	125.8	R 20.5	0.0	0.2	53.9	R 326.8	113.8	R 440.6
1994	(s)	0.3	0.3	122.6	115.1	1.2	5.0	121.4	R 20.1	0.0	0.2	54.8	R 319.4	114.3	433.7
1995	0.1	0.3	0.3	108.5	113.2	0.7	5.3	119.1	R 22.3	0.0	0.2	54.6	R 305.1	113.7	R 418.8
1996	0.1	0.3	0.4	117.3	108.5	0.8	5.9	115.3	R 22.3	0.0	0.2	55.5	R 310.9	115.4	R 426.3
1997	0.1	0.2	0.3	114.6	110.2	1.1	5.9	117.2	16.2	0.0	0.2	55.5	304.1	115.3	419.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 145. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Massachusetts

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	263	168	431	10	11,965	404	133	135	10,036	22,672	R 8	–	R 3,011	–	R 7,488	–
1965	68	106	174	16	12,933	223	163	92	14,503	27,914	R 7	–	R 4,302	–	R 10,272	–
1970	16	65	81	35	13,438	119	165	102	14,872	28,696	R 9	–	R 7,782	–	R 18,858	–
1975	11	34	45	38	13,204	49	178	109	9,122	22,662	R 9	–	R 11,397	–	R 27,490	–
1980	25	24	50	53	7,510	30	119	191	4,854	12,704	R 37	–	R 13,047	–	R 31,726	–
1985	32	35	67	41	5,703	108	180	188	3,157	9,336	NA	–	R 15,566	–	R 36,571	–
1986	17	20	37	44	6,676	290	201	189	3,426	10,781	NA	–	R 16,561	–	R 38,096	–
1987	6	18	24	47	6,072	50	240	194	2,851	9,406	NA	–	R 17,666	–	R 40,365	–
1988	18	14	32	49	6,363	71	236	183	3,426	10,278	NA	–	R 18,732	–	R 42,348	–
1989	17	11	28	52	7,750	64	280	188	3,859	12,142	NA	–	R 19,330	–	R 43,431	–
1990	22	12	34	51	6,236	127	240	69	4,535	11,207	NA	–	R 19,520	–	R 42,695	–
1991	3	9	12	53	7,610	200	217	182	4,562	12,772	NA	–	R 19,421	–	R 42,276	–
1992	26	7	33	64	6,685	73	215	164	3,711	10,847	NA	–	R 19,563	–	R 41,787	–
1993	11	11	22	65	6,334	113	237	53	2,592	9,330	R 82	–	R 19,670	–	R 41,558	–
1994	1	8	9	85	5,548	100	245	57	2,998	8,948	R 84	–	R 20,105	–	R 41,954	–
1995	6	7	13	82	6,272	110	256	65	3,117	9,820	R 84	–	R 20,255	–	R 42,198	–
1996	10	7	17	96	5,718	47	289	65	2,472	8,591	R 92	–	R 20,711	–	R 43,105	–
1997	9	6	15	106	5,859	47	289	48	2,286	8,529	79	–	21,203	–	44,034	–
	Trillion Btu															
1960	6.6	4.2	10.7	10.6	69.7	2.3	0.5	0.7	63.1	136.3	R 0.2	0.0	10.3	R 168.1	R 25.6	R 193.7
1965	1.7	2.6	4.3	16.5	75.3	1.3	0.7	0.5	91.2	168.9	R 0.1	0.0	14.7	R 204.5	R 35.0	R 239.6
1970	0.4	1.5	1.9	35.8	78.3	0.7	0.6	0.5	93.5	173.6	R 0.2	0.0	26.6	R 238.0	R 64.3	302.4
1975	0.3	0.8	1.0	38.0	76.9	0.3	0.7	0.6	57.4	135.8	R 0.2	0.0	38.9	R 213.8	93.8	R 307.6
1980	0.6	0.6	1.2	54.3	43.7	0.2	0.4	1.0	30.5	75.9	R 0.7	0.0	44.5	R 176.7	R 108.2	R 284.9
1985	0.8	0.8	1.6	42.4	33.2	0.6	0.6	1.0	19.8	55.3	NA	0.0	R 53.1	R 152.4	R 124.8	R 277.2
1986	0.4	0.5	0.9	44.8	38.9	1.6	0.7	1.0	21.5	63.8	NA	0.0	R 56.5	R 166.0	R 130.0	R 296.0
1987	0.1	0.5	0.6	47.9	35.4	0.3	0.9	1.0	17.9	55.5	NA	0.0	R 60.3	R 164.3	R 137.7	R 302.0
1988	0.5	0.4	0.8	50.4	37.1	0.4	0.9	1.0	21.5	60.8	NA	0.0	R 63.9	R 175.9	R 144.5	R 320.4
1989	0.4	0.3	0.7	53.3	45.1	0.4	1.0	1.0	24.3	71.8	NA	[e] (s)	R 66.0	R 191.8	R 148.2	R 340.0
1990	0.5	0.3	0.8	52.3	36.3	0.7	0.9	0.4	28.5	66.8	NA	(s)	R 66.6	R 186.6	R 145.7	R 332.3
1991	0.1	0.2	0.3	55.2	44.3	1.1	0.8	1.0	28.7	75.9	NA	(s)	R 66.3	R 197.7	R 144.2	R 342.0
1992	0.6	0.2	0.8	66.8	38.9	0.4	0.8	0.9	23.3	64.3	NA	0.1	R 66.8	R 198.7	R 142.6	R 341.3
1993	0.3	0.3	0.5	67.9	36.9	0.6	0.9	0.3	16.3	55.0	R 1.6	0.1	R 67.1	R 192.3	R 141.8	R 334.1
1994	(s)	0.2	0.2	86.6	32.3	0.6	0.9	0.3	18.9	52.9	R 1.7	0.1	R 68.6	R 210.1	R 143.1	R 353.3
1995	0.2	0.2	0.3	84.4	36.5	0.6	0.9	0.3	19.6	58.0	R 1.7	0.1	R 69.1	R 213.7	R 144.0	R 357.6
1996	0.2	0.2	0.4	98.6	33.3	0.3	1.0	0.3	15.5	50.5	R 1.8	0.1	R 70.7	R 222.2	R 147.1	R 369.3
1997	0.2	0.1	0.4	108.0	34.1	0.3	1.0	0.3	14.4	50.1	1.6	0.2	72.3	232.5	150.2	382.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 146. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Massachusetts

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	1,266	12	2,270	2,322	456	260	356	133	17,875	1,067	24,739	117	–	–	5,075	–	12,625	–
1965	496	20	2,867	2,841	590	401	507	206	25,076	1,120	33,607	100	–	–	6,546	–	15,630	–
1970	149	23	2,843	2,897	549	693	506	111	25,742	1,121	34,463	72	–	–	7,418	–	17,975	–
1975	110	24	1,832	2,654	227	1,099	353	81	15,891	1,127	23,264	67	–	–	7,330	–	17,680	–
1980	98	29	1,231	1,886	345	1,305	377	91	2,663	2,312	10,209	63	–	–	8,486	–	20,635	–
1985	176	33	1,051	1,044	52	448	343	367	8,399	2,268	13,973	63	–	–	9,454	–	22,210	–
1986	112	24	1,114	1,564	36	879	336	379	13,565	2,178	20,051	63	–	–	9,682	–	22,272	–
1987	165	34	1,479	3,865	43	984	380	391	7,144	2,247	16,533	63	–	–	10,043	–	22,947	–
1988	140	32	1,763	2,451	48	740	366	417	3,655	2,167	11,607	63	–	–	10,243	–	23,157	–
1989	113	36	1,426	2,538	57	639	375	475	3,419	2,116	11,046	[f] NA	–	–	10,381	–	[R] 23,324	–
1990	73	44	1,339	2,176	18	973	386	414	2,640	2,337	10,284	NA	–	–	10,157	–	22,215	–
1991	85	55	1,976	1,195	18	404	346	332	1,406	2,277	7,955	NA	–	–	9,794	–	[R] 21,319	–
1992	155	71	1,567	1,855	92	372	352	334	2,180	2,426	9,178	NA	–	–	9,663	–	[R] 20,640	–
1993	115	95	1,454	1,402	15	460	359	175	3,537	2,444	9,846	NA	–	–	9,605	–	20,293	–
1994	65	93	886	1,121	17	333	375	347	2,731	2,397	8,209	NA	–	–	9,710	–	[R] 20,263	–
1995	42	108	1,249	1,237	35	387	369	373	1,481	2,270	7,400	NA	–	–	10,026	–	[R] 20,887	–
1996	38	100	1,270	1,237	14	533	358	372	1,719	2,381	7,883	NA	–	–	10,085	–	[R] 20,989	–
1997	36	108	916	1,166	21	562	378	392	1,759	2,522	7,715	NA	–	–	9,930	–	20,621	–
			Trillion Btu															
1960	33.2	12.0	15.1	13.5	2.6	1.0	2.2	0.7	112.4	6.3	153.8	1.3	[R] 34.1	0.0	17.3	[R] 251.6	43.1	[R] 294.7
1965	12.8	20.0	19.0	16.5	3.3	1.6	3.1	1.1	157.6	6.0	208.3	1.0	[R] 41.0	0.0	22.3	[R] 305.6	53.3	[R] 358.9
1970	3.6	22.8	18.9	16.9	3.1	2.6	3.1	0.6	161.8	6.0	213.0	0.8	[R] 47.8	0.0	25.3	[R] 313.3	61.3	[R] 374.6
1975	2.6	24.1	12.2	15.5	1.3	4.1	2.1	0.4	99.9	6.1	141.6	0.7	[R] 39.0	0.0	25.0	[R] 233.0	60.3	[R] 293.3
1980	2.4	29.4	8.2	11.0	2.0	4.8	2.3	0.5	16.7	12.6	58.0	0.7	[R] 35.2	0.0	29.0	[R] 154.6	70.4	[R] 225.0
1985	4.4	33.9	7.0	6.1	0.3	1.6	2.1	1.9	52.8	12.2	84.0	0.7	[R] 41.3	0.0	32.3	[R] 196.4	75.8	[R] 272.2
1986	2.8	24.5	7.4	9.1	0.2	3.2	2.0	2.0	85.3	11.8	121.0	0.7	[R] 3.2	0.0	33.0	[R] 185.2	76.0	[R] 261.2
1987	4.2	35.2	9.8	22.5	0.2	3.6	2.3	2.1	44.9	12.1	97.5	0.7	[R] 3.2	0.0	34.3	[R] 174.9	78.3	[R] 253.2
1988	3.5	32.5	11.7	14.3	0.3	2.7	2.2	2.2	23.0	11.7	68.0	0.6	[R] 3.3	0.0	34.9	[R] 143.0	79.0	[R] 222.0
1989	2.8	36.9	9.5	14.8	0.3	2.4	2.3	2.5	21.5	11.4	64.6	[R f] 2.1	[R f] 17.4	[f] 0.0	35.4	[R f] 159.2	79.6	[R f] 238.8
1990	1.8	45.8	8.9	12.7	0.1	3.5	2.3	2.2	16.6	12.7	59.0	2.6	[R] 48.4	0.0	34.7	[R] 192.2	75.8	[R] 268.0
1991	2.1	56.9	13.1	7.0	0.1	1.5	2.1	1.7	8.8	12.3	46.6	2.4	[R] 32.9	0.0	33.4	[R] 174.3	72.7	[R] 247.1
1992	3.9	73.5	10.4	10.8	0.5	1.3	2.1	1.8	13.7	13.0	53.7	2.6	[R] 34.9	0.0	33.0	[R] 201.6	70.4	[R] 272.0
1993	2.9	98.3	9.6	8.2	0.1	1.7	2.2	0.9	22.2	13.2	58.0	2.1	[R] 36.0	0.0	32.8	[R] 230.1	69.2	[R] 299.4
1994	1.6	95.1	5.9	6.5	0.1	1.2	2.3	1.8	17.2	12.9	47.9	2.0	[R] 35.0	0.0	33.1	[R] 214.8	69.1	[R] 283.9
1995	1.1	110.5	8.3	7.2	0.2	1.4	2.2	2.0	9.3	12.2	42.8	2.3	[R] 36.6	0.0	34.2	[R] 227.5	71.3	[R] 298.8
1996	0.9	102.6	8.4	7.2	0.1	1.9	2.2	2.0	10.8	12.7	45.3	2.8	[R] 44.3	0.0	34.4	[R] 230.3	71.6	[R] 302.0
1997	0.9	110.5	6.1	6.8	0.1	2.0	2.3	2.1	11.1	13.6	44.0	3.6	38.4	0.0	33.9	231.3	70.4	301.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 147. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Massachusetts

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	22	(s)	968	2,371	1,209	4	443	34,725	1,207	40,927	0	R 105	–	R 261	–
1965	2	(s)	1,702	2,632	3,166	22	408	39,454	2,472	49,856	0	R 105	–	R 251	–
1970	(s)	1	276	3,198	7,864	29	441	49,314	3,215	64,336	0	R 105	–	R 254	–
1975	(s)	1	228	4,485	7,967	33	433	54,440	1,049	68,634	0	R 105	–	R 253	–
1980	0	1	274	4,900	8,563	26	463	51,161	900	66,287	0	R 167	–	R 406	–
1985	0	1	134	7,536	6,984	70	422	54,292	874	70,311	0	R 193	–	R 453	–
1986	0	2	145	7,801	6,913	62	412	55,812	606	71,752	0	R 191	–	R 438	–
1987	0	1	123	8,155	7,850	51	466	57,108	459	74,212	0	R 199	–	R 455	–
1988	0	2	127	7,882	9,320	62	450	58,744	675	77,260	0	R 241	–	R 546	–
1989	0	2	118	7,904	10,005	62	461	57,627	1,184	77,361	R e 1	R 200	–	R 449	–
1990	0	1	97	7,510	9,806	59	475	55,642	1,385	74,973	1	R 183	–	R 401	–
1991	0	2	45	7,270	9,398	69	425	53,974	443	71,623	1	R 203	–	R 442	–
1992	0	2	45	7,404	7,880	63	433	54,938	434	71,197	1	R 212	–	R 452	–
1993	0	2	85	7,980	7,728	62	441	55,837	349	72,482	1	R 221	–	R 468	–
1994	0	2	73	8,346	7,433	88	461	56,466	369	73,236	0	R 227	–	R 474	–
1995	0	2	84	9,088	6,636	50	453	58,337	202	74,850	0	R 236	–	R 493	–
1996	0	2	90	8,896	6,873	46	439	59,356	2,036	77,737	0	R 241	–	R 502	–
1997	0	2	87	9,263	7,298	41	464	60,472	1,409	79,035	0	252	–	524	–
			Trillion Btu												
1960	0.6	0.3	4.9	13.8	6.7	(s)	2.7	182.4	7.6	218.1	0.0	0.4	R 219.3	0.9	R 220.2
1965	(s)	0.2	8.6	15.3	17.8	0.1	2.5	207.3	15.5	267.1	0.0	R 0.4	267.7	R 0.9	268.6
1970	(s)	1.1	1.4	18.6	44.5	0.1	2.7	259.0	20.2	346.5	0.0	R 0.4	R 348.0	R 0.9	R 348.9
1975	(s)	0.5	1.2	26.1	45.1	0.1	2.6	286.0	6.6	367.7	0.0	0.4	368.5	0.9	369.4
1980	0.0	0.7	1.4	28.5	48.4	0.1	2.8	268.7	5.7	355.7	0.0	R 0.6	356.9	R 1.4	R 358.3
1985	0.0	1.4	0.7	43.9	39.5	0.3	2.6	285.2	5.5	377.6	0.0	R 0.7	379.6	R 1.5	R 381.2
1986	0.0	1.7	0.7	45.4	39.1	0.2	2.5	293.2	3.8	385.0	0.0	R 0.7	R 387.3	R 1.5	R 388.8
1987	0.0	1.2	0.6	47.5	44.4	0.2	2.8	300.0	2.9	398.4	0.0	R 0.7	R 400.3	R 1.6	R 401.8
1988	0.0	2.0	0.6	45.9	52.7	0.2	2.7	308.6	4.2	415.1	0.0	R 0.8	R 417.9	R 1.9	R 419.8
1989	0.0	2.3	0.6	46.0	56.6	0.2	2.8	302.7	7.4	416.4	R e (s)	R 0.7	R e 419.4	R 1.5	R e 421.0
1990	0.0	1.3	0.5	43.7	55.5	0.2	2.9	292.3	8.7	403.8	(s)	R 0.6	R 405.7	R 1.4	R 407.1
1991	0.0	1.6	0.2	42.3	52.8	0.2	2.6	283.5	2.8	384.6	(s)	R 0.7	R 386.8	R 1.5	R 388.3
1992	0.0	1.8	0.2	43.1	44.5	0.2	2.6	288.6	2.7	382.1	(s)	R 0.7	R 384.6	R 1.5	R 386.1
1993	0.0	2.3	0.4	46.5	43.7	0.2	2.7	293.3	2.2	389.0	(s)	R 0.8	R 392.1	R 1.6	R 393.7
1994	0.0	1.9	0.4	48.6	42.1	0.3	2.8	296.6	2.3	393.1	0.0	R 0.8	R 395.8	R 1.6	R 397.4
1995	0.0	1.9	0.4	52.9	37.6	0.2	2.7	306.4	1.3	401.6	0.0	R 0.8	R 404.4	R 1.7	R 406.0
1996	0.0	2.2	0.5	51.8	39.0	0.2	2.7	311.8	12.8	418.7	0.0	R 0.8	R 421.7	R 1.7	R 423.4
1997	0.0	2.4	0.4	54.0	41.4	0.1	2.8	317.7	8.9	425.3	0.0	0.9	428.5	1.8	430.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 148. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Massachusetts

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,446	0	2,446	11	9,990	277	0	10,267	34	865	0	0	0	–
1965	4,066	0	4,066	13	12,157	337	0	12,494	966	564	0	0	0	–
1970	575	0	575	6	42,301	1,176	0	43,477	1,209	682	0	0	0	–
1975	804	0	804	1	39,912	503	0	40,415	3,781	350	0	0	0	–
1980	676	0	676	5	45,726	616	0	46,342	3,232	96	0	0	0	–
1985	3,863	0	3,863	45	23,645	822	0	24,467	6,133	4,511	0	0	0	–
1986	3,596	0	3,596	15	32,050	1,026	0	33,076	2,420	3,957	0	0	0	–
1987	4,267	0	4,267	40	27,616	1,124	0	28,739	1,136	5,092	0	0	0	–
1988	4,260	0	4,260	20	30,664	1,534	0	32,198	1,117	3,021	0	0	0	–
1989	4,474	0	4,474	48	29,625	1,654	0	31,279	3,015	R 1,858	0	0	0	–
1990	4,201	0	4,201	55	23,505	488	0	23,993	5,070	1,937	0	0	0	–
1991	4,339	0	4,339	39	24,121	473	0	24,594	4,417	1,701	0	0	0	–
1992	4,044	0	4,044	38	21,061	394	0	21,455	4,742	1,426	0	0	0	–
1993	3,652	0	3,652	29	17,883	386	0	18,269	4,339	1,416	0	0	0	–
1994	3,845	0	3,845	39	14,981	533	0	15,514	3,859	2,576	0	0	0	–
1995	4,044	0	4,044	65	9,143	612	0	9,755	4,486	850	0	0	0	–
1996	4,406	0	4,406	45	9,273	453	0	9,727	5,324	1,353	0	0	0	–
1997	4,826	0	4,826	51	17,043	392	0	17,436	4,310	1,011	0	0	0	–
	Trillion Btu													
1960	64.5	0.0	64.5	11.2	62.8	1.6	0.0	64.4	0.4	9.3	0.0	0.0	0.0	149.8
1965	106.0	0.0	106.0	13.3	76.4	2.0	0.0	78.4	11.4	5.9	0.0	0.0	0.0	215.0
1970	13.4	0.0	13.4	5.7	265.9	6.8	0.0	272.8	13.3	7.2	0.0	0.0	0.0	312.3
1975	19.6	0.0	19.6	1.4	250.9	2.9	0.0	253.8	41.6	3.6	0.0	0.0	0.0	320.1
1980	18.1	0.0	18.1	5.1	287.5	3.6	0.0	291.1	35.3	1.0	0.0	0.0	0.0	350.5
1985	102.6	0.0	102.6	46.9	148.7	4.8	0.0	153.4	66.3	47.1	0.0	0.0	0.0	416.4
1986	95.1	0.0	95.1	15.3	201.5	6.0	0.0	207.5	26.1	41.3	0.0	0.0	0.0	385.3
1987	112.0	0.0	112.0	41.2	173.6	6.5	0.0	180.2	12.2	53.1	0.0	0.0	0.0	398.7
1988	111.7	0.0	111.7	20.5	192.8	8.9	0.0	201.7	12.0	31.2	0.0	0.0	0.0	377.1
1989	116.4	0.0	116.4	50.8	186.3	9.6	0.0	195.9	32.3	R 19.4	0.0	0.0	0.0	419.2
1990	109.7	0.0	109.7	58.1	147.8	2.8	0.0	150.6	54.1	20.1	0.0	0.0	0.0	397.2
1991	114.0	0.0	114.0	40.7	151.7	2.8	0.0	154.4	47.4	R 17.8	0.0	0.0	0.0	R 378.8
1992	105.7	0.0	105.7	39.6	132.4	2.3	0.0	134.7	50.6	14.7	0.0	0.0	0.0	349.5
1993	94.6	0.0	94.6	29.8	112.4	2.2	0.0	114.7	46.3	14.6	0.0	0.0	0.0	304.4
1994	98.5	0.0	98.5	40.0	94.2	3.1	0.0	97.3	41.2	26.6	0.0	0.0	0.0	320.1
1995	102.7	0.0	102.7	66.3	57.5	3.6	0.0	61.0	47.8	8.8	0.0	0.0	0.0	292.3
1996	111.3	0.0	111.3	46.8	58.3	2.6	0.0	60.9	56.6	14.0	0.0	0.0	0.0	293.6
1997	121.3	0.0	121.3	53.2	107.2	2.3	0.0	109.4	45.8	10.4	0.0	0.0	0.0	345.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 149. Energy Consumption Estimates by Source, Selected Years 1960-1997, Michigan

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	25,934	370	2,936	1,312	30,235	3,369	4,072	2,827	2,497	65,782	11,840	4,629	129,498	0	3,280	–	–	9,080	–
1965	33,132	556	2,264	2,619	30,287	4,377	5,880	3,716	3,025	78,044	8,594	8,738	147,543	181	1,400	–	–	11,513	–
1970	34,066	809	3,881	718	38,141	7,365	3,124	6,202	3,157	96,831	10,056	10,304	179,778	375	1,303	–	–	12,620	–
1975	31,198	884	3,886	347	42,170	5,776	1,349	7,475	2,751	108,255	18,291	10,478	200,779	7,176	1,430	–	–	4,840	–
1980	31,110	865	3,507	488	27,643	6,646	1,233	6,736	3,274	97,025	13,289	17,373	177,214	15,891	6,885	–	–	-13,005	–
1985	32,793	709	2,779	201	25,411	6,570	507	14,225	2,979	93,447	3,109	8,329	157,556	13,452	1,388	–	–	21,789	–
1986	33,999	671	3,384	250	26,499	7,129	419	15,690	2,913	96,015	3,761	9,167	165,228	12,257	1,408	–	–	18,866	–
1987	35,865	657	3,506	242	25,320	8,371	421	17,656	3,293	99,154	3,316	9,570	170,849	14,389	1,251	–	–	-2,630	–
1988	35,332	749	2,876	241	27,630	8,585	474	17,302	3,176	102,367	4,793	9,642	177,088	17,808	764	–	–	1,050	–
1989	34,885	774	3,863	268	24,873	9,235	517	19,053	3,257	101,143	4,514	9,572	176,296	21,312	[i] NA	–	–	[R] 12,386	–
1990	34,713	817	3,950	215	23,312	10,057	270	14,901	3,352	99,913	2,750	10,456	169,175	21,611	NA	–	–	[R] 27,572	–
1991	33,879	828	3,464	206	24,978	10,234	360	16,017	2,999	101,375	1,750	12,735	174,117	27,021	NA	–	–	[R] -16,457	–
1992	31,554	891	3,546	182	25,311	10,125	251	16,666	3,057	101,370	1,706	13,589	175,803	18,849	NA	–	–	[R] 14,783	–
1993	32,217	913	4,453	198	28,719	10,305	452	13,077	3,113	105,003	2,094	13,496	180,911	28,525	NA	–	–	-9,591	–
1994	35,674	926	3,596	237	29,347	10,281	415	14,287	3,254	105,744	2,188	13,756	183,105	14,144	NA	–	–	[R] 9,919	–
1995	35,802	971	4,955	231	29,118	8,818	366	14,497	3,198	110,546	1,610	13,200	186,540	24,448	NA	–	–	[R] -5,657	–
1996	36,694	1,015	3,703	215	29,502	9,045	421	16,655	3,104	110,520	1,787	13,981	188,930	26,829	NA	–	–	[R] 1,431	–
1997	35,888	980	7,777	197	30,999	9,483	354	16,824	3,279	112,389	1,564	14,893	197,759	21,914	NA	–	–	22,041	–
			Trillion Btu																
1960	653.2	383.0	19.5	6.6	176.1	18.2	23.1	11.3	15.1	345.6	74.4	27.4	717.3	0.0	35.3	[R] 37.3	0.0	31.0	[R] 1,857.1
1965	830.2	563.6	15.0	13.2	176.4	24.0	33.3	14.9	18.3	410.0	54.0	49.4	808.6	2.1	14.6	[R] 36.9	0.0	39.3	[R] 2,295.4
1970	828.9	821.3	25.8	3.6	222.2	41.0	17.7	23.4	19.1	508.7	63.2	57.6	982.3	4.1	13.7	[R] 36.4	0.0	43.1	[R] 2,729.7
1975	751.0	894.8	25.8	1.7	245.6	32.1	7.6	27.8	16.7	568.7	115.0	59.2	1,100.3	79.0	14.9	[R] 35.9	0.0	16.5	[R] 2,892.4
1980	759.0	874.7	23.3	2.5	161.0	37.1	7.0	24.7	19.9	509.7	83.6	95.8	964.5	173.3	71.5	[R] 90.6	0.0	-44.4	[R] 2,889.3
1985	781.9	719.9	18.4	1.0	148.0	36.7	2.9	51.3	18.1	490.9	19.5	46.0	832.8	145.5	14.5	[R] 97.8	0.0	74.3	[R] 2,666.7
1986	811.9	689.4	22.5	1.3	154.4	39.9	2.4	57.1	17.7	504.4	23.6	50.8	874.0	132.4	14.7	[R] 111.7	0.0	64.4	[R] 2,698.5
1987	840.2	671.2	23.3	1.2	147.5	46.9	2.4	64.6	20.0	520.9	20.8	52.7	900.3	155.1	13.0	[R] 115.7	0.0	-9.0	[R] 2,686.5
1988	830.9	765.7	19.1	1.2	160.9	48.1	2.7	63.2	19.3	537.7	30.1	53.4	935.8	191.3	7.9	[R] 120.3	0.0	3.6	[R] 2,855.5
1989	799.3	796.9	25.6	1.4	144.9	51.8	2.9	70.2	19.8	531.3	28.4	52.9	929.2	228.6	[R i] -47.9	[R i] 126.7	[R i] 0.7	[R] 42.3	[R i] 2,871.5
1990	786.3	835.4	26.2	1.1	135.8	56.6	1.5	54.0	20.3	524.8	17.3	57.9	895.6	230.8	[R] 9.9	[R] 111.1	[R] 0.8	[R] 94.1	[R] 2,845.2
1991	759.8	844.2	23.0	1.0	145.5	57.5	2.0	57.9	18.2	532.5	11.0	70.4	919.0	290.2	11.2	[R] 110.4	[R] 0.8	-56.2	[R] 2,870.2
1992	702.0	909.0	23.5	0.9	147.4	57.0	1.4	60.4	18.5	532.5	10.7	74.6	927.1	201.3	11.7	[R] 117.4	[R] 0.9	50.4	[R] 2,912.1
1993	708.1	932.2	29.6	1.0	167.3	58.1	2.6	47.2	18.9	551.6	13.2	74.2	963.5	304.7	18.0	[R] 108.0	[R] 0.9	-32.7	[R] 2,999.5
1994	794.0	945.5	23.9	1.2	170.9	58.2	2.4	51.9	19.7	555.5	13.8	75.6	973.0	151.0	52.6	[R] 108.5	[R] 1.0	33.8	[R] 3,081.7
1995	780.9	987.4	32.9	1.2	169.6	50.0	2.1	52.5	19.4	580.7	10.1	72.5	991.0	260.6	[R] 47.9	[R] 112.2	[R] 1.1	-19.3	[R] 3,178.5
1996	789.3	1,026.7	24.6	1.1	171.8	51.3	2.4	60.2	18.8	580.6	11.2	76.5	998.4	285.0	26.2	[R] 113.9	[R] 1.1	4.9	[R] 3,247.7
1997	774.6	995.4	51.6	1.0	180.6	53.8	2.0	60.8	19.9	590.4	9.8	81.8	1,051.7	232.8	26.9	107.9	1.2	75.2	3,259.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 150. Residential Energy Consumption Estimates, Selected Years 1960-1997, Michigan

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	834	8	842	202	17,380	765	1,940	20,084	R 1,103	–	–	8,728	–	21,709	–
1965	615	5	620	271	16,334	1,279	2,346	19,959	R 890	–	–	11,309	–	27,002	–
1970	299	3	302	340	18,839	545	4,493	23,877	R 829	–	–	17,103	–	41,446	–
1975	138	2	140	335	19,420	302	5,219	24,942	R 796	–	–	20,886	–	50,380	–
1980	107	1	108	387	9,195	83	3,375	12,653	R 1,970	–	–	22,260	–	54,129	–
1985	88	1	89	341	5,964	425	4,427	10,817	R 1,950	–	–	22,302	–	52,396	–
1986	90	0	90	330	5,883	346	5,039	11,268	R 1,898	–	–	23,025	–	52,964	–
1987	42	0	42	314	5,214	325	6,209	11,748	R 2,116	–	–	24,032	–	54,911	–
1988	61	(s)	61	349	5,820	400	6,495	12,714	R 2,198	–	–	25,316	–	57,235	–
1989	61	(s)	62	362	4,771	392	7,151	12,314	R 2,280	–	–	25,319	–	R 56,888	–
1990	94	0	94	327	4,167	217	6,538	10,922	1,373	–	–	25,319	–	R 55,378	–
1991	92	1	93	337	4,558	279	7,248	12,085	1,447	–	–	26,760	–	R 58,252	–
1992	66	(s)	66	358	4,232	205	7,331	11,767	1,522	–	–	25,671	–	R 54,833	–
1993	83	(s)	83	370	4,149	355	7,976	12,480	R 779	–	–	26,770	–	56,560	–
1994	101	1	102	365	4,032	322	7,896	12,250	R 763	–	–	27,174	–	R 56,705	–
1995	89	1	89	380	4,123	233	8,015	12,370	R 847	–	–	28,623	–	R 59,630	–
1996	94	1	95	400	3,912	230	9,538	13,680	R 846	–	–	28,901	–	R 60,150	–
1997	66	1	66	380	3,879	254	9,538	13,671	615	–	–	28,726	–	59,658	–
	Trillion Btu														
1960	20.6	0.2	20.8	209.0	101.2	4.3	7.8	113.4	R 22.1	0.0	0.0	29.8	R 395.1	74.1	R 469.2
1965	15.2	0.1	15.3	274.8	95.1	7.3	9.4	111.8	R 17.8	0.0	0.0	38.6	R 458.3	92.1	R 550.4
1970	7.1	0.1	7.2	345.1	109.7	3.1	17.0	129.8	R 16.6	0.0	0.0	58.4	R 557.1	141.4	R 698.5
1975	3.2	(s)	3.3	343.0	113.1	1.7	19.4	134.2	R 15.9	0.0	0.0	71.3	R 567.7	171.9	R 739.6
1980	2.6	(s)	2.6	394.9	53.6	0.5	12.4	66.4	R 39.4	0.0	0.0	76.0	R 579.3	184.7	R 764.0
1985	2.1	(s)	2.2	348.9	34.7	2.4	16.0	53.1	R 39.0	0.0	0.0	76.1	R 519.3	178.8	R 698.0
1986	2.2	0.0	2.2	342.9	34.3	2.0	18.3	54.6	R 38.0	0.0	0.0	78.6	R 516.2	180.7	R 696.9
1987	1.0	0.0	1.0	324.1	30.4	1.8	22.7	54.9	R 42.3	0.0	0.0	82.0	R 504.4	187.4	R 691.8
1988	1.5	(s)	1.5	362.3	33.9	2.3	23.7	59.9	R 44.0	0.0	0.0	86.4	R 554.1	195.3	R 749.4
1989	1.5	(s)	1.5	380.4	27.8	2.2	26.3	56.4	R 45.6	e 0.5	R e 0.2	86.4	R e 571.0	R 194.1	R e 765.1
1990	2.3	0.0	2.3	342.2	24.3	1.2	23.7	49.2	27.5	0.6	0.2	86.4	R 508.3	R 189.0	R 697.3
1991	2.3	(s)	2.3	350.2	26.5	1.6	26.2	54.3	28.9	0.6	0.2	91.3	R 527.9	R 198.8	R 726.7
1992	1.6	(s)	1.7	371.5	24.7	1.2	26.6	52.4	30.4	0.7	0.2	87.6	R 544.4	187.1	R 731.5
1993	2.0	(s)	2.1	382.6	24.2	2.0	28.8	54.9	15.6	0.7	0.2	91.3	R 547.4	193.0	R 740.4
1994	2.5	(s)	2.5	376.8	23.5	1.8	28.7	54.0	15.3	0.7	0.2	92.7	R 542.2	193.5	R 735.6
1995	2.2	(s)	2.2	396.0	24.0	1.3	29.0	54.4	R 16.9	0.7	0.2	97.7	R 568.1	R 203.5	R 771.6
1996	2.3	(s)	2.4	414.0	22.8	1.3	34.5	58.6	R 16.9	0.8	0.2	98.6	R 591.4	205.2	R 796.6
1997	1.6	(s)	1.6	395.3	22.6	1.4	34.5	58.5	12.3	0.8	0.3	98.0	566.9	203.6	770.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 151. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Michigan

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	1,549	6	1,554	43	3,212	566	342	324	1,175	5,619	R 21	–	6,381	–	15,872	–
1965	1,143	3	1,146	85	3,019	946	414	536	839	5,754	R 17	–	9,124	–	21,785	–
1970	555	2	557	133	3,482	403	793	804	558	6,040	R 16	–	13,021	–	31,553	–
1975	257	1	258	182	3,589	224	921	954	390	6,078	R 15	–	14,596	–	35,207	–
1980	199	1	200	190	3,123	15	596	823	225	4,781	R 47	–	16,765	–	40,767	–
1985	163	1	164	158	2,359	11	781	699	274	4,126	NA	–	18,421	–	43,279	–
1986	167	0	167	136	2,955	13	889	706	230	4,794	NA	–	19,137	–	44,020	–
1987	77	0	77	186	1,747	15	1,096	727	134	3,718	NA	–	19,850	–	45,355	–
1988	114	(s)	114	168	2,430	19	1,146	754	192	4,541	NA	–	20,876	–	47,197	–
1989	114	(s)	114	176	2,078	56	1,262	670	90	4,156	NA	–	21,480	–	R 48,261	–
1990	174	0	174	159	1,730	18	1,154	770	72	3,744	NA	–	21,986	–	R 48,088	–
1991	171	(s)	171	166	1,938	17	1,279	586	5	3,825	NA	–	22,748	–	R 49,519	–
1992	122	(s)	123	174	1,767	5	1,294	553	12	3,631	NA	–	R 22,508	–	48,078	–
1993	154	(s)	154	180	1,472	25	1,407	77	8	2,990	R 63	–	R 30,242	–	R 63,894	–
1994	187	1	188	183	1,437	33	1,393	363	3	3,229	R 64	–	R 31,264	–	R 65,240	–
1995	164	(s)	165	194	1,770	102	1,414	77	5	3,369	R 64	–	R 32,153	–	R 66,985	–
1996	175	1	175	201	1,790	149	1,683	77	5	3,705	R 70	–	R 32,896	–	R 68,463	–
1997	122	(s)	122	192	2,030	56	1,683	76	57	3,901	60	–	33,231	–	69,012	–
	Trillion Btu															
1960	38.3	0.1	38.5	44.5	18.7	3.2	1.4	1.7	7.4	32.4	R 0.4	0.0	21.8	R 137.6	54.2	R 191.7
1965	28.1	0.1	28.2	86.0	17.6	5.4	1.7	2.8	5.3	32.7	R 0.3	0.0	31.1	R 178.4	74.3	R 252.7
1970	13.2	(s)	13.3	134.7	20.3	2.3	3.0	4.2	3.5	33.3	R 0.3	0.0	44.4	R 226.0	107.7	R 333.7
1975	6.0	(s)	6.1	186.4	20.9	1.3	3.4	5.0	2.4	33.1	R 0.3	0.0	49.8	R 275.6	120.1	R 395.7
1980	4.8	(s)	4.9	194.0	18.2	0.1	2.2	4.3	1.4	26.2	R 0.9	0.0	57.2	R 283.2	139.1	R 422.3
1985	4.0	(s)	4.0	161.4	13.7	0.1	2.8	3.7	1.7	22.0	NA	0.0	62.9	250.3	147.7	397.9
1986	4.2	0.0	4.2	140.8	17.2	0.1	3.2	3.7	1.4	25.7	NA	0.0	65.3	235.9	150.2	386.1
1987	1.9	0.0	1.9	191.8	10.2	0.1	4.0	3.8	0.8	18.9	NA	0.0	67.7	280.3	154.8	435.1
1988	2.8	(s)	2.8	174.6	14.2	0.1	4.2	4.0	1.2	23.6	NA	0.0	71.2	272.2	161.0	433.3
1989	2.8	(s)	2.8	185.3	12.1	0.3	4.6	3.5	0.6	21.2	NA	0.0	73.3	282.6	R 164.7	R 447.3
1990	4.3	0.0	4.3	166.6	10.1	0.1	4.2	4.0	0.5	18.9	NA	0.0	75.0	264.8	164.1	428.9
1991	4.3	(s)	4.3	172.0	11.3	0.1	4.6	3.1	(s)	19.1	NA	0.0	77.6	273.0	R 169.0	441.9
1992	3.0	(s)	3.1	180.3	10.3	(s)	4.7	2.9	0.1	18.0	NA	0.0	76.8	R 278.1	164.0	442.2
1993	3.8	(s)	3.8	186.5	8.6	0.1	5.1	0.4	0.1	14.2	R 1.3	0.0	103.2	R 308.9	218.0	R 527.0
1994	4.6	(s)	4.6	189.2	8.4	0.2	5.1	1.9	(s)	15.5	R 1.3	0.1	106.7	R 317.4	222.6	R 540.0
1995	4.1	(s)	4.1	202.2	10.3	0.6	5.1	0.4	(s)	16.5	R 1.3	0.1	109.7	R 333.8	R 228.6	R 562.4
1996	4.3	(s)	4.4	208.7	10.4	0.8	6.1	0.4	(s)	17.8	R 1.4	0.1	112.2	R 344.6	233.6	R 578.2
1997	3.0	(s)	3.0	200.1	11.8	0.3	6.1	0.4	0.4	19.0	1.2	0.2	113.4	336.8	235.5	572.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 152. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Michigan

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	13,011	117	2,936	7,091	2,741	524	1,221	3,151	9,574	4,629	31,866	212	–	–	12,482	–	31,046	–
1965	15,193	192	2,264	7,518	3,655	923	1,898	2,694	6,660	8,738	34,350	146	–	–	19,350	–	46,201	–
1970	13,061	262	3,881	8,502	2,175	854	1,834	2,758	4,557	10,304	34,864	123	–	–	25,169	–	60,992	–
1975	9,885	300	3,886	8,749	823	1,239	1,430	1,889	3,343	10,478	31,837	121	–	–	28,866	–	69,627	–
1980	8,652	249	3,507	4,804	1,135	2,637	1,796	967	3,213	17,373	35,433	117	–	–	30,656	–	74,545	–
1985	6,645	190	2,779	4,246	70	8,725	1,635	1,192	2,213	8,329	29,190	117	–	–	33,704	–	79,184	–
1986	6,681	180	3,384	4,608	60	9,479	1,598	1,151	2,343	9,167	31,790	117	–	–	34,091	–	78,418	–
1987	4,892	134	3,506	4,264	82	10,011	1,807	1,145	2,015	9,570	32,400	117	–	–	35,098	–	80,197	–
1988	5,189	199	2,876	4,992	56	9,316	1,743	1,065	2,152	9,642	31,842	117	–	–	36,324	–	82,121	–
1989	4,738	201	3,863	3,772	69	10,356	1,787	1,074	1,775	9,572	32,267	[f] NA	–	–	36,131	–	[R] 81,179	–
1990	4,719	290	3,950	3,406	34	6,926	1,839	976	1,435	10,456	29,023	NA	–	–	35,062	–	[R] 76,689	–
1991	3,718	282	3,464	4,576	64	7,228	1,646	1,111	751	12,735	31,573	NA	–	–	35,007	–	[R] 76,205	–
1992	3,127	313	3,546	4,628	41	7,791	1,678	950	763	13,589	32,986	NA	–	–	35,657	–	[R] 76,163	–
1993	3,231	320	4,453	4,487	72	3,420	1,708	1,034	965	13,496	29,636	NA	–	–	30,572	–	64,592	–
1994	4,278	338	3,596	4,729	60	4,528	1,786	1,166	972	13,756	30,592	NA	–	–	32,717	–	[R] 68,271	–
1995	4,383	336	4,955	3,736	32	4,826	1,755	1,310	408	13,200	30,222	NA	–	–	33,921	–	[R] 70,667	–
1996	4,248	356	3,703	3,943	42	5,224	1,703	1,418	422	13,978	30,432	NA	–	–	34,499	–	[R] 71,801	–
1997	3,772	351	7,777	4,223	44	5,411	1,799	1,271	423	14,893	35,842	NA	–	–	35,430	–	73,579	–
			Trillion Btu															
1960	332.0	121.3	19.5	41.3	15.5	2.1	7.4	16.5	60.2	27.4	189.9	2.3	[R] 14.8	0.0	42.6	[R] 702.9	105.9	[R] 808.8
1965	385.6	195.1	15.0	43.8	20.7	3.7	11.5	14.2	41.9	49.4	200.2	1.5	[R] 18.8	0.0	66.0	[R] 867.2	157.6	[R] 1,024.8
1970	320.9	265.7	25.8	49.5	12.3	3.2	11.1	14.5	28.7	57.6	202.7	1.3	[R] 19.5	0.0	85.9	[R] 896.0	208.1	[R] 1,104.1
1975	246.7	307.7	25.8	51.0	4.7	4.6	8.7	9.9	21.0	59.2	184.9	1.3	[R] 19.7	0.0	98.5	[R] 858.8	237.6	[R] 1,096.3
1980	219.4	253.7	23.3	28.0	6.4	9.7	10.9	5.1	20.2	95.8	199.4	1.2	[R] 50.2	0.0	104.6	[R] 828.5	254.3	[R] 1,082.9
1985	169.9	194.2	18.4	24.7	0.4	31.4	9.9	6.3	13.9	46.0	151.1	1.2	[R] 58.8	0.0	115.0	[R] 690.3	270.2	[R] 960.4
1986	171.2	186.7	22.5	26.8	0.3	34.5	9.7	6.0	14.7	50.8	165.4	1.2	[R] 73.7	0.0	116.3	[R] 714.5	267.6	[R] 982.1
1987	123.7	138.4	23.3	24.8	0.5	36.6	11.0	6.0	12.7	52.7	167.5	1.2	[R] 73.4	0.0	119.8	[R] 624.0	273.6	[R] 897.6
1988	130.6	207.3	19.1	29.1	0.3	34.0	10.6	5.6	13.5	53.4	165.6	1.2	[R] 76.4	0.0	123.9	[R] 705.0	280.2	[R] 985.2
1989	118.9	211.4	25.6	22.0	0.4	38.1	10.8	5.6	11.2	52.9	166.7	[R f] 0.9	[R f] 77.0	[f] 0.0	123.3	[R f] 698.1	[R] 277.0	[R f] 975.1
1990	117.9	302.8	26.2	19.8	0.2	25.1	11.2	5.1	9.0	57.9	154.6	1.2	[R] 78.8	0.0	119.6	[R] 774.9	261.7	[R] 1,036.5
1991	92.5	292.5	23.0	26.7	0.4	26.1	10.0	5.8	4.7	70.4	167.0	1.2	[R] 77.6	0.0	119.4	[R] 750.3	260.0	[R] 1,010.3
1992	76.3	324.4	23.5	27.0	0.2	28.2	10.2	5.0	4.8	74.6	173.6	1.6	[R] 82.3	0.0	121.7	[R] 779.8	259.9	[R] 1,039.6
1993	78.2	331.3	29.6	26.1	0.4	12.3	10.4	5.4	6.1	74.2	164.5	1.4	[R] 86.0	0.0	104.3	[R] 765.7	220.4	[R] 986.1
1994	107.2	348.9	23.9	27.5	0.3	16.5	10.8	6.1	6.1	75.6	166.8	1.5	[R] 86.0	0.0	111.6	[R] 822.1	232.9	[R] 1,055.0
1995	109.2	350.2	32.9	21.8	0.2	17.5	10.6	6.9	2.6	72.5	164.9	1.3	[R] 90.2	0.0	115.7	[R] 831.5	241.1	[R] 1,072.7
1996	106.7	368.4	24.6	23.0	0.2	18.9	10.3	7.4	2.7	76.5	163.5	1.5	[R] 94.0	0.0	117.7	[R] 851.8	245.0	[R] 1,096.8
1997	95.2	364.8	51.6	24.6	0.3	19.6	10.9	6.7	2.7	81.8	198.1	1.4	92.2	0.0	120.9	872.7	251.1	1,123.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 153. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Michigan

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	227	3	1,312	2,475	3,369	21	1,277	62,307	728	71,489	0	9	–	23	–
1965	50	5	2,619	3,348	4,377	34	1,126	74,814	779	87,097	0	0	–	0	–
1970	21	10	718	6,353	7,365	62	1,324	93,269	427	109,518	0	0	–	0	–
1975	2	10	347	8,949	5,700	95	1,321	105,412	423	122,248	0	0	–	0	–
1980	0	12	488	9,741	6,646	128	1,477	95,235	232	113,946	0	0	–	0	–
1985	0	11	201	12,196	6,570	291	1,344	91,556	99	112,256	0	0	–	0	–
1986	0	15	250	12,542	7,129	283	1,314	94,158	34	115,709	0	0	–	0	–
1987	0	12	242	13,689	8,371	340	1,486	97,282	51	121,461	0	0	–	0	–
1988	0	18	241	13,893	8,585	345	1,433	100,548	30	125,076	0	0	–	0	–
1989	0	17	268	13,795	9,235	284	1,470	99,399	115	124,567	R e 54,569	0	–	0	–
1990	0	18	215	13,670	10,057	283	1,513	98,167	93	123,997	63,023	0	–	0	–
1991	0	20	206	13,620	10,234	262	1,353	99,679	50	125,403	49,957	R 5	–	R 10	–
1992	0	22	182	14,391	10,125	251	1,380	99,868	98	126,294	60,717	4	–	R 9	–
1993	0	24	198	18,269	10,305	275	1,405	103,892	74	134,418	67,759	R 5	–	R 11	–
1994	0	23	237	18,831	10,281	470	1,468	104,215	98	135,601	77,559	R 5	–	R 10	–
1995	0	25	231	19,082	8,818	241	1,443	109,159	95	139,070	50,170	R 4	–	R 9	–
1996	0	26	215	19,567	9,045	210	1,401	109,025	125	139,587	21,192	R 5	–	R 11	–
1997	0	24	197	20,560	9,483	191	1,480	111,042	53	143,005	27,872	4	–	9	–
			Trillion Btu												
1960	5.6	2.7	6.6	14.4	18.2	0.1	7.7	327.3	4.6	378.9	0.0	(s)	387.3	0.1	387.4
1965	1.2	4.6	13.2	19.5	24.0	0.1	6.8	393.0	4.9	461.5	0.0	0.0	467.4	0.0	467.4
1970	0.5	10.5	3.6	37.0	41.0	0.2	8.0	489.9	2.7	582.5	0.0	0.0	593.5	0.0	593.5
1975	(s)	10.5	1.7	52.1	31.6	0.4	8.0	553.7	2.7	650.3	0.0	0.0	660.8	0.0	660.8
1980	0.0	12.6	2.5	56.7	37.1	0.5	9.0	500.3	1.5	607.5	0.0	0.0	620.1	0.0	620.1
1985	0.0	10.8	1.0	71.0	36.7	1.0	8.2	480.9	0.6	599.5	0.0	0.0	610.3	0.0	610.3
1986	0.0	15.3	1.3	73.1	39.9	1.0	8.0	494.6	0.2	618.1	0.0	0.0	633.4	0.0	633.4
1987	0.0	12.6	1.2	79.7	46.9	1.2	9.0	511.0	0.3	649.5	0.0	0.0	662.1	0.0	662.1
1988	0.0	19.1	1.2	80.9	48.1	1.3	8.7	528.2	0.2	668.6	0.0	0.0	687.7	0.0	687.7
1989	0.0	17.7	1.4	80.4	51.8	1.0	8.9	522.1	0.7	666.4	R e 4.2	0.0	e 684.1	0.0	e 684.1
1990	0.0	18.7	1.1	79.6	56.6	1.0	9.2	515.7	0.6	663.7	4.8	0.0	682.5	0.0	682.5
1991	0.0	20.3	1.0	79.3	57.5	0.9	8.2	523.6	0.3	670.9	3.8	(s)	691.3	(s)	691.3
1992	0.0	22.5	0.9	83.8	57.0	0.9	8.4	524.6	0.6	676.2	4.6	(s)	698.8	(s)	698.8
1993	0.0	24.7	1.0	106.4	58.1	1.0	8.5	545.7	0.5	721.3	5.2	(s)	746.0	(s)	R 746.1
1994	0.0	23.3	1.2	109.7	58.2	1.7	8.9	547.4	0.6	727.7	5.9	(s)	751.0	(s)	R 751.1
1995	0.0	25.9	1.2	111.2	50.0	0.9	8.8	573.4	0.6	746.0	3.8	(s)	771.9	(s)	771.9
1996	0.0	26.9	1.1	114.0	51.3	0.8	8.5	572.7	0.8	749.1	1.6	(s)	776.0	(s)	776.0
1997	0.0	24.8	1.0	119.8	53.8	0.7	9.0	583.3	0.3	767.8	2.1	(s)	792.6	(s)	792.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 154. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Michigan

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	10,300	0	10,300	5	362	77	0	440	0	3,067	0	0	0	–
1965	16,123	0	16,123	3	316	68	0	384	181	1,254	0	0	0	–
1970	20,124	0	20,124	64	4,514	965	0	5,479	375	1,181	0	0	0	–
1975	20,914	0	20,914	57	14,136	1,538	0	15,674	7,176	1,309	0	0	0	–
1980	22,150	0	22,150	26	9,621	780	0	10,400	15,891	6,768	0	0	0	–
1985	25,896	0	25,896	10	522	646	0	1,168	13,452	1,272	0	0	0	–
1986	27,061	0	27,061	11	1,155	511	0	1,666	12,257	1,292	0	0	0	–
1987	30,854	0	30,854	11	1,116	406	0	1,522	14,389	1,134	0	0	0	–
1988	29,968	0	29,968	15	2,419	496	0	2,915	17,808	648	0	0	0	–
1989	29,972	0	29,972	19	2,534	457	0	2,991	21,312	R -4,680	0	0	0	–
1990	29,726	0	29,726	23	1,149	339	0	1,488	21,611	828	0	0	0	–
1991	29,896	0	29,896	24	944	286	0	1,230	27,021	952	0	0	0	–
1992	28,238	0	28,238	25	833	292	0	1,125	18,849	976	0	0	0	–
1993	28,749	0	28,749	19	1,047	341	0	1,388	28,525	1,605	0	0	0	–
1994	31,106	0	31,106	18	1,114	319	0	1,433	14,144	4,955	0	0	0	–
1995	31,165	0	31,165	36	1,101	408	0	1,509	24,448	4,511	0	0	0	–
1996	32,175	0	32,175	32	1,235	289	3	1,527	26,829	2,395	0	0	0	–
1997	31,928	0	31,928	33	1,031	308	0	1,339	21,914	2,472	0	0	0	–
	Trillion Btu													
1960	256.3	0.0	256.3	5.4	2.3	0.5	0.0	2.7	0.0	33.0	0.0	0.0	0.0	297.4
1965	399.9	0.0	399.9	3.0	2.0	0.4	0.0	2.4	2.1	13.1	0.0	0.0	0.0	420.6
1970	487.0	0.0	487.0	65.2	28.4	5.6	0.0	34.0	4.1	12.4	0.0	0.0	0.0	602.8
1975	494.9	0.0	494.9	47.3	88.9	8.9	0.0	97.8	79.0	13.6	0.0	0.0	0.0	732.6
1980	532.2	0.0	532.2	19.4	60.5	4.5	0.0	65.0	173.3	70.3	0.0	0.0	0.0	860.3
1985	605.8	0.0	605.8	4.7	3.3	3.8	0.0	7.0	145.5	13.3	0.0	0.0	0.0	776.2
1986	634.4	0.0	634.4	3.8	7.3	3.0	0.0	10.2	132.4	13.5	0.0	0.0	0.0	794.3
1987	713.6	0.0	713.6	4.3	7.0	2.4	0.0	9.4	155.1	11.8	0.0	0.0	0.0	894.2
1988	696.0	0.0	696.0	2.4	15.2	2.9	0.0	18.1	191.3	6.7	0.0	0.0	0.0	914.5
1989	676.1	0.0	676.1	2.0	15.9	2.7	0.0	18.6	228.6	-48.8	0.0	0.0	0.0	876.4
1990	661.8	0.0	661.8	5.2	7.2	2.0	0.0	9.2	230.8	8.6	0.0	0.0	0.0	R 801.6
1991	660.8	0.0	660.8	9.2	5.9	1.7	0.0	7.6	290.2	9.9	0.0	0.0	0.0	972.3
1992	621.0	0.0	621.0	10.3	5.2	1.7	0.0	6.9	201.3	10.1	0.0	0.0	0.0	846.7
1993	624.0	0.0	624.0	7.2	6.6	2.0	0.0	8.6	304.7	16.5	0.0	0.0	0.0	963.0
1994	679.7	0.0	679.7	7.3	7.0	1.9	0.0	8.9	151.0	51.1	0.0	0.0	0.0	926.2
1995	665.5	0.0	665.5	13.1	6.9	2.4	0.0	9.3	260.6	46.5	0.0	0.0	0.0	R 1,015.6
1996	675.9	0.0	675.9	8.8	7.8	1.7	(s)	9.5	285.0	24.8	0.0	0.0	0.0	R 1,007.5
1997	674.7	0.0	674.7	10.3	6.5	1.8	0.0	8.3	232.8	25.5	0.0	0.0	0.0	947.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 155. Energy Consumption Estimates by Source, Selected Years 1960-1997, Minnesota

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	5,977	180	3,004	1,199	16,151	472	2,570	4,525	960	32,583	6,658	1,334	69,455	0	977	–	–	-3,263	–
1965	7,260	249	3,791	803	18,960	2,624	2,313	5,781	759	35,278	4,980	2,334	77,622	143	1,204	–	–	-1,370	–
1970	8,787	342	4,413	277	22,356	3,491	1,685	8,887	924	44,122	5,159	3,159	94,472	0	1,020	–	–	11,382	–
1975	10,120	331	4,628	215	24,369	5,629	856	9,187	1,003	48,253	4,326	4,111	102,577	9,750	1,101	–	–	6,217	–
1980	13,810	286	3,565	193	21,382	5,142	212	7,697	1,120	46,211	3,183	3,756	92,460	10,027	1,739	–	–	8,135	–
1985	12,744	257	4,989	154	19,399	7,781	184	5,353	1,019	45,285	859	3,017	88,040	11,572	3,642	–	–	22,856	–
1986	11,327	245	5,480	225	18,886	7,801	124	6,280	996	45,776	1,797	3,061	90,427	11,052	7,941	–	–	16,359	–
1987	14,504	240	5,860	178	18,265	5,656	91	5,418	1,126	47,018	1,208	3,487	88,306	11,554	2,806	–	–	21,498	–
1988	17,285	284	4,897	166	19,910	5,142	153	5,621	1,086	48,813	1,277	4,551	91,617	12,288	-992	–	–	28,054	–
1989	18,279	300	4,923	158	19,194	4,663	324	6,088	1,114	48,576	1,071	5,194	91,305	10,926	[i] NA	–	–	[R] 23,037	–
1990	18,377	291	6,039	214	18,481	5,099	42	5,966	1,146	47,760	974	5,510	91,231	12,139	NA	–	–	[R] 18,727	–
1991	16,993	314	5,040	188	21,227	4,978	54	6,595	1,026	48,578	1,053	6,001	94,739	12,059	NA	–	–	[R] 20,039	–
1992	16,924	309	5,343	134	21,630	6,621	53	8,008	1,046	49,693	1,189	6,982	100,699	11,166	NA	–	–	9,743	–
1993	18,321	328	4,793	132	21,073	9,438	60	8,926	1,065	51,348	1,251	6,877	104,963	11,986	NA	–	–	2,066	–
1994	18,729	324	4,745	125	23,698	9,780	134	9,445	1,113	52,540	1,102	7,384	110,067	12,224	NA	–	–	[R] 2,747	–
1995	18,947	353	6,403	129	24,574	9,969	104	9,758	1,094	54,303	657	6,908	113,899	13,243	NA	–	–	13,265	–
1996	19,264	368	6,674	124	24,575	10,625	123	10,932	1,061	54,866	796	8,507	118,284	12,095	NA	–	–	[R] 2,667	–
1997	19,086	354	6,671	137	24,810	10,887	102	11,043	1,121	55,755	710	8,708	119,943	10,819	NA	–	–	-3,141	–
			Trillion Btu																
1960	131.3	186.1	19.9	6.1	94.1	2.6	14.6	18.1	5.8	171.2	41.9	8.0	382.2	0.0	10.5	[R] 25.4	0.0	-11.1	[R] 724.4
1965	160.0	248.2	25.2	4.1	110.4	14.8	13.1	23.2	4.6	185.3	31.3	13.8	425.8	1.7	12.6	[R] 23.4	0.0	-4.7	[R] 867.0
1970	179.7	343.0	29.3	1.4	130.2	19.7	9.6	33.6	5.6	231.8	32.4	18.8	512.4	0.0	10.7	[R] 23.4	0.0	38.8	[R] 1,108.1
1975	191.5	331.5	30.7	1.1	141.9	31.9	4.9	34.1	6.1	253.5	27.2	24.4	555.8	107.4	11.5	[R] 27.4	0.0	21.2	[R] 1,246.2
1980	242.4	285.0	23.7	1.0	124.5	29.1	1.2	28.3	6.8	242.7	20.0	22.4	499.7	109.4	18.1	[R] 56.6	0.0	27.8	[R] 1,238.9
1985	226.1	258.5	33.1	0.8	113.0	44.1	1.0	19.3	6.2	237.9	5.4	18.5	479.3	125.1	38.0	[R] 62.0	0.0	78.0	[R] 1,267.0
1986	201.4	244.5	36.4	1.1	110.0	44.2	0.7	22.9	6.0	240.5	11.3	19.0	492.0	119.4	83.0	[R] 68.1	0.0	55.8	[R] 1,264.2
1987	256.0	239.8	38.9	0.9	106.4	32.0	0.5	19.8	6.8	247.0	7.6	21.2	481.1	124.5	29.2	[R] 66.8	0.0	73.4	[R] 1,270.7
1988	303.6	285.8	32.5	0.8	116.0	29.1	0.9	20.5	6.6	256.4	8.0	27.5	498.3	132.0	-10.2	[R] 70.6	(s)	95.7	[R] 1,375.8
1989	323.0	301.7	32.7	0.8	111.8	26.4	1.8	22.4	6.8	255.2	6.7	31.1	495.7	117.2	[R i] 0.1	[R i] 75.4	[R i] 0.4	[R] 78.6	[R i] 1,388.0
1990	324.3	291.7	40.1	1.1	107.7	28.9	0.2	21.6	7.0	250.9	6.1	33.0	496.5	129.6	27.8	[R] 79.5	[R] 0.4	63.9	[R] 1,386.2
1991	300.6	318.3	33.4	0.9	123.6	28.2	0.3	23.8	6.2	255.2	6.6	35.8	514.1	129.5	36.3	[R] 77.9	[R] 0.5	68.4	[R] 1,434.7
1992	300.1	312.2	35.5	0.7	126.0	37.5	0.3	29.0	6.3	261.0	7.5	41.3	545.1	119.2	62.8	[R] 83.1	[R] 0.5	33.2	[R] 1,446.2
1993	324.7	331.5	31.8	0.7	122.7	53.5	0.3	32.2	6.5	269.7	7.9	40.9	566.2	128.0	82.9	[R] 84.7	[R] 0.5	7.1	[R] 1,510.0
1994	332.1	327.4	31.5	0.6	138.0	55.4	0.8	34.3	6.7	276.0	6.9	43.8	594.2	130.5	60.1	[R] 85.5	[R] 0.9	9.4	[R] 1,552.9
1995	337.2	357.7	42.5	0.7	143.1	56.5	0.6	35.4	6.6	285.3	4.1	41.0	615.8	141.1	[R] 46.1	[R] 91.0	[R] 1.1	45.3	[R] 1,637.5
1996	345.5	375.1	44.3	0.6	143.1	60.2	0.7	39.5	6.4	288.2	5.0	50.4	638.6	128.5	92.9	[R] 89.0	[R] 1.1	9.1	[R] 1,692.9
1997	341.2	360.5	44.3	0.7	144.5	61.7	0.6	39.9	6.8	292.9	4.5	51.6	647.5	114.9	95.4	92.5	1.1	-10.7	1,685.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 156. Residential Energy Consumption Estimates, Selected Years 1960-1997, Minnesota

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	330	0	330	61	5,414	1,748	3,108	10,270	R 878	–	–	4,186	–	10,411	–
1965	216	0	216	86	6,309	1,556	4,043	11,908	R 682	–	–	6,063	–	14,476	–
1970	200	0	200	102	7,197	1,195	6,390	14,782	R 560	–	–	9,031	–	21,886	–
1975	81	0	81	114	7,242	558	6,040	13,840	R 563	–	–	10,189	–	24,578	–
1980	50	0	50	103	5,946	114	2,929	8,989	R 892	–	–	11,749	–	28,570	–
1985	77	0	77	107	3,826	137	2,400	6,363	R 855	–	–	13,261	–	31,156	–
1986	68	0	68	103	3,998	88	2,796	6,881	R 833	–	–	13,259	–	30,500	–
1987	60	0	60	90	3,887	75	2,704	6,666	R 755	–	–	13,834	–	31,609	–
1988	82	(s)	82	110	4,376	115	2,844	7,334	R 784	–	–	14,996	–	33,903	–
1989	88	(s)	88	117	4,495	270	3,124	7,888	R 813	–	–	14,778	–	R 33,202	–
1990	63	0	63	107	3,222	30	2,933	6,185	562	–	–	14,858	–	R 32,497	–
1991	33	(s)	33	117	4,098	41	3,186	7,324	592	–	–	15,655	–	R 34,079	–
1992	9	(s)	9	114	3,426	38	3,560	7,024	623	–	–	14,848	–	R 31,715	–
1993	37	(s)	38	123	3,210	36	4,379	7,624	R 522	–	–	15,597	–	32,953	–
1994	80	(s)	80	122	3,384	45	4,305	7,735	R 512	–	–	16,007	–	R 33,401	–
1995	92	0	92	129	3,334	50	4,447	7,831	R 568	–	–	16,974	–	R 35,363	–
1996	55	0	55	142	3,499	61	5,292	8,852	R 567	–	–	17,157	–	R 35,708	–
1997	37	(s)	37	129	3,106	52	5,292	8,450	413	–	–	17,073	–	35,457	–
	Trillion Btu														
1960	7.3	0.0	7.3	63.6	31.5	9.9	12.5	53.9	R 17.6	0.0	0.0	14.3	R 156.6	35.5	R 192.1
1965	4.7	0.0	4.7	86.3	36.7	8.8	16.2	61.8	R 13.6	0.0	0.0	20.7	R 187.1	49.4	R 236.5
1970	4.2	0.0	4.2	102.0	41.9	6.8	24.1	72.8	R 11.2	0.0	0.0	30.8	R 221.1	74.7	R 295.7
1975	1.6	0.0	1.6	114.7	42.2	3.2	22.4	67.8	R 11.3	0.0	0.0	34.8	R 230.1	83.9	R 313.9
1980	1.0	0.0	1.0	103.1	34.6	0.6	10.8	46.0	R 17.8	0.0	0.0	40.1	R 208.1	97.5	R 305.6
1985	1.5	0.0	1.5	107.1	22.3	0.8	8.6	31.7	R 17.1	0.0	0.0	45.2	R 202.6	106.3	R 308.9
1986	1.3	0.0	1.3	103.2	23.3	0.5	10.2	34.0	R 16.7	0.0	0.0	45.2	R 200.3	104.1	R 304.4
1987	1.1	0.0	1.1	89.9	22.6	0.4	9.9	33.0	R 15.1	0.0	0.0	47.2	R 186.2	107.8	R 294.0
1988	1.5	(s)	1.5	110.4	25.5	0.7	10.4	36.5	R 15.7	0.0	0.0	51.2	R 215.3	115.7	R 331.0
1989	1.7	(s)	1.7	117.6	26.2	1.5	11.5	39.2	R 16.3	e 0.1	R e 0.3	50.4	R e 225.6	113.3	R e 338.9
1990	1.1	0.0	1.1	107.4	18.8	0.2	10.6	29.6	11.2	0.1	0.3	50.7	R 200.5	110.9	R 311.3
1991	0.6	(s)	0.6	118.6	23.9	0.2	11.5	35.6	11.8	0.2	0.3	53.4	R 220.5	116.3	R 336.8
1992	0.2	(s)	0.2	114.8	20.0	0.2	12.9	33.1	12.5	0.2	0.3	50.7	R 211.6	108.2	R 319.9
1993	0.7	(s)	0.7	124.8	18.7	0.2	15.8	34.7	R 10.4	0.2	0.3	53.2	R 224.3	112.4	R 336.7
1994	1.6	(s)	1.6	123.6	19.7	0.3	15.6	35.6	R 10.2	0.2	0.3	54.6	R 226.1	114.0	R 340.1
1995	1.9	0.0	1.9	130.4	19.4	0.3	16.1	35.8	11.4	0.2	0.3	57.9	R 237.9	R 120.7	R 358.6
1996	1.0	0.0	1.0	144.9	20.4	0.3	19.1	39.8	R 11.3	0.2	0.3	58.5	R 256.1	121.8	R 378.0
1997	0.7	(s)	0.7	131.2	18.1	0.3	19.1	37.5	8.3	0.2	0.4	58.3	236.5	121.0	357.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 157. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Minnesota

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	614	0	614	20	1,323	378	548	142	634	3,026	R 17	–	1,540	–	3,831	–
1965	401	0	401	27	1,542	337	713	158	414	3,164	R 13	–	2,026	–	4,838	–
1970	372	0	372	77	1,759	259	1,128	235	393	3,774	R 11	–	3,178	–	7,701	–
1975	151	0	151	90	1,770	121	1,066	355	223	3,536	R 11	–	4,845	–	11,686	–
1980	93	0	93	64	1,443	0	517	340	32	2,331	R 21	–	5,724	–	13,919	–
1985	143	0	143	77	2,740	24	424	335	223	3,746	NA	–	7,469	–	17,548	–
1986	126	0	126	74	1,077	4	493	327	307	2,209	NA	–	7,625	–	17,540	–
1987	111	0	111	66	1,008	5	477	240	129	1,860	NA	–	8,031	–	18,350	–
1988	152	(s)	152	80	1,102	5	502	242	296	2,147	NA	–	8,601	–	19,444	–
1989	163	(s)	163	85	1,033	4	551	191	268	2,048	NA	–	8,454	–	R 18,996	–
1990	116	0	116	78	939	5	518	1,568	263	3,293	NA	–	8,813	–	R 19,275	–
1991	61	(s)	61	86	910	3	562	198	295	1,969	NA	–	9,162	–	R 19,944	–
1992	16	(s)	16	82	760	7	628	117	197	1,709	NA	–	9,007	–	R 19,240	–
1993	70	(s)	70	87	653	9	773	49	134	1,618	R 42	–	9,229	–	19,500	–
1994	148	(s)	149	84	903	14	760	49	161	1,887	R 43	–	9,698	–	R 20,236	–
1995	171	0	171	91	931	23	785	50	113	1,903	R 43	–	10,407	–	R 21,682	–
1996	101	0	101	99	1,028	27	934	50	141	2,179	R 47	–	10,850	–	R 22,581	–
1997	68	(s)	68	92	925	26	934	1,010	163	3,058	40	–	10,888	–	22,611	–
	Trillion Btu															
1960	13.5	0.0	13.5	21.0	7.7	2.1	2.2	0.7	4.0	16.8	R 0.3	0.0	5.3	R 56.9	13.1	R 70.0
1965	8.8	0.0	8.8	26.8	9.0	1.9	2.9	0.8	2.6	17.2	R 0.3	0.0	6.9	R 59.9	16.5	R 76.5
1970	7.8	0.0	7.8	76.7	10.2	1.5	4.3	1.2	2.5	19.7	R 0.2	0.0	10.8	R 115.3	26.3	R 141.6
1975	2.9	0.0	2.9	89.9	10.3	0.7	4.0	1.9	1.4	18.2	R 0.2	0.0	16.5	R 127.7	39.9	R 167.6
1980	1.9	0.0	1.9	63.6	8.4	0.0	1.9	1.8	0.2	12.3	R 0.4	0.0	19.5	R 97.8	47.5	R 145.3
1985	2.7	0.0	2.7	77.3	16.0	0.1	1.5	1.8	1.4	20.8	NA	0.0	25.5	126.3	59.9	186.2
1986	2.4	0.0	2.4	74.4	6.3	(s)	1.8	1.7	1.9	11.7	NA	0.0	26.0	114.5	59.8	174.4
1987	2.0	0.0	2.0	65.9	5.9	(s)	1.7	1.3	0.8	9.7	NA	0.0	27.4	105.0	62.6	167.6
1988	2.8	(s)	2.8	80.6	6.4	(s)	1.8	1.3	1.9	11.4	NA	0.0	29.3	124.1	66.3	190.4
1989	3.1	(s)	3.1	85.7	6.0	(s)	2.0	1.0	1.7	10.8	NA	0.0	28.8	128.5	64.8	R 193.3
1990	2.1	0.0	2.1	78.3	5.5	(s)	1.9	8.2	1.7	17.3	NA	0.0	30.1	127.7	65.8	193.5
1991	1.1	(s)	1.1	86.9	5.3	(s)	2.0	1.0	1.9	10.2	NA	0.0	31.3	129.5	68.0	R 197.6
1992	0.3	(s)	0.3	83.3	4.4	(s)	2.3	0.6	1.2	8.6	NA	0.0	30.7	122.9	65.6	R 188.6
1993	1.3	(s)	1.3	87.6	3.8	(s)	2.8	0.3	0.8	7.7	R 0.8	0.0	31.5	R 128.9	66.5	R 195.5
1994	2.9	(s)	2.9	84.9	5.3	0.1	2.8	0.3	1.0	9.4	R 0.9	0.0	33.1	R 131.1	69.0	R 200.1
1995	3.5	0.0	3.5	91.9	5.4	0.1	2.8	0.3	0.7	9.4	R 0.9	0.0	35.5	R 141.1	74.0	R 215.0
1996	1.8	0.0	1.8	100.3	6.0	0.2	3.4	0.3	0.9	10.7	R 0.9	0.0	37.0	R 150.7	R 77.0	R 227.8
1997	1.3	(s)	1.3	93.9	5.4	0.1	3.4	5.3	1.0	15.2	0.8	0.0	37.1	148.4	77.2	225.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 158. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Minnesota

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,555	49	3,004	6,062	444	841	263	4,266	5,690	1,334	21,904	156	–	–	3,095	–	7,699	–
1965	2,776	83	3,791	7,651	420	988	163	3,947	4,213	2,334	23,507	178	–	–	4,677	–	11,166	–
1970	2,020	98	4,413	7,784	231	1,275	296	3,608	3,894	3,016	24,517	168	–	–	8,506	–	20,613	–
1975	2,292	101	4,628	7,991	177	1,985	252	3,132	2,675	4,051	24,891	189	–	–	11,280	–	27,208	–
1980	1,057	101	3,565	5,708	98	4,183	324	1,336	1,818	3,756	20,789	145	–	–	15,525	–	37,752	–
1985	1,027	66	4,989	4,802	23	2,406	294	1,718	481	3,017	17,730	145	–	–	17,934	–	42,133	–
1986	964	58	5,480	5,664	31	2,865	288	1,590	1,456	3,061	20,436	145	–	–	17,849	–	41,058	–
1987	838	72	5,860	4,746	11	2,165	326	1,509	1,075	3,487	19,177	145	–	–	19,911	–	45,495	–
1988	792	78	4,897	5,287	34	2,202	314	1,272	968	4,387	19,360	145	–	–	22,131	–	50,033	–
1989	972	81	4,923	4,637	50	2,351	322	1,253	793	4,515	18,844	[f] NA	–	–	22,700	–	[R] 51,002	–
1990	1,283	88	6,039	4,719	7	2,459	331	1,117	710	4,782	20,165	NA	–	–	23,497	–	[R] 51,393	–
1991	785	92	5,040	5,612	10	2,795	296	1,442	753	5,039	20,988	NA	–	–	23,938	–	[R] 52,110	–
1992	1,059	93	5,343	6,193	8	3,765	302	1,417	989	5,918	23,934	NA	–	–	23,557	–	[R] 50,317	–
1993	1,370	98	4,793	5,765	16	3,674	308	1,222	1,115	5,800	22,693	NA	–	–	24,384	–	51,519	–
1994	1,455	94	4,745	6,414	75	4,254	322	1,254	938	6,391	24,393	NA	–	–	25,451	–	[R] 53,109	–
1995	1,401	106	6,403	6,518	31	4,392	316	1,192	544	6,138	25,534	NA	–	–	26,577	–	[R] 55,368	–
1996	1,649	102	6,674	6,600	35	4,575	307	670	654	7,453	26,968	NA	–	–	26,934	–	[R] 56,056	–
1997	1,490	107	6,671	6,784	25	4,697	324	1,846	530	7,466	28,343	NA	–	–	27,713	–	57,553	–
			Trillion Btu															
1960	55.2	51.0	19.9	35.3	2.5	3.4	1.6	22.4	35.8	8.0	128.9	1.7	[R] 7.4	0.0	10.6	[R] 254.7	26.3	[R] 281.0
1965	60.8	82.6	25.2	44.6	2.4	4.0	1.0	20.7	26.5	13.8	138.1	1.9	[R] 9.3	0.0	16.0	[R] 308.7	38.1	[R] 346.8
1970	42.1	97.8	29.3	45.3	1.3	4.8	1.8	19.0	24.5	18.0	143.9	1.8	[R] 11.8	0.0	29.0	[R] 326.4	70.3	[R] 396.7
1975	50.8	100.8	30.7	46.5	1.0	7.4	1.5	16.5	16.8	24.1	144.5	2.0	[R] 15.9	0.0	38.5	[R] 352.4	92.8	[R] 445.2
1980	18.1	101.2	23.7	33.3	0.6	15.4	2.0	7.0	11.4	22.4	115.6	1.5	[R] 38.3	0.0	53.0	[R] 327.6	128.8	[R] 456.4
1985	21.3	66.6	33.1	28.0	0.1	8.7	1.8	9.0	3.0	18.5	102.3	1.5	[R] 44.8	0.0	61.2	[R] 297.6	143.8	[R] 441.4
1986	20.2	57.8	36.4	33.0	0.2	10.4	1.7	8.4	9.2	19.0	118.2	1.5	[R] 51.5	0.0	60.9	[R] 310.1	140.1	[R] 450.2
1987	17.0	71.9	38.9	27.6	0.1	7.9	2.0	7.9	6.8	21.2	112.3	1.5	[R] 51.2	0.0	67.9	[R] 321.9	155.2	[R] 477.1
1988	15.2	78.3	32.5	30.8	0.2	8.0	1.9	6.7	6.1	26.5	112.7	1.5	[R] 53.3	0.0	75.5	[R] 336.4	170.7	[R] 507.1
1989	19.0	82.0	32.7	27.0	0.3	8.7	2.0	6.6	5.0	27.0	109.2	[R f] 2.1	[R f] 48.2	[f] 0.0	77.5	[R f] 337.9	174.0	[R f] 512.0
1990	23.8	88.7	40.1	27.5	(s)	8.9	2.0	5.9	4.5	28.6	117.5	2.1	[R] 54.4	0.0	80.2	[R] 366.7	[R] 175.4	[R] 542.1
1991	15.2	93.4	33.4	32.7	0.1	10.1	1.8	7.6	4.7	30.0	120.4	2.7	[R] 54.2	0.0	81.7	[R] 367.5	177.8	[R] 545.3
1992	19.6	94.1	35.5	36.1	(s)	13.6	1.8	7.4	6.2	34.9	135.6	3.2	[R] 57.2	0.0	80.4	[R] 390.0	171.7	[R] 561.7
1993	24.9	98.9	31.8	33.6	0.1	13.2	1.9	6.4	7.0	34.4	128.4	3.3	[R] 58.7	0.0	83.2	[R] 397.4	175.8	[R] 573.1
1994	26.9	95.5	31.5	37.4	0.4	15.5	2.0	6.6	5.9	37.9	137.0	3.2	[R] 58.4	0.4	86.8	[R] 408.3	181.2	[R] 589.5
1995	26.7	107.6	42.5	38.0	0.2	15.9	1.9	6.3	3.4	36.4	144.5	2.9	[R] 61.9	0.6	90.7	[R] 434.9	188.9	[R] 623.8
1996	31.6	104.3	44.3	38.4	0.2	16.5	1.9	3.5	4.1	44.1	153.0	[R] 3.7	[R] 62.8	0.5	91.9	[R] 447.8	191.3	[R] 639.1
1997	28.1	109.3	44.3	39.5	0.1	17.0	2.0	9.7	3.3	44.1	160.1	3.5	64.3	0.6	94.6	460.4	196.4	656.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 159. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Minnesota

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	45	(s)	1,199	3,194	472	27	697	28,176	95	33,860	0	0	–	0	–
1965	9	1	803	3,276	2,624	37	596	31,173	75	38,584	0	0	–	0	–
1970	3	7	277	5,064	3,491	95	628	40,279	29	49,863	0	0	–	0	–
1975	(s)	4	215	6,691	5,629	97	752	44,766	577	58,726	0	0	–	0	–
1980	0	9	193	8,117	5,142	68	796	44,535	971	59,822	0	0	–	0	–
1985	0	6	154	7,982	7,781	123	724	43,232	155	60,152	0	0	–	0	–
1986	0	7	225	8,087	7,801	126	708	43,859	34	60,841	0	0	–	0	–
1987	0	6	178	8,522	5,656	72	801	45,270	4	60,502	0	0	–	0	–
1988	0	11	166	9,015	5,142	74	772	47,299	7	62,475	0	0	–	0	–
1989	0	12	158	8,949	4,663	62	792	47,132	2	61,757	R e 109,339	0	–	0	–
1990	0	12	214	9,509	5,099	57	815	45,075	0	60,768	126,279	0	–	0	–
1991	0	13	188	10,518	4,978	52	729	46,937	3	63,404	100,099	0	–	0	–
1992	0	15	134	11,190	6,621	54	743	48,159	3	66,904	121,659	0	–	0	–
1993	0	16	132	11,355	9,438	100	757	50,077	(s)	71,859	135,768	0	–	0	–
1994	0	17	125	12,889	9,780	126	791	51,237	2	74,951	153,941	0	–	0	–
1995	0	19	129	13,657	9,969	134	778	53,061	0	77,728	163,306	0	–	0	–
1996	0	20	124	13,308	10,625	132	755	54,146	0	79,090	124,660	0	–	0	–
1997	0	20	137	13,816	10,887	120	797	52,898	10	78,665	192,731	0	–	0	–
			Trillion Btu												
1960	0.9	0.3	6.1	18.6	2.6	0.1	4.2	148.0	0.6	180.2	0.0	0.0	181.4	0.0	181.4
1965	0.2	1.2	4.1	19.1	14.8	0.1	3.6	163.8	0.5	205.9	0.0	0.0	207.3	0.0	207.3
1970	0.1	7.5	1.4	29.5	19.7	0.4	3.8	211.6	0.2	266.6	0.0	0.0	274.1	0.0	274.1
1975	(s)	3.9	1.1	39.0	31.9	0.4	4.6	235.2	3.6	315.6	0.0	0.0	319.5	0.0	319.5
1980	0.0	9.1	1.0	47.3	29.1	0.2	4.8	233.9	6.1	322.5	0.0	0.0	331.6	0.0	331.6
1985	0.0	6.3	0.8	46.5	44.1	0.4	4.4	227.1	1.0	324.2	0.0	0.0	330.5	0.0	330.5
1986	0.0	7.4	1.1	47.1	44.2	0.5	4.3	230.4	0.2	327.8	0.0	0.0	335.2	0.0	335.2
1987	0.0	6.5	0.9	49.6	32.0	0.3	4.9	237.8	(s)	325.5	0.0	0.0	332.0	0.0	332.0
1988	0.0	11.3	0.8	52.5	29.1	0.3	4.7	248.5	(s)	335.9	0.0	0.0	347.2	0.0	347.2
1989	0.0	12.0	0.8	52.1	26.4	0.2	4.8	247.6	(s)	331.9	R e 8.4	0.0	e 343.9	0.0	e 343.9
1990	0.0	12.1	1.1	55.4	28.9	0.2	4.9	236.8	0.0	327.3	9.6	0.0	339.3	0.0	339.3
1991	0.0	13.5	0.9	61.3	28.2	0.2	4.4	246.6	(s)	341.6	7.6	0.0	355.1	0.0	355.1
1992	0.0	15.1	0.7	65.2	37.5	0.2	4.5	253.0	(s)	361.0	9.3	0.0	376.2	0.0	376.2
1993	0.0	16.4	0.7	66.1	53.5	0.4	4.6	263.1	(s)	388.3	10.4	0.0	404.7	0.0	404.7
1994	0.0	17.5	0.6	75.1	55.4	0.5	4.8	269.1	(s)	405.5	11.8	0.0	423.1	0.0	423.1
1995	0.0	19.5	0.7	79.6	56.5	0.5	4.7	278.7	0.0	420.7	12.5	0.0	440.1	0.0	440.1
1996	0.0	20.2	0.6	77.5	60.2	0.5	4.6	284.4	0.0	427.9	9.5	0.0	448.0	0.0	448.0
1997	0.0	19.9	0.7	80.5	61.7	0.4	4.8	277.9	0.1	426.1	14.7	0.0	446.0	0.0	446.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 160. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Minnesota

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,433	0	2,433	49	239	156	0	395	0	822	15	0	0	–
1965	3,857	0	3,857	51	278	182	0	460	143	1,026	14	0	0	–
1970	6,192	0	6,192	59	842	551	143	1,537	0	853	19	0	0	–
1975	7,595	0	7,595	23	851	674	59	1,584	9,750	913	4	0	0	–
1980	12,610	0	12,610	8	361	167	0	529	10,027	1,594	2	0	0	–
1985	11,498	0	11,498	1	(s)	49	0	49	11,572	3,497	(s)	0	0	–
1986	10,170	0	10,170	2	0	60	0	60	11,052	7,796	0	0	0	–
1987	13,495	0	13,495	6	(s)	101	0	101	11,554	2,662	41	0	0	–
1988	16,259	0	16,259	5	6	131	164	301	12,288	-1,137	153	0	(s)	–
1989	17,056	0	17,056	4	9	81	678	768	10,926	R -193	247	0	(s)	–
1990	16,916	0	16,916	5	1	91	727	820	12,139	2,472	398	0	(s)	–
1991	16,114	0	16,114	6	2	90	962	1,054	12,059	3,219	402	0	(s)	–
1992	15,841	0	15,841	5	(s)	62	1,064	1,127	11,166	5,769	407	0	(s)	–
1993	16,844	0	16,844	4	1	90	1,077	1,168	11,986	7,723	414	0	(s)	–
1994	17,046	0	17,046	6	0	108	993	1,101	12,224	5,517	414	0	(s)	–
1995	17,282	0	17,282	8	0	133	770	903	13,243	4,190	429	0	(s)	–
1996	17,459	0	17,459	5	2	140	1,055	1,196	12,095	8,634	422	0	(s)	–
1997	17,490	0	17,490	6	7	179	1,241	1,427	10,819	8,915	429	0	0	–
	Trillion Btu													
1960	54.5	0.0	54.5	50.2	1.5	0.9	0.0	2.4	0.0	8.8	0.2	0.0	0.0	116.1
1965	85.5	0.0	85.5	51.3	1.7	1.1	0.0	2.8	1.7	10.7	0.1	0.0	0.0	152.2
1970	125.5	0.0	125.5	59.1	5.3	3.2	0.9	9.4	0.0	8.9	0.2	0.0	0.0	203.1
1975	136.3	0.0	136.3	22.3	5.4	3.9	0.4	9.6	107.4	9.5	(s)	0.0	0.0	285.1
1980	221.4	0.0	221.4	8.0	2.3	1.0	0.0	3.2	109.4	16.6	(s)	0.0	0.0	358.6
1985	200.6	0.0	200.6	1.3	(s)	0.3	0.0	0.3	125.1	36.5	(s)	0.0	0.0	363.9
1986	177.5	0.0	177.5	1.7	0.0	0.3	0.0	0.3	119.4	81.4	0.0	0.0	0.0	380.3
1987	235.9	0.0	235.9	5.7	(s)	0.6	0.0	0.6	124.5	27.7	0.4	0.0	0.0	394.9
1988	284.2	0.0	284.2	5.2	(s)	0.8	1.0	1.8	132.0	-11.7	1.6	0.0	(s)	413.0
1989	299.1	0.0	299.1	4.4	0.1	0.5	4.1	4.6	117.2	R -2.0	2.6	0.0	(s)	430.2
1990	297.3	0.0	297.3	5.2	(s)	0.5	4.4	4.9	129.6	25.7	4.1	0.0	(s)	449.0
1991	283.7	0.0	283.7	5.9	(s)	0.5	5.8	6.3	129.5	33.6	4.2	0.0	(s)	460.1
1992	280.0	0.0	280.0	4.9	(s)	0.4	6.4	6.8	119.2	59.7	4.2	0.0	(s)	474.1
1993	297.9	0.0	297.9	3.9	(s)	0.5	6.5	7.0	128.0	79.6	4.3	0.0	(s)	515.6
1994	300.7	0.0	300.7	5.9	0.0	0.6	6.0	6.6	130.5	56.9	4.3	0.0	(s)	R 529.4
1995	305.1	0.0	305.1	8.3	0.0	0.8	4.6	5.4	141.1	43.2	4.4	0.0	(s)	522.4
1996	311.2	0.0	311.2	5.3	(s)	0.8	6.4	7.2	128.5	R 89.2	4.4	0.0	(s)	568.5
1997	311.1	0.0	311.1	6.1	(s)	1.0	7.5	8.6	114.9	91.9	4.4	0.0	0.0	595.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 161. Energy Consumption Estimates by Source, Selected Years 1960-1997, Mississippi

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	30	182	762	170	2,375	1,465	398	4,220	391	16,096	311	444	26,633	0	0	–	–	8,132	–
1965	40	244	1,144	463	2,796	1,460	346	4,720	469	18,539	489	2,404	32,831	0	0	–	–	14,061	–
1970	549	360	1,748	318	5,991	1,614	2,646	8,645	525	24,316	703	4,986	51,491	0	0	–	–	17,089	–
1975	1,440	230	2,589	203	9,852	1,475	1,434	8,180	681	27,811	12,063	5,185	69,473	0	0	–	–	27,909	–
1980	3,127	264	2,036	206	9,648	1,530	242	5,694	655	26,781	16,010	5,276	68,078	0	0	–	–	20,395	–
1985	4,519	227	2,054	108	15,914	4,111	86	4,672	596	27,586	1,319	4,160	60,605	4,332	0	–	–	25,490	–
1986	4,454	215	1,904	137	14,818	4,914	85	3,663	583	28,548	4,461	4,400	63,514	4,087	0	–	–	27,371	–
1987	4,846	209	2,174	113	16,743	7,657	78	3,694	659	29,365	2,051	5,122	67,656	7,717	0	–	–	18,313	–
1988	5,136	213	2,627	129	19,020	8,006	88	3,927	636	29,479	3,547	6,144	73,602	9,582	0	–	–	13,179	–
1989	3,831	226	1,975	153	17,112	6,567	65	4,915	652	29,023	3,569	6,264	70,295	7,826	[i] NA	–	–	[R] 28,981	–
1990	4,159	254	2,509	132	16,133	6,922	53	7,093	671	29,080	3,692	6,335	72,620	7,422	NA	–	–	[R] 28,537	–
1991	3,812	250	2,531	110	15,450	8,080	61	6,103	600	29,794	4,778	6,246	73,753	9,133	NA	–	–	[R] 29,888	–
1992	3,485	239	2,171	94	15,313	11,006	38	6,203	612	30,535	3,433	7,437	76,843	8,174	NA	–	–	[R] 37,395	–
1993	4,030	230	1,945	85	14,691	8,328	66	6,214	623	31,907	8,999	6,948	79,806	7,904	NA	–	–	34,029	–
1994	4,285	258	2,110	72	15,486	6,750	51	6,505	651	32,868	5,444	6,563	76,501	9,615	NA	–	–	[R] 28,108	–
1995	4,606	288	2,430	100	13,530	7,573	47	6,810	640	34,017	2,648	6,274	74,068	8,013	NA	–	–	[R] 29,368	–
1996	5,791	269	2,608	61	14,489	7,157	49	9,178	621	34,178	3,521	7,216	79,077	9,225	NA	–	–	[R] 28,836	–
1997	6,273	255	3,041	66	15,095	7,912	65	9,271	656	35,393	5,343	7,268	84,111	10,813	NA	–	–	22,874	–
			Trillion Btu																
1960	0.8	187.9	5.1	0.9	13.8	7.8	2.3	16.9	2.4	84.6	2.0	2.7	138.3	0.0	0.0	[R] 46.6	0.0	27.7	[R] 401.3
1965	1.0	250.6	7.6	2.3	16.3	7.8	2.0	18.9	2.8	97.4	3.1	14.4	172.7	0.0	0.0	[R] 37.8	0.0	48.0	[R] 510.1
1970	13.2	369.4	11.6	1.6	34.9	8.7	15.0	32.7	3.2	127.7	4.4	29.9	269.8	0.0	0.0	[R] 33.5	0.0	58.3	[R] 744.2
1975	33.4	235.3	17.2	1.0	57.4	8.0	8.1	30.4	4.1	146.1	75.8	31.1	379.3	0.0	0.0	[R] 31.2	0.0	95.2	[R] 774.3
1980	75.0	270.9	13.5	1.0	56.2	8.3	1.4	20.9	4.0	140.7	100.7	31.6	378.3	0.0	0.0	[R] 26.8	0.0	69.6	[R] 820.6
1985	109.4	233.0	13.6	0.5	92.7	22.9	0.5	16.8	3.6	144.9	8.3	25.8	329.7	46.8	0.0	[R] 39.8	0.0	87.0	[R] 845.7
1986	108.8	220.2	12.6	0.7	86.3	27.5	0.5	13.3	3.5	150.0	28.0	27.4	349.9	44.1	0.0	[R] 49.3	0.0	93.4	[R] 865.7
1987	122.4	212.3	14.4	0.6	97.5	43.1	0.4	13.5	4.0	154.3	12.9	31.2	371.9	83.2	0.0	[R] 46.6	0.0	62.5	[R] 898.9
1988	129.6	216.4	17.4	0.7	110.8	45.0	0.5	14.3	3.9	154.9	22.3	37.1	406.8	102.9	0.0	[R] 48.5	0.0	45.0	[R] 949.2
1989	96.4	232.4	13.1	0.8	99.7	36.9	0.4	18.1	4.0	152.5	22.4	37.4	385.2	83.9	[i] 0.0	[R i] 56.3	[R i] (s)	[R] 98.9	[R i] 952.9
1990	103.8	261.9	16.7	0.7	94.0	39.0	0.3	25.7	4.1	152.8	23.2	37.8	394.1	79.3	0.0	[R] 69.7	(s)	97.4	[R] 1,005.8
1991	95.3	257.0	16.8	0.6	90.0	45.5	0.3	22.1	3.6	156.5	30.0	37.3	402.7	98.1	0.0	[R] 73.5	(s)	[R] 102.0	[R] 1,028.3
1992	86.8	250.7	14.4	0.5	89.2	62.2	0.2	22.5	3.7	160.4	21.6	43.9	418.6	87.3	0.0	[R] 77.4	(s)	127.6	[R] 1,048.0
1993	99.3	235.2	12.9	0.4	85.6	47.0	0.4	22.4	3.8	167.6	56.6	41.3	437.9	84.4	0.0	[R] 75.9	[R] 0.1	116.1	[R] 1,048.5
1994	97.3	266.1	14.0	0.4	90.2	38.2	0.3	23.6	4.0	172.7	34.2	38.8	416.3	102.6	0.0	[R] 78.5	[R] 0.1	95.9	[R] 1,056.7
1995	103.8	295.6	16.1	0.5	78.8	42.9	0.3	24.7	3.9	178.7	16.6	37.1	399.6	85.4	0.0	[R] 82.5	[R] 0.1	100.2	[R] 1,067.0
1996	128.1	277.4	17.3	0.3	84.4	40.6	0.3	33.2	3.8	179.5	22.1	42.5	424.0	98.0	0.0	[R] 82.2	[R] 0.2	98.4	[R] 1,108.2
1997	132.2	264.1	20.2	0.3	87.9	44.9	0.4	33.5	4.0	185.9	33.6	42.8	453.5	114.9	0.0	80.8	0.2	78.0	1,123.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 162. Residential Energy Consumption Estimates, Selected Years 1960-1997, Mississippi

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	24	23	13	2,450	2,486	R 1,375	–	–	2,089	–	5,196	–
1965	0	0	0	24	32	27	2,865	2,923	R 923	–	–	3,705	–	8,847	–
1970	0	0	0	37	89	75	5,129	5,293	R 515	–	–	6,880	–	16,673	–
1975	0	0	0	30	196	127	4,231	4,554	R 507	–	–	8,091	–	19,517	–
1980	1	0	1	29	7	44	2,201	2,252	R 323	–	–	9,964	–	24,229	–
1985	(s)	0	(s)	26	2	27	1,915	1,943	R 805	–	–	10,447	–	24,545	–
1986	1	0	1	25	3	38	1,696	1,737	R 783	–	–	10,868	–	25,000	–
1987	2	0	2	27	16	28	2,006	2,050	R 658	–	–	11,129	–	25,428	–
1988	5	0	5	27	4	28	2,081	2,113	R 684	–	–	11,415	–	25,806	–
1989	1	(s)	1	26	7	23	2,271	2,300	R 709	–	–	11,516	–	R 25,875	–
1990	(s)	0	(s)	25	1	12	2,158	2,171	458	–	–	12,266	–	R 26,828	–
1991	0	(s)	(s)	26	2	23	1,862	1,887	482	–	–	12,518	–	R 27,249	–
1992	0	(s)	(s)	26	1	14	1,744	1,759	507	–	–	12,422	–	26,534	–
1993	0	(s)	(s)	28	3	25	2,200	2,227	R 380	–	–	13,200	–	27,889	–
1994	0	0	0	27	1	20	2,159	2,181	372	–	–	13,642	–	R 28,467	–
1995	0	0	0	27	(s)	20	1,946	1,966	413	–	–	14,181	–	R 29,544	–
1996	0	0	0	30	1	22	2,397	2,420	R 413	–	–	14,965	–	R 31,144	–
1997	0	(s)	(s)	28	(s)	21	2,397	2,419	300	–	–	14,817	–	30,772	–
	Trillion Btu														
1960	0.0	0.0	0.0	24.9	0.1	0.1	9.8	10.0	R 27.5	0.0	0.0	7.1	R 69.5	17.7	R 87.3
1965	0.0	0.0	0.0	24.8	0.2	0.2	11.5	11.8	R 18.5	0.0	0.0	12.6	R 67.7	30.2	R 97.9
1970	0.0	0.0	0.0	37.6	0.5	0.4	19.4	20.3	R 10.3	0.0	0.0	23.5	R 91.7	56.9	R 148.6
1975	0.0	0.0	0.0	30.2	1.1	0.7	15.7	17.6	R 10.1	0.0	0.0	27.6	R 85.5	66.6	R 152.1
1980	(s)	0.0	(s)	30.5	(s)	0.2	8.1	8.4	R 6.5	0.0	0.0	34.0	R 79.3	82.7	R 162.0
1985	(s)	0.0	(s)	26.3	(s)	0.2	6.9	7.1	R 16.1	0.0	0.0	35.6	R 85.2	83.7	R 168.9
1986	(s)	0.0	(s)	25.8	(s)	0.2	6.2	6.4	R 15.7	0.0	0.0	37.1	R 85.0	85.3	R 170.3
1987	(s)	0.0	(s)	27.0	0.1	0.2	7.3	7.6	R 13.2	0.0	0.0	38.0	R 85.8	86.8	R 172.5
1988	0.1	0.0	0.1	27.3	(s)	0.2	7.6	7.8	R 13.7	0.0	0.0	38.9	R 87.8	88.0	R 175.9
1989	(s)	(s)	(s)	27.1	(s)	0.1	8.4	8.5	R 14.2	e (s)	R e (s)	39.3	R e 89.2	88.3	R e 177.5
1990	(s)	0.0	(s)	25.8	(s)	0.1	7.8	7.9	9.2	(s)	(s)	41.9	R 84.8	91.5	176.3
1991	0.0	(s)	(s)	26.5	(s)	0.1	6.7	6.9	9.6	(s)	(s)	42.7	85.8	93.0	178.7
1992	0.0	(s)	(s)	27.9	(s)	0.1	6.3	6.4	10.1	(s)	(s)	42.4	86.8	90.5	R 177.4
1993	0.0	(s)	(s)	29.0	(s)	0.1	7.9	8.1	7.6	(s)	(s)	45.0	89.7	95.2	184.9
1994	0.0	0.0	0.0	27.9	(s)	0.1	7.8	8.0	7.4	(s)	(s)	46.5	89.8	97.1	R 187.0
1995	0.0	0.0	0.0	27.4	(s)	0.1	7.0	7.2	8.3	(s)	(s)	48.4	91.3	100.8	R 192.1
1996	0.0	0.0	0.0	31.0	(s)	0.1	8.7	8.8	R 8.3	(s)	(s)	51.1	R 99.1	106.3	205.3
1997	0.0	(s)	(s)	28.5	(s)	0.1	8.7	8.8	6.0	(s)	(s)	50.6	93.9	105.0	198.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 163. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Mississippi

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	0	0	15	28	0	432	79	18	557	R 26	–	1,278	–	3,179	–
1965	0	0	0	12	39	0	506	88	33	665	R 17	–	1,968	–	4,700	–
1970	0	0	0	24	108	0	905	91	45	1,149	R 10	–	3,019	–	7,317	–
1975	0	0	0	24	239	0	747	105	898	1,988	R 10	–	3,982	–	9,604	–
1980	1	0	1	21	24	0	388	122	3,405	3,940	R 8	–	5,110	–	12,426	–
1985	1	0	1	17	1,067	39	338	134	11	1,589	NA	–	6,131	–	14,405	–
1986	1	0	1	17	442	19	299	217	91	1,067	NA	–	6,335	–	14,572	–
1987	3	0	3	18	795	6	354	266	23	1,444	NA	–	6,374	–	14,564	–
1988	8	0	8	18	600	4	367	187	16	1,173	NA	–	6,550	–	14,808	–
1989	1	(s)	1	18	855	5	401	160	13	1,434	NA	–	7,101	–	R 15,954	–
1990	(s)	0	(s)	18	589	6	381	165	0	1,141	NA	–	7,407	–	R 16,201	–
1991	0	(s)	(s)	18	607	6	329	81	1	1,024	NA	–	7,478	–	R 16,278	–
1992	0	(s)	(s)	18	511	9	308	172	(s)	1,000	NA	–	7,328	–	R 15,653	–
1993	0	(s)	(s)	19	329	6	388	49	0	773	R 31	–	7,320	–	15,466	–
1994	0	0	0	19	432	3	381	149	0	965	R 31	–	7,729	–	R 16,128	–
1995	0	0	0	20	263	7	343	49	0	662	R 31	–	8,210	–	R 17,104	–
1996	0	0	0	22	349	6	423	57	0	835	R 34	–	8,615	–	R 17,930	–
1997	0	(s)	(s)	22	235	13	423	47	0	718	29	–	10,649	–	22,116	–
	Trillion Btu															
1960	0.0	0.0	0.0	15.7	0.2	0.0	1.7	0.4	0.1	2.4	R 0.5	0.0	4.4	R 23.0	10.8	R 33.9
1965	0.0	0.0	0.0	12.8	0.2	0.0	2.0	0.5	0.2	2.9	R 0.3	0.0	6.7	R 22.8	16.0	R 38.8
1970	0.0	0.0	0.0	24.4	0.6	0.0	3.4	0.5	0.3	4.8	R 0.2	0.0	10.3	R 39.7	25.0	R 64.7
1975	0.0	0.0	0.0	24.4	1.4	0.0	2.8	0.6	5.6	10.4	R 0.2	0.0	13.6	R 48.6	32.8	R 81.4
1980	(s)	0.0	(s)	21.6	0.1	0.0	1.4	0.6	21.4	23.6	R 0.2	0.0	17.4	R 62.8	42.4	R 105.2
1985	(s)	0.0	(s)	17.0	6.2	0.2	1.2	0.7	0.1	8.4	NA	0.0	20.9	46.4	49.1	95.5
1986	(s)	0.0	(s)	17.3	2.6	0.1	1.1	1.1	0.6	5.5	NA	0.0	21.6	44.4	49.7	94.1
1987	0.1	0.0	0.1	18.2	4.6	(s)	1.3	1.4	0.1	7.5	NA	0.0	21.7	47.5	49.7	97.2
1988	0.2	0.0	0.2	18.4	3.5	(s)	1.3	1.0	0.1	5.9	NA	0.0	22.3	46.9	50.5	97.4
1989	(s)	(s)	(s)	18.1	5.0	(s)	1.5	0.8	0.1	7.4	NA	[e] (s)	24.2	49.8	54.4	104.2
1990	(s)	0.0	(s)	18.1	3.4	(s)	1.4	0.9	0.0	5.7	NA	(s)	25.3	49.1	55.3	104.4
1991	0.0	(s)	(s)	18.3	3.5	(s)	1.2	0.4	(s)	5.2	NA	(s)	25.5	49.0	55.5	R 104.6
1992	0.0	(s)	(s)	18.9	3.0	(s)	1.1	0.9	(s)	5.0	NA	(s)	25.0	R 49.0	53.4	R 102.4
1993	0.0	(s)	(s)	19.6	1.9	(s)	1.4	0.3	0.0	3.6	R 0.6	(s)	25.0	R 48.9	52.8	R 101.7
1994	0.0	0.0	0.0	19.8	2.5	(s)	1.4	0.8	0.0	4.7	R 0.6	0.1	26.4	R 51.6	55.0	R 106.6
1995	0.0	0.0	0.0	20.3	1.5	(s)	1.2	0.3	0.0	3.1	R 0.6	0.1	28.0	R 52.1	58.4	R 110.4
1996	0.0	0.0	0.0	22.8	2.0	(s)	1.5	0.3	0.0	3.9	R 0.7	0.1	29.4	R 56.9	61.2	R 118.1
1997	0.0	(s)	(s)	22.8	1.4	0.1	1.5	0.2	0.0	3.2	0.6	0.2	36.3	63.1	75.5	138.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 164. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Mississippi

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	21	77	762	1,441	385	1,118	99	738	218	444	5,206	0	–	–	2,004	–	4,985	–
1965	31	105	1,144	1,590	319	1,117	157	610	149	2,404	7,490	0	–	–	3,517	–	8,398	–
1970	48	141	1,748	3,100	2,571	2,139	242	311	240	4,986	15,335	0	–	–	5,101	–	12,361	–
1975	24	107	2,589	4,455	1,307	2,739	374	218	778	5,185	17,645	0	–	–	6,814	–	16,437	–
1980	53	79	2,036	3,527	198	2,952	341	73	2,172	5,276	16,574	0	–	–	8,184	–	19,901	–
1985	251	105	2,054	5,392	20	2,187	310	751	89	4,160	14,963	0	–	–	9,147	–	21,490	–
1986	244	96	1,904	4,469	29	1,476	303	628	1,233	4,400	14,442	0	–	–	9,329	–	21,459	–
1987	280	91	2,174	5,531	44	1,176	343	629	64	5,122	15,082	0	–	–	9,683	–	22,125	–
1988	264	100	2,627	5,508	57	1,344	330	633	672	6,144	17,315	0	–	–	10,115	–	22,868	–
1989	263	103	1,975	4,977	37	2,131	339	562	1,075	6,264	17,361	[f] NA	–	–	10,958	–	[R] 24,620	–
1990	271	108	2,509	5,667	35	4,423	349	578	960	6,335	20,855	NA	–	–	12,454	–	[R] 27,241	–
1991	242	109	2,531	4,830	33	3,803	312	669	238	6,246	18,662	NA	–	–	13,024	–	[R] 28,352	–
1992	247	108	2,171	4,344	15	4,060	318	638	192	7,437	19,174	NA	–	–	13,491	–	[R] 28,816	–
1993	263	105	1,945	3,756	35	3,520	324	383	258	6,948	17,169	NA	–	–	14,229	–	30,064	–
1994	296	90	2,110	4,128	29	3,807	339	418	173	6,563	17,567	NA	–	–	15,256	–	[R] 31,835	–
1995	287	88	2,430	3,209	19	4,448	333	427	82	6,274	17,222	NA	–	–	15,477	–	[R] 32,244	–
1996	233	84	2,608	3,387	21	6,291	323	430	114	7,216	20,389	NA	–	–	16,043	–	[R] 33,388	–
1997	238	88	3,041	3,313	31	6,390	341	488	31	7,268	20,902	NA	–	–	14,622	–	30,367	–
			Trillion Btu															
1960	0.5	79.3	5.1	8.4	2.2	4.5	0.6	3.9	1.4	2.7	28.6	0.0	[R] 18.5	0.0	6.8	[R] 133.8	17.0	[R] 150.8
1965	0.8	108.5	7.6	9.3	1.8	4.5	1.0	3.2	0.9	14.4	42.7	0.0	[R] 19.0	0.0	12.0	[R] 182.9	28.7	[R] 211.5
1970	1.2	144.4	11.6	18.1	14.6	8.1	1.5	1.6	1.5	29.9	86.9	0.0	[R] 23.0	0.0	17.4	[R] 272.8	42.2	[R] 315.0
1975	0.6	109.1	17.2	26.0	7.4	10.2	2.3	1.1	4.9	31.1	100.1	0.0	[R] 20.8	0.0	23.3	[R] 253.8	56.1	[R] 309.9
1980	1.2	81.5	13.5	20.5	1.1	10.8	2.1	0.4	13.7	31.6	93.7	0.0	[R] 20.2	0.0	27.9	[R] 224.6	67.9	[R] 292.5
1985	5.9	108.1	13.6	31.4	0.1	7.9	1.9	3.9	0.6	25.8	85.2	0.0	[R] 23.7	0.0	31.2	[R] 254.0	73.3	[R] 327.4
1986	5.8	98.4	12.6	26.0	0.2	5.4	1.8	3.3	7.8	27.4	84.5	0.0	[R] 33.6	0.0	31.8	[R] 254.2	73.2	[R] 327.4
1987	6.6	91.9	14.4	32.2	0.2	4.3	2.1	3.3	0.4	31.2	88.2	0.0	[R] 33.5	0.0	33.0	[R] 253.3	75.5	[R] 328.7
1988	6.2	101.5	17.4	32.1	0.3	4.9	2.0	3.3	4.2	37.1	101.4	0.0	[R] 34.8	0.0	34.5	[R] 278.5	78.0	[R] 356.5
1989	6.1	106.0	13.1	29.0	0.2	7.8	2.1	3.0	6.8	37.4	99.4	[f] 0.0	[R f] 41.8	[f] 0.0	37.4	[R f] 290.7	84.0	[R f] 374.7
1990	6.3	111.5	16.7	33.0	0.2	16.0	2.1	3.0	6.0	37.8	114.9	0.0	[R] 60.1	0.0	42.5	[R] 335.3	92.9	[R] 428.3
1991	5.6	112.5	16.8	28.1	0.2	13.7	1.9	3.5	1.5	37.3	103.0	0.0	[R] 63.6	0.0	44.4	[R] 329.2	96.7	[R] 425.9
1992	5.8	113.2	14.4	25.3	0.1	14.7	1.9	3.3	1.2	43.9	104.9	0.0	[R] 66.9	0.0	46.0	[R] 336.8	98.3	[R] 435.1
1993	6.3	107.4	12.9	21.9	0.2	12.7	2.0	2.0	1.6	41.3	94.6	0.0	[R] 67.3	0.0	48.6	[R] 324.1	102.6	[R] 426.7
1994	7.1	92.2	14.0	24.0	0.2	13.8	2.1	2.2	1.1	38.8	96.2	0.0	[R] 70.1	0.0	52.1	[R] 317.6	108.6	[R] 426.2
1995	6.9	89.6	16.1	18.7	0.1	16.1	2.0	2.2	0.5	37.1	92.9	0.0	[R] 73.4	0.0	52.8	[R] 315.6	110.0	[R] 425.7
1996	5.6	86.7	17.3	19.7	0.1	22.7	2.0	2.3	0.7	42.5	107.4	0.0	[R] 73.2	0.0	54.7	[R] 327.6	113.9	[R] 441.5
1997	5.6	90.5	20.2	19.3	0.2	23.1	2.1	2.6	0.2	42.8	110.4	0.0	74.2	0.0	49.9	330.7	103.6	434.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 165. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Mississippi

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	(s)	31	170	882	1,465	220	292	15,279	11	18,320	0	0	–	0	–
1965	(s)	45	463	1,136	1,460	233	312	17,842	301	21,747	0	0	–	0	–
1970	(s)	59	318	2,690	1,614	472	283	23,914	3	29,293	0	0	–	0	–
1975	(s)	38	203	4,696	1,475	464	307	27,489	1,184	35,817	0	0	–	0	–
1980	0	39	206	6,020	1,530	152	315	26,585	5,355	40,163	0	0	–	0	–
1985	0	25	108	9,392	4,111	232	286	26,701	1,110	41,941	0	0	–	0	–
1986	0	29	137	9,858	4,914	192	280	27,703	1,763	44,848	0	0	–	0	–
1987	0	32	113	10,364	7,657	158	317	28,470	1,813	48,892	0	0	–	0	–
1988	0	35	129	12,851	8,006	135	305	28,658	1,750	51,835	0	0	–	0	–
1989	0	34	153	11,187	6,567	112	313	28,301	1,204	47,837	R e 4,728	0	–	0	–
1990	0	38	132	9,826	6,922	131	322	28,337	1,554	47,224	5,461	0	–	0	–
1991	0	35	110	9,932	8,080	109	288	29,043	3,938	51,500	4,329	0	–	0	–
1992	0	33	94	10,429	11,006	92	294	29,725	2,618	54,258	5,261	0	–	0	–
1993	0	38	85	10,568	8,328	106	299	31,475	3,238	54,099	5,871	0	–	0	–
1994	0	39	72	10,875	6,750	158	313	32,301	3,588	54,056	4,108	0	–	0	–
1995	0	42	100	10,018	7,573	72	307	33,540	2,558	54,169	2,264	0	–	0	–
1996	0	49	61	10,664	7,157	67	298	33,690	1,703	53,641	233	0	–	0	–
1997	0	45	66	11,496	7,912	61	315	34,858	1,277	55,986	0	0	–	0	–
			Trillion Btu												
1960	(s)	32.5	0.9	5.1	7.8	0.9	1.8	80.3	0.1	96.8	0.0	0.0	129.3	0.0	129.3
1965	(s)	46.6	2.3	6.6	7.8	0.9	1.9	93.7	1.9	115.2	0.0	0.0	161.8	0.0	161.8
1970	(s)	60.8	1.6	15.7	8.7	1.8	1.7	125.6	(s)	155.2	0.0	0.0	216.0	0.0	216.0
1975	(s)	39.2	1.0	27.4	8.0	1.7	1.9	144.4	7.4	191.8	0.0	0.0	231.0	0.0	231.0
1980	0.0	40.6	1.0	35.1	8.3	0.6	1.9	139.7	33.7	220.2	0.0	0.0	260.8	0.0	260.8
1985	0.0	25.9	0.5	54.7	22.9	0.8	1.7	140.3	7.0	228.0	0.0	0.0	253.9	0.0	253.9
1986	0.0	29.3	0.7	57.4	27.5	0.7	1.7	145.5	11.1	244.6	0.0	0.0	273.9	0.0	273.9
1987	0.0	32.9	0.6	60.4	43.1	0.6	1.9	149.6	11.4	267.4	0.0	0.0	300.4	0.0	300.4
1988	0.0	35.0	0.7	74.9	45.0	0.5	1.9	150.5	11.0	284.4	0.0	0.0	319.5	0.0	319.5
1989	0.0	35.1	0.8	65.2	36.9	0.4	1.9	148.7	7.6	261.4	R e 0.4	0.0	e 296.5	0.0	e 296.5
1990	0.0	38.9	0.7	57.2	39.0	0.5	2.0	148.9	9.8	257.9	0.4	0.0	296.9	0.0	296.9
1991	0.0	35.7	0.6	57.9	45.5	0.4	1.7	152.6	24.8	283.4	0.3	0.0	319.1	0.0	319.1
1992	0.0	35.0	0.5	60.8	62.2	0.3	1.8	156.1	16.5	298.1	0.4	0.0	333.1	0.0	333.1
1993	0.0	38.4	0.4	61.6	47.0	0.4	1.8	165.3	20.4	296.9	0.4	0.0	335.3	0.0	335.3
1994	0.0	40.3	0.4	63.3	38.2	0.6	1.9	169.7	22.6	296.6	0.3	0.0	336.9	0.0	336.9
1995	0.0	42.7	0.5	58.4	42.9	0.3	1.9	176.2	16.1	296.2	0.2	0.0	338.9	0.0	338.9
1996	0.0	50.5	0.3	62.1	40.6	0.2	1.8	177.0	10.7	292.7	(s)	0.0	343.2	0.0	343.2
1997	0.0	46.5	0.3	67.0	44.9	0.2	1.9	183.1	8.0	305.4	0.0	0.0	351.9	0.0	351.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 166. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Mississippi

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	8	0	8	34	64	1	0	65	0	0	0	0	0	–
1965	9	0	9	56	6	(s)	0	7	0	0	0	0	0	–
1970	500	0	500	100	415	5	0	420	0	0	0	0	0	–
1975	1,416	0	1,416	32	9,203	266	0	9,469	0	0	0	0	0	–
1980	3,072	0	3,072	95	5,078	70	0	5,149	0	0	0	0	0	–
1985	4,267	0	4,267	54	108	61	0	169	4,332	0	0	0	0	–
1986	4,208	0	4,208	48	1,374	45	0	1,420	4,087	0	0	0	0	–
1987	4,562	0	4,562	41	152	37	0	188	7,717	0	0	0	0	–
1988	4,859	0	4,859	33	1,109	57	0	1,166	9,582	0	0	0	0	–
1989	3,566	0	3,566	45	1,277	86	0	1,363	7,826	0	0	0	0	–
1990	3,888	0	3,888	65	1,179	50	0	1,228	7,422	0	0	0	0	–
1991	3,570	0	3,570	62	602	79	0	681	9,133	0	0	0	0	–
1992	3,237	0	3,237	54	623	28	0	651	8,174	0	0	0	0	–
1993	3,767	0	3,767	40	5,503	35	0	5,538	7,904	0	0	0	0	–
1994	3,989	0	3,989	83	1,683	50	0	1,733	9,615	0	0	0	0	–
1995	4,319	0	4,319	111	7	41	0	48	8,013	0	0	0	0	–
1996	5,558	0	5,558	83	1,703	89	0	1,792	9,225	0	0	0	0	–
1997	6,035	0	6,035	73	4,035	51	0	4,086	10,813	0	0	0	0	–
	Trillion Btu													
1960	0.2	0.0	0.2	35.6	0.4	(s)	0.0	0.4	0.0	0.0	0.0	0.0	0.0	36.2
1965	0.2	0.0	0.2	58.0	(s)	(s)	0.0	(s)	0.0	0.0	0.0	0.0	0.0	58.3
1970	12.1	0.0	12.1	102.2	2.6	(s)	0.0	2.6	0.0	0.0	0.0	0.0	0.0	116.9
1975	32.8	0.0	32.8	32.5	57.9	1.5	0.0	59.4	0.0	0.0	0.0	0.0	0.0	124.7
1980	73.7	0.0	73.7	96.7	31.9	0.4	0.0	32.3	0.0	0.0	0.0	0.0	0.0	202.7
1985	103.5	0.0	103.5	55.7	0.7	0.4	0.0	1.0	46.8	0.0	0.0	0.0	0.0	207.0
1986	102.9	0.0	102.9	49.4	8.6	0.3	0.0	8.9	44.1	0.0	0.0	0.0	0.0	205.4
1987	115.6	0.0	115.6	42.3	1.0	0.2	0.0	1.2	83.2	0.0	0.0	0.0	0.0	242.2
1988	123.1	0.0	123.1	34.1	7.0	0.3	0.0	7.3	102.9	0.0	0.0	0.0	0.0	267.4
1989	90.2	0.0	90.2	46.0	8.0	0.5	0.0	8.5	83.9	0.0	0.0	0.0	0.0	228.7
1990	97.5	0.0	97.5	67.5	7.4	0.3	0.0	7.7	79.3	0.0	0.0	0.0	0.0	252.0
1991	89.6	0.0	89.6	64.0	3.8	0.5	0.0	4.2	98.1	0.0	0.0	0.0	0.0	255.9
1992	81.0	0.0	81.0	55.8	3.9	0.2	0.0	4.1	87.3	0.0	0.0	0.0	0.0	228.1
1993	93.0	0.0	93.0	40.8	34.6	0.2	0.0	34.8	84.4	0.0	0.0	0.0	0.0	253.0
1994	90.2	0.0	90.2	86.1	10.6	0.3	0.0	10.9	102.6	0.0	0.0	0.0	0.0	289.8
1995	96.9	0.0	96.9	115.6	(s)	0.2	0.0	0.3	85.4	0.0	0.0	0.0	0.0	298.2
1996	122.5	0.0	122.5	86.4	10.7	0.5	0.0	11.2	98.0	0.0	0.0	0.0	0.0	318.2
1997	126.6	0.0	126.6	75.7	25.4	0.3	0.0	25.7	114.9	0.0	0.0	0.0	0.0	342.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 167. Energy Consumption Estimates by Source, Selected Years 1960-1997, Missouri

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	7,510	261	3,725	1,844	12,817	1,249	2,087	5,994	953	40,807	3,179	2,104	74,757	0	726	–	–	4,227	–
1965	8,534	341	4,401	2,323	13,803	3,625	1,162	7,692	1,029	45,015	3,449	4,299	86,798	0	802	–	–	2,382	–
1970	12,863	430	5,657	179	16,235	8,074	643	11,771	1,150	56,041	3,570	5,306	108,628	0	927	–	–	-2,103	–
1975	19,955	370	5,401	184	17,819	8,311	282	12,995	1,284	62,342	2,521	4,714	115,852	0	1,280	–	–	-12,225	–
1980	24,845	318	4,002	162	18,390	6,268	315	9,121	1,603	58,966	1,427	11,696	111,950	0	558	–	–	-5,550	–
1985	24,733	260	4,295	135	19,593	5,889	149	5,583	1,459	60,036	732	7,660	105,531	8,030	2,993	–	–	-22,418	–
1986	23,821	242	4,624	164	18,327	6,710	75	5,907	1,426	63,388	551	8,093	109,266	7,170	1,996	–	–	-8,257	–
1987	24,764	232	4,351	134	19,273	7,463	73	6,226	1,612	63,758	680	8,850	112,421	6,284	1,447	–	–	-3,373	–
1988	26,118	253	5,657	162	21,226	7,307	99	6,555	1,555	64,863	754	8,841	117,018	8,935	1,511	–	–	-11,934	–
1989	26,348	253	4,545	200	22,131	7,277	114	8,306	1,595	63,715	561	8,632	117,076	8,344	[i] NA	–	–	[R] -9,504	–
1990	25,836	239	4,468	126	20,743	6,647	45	6,874	1,641	63,994	629	9,864	115,031	7,998	NA	–	–	[R] -8,868	–
1991	25,773	256	4,062	117	20,310	7,506	65	8,633	1,468	63,908	548	4,639	111,256	9,979	NA	–	–	[R] -6,023	–
1992	25,180	241	3,832	115	22,458	7,522	43	8,470	1,497	65,260	666	5,644	115,507	8,084	NA	–	–	[R] -4,189	–
1993	23,381	280	4,055	93	22,784	9,034	56	9,586	1,524	66,109	1,079	6,030	120,350	8,381	NA	–	–	16,282	–
1994	27,663	268	5,703	113	24,545	10,623	48	9,407	1,593	67,526	534	6,527	126,619	10,006	NA	–	–	[R] -6,785	–
1995	31,753	279	5,296	109	25,540	11,425	53	11,085	1,566	68,930	359	6,369	130,732	8,242	NA	–	–	[R] -10,157	–
1996	34,382	294	5,385	108	27,873	12,133	116	11,794	1,520	69,947	365	5,559	134,802	8,890	NA	–	–	[R] -9,335	–
1997	36,665	284	4,141	160	30,015	12,320	77	11,913	1,605	70,581	257	5,531	136,602	8,955	NA	–	–	-18,673	–
			Trillion Btu																
1960	170.9	270.1	24.7	9.3	74.7	7.0	11.8	24.0	5.8	214.4	20.0	12.4	404.0	0.0	7.8	[R] 33.6	0.0	14.4	[R] 900.9
1965	189.6	348.0	29.2	11.7	80.4	20.4	6.6	30.9	6.2	236.5	21.7	24.2	467.8	0.0	8.4	[R] 27.0	0.0	8.1	[R] 1,048.9
1970	279.2	432.5	37.5	0.9	94.6	45.7	3.6	44.5	7.0	294.4	22.4	29.7	580.3	0.0	9.7	[R] 23.6	0.0	-7.2	[R] 1,318.3
1975	430.2	371.8	35.8	0.9	103.8	47.0	1.6	48.3	7.8	327.5	15.9	26.9	615.5	0.0	13.3	[R] 27.1	0.0	-41.7	[R] 1,416.3
1980	531.4	322.9	26.6	0.8	107.1	35.5	1.8	33.5	9.7	309.8	9.0	65.2	598.9	0.0	5.8	[R] 28.7	0.0	-18.9	[R] 1,468.8
1985	529.7	264.3	28.5	0.7	114.1	33.3	0.8	20.1	8.8	315.4	4.6	41.9	568.3	86.8	31.3	[R] 28.1	0.0	-76.5	[R] 1,432.0
1986	512.3	244.3	30.7	0.8	106.8	38.0	0.4	21.5	8.6	333.0	3.5	44.6	587.8	77.4	20.8	[R] 24.2	0.0	-28.2	[R] 1,438.8
1987	528.0	234.5	28.9	0.7	112.3	42.2	0.4	22.8	9.8	334.9	4.3	48.8	605.0	67.7	15.1	[R] 22.3	0.0	-11.5	[R] 1,461.1
1988	547.3	254.4	37.5	0.8	123.6	41.3	0.6	23.9	9.4	340.7	4.7	49.0	631.7	96.0	15.6	[R] 23.1	0.0	-40.7	[R] 1,527.4
1989	549.9	254.5	30.2	1.0	128.9	41.2	0.6	30.6	9.7	334.7	3.5	47.7	628.1	89.5	[i] 11.4	[R i] 25.1	[R i] 0.2	[R] -32.4	[R i] 1,524.4
1990	540.6	241.3	29.6	0.6	120.8	37.6	0.3	24.9	10.0	336.2	4.0	54.8	618.8	85.4	22.4	19.7	[R] 0.2	-30.3	[R] 1,495.9
1991	534.5	258.6	27.0	0.6	118.3	42.5	0.4	31.2	8.9	335.7	3.4	26.2	594.2	107.2	11.2	[R] 20.1	[R] 0.2	[R] -20.5	[R] 1,503.5
1992	523.2	241.2	25.4	0.6	130.8	42.6	0.2	30.7	9.1	342.8	4.2	32.1	618.5	86.3	15.0	[R] 21.4	[R] 0.2	-14.3	[R] 1,489.3
1993	466.3	280.7	26.9	0.5	132.7	51.2	0.3	34.6	9.2	347.3	6.8	34.4	643.8	89.5	32.1	[R] 20.3	[R] 0.2	55.6	[R] 1,586.0
1994	542.3	269.2	37.8	0.6	143.0	60.2	0.3	34.2	9.7	354.7	3.4	37.4	681.2	106.8	19.0	[R] 23.0	[R] 0.2	-23.2	[R] 1,615.8
1995	591.4	281.0	35.1	0.5	148.8	64.8	0.3	40.2	9.5	362.1	2.3	36.5	700.1	87.8	19.1	[R] 23.9	[R] 0.2	-34.7	[R] 1,667.1
1996	629.7	297.5	35.7	0.5	162.4	68.8	0.7	42.6	9.2	367.4	2.3	31.5	721.1	94.4	12.8	[R] 23.5	[R] 0.2	-31.8	[R] 1,746.5
1997	666.7	286.4	27.5	0.8	174.8	69.9	0.4	43.1	9.7	370.8	1.6	31.3	729.9	95.1	15.2	19.6	0.2	-63.7	1,748.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 168. Residential Energy Consumption Estimates, Selected Years 1960-1997, Missouri

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	415	0	415	111	1,330	240	4,687	6,257	R 1,293	–	–	4,223	–	10,505	–
1965	105	0	105	130	1,056	138	6,139	7,332	R 898	–	–	5,977	–	14,271	–
1970	32	0	32	157	1,312	69	8,934	10,315	R 674	–	–	9,672	–	23,438	–
1975	54	0	54	155	1,435	28	9,528	10,992	R 704	–	–	13,654	–	32,935	–
1980	29	0	29	143	1,246	57	4,991	6,294	R 1,092	–	–	18,648	–	45,346	–
1985	55	0	55	128	815	95	3,496	4,406	R 1,033	–	–	18,483	–	43,425	–
1986	37	0	37	121	820	58	3,907	4,784	R 1,005	–	–	19,468	–	44,783	–
1987	86	0	86	116	654	53	4,098	4,805	R 907	–	–	20,312	–	46,412	–
1988	78	(s)	78	128	634	58	3,866	4,559	R 942	–	–	21,348	–	48,262	–
1989	87	0	87	129	474	69	4,989	5,531	R 977	–	–	21,057	–	R 47,312	–
1990	99	0	99	116	355	29	4,193	4,577	669	–	–	21,652	–	R 47,359	–
1991	88	0	88	121	430	37	5,489	5,956	704	–	–	23,386	–	R 50,909	–
1992	79	0	79	117	358	21	5,545	5,923	741	–	–	21,294	–	R 45,483	–
1993	90	1	91	134	414	37	5,863	6,314	R 621	–	–	24,182	–	51,092	–
1994	76	(s)	77	123	353	24	5,771	6,148	R 609	–	–	24,057	–	R 50,200	–
1995	74	0	74	125	472	32	5,841	6,344	R 675	–	–	25,409	–	R 52,934	–
1996	72	0	72	137	335	56	6,950	7,342	R 674	–	–	26,448	–	R 55,043	–
1997	93	(s)	93	128	329	45	6,950	7,325	491	–	–	26,595	–	55,232	–
	Trillion Btu														
1960	9.5	0.0	9.5	115.0	7.7	1.4	18.8	27.9	R 25.9	0.0	0.0	14.4	R 192.7	35.8	R 228.5
1965	2.4	0.0	2.4	132.1	6.1	0.8	24.6	31.6	R 18.0	0.0	0.0	20.4	R 204.4	48.7	R 253.1
1970	0.7	0.0	0.7	157.7	7.6	0.4	33.8	41.8	R 13.5	0.0	0.0	33.0	R 246.7	80.0	R 326.6
1975	1.2	0.0	1.2	156.5	8.4	0.2	35.4	43.9	R 14.1	0.0	0.0	46.6	R 262.2	112.4	R 374.6
1980	0.6	0.0	0.6	145.7	7.3	0.3	18.3	25.9	R 21.8	0.0	0.0	63.6	R 257.7	154.7	R 412.4
1985	1.2	0.0	1.2	130.3	4.8	0.5	12.6	17.9	R 20.7	0.0	0.0	63.1	R 233.2	148.2	R 381.3
1986	0.8	0.0	0.8	121.9	4.8	0.3	14.2	19.3	R 20.1	0.0	0.0	66.4	R 228.6	152.8	R 381.4
1987	1.9	0.0	1.9	117.3	3.8	0.3	15.0	19.1	R 18.1	0.0	0.0	69.3	R 225.8	158.4	R 384.1
1988	1.7	(s)	1.7	129.1	3.7	0.3	14.1	18.1	R 18.8	0.0	0.0	72.8	R 240.6	164.7	R 405.3
1989	1.9	0.0	1.9	130.2	2.8	0.4	18.4	21.5	R 19.5	[e] (s)	R [e] 0.1	71.8	R [e] 245.2	161.4	R [e] 406.6
1990	2.2	0.0	2.2	117.2	2.1	0.2	15.2	17.4	13.4	(s)	0.1	73.9	R 224.3	161.6	385.8
1991	1.9	0.0	1.9	121.7	2.5	0.2	19.8	22.6	14.1	(s)	0.1	79.8	R 240.3	173.7	R 414.0
1992	1.7	0.0	1.7	116.9	2.1	0.1	20.1	22.3	14.8	0.1	0.1	72.7	R 228.6	155.2	R 383.8
1993	2.0	(s)	2.0	134.7	2.4	0.2	21.1	23.8	R 12.4	0.1	0.1	82.5	R 255.6	174.3	R 430.0
1994	1.7	(s)	1.8	123.3	2.1	0.1	21.0	23.2	R 12.2	0.1	0.1	82.1	R 242.7	171.3	R 414.0
1995	1.7	0.0	1.7	126.0	2.7	0.2	21.2	24.1	R 13.5	0.1	0.1	86.7	R 252.2	180.6	R 432.8
1996	1.6	0.0	1.6	138.7	2.0	0.3	25.1	27.4	R 13.5	0.1	0.1	90.2	R 271.7	187.8	R 459.5
1997	2.1	(s)	2.1	128.9	1.9	0.3	25.1	27.3	9.8	0.1	0.1	90.7	259.1	188.5	447.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 169. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Missouri

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	770	0	770	33	1,101	1,507	827	113	1,366	4,914	R 24	–	3,314	–	8,243	–
1965	196	0	196	41	873	865	1,083	133	1,508	4,463	R 17	–	4,473	–	10,681	–
1970	60	0	60	88	1,085	433	1,577	153	1,654	4,901	R 13	–	6,168	–	14,948	–
1975	101	0	101	91	1,187	179	1,681	159	764	3,971	R 13	–	7,639	–	18,425	–
1980	53	0	53	76	1,001	171	881	223	554	2,830	R 26	–	12,986	–	31,578	–
1985	101	0	101	60	1,465	33	617	262	121	2,498	NA	–	15,205	–	35,724	–
1986	68	0	68	62	1,482	10	689	323	129	2,633	NA	–	16,083	–	36,996	–
1987	160	0	160	58	1,857	6	723	313	119	3,019	NA	–	17,254	–	39,424	–
1988	145	(s)	145	64	1,663	16	682	248	101	2,711	NA	–	18,343	–	41,470	–
1989	162	0	162	63	926	12	880	213	35	2,066	NA	–	18,753	–	R 42,136	–
1990	185	0	185	59	883	8	740	239	60	1,931	NA	–	19,335	–	R 42,290	–
1991	164	0	164	63	1,111	4	969	128	30	2,241	NA	–	20,014	–	R 43,568	–
1992	148	0	148	61	1,174	16	978	121	3	2,293	NA	–	19,677	–	R 42,030	–
1993	168	(s)	168	70	1,148	13	1,035	112	8	2,315	R 50	–	20,822	–	43,993	–
1994	142	(s)	142	66	1,194	14	1,018	102	20	2,348	R 51	–	R 21,518	–	R 44,902	–
1995	137	0	137	65	1,286	10	1,031	99	1	2,427	R 51	–	R 22,514	–	R 46,903	–
1996	133	0	133	73	1,327	27	1,227	116	6	2,702	R 56	–	R 23,462	–	R 48,829	–
1997	173	(s)	173	70	1,238	21	1,227	145	34	2,665	48	–	23,792	–	49,411	–
	Trillion Btu															
1960	17.7	0.0	17.7	33.8	6.4	8.5	3.3	0.6	8.6	27.5	R 0.5	0.0	11.3	R 90.8	28.1	R 118.9
1965	4.5	0.0	4.5	41.8	5.1	4.9	4.3	0.7	9.5	24.5	R 0.3	0.0	15.3	R 86.4	36.4	R 122.8
1970	1.3	0.0	1.3	88.3	6.3	2.5	6.0	0.8	10.4	25.9	R 0.3	0.0	21.0	R 136.8	51.0	R 187.8
1975	2.2	0.0	2.2	91.5	6.9	1.0	6.2	0.8	4.8	19.8	R 0.3	0.0	26.1	R 139.8	62.9	R 202.6
1980	1.2	0.0	1.2	77.3	5.8	1.0	3.2	1.2	3.5	14.7	R 0.5	0.0	44.3	R 137.9	107.7	R 245.7
1985	2.3	0.0	2.3	61.4	8.5	0.2	2.2	1.4	0.8	13.1	NA	0.0	51.9	128.7	121.9	250.5
1986	1.5	0.0	1.5	62.6	8.6	0.1	2.5	1.7	0.8	13.7	NA	0.0	54.9	132.7	126.2	258.9
1987	3.5	0.0	3.5	58.9	10.8	(s)	2.6	1.6	0.8	15.9	NA	0.0	58.9	137.1	134.5	271.6
1988	3.2	(s)	3.2	64.2	9.7	0.1	2.5	1.3	0.6	14.2	NA	0.0	62.6	144.2	141.5	285.7
1989	3.6	0.0	3.6	63.5	5.4	0.1	3.2	1.1	0.2	10.0	NA	0.0	64.0	141.2	R 143.8	R 285.0
1990	4.0	0.0	4.0	60.0	5.1	(s)	2.7	1.3	0.4	9.5	NA	0.0	66.0	139.6	144.3	R 283.9
1991	3.6	0.0	3.6	63.7	6.5	(s)	3.5	0.7	0.2	10.9	NA	0.0	68.3	146.5	R 148.7	295.1
1992	3.2	0.0	3.2	61.1	6.8	0.1	3.5	0.6	(s)	11.1	NA	0.0	67.1	142.6	143.4	286.0
1993	3.8	(s)	3.8	69.9	6.7	0.1	3.7	0.6	(s)	11.1	R 1.0	0.0	71.0	R 156.9	150.1	R 307.0
1994	3.2	(s)	3.2	66.6	7.0	0.1	3.7	0.5	0.1	11.4	R 1.0	0.0	73.4	R 155.7	153.2	R 308.9
1995	3.1	0.0	3.1	65.5	7.5	0.1	3.7	0.5	(s)	11.8	R 1.0	0.0	76.8	R 158.3	160.0	R 318.3
1996	3.0	0.0	3.0	73.6	7.7	0.2	4.4	0.6	(s)	13.0	R 1.1	0.0	80.1	R 170.7	166.6	R 337.3
1997	3.9	(s)	3.9	70.5	7.2	0.1	4.4	0.8	0.2	12.7	1.0	0.0	81.2	169.4	168.6	337.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 170. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Missouri

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,605	79	3,725	5,722	340	437	284	3,074	1,630	2,104	17,316	0	–	–	3,890	–	9,675	–
1965	2,534	114	4,401	5,097	160	423	328	3,224	1,710	4,299	19,643	0	–	–	5,872	–	14,020	–
1970	1,921	110	5,657	5,689	141	1,175	415	2,767	1,620	5,306	22,771	0	–	–	9,939	–	24,084	–
1975	2,065	90	5,401	5,765	75	1,712	491	2,707	1,242	4,699	22,091	0	–	–	11,782	–	28,421	–
1980	1,595	78	4,002	4,782	87	3,182	671	1,866	703	11,595	26,887	0	–	–	11,018	–	26,792	–
1985	1,798	66	4,295	3,993	22	1,333	610	1,076	557	7,660	19,546	0	–	–	12,625	–	29,661	–
1986	1,687	55	4,624	2,736	8	1,155	597	960	375	8,093	18,547	0	–	–	12,722	–	29,264	–
1987	1,505	54	4,351	3,149	13	1,273	674	959	535	8,850	19,804	0	–	–	12,554	–	28,685	–
1988	1,539	54	5,657	3,763	24	1,903	650	890	531	8,839	22,258	0	–	–	12,556	–	28,386	–
1989	1,436	54	4,545	3,232	33	2,320	667	776	420	8,615	20,609	[f] NA	–	–	12,792	–	[R] 28,741	–
1990	1,321	55	4,468	3,007	8	1,823	687	663	526	9,864	21,046	NA	–	–	12,937	–	[R] 28,297	–
1991	1,235	57	4,062	2,947	23	2,046	614	758	476	4,639	15,565	NA	–	–	13,114	–	[R] 28,547	–
1992	1,137	58	3,832	3,258	6	1,859	626	669	621	5,644	16,515	NA	–	–	13,440	–	28,708	–
1993	1,177	61	4,055	2,803	5	2,597	638	1,469	1,015	5,115	17,696	NA	–	–	13,618	–	28,772	–
1994	1,070	72	5,703	3,482	10	2,416	666	1,623	465	5,323	19,688	NA	–	–	14,106	–	[R] 29,436	–
1995	1,102	69	5,296	3,261	11	4,102	655	1,676	324	5,254	20,580	NA	–	–	14,321	–	[R] 29,834	–
1996	1,118	72	5,385	3,225	33	3,525	636	1,677	314	5,559	20,354	NA	–	–	14,915	–	[R] 31,041	–
1997	1,206	71	4,141	3,761	12	3,653	672	1,688	183	5,531	19,641	NA	–	–	15,267	–	31,706	–
			Trillion Btu															
1960	62.2	81.7	24.7	33.3	1.9	1.8	1.7	16.1	10.2	12.4	102.2	0.0	[R] 7.3	0.0	13.3	[R] 266.6	33.0	[R] 299.6
1965	59.9	116.4	29.2	29.7	0.9	1.7	2.0	16.9	10.8	24.2	115.4	0.0	[R] 8.7	0.0	20.0	[R] 320.5	47.8	[R] 368.3
1970	43.8	110.4	37.5	33.1	0.8	4.4	2.5	14.5	10.2	29.7	132.9	0.0	[R] 9.9	0.0	33.9	[R] 330.8	82.2	[R] 413.0
1975	45.7	90.7	35.8	33.6	0.4	6.4	3.0	14.2	7.8	26.8	128.0	0.0	[R] 12.7	0.0	40.2	[R] 317.3	97.0	[R] 414.3
1980	36.0	79.3	26.6	27.9	0.5	11.7	4.1	9.8	4.4	64.6	149.5	0.0	[R] 6.4	0.0	37.6	[R] 308.8	91.4	[R] 400.2
1985	41.2	66.8	28.5	23.3	0.1	4.8	3.7	5.7	3.5	41.9	111.4	0.0	[R] 7.5	0.0	43.1	[R] 269.9	101.2	[R] 371.1
1986	39.0	55.1	30.7	15.9	(s)	4.2	3.6	5.0	2.4	44.6	106.5	0.0	[R] 4.1	0.0	43.4	[R] 248.1	99.8	[R] 348.0
1987	34.9	54.9	28.9	18.3	0.1	4.7	4.1	5.0	3.4	48.8	113.2	0.0	[R] 4.1	0.0	42.8	[R] 250.0	97.9	[R] 347.9
1988	35.6	54.6	37.5	21.9	0.1	7.0	3.9	4.7	3.3	49.0	127.5	0.0	[R] 4.3	0.0	42.8	[R] 264.7	96.9	[R] 361.6
1989	33.0	54.4	30.2	18.8	0.2	8.5	4.0	4.1	2.6	47.6	116.1	[f] 0.0	[R f] 3.6	[f] 0.0	43.6	[R f] 250.7	[R] 98.1	[R f] 348.7
1990	30.4	55.1	29.6	17.5	(s)	6.6	4.2	3.5	3.3	54.8	119.6	0.0	4.0	0.0	44.1	253.2	96.5	349.8
1991	28.7	57.7	27.0	17.2	0.1	7.4	3.7	4.0	3.0	26.2	88.6	0.0	[R] 4.2	0.0	44.7	[R] 223.9	97.4	[R] 321.3
1992	26.6	58.6	25.4	19.0	(s)	6.7	3.8	3.5	3.9	32.1	94.5	0.0	[R] 4.4	0.0	45.9	[R] 229.9	98.0	[R] 327.8
1993	27.8	61.2	26.9	16.3	(s)	9.4	3.9	7.7	6.4	28.9	99.5	0.0	[R] 4.4	0.0	46.5	[R] 239.3	98.2	[R] 337.5
1994	24.6	72.0	37.8	20.3	0.1	8.8	4.0	8.5	2.9	30.1	112.6	0.0	[R] 7.0	0.0	48.1	[R] 264.4	100.4	[R] 364.8
1995	25.5	69.4	35.1	19.0	0.1	14.9	4.0	8.8	2.0	29.8	113.7	0.0	[R] 7.3	0.0	48.9	[R] 264.8	101.8	[R] 366.6
1996	25.9	72.3	35.7	18.8	0.2	12.7	3.9	8.8	2.0	31.5	113.5	0.0	[R] 7.6	0.0	50.9	[R] 270.2	105.9	[R] 376.2
1997	27.5	71.9	27.5	21.9	0.1	13.2	4.1	8.9	1.2	31.3	108.0	0.0	7.9	0.0	52.1	267.4	108.2	375.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 171. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Missouri

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	46	8	1,844	4,485	1,249	43	669	37,620	34	45,943	0	2	–	R 5	–
1965	8	9	2,323	6,685	3,625	47	701	41,658	154	55,191	0	0	–	0	–
1970	3	13	179	7,990	8,074	85	735	53,122	163	70,349	0	0	–	0	–
1975	(s)	7	184	8,721	8,311	74	793	59,476	141	77,698	0	0	–	0	–
1980	0	6	162	10,824	6,268	68	932	56,877	142	75,272	0	0	–	0	–
1985	0	4	135	13,116	5,889	138	848	58,698	38	78,863	0	0	–	0	–
1986	0	4	164	13,070	6,710	157	830	62,106	28	83,062	0	0	–	0	–
1987	0	2	134	13,408	7,463	132	938	62,486	0	84,560	0	0	–	0	–
1988	0	5	162	14,861	7,307	103	904	63,724	87	87,149	0	0	–	0	–
1989	0	5	200	17,278	7,277	116	928	62,726	70	88,595	R e 26,035	0	–	0	–
1990	0	5	126	16,291	6,647	117	955	63,092	34	87,263	30,069	0	–	0	–
1991	0	3	117	15,577	7,506	130	854	63,022	0	87,206	23,835	0	–	0	–
1992	0	2	115	17,483	7,522	88	871	64,471	17	90,567	28,969	0	–	0	–
1993	0	10	93	18,052	9,034	91	887	64,527	34	92,719	32,329	0	–	0	–
1994	0	3	113	19,260	10,623	202	927	65,801	22	96,949	35,929	R 12	–	R 25	–
1995	0	7	109	20,237	11,425	112	911	67,155	21	99,971	23,708	R 16	–	R 33	–
1996	0	7	108	22,759	12,133	92	884	68,154	18	104,148	12,495	R 19	–	R 39	–
1997	0	7	160	24,412	12,320	84	934	68,748	15	106,673	7,112	18	–	37	–
			Trillion Btu												
1960	1.1	8.2	9.3	26.1	7.0	0.2	4.1	197.6	0.2	244.5	0.0	(s)	253.8	(s)	253.8
1965	0.2	9.1	11.7	38.9	20.4	0.2	4.3	218.8	1.0	295.3	0.0	0.0	304.6	0.0	304.6
1970	0.1	12.8	0.9	46.5	45.7	0.3	4.5	279.0	1.0	378.0	0.0	0.0	390.9	0.0	390.9
1975	(s)	7.6	0.9	50.8	47.0	0.3	4.8	312.4	0.9	417.2	0.0	0.0	424.7	0.0	424.7
1980	0.0	5.7	0.8	63.0	35.5	0.2	5.7	298.8	0.9	404.9	0.0	0.0	410.6	0.0	410.6
1985	0.0	4.3	0.7	76.4	33.3	0.5	5.1	308.3	0.2	424.6	0.0	0.0	429.0	0.0	429.0
1986	0.0	3.6	0.8	76.1	38.0	0.6	5.0	326.2	0.2	446.9	0.0	0.0	450.5	0.0	450.5
1987	0.0	2.0	0.7	78.1	42.2	0.5	5.7	328.2	0.0	455.4	0.0	0.0	457.4	0.0	457.4
1988	0.0	4.9	0.8	86.6	41.3	0.4	5.5	334.7	0.5	469.9	0.0	0.0	474.8	0.0	474.8
1989	0.0	5.2	1.0	100.6	41.2	0.4	5.6	329.5	0.4	478.8	R e 2.0	0.0	e 484.0	0.0	e 484.0
1990	0.0	5.4	0.6	94.9	37.6	0.4	5.8	331.4	0.2	471.0	2.3	0.0	476.4	0.0	476.4
1991	0.0	2.6	0.6	90.7	42.5	0.5	5.2	331.1	0.0	470.5	1.8	0.0	473.1	0.0	473.1
1992	0.0	2.3	0.6	101.8	42.6	0.3	5.3	338.7	0.1	489.4	2.2	0.0	491.7	0.0	491.7
1993	0.0	9.9	0.5	105.2	51.2	0.3	5.4	339.0	0.2	501.7	2.5	0.0	511.6	0.0	511.6
1994	0.0	2.9	0.6	112.2	60.2	0.7	5.6	345.7	0.1	525.1	2.7	(s)	528.0	0.1	528.1
1995	0.0	7.2	0.5	117.9	64.8	0.4	5.5	352.8	0.1	542.0	1.8	R 0.1	549.3	0.1	R 549.4
1996	0.0	7.6	0.5	132.6	68.8	0.3	5.4	358.0	0.1	565.7	1.0	0.1	R 573.4	0.1	573.5
1997	0.0	7.6	0.8	142.2	69.9	0.3	5.7	361.1	0.1	580.1	0.5	0.1	587.7	0.1	587.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 172. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Missouri

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	3,674	0	3,674	30	150	178	0	328	0	726	0	0	0	–
1965	5,690	0	5,690	48	77	92	0	168	0	802	0	0	0	–
1970	10,846	0	10,846	63	133	159	0	291	0	927	0	0	0	–
1975	17,734	0	17,734	26	375	710	15	1,100	0	1,280	0	0	0	–
1980	23,168	0	23,168	15	29	538	101	668	0	558	0	0	0	–
1985	22,779	0	22,779	1	16	202	1	219	8,030	2,993	0	0	0	–
1986	22,029	0	22,029	1	20	220	0	240	7,170	1,996	0	0	0	–
1987	23,012	0	23,012	1	26	206	0	232	6,284	1,447	0	0	0	–
1988	24,356	0	24,356	2	35	304	2	341	8,935	1,511	0	0	0	–
1989	24,663	0	24,663	1	36	221	16	274	8,344	1,094	0	0	0	–
1990	24,231	0	24,231	4	8	207	0	215	7,998	2,156	0	0	0	–
1991	24,286	0	24,286	13	42	245	0	287	9,979	1,072	0	0	0	–
1992	23,815	0	23,815	2	24	185	0	209	8,084	1,450	0	0	0	–
1993	21,945	0	21,945	5	22	367	915	1,305	8,381	3,110	1	0	0	–
1994	26,375	0	26,375	4	27	255	1,204	1,486	10,006	1,844	7	0	0	–
1995	30,440	0	30,440	13	13	283	1,114	1,410	8,242	1,854	25	0	0	–
1996	33,059	0	33,059	5	28	228	0	256	8,890	1,239	31	0	0	–
1997	35,193	0	35,193	7	25	275	0	300	8,955	1,478	42	0	0	–
	Trillion Btu													
1960	80.5	0.0	80.5	31.3	0.9	1.0	0.0	2.0	0.0	7.8	0.0	0.0	0.0	121.6
1965	122.6	0.0	122.6	48.5	0.5	0.5	0.0	1.0	0.0	8.4	0.0	0.0	0.0	180.5
1970	233.4	0.0	233.4	63.4	0.8	0.9	0.0	1.8	0.0	9.7	0.0	0.0	0.0	308.3
1975	381.2	0.0	381.2	25.7	2.4	4.1	0.1	6.6	0.0	13.3	0.0	0.0	0.0	426.8
1980	493.6	0.0	493.6	15.0	0.2	3.1	0.6	3.9	0.0	5.8	0.0	0.0	0.0	518.3
1985	484.9	0.0	484.9	1.5	0.1	1.2	(s)	1.3	86.8	31.3	0.0	0.0	0.0	605.8
1986	470.9	0.0	470.9	1.2	0.1	1.3	0.0	1.4	77.4	20.8	0.0	0.0	0.0	571.8
1987	487.7	0.0	487.7	1.4	0.2	1.2	0.0	1.4	67.7	15.1	0.0	0.0	0.0	573.3
1988	506.8	0.0	506.8	1.6	0.2	1.8	(s)	2.0	96.0	15.6	0.0	0.0	0.0	622.0
1989	511.4	0.0	511.4	1.3	0.2	1.3	0.1	1.6	89.5	11.4	0.0	0.0	0.0	615.2
1990	504.0	0.0	504.0	3.6	(s)	1.2	0.0	1.3	85.4	22.4	0.0	0.0	0.0	616.7
1991	500.2	0.0	500.2	12.9	0.3	1.4	0.0	1.7	107.2	11.2	0.0	0.0	0.0	633.1
1992	491.6	0.0	491.6	2.4	0.2	1.1	0.0	1.2	86.3	15.0	0.0	0.0	0.0	596.5
1993	432.7	0.0	432.7	4.9	0.1	2.1	5.5	7.8	89.5	32.1	(s)	0.0	0.0	567.1
1994	512.6	0.0	512.6	4.4	0.2	1.5	7.3	8.9	106.8	19.0	0.1	0.0	0.0	651.8
1995	561.1	0.0	561.1	12.9	0.1	1.7	6.7	8.4	87.8	19.1	0.3	0.0	0.0	689.6
1996	599.2	0.0	599.2	5.3	0.2	1.3	0.0	1.5	94.4	12.8	0.3	0.0	0.0	713.6
1997	633.1	0.0	633.1	7.5	0.2	1.6	0.0	1.8	95.1	15.2	0.4	0.0	0.0	753.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 173. Energy Consumption Estimates by Source, Selected Years 1960-1997, Montana

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	254	56	865	1,006	4,898	265	477	737	161	6,922	2,063	1,635	19,028	0	5,800	–	–	-3,181	–
1965	370	71	1,003	312	4,962	384	248	926	189	7,709	1,241	2,531	19,505	0	8,388	–	–	-6,938	–
1970	763	88	1,347	43	4,827	649	376	1,326	200	9,262	1,268	3,155	22,452	0	8,744	–	–	-1,251	–
1975	1,149	80	924	79	7,586	818	122	1,370	208	10,630	2,178	3,410	27,325	0	10,164	–	–	-6,056	–
1980	3,520	61	1,020	159	7,509	920	0	1,806	247	10,416	4,025	3,007	29,110	0	9,963	–	–	-11,328	–
1985	5,713	47	1,463	91	11,317	678	10	1,576	225	10,188	133	2,581	28,261	0	10,244	–	–	-13,692	–
1986	7,780	41	1,989	105	7,004	867	22	1,505	220	10,158	47	2,657	24,574	0	10,855	–	–	-25,273	–
1987	7,730	39	1,642	82	6,556	718	8	1,716	249	10,258	23	3,392	24,644	0	8,951	–	–	-24,830	–
1988	10,634	42	1,473	107	6,308	809	4	1,515	240	10,441	221	3,801	24,920	0	8,240	–	–	-35,099	–
1989	10,458	46	1,749	95	7,679	750	3	1,608	246	10,310	182	3,913	26,535	0	[i] NA	–	–	[R] -38,192	–
1990	9,676	43	1,487	111	7,422	708	8	1,740	253	10,328	221	4,255	26,534	0	NA	–	–	[R] -38,514	–
1991	10,549	45	1,350	108	8,321	615	3	1,053	227	10,360	146	3,714	25,896	0	NA	–	–	[R] -45,370	–
1992	11,040	46	1,309	75	7,716	864	1	1,018	231	10,727	89	4,725	26,755	0	NA	–	–	[R] -38,472	–
1993	9,247	53	1,707	64	8,004	901	8	2,200	235	10,999	689	4,171	28,978	0	NA	–	–	-33,274	–
1994	11,089	52	1,964	75	8,254	855	7	1,055	246	11,097	374	4,497	28,424	0	NA	–	–	[R] -36,923	–
1995	10,005	58	1,293	78	8,924	1,052	1	918	242	11,328	240	4,462	28,537	0	NA	–	–	[R] -38,109	–
1996	8,032	61	1,702	99	9,818	999	1	1,660	235	11,753	184	5,050	31,500	0	NA	–	–	[R] -38,457	–
1997	9,517	60	1,448	71	10,782	792	2	1,676	248	11,480	165	4,864	31,528	0	NA	–	–	-49,765	–
			Trillion Btu																
1960	4.0	57.6	5.7	5.1	28.5	1.4	2.7	3.0	1.0	36.4	13.0	9.8	106.6	0.0	62.4	[R] 7.5	0.0	-10.9	[R] 227.3
1965	5.5	70.8	6.7	1.6	28.9	2.1	1.4	3.7	1.1	40.5	7.8	15.2	109.0	0.0	87.7	[R] 7.8	0.0	-23.7	[R] 257.2
1970	12.0	90.6	8.9	0.2	28.1	3.6	2.1	5.0	1.2	48.7	8.0	19.0	124.8	0.0	91.8	[R] 6.6	0.0	-4.3	[R] 321.6
1975	18.6	81.2	6.1	0.4	44.2	4.6	0.7	5.1	1.3	55.8	13.7	20.5	152.4	0.0	105.8	[R] 6.2	0.0	-20.7	[R] 343.5
1980	60.2	61.5	6.8	0.8	43.7	5.2	0.0	6.6	1.5	54.7	25.3	18.1	162.7	0.0	103.5	[R] 6.9	0.0	-38.6	[R] 356.1
1985	99.1	47.3	9.7	0.5	65.9	3.8	0.1	5.7	1.4	53.5	0.8	15.9	157.2	0.0	107.0	[R] 8.9	(s)	-46.7	[R] 372.8
1986	133.2	41.1	13.2	0.5	40.8	4.8	0.1	5.5	1.3	53.4	0.3	16.4	136.4	0.0	113.4	[R] 15.7	(s)	-86.2	[R] 353.7
1987	132.9	39.6	10.9	0.4	38.2	4.0	(s)	6.3	1.5	53.9	0.1	20.7	136.1	0.0	93.3	[R] 13.8	0.0	-84.7	[R] 330.9
1988	181.5	42.9	9.8	0.5	36.7	4.5	(s)	5.5	1.5	54.8	1.4	23.0	137.8	0.0	85.1	[R] 14.4	0.0	-119.8	[R] 341.9
1989	178.4	46.7	11.6	0.5	44.7	4.2	(s)	5.9	1.5	54.2	1.1	23.6	147.3	0.0	[R i] 100.1	[R i] 13.2	[R i] 0.1	-130.3	[R i] 355.4
1990	166.1	44.4	9.9	0.6	43.2	4.0	(s)	6.3	1.5	54.3	1.4	25.6	146.8	0.0	[R] 111.9	[R] 8.4	[R] 0.1	-131.4	[R] 346.3
1991	180.2	46.7	9.0	0.5	48.5	3.5	(s)	3.8	1.4	54.4	0.9	22.5	144.5	0.0	[R] 125.2	[R] 8.5	[R] 0.1	[R] -154.8	[R] 350.5
1992	189.8	46.6	8.7	0.4	44.9	4.8	(s)	3.7	1.4	56.3	0.6	28.4	149.2	0.0	[R] 85.9	[R] 9.2	[R] 0.1	-131.3	[R] 349.5
1993	157.7	54.3	11.3	0.3	46.6	5.0	(s)	7.9	1.4	57.8	4.3	25.2	160.0	0.0	99.4	[R] 9.2	[R] 0.1	-113.5	[R] 367.1
1994	189.3	53.3	13.0	0.4	48.1	4.8	(s)	3.8	1.5	58.3	2.4	27.1	159.4	0.0	84.8	[R] 10.7	[R] 0.1	[R] -126.0	[R] 372.2
1995	171.2	59.6	8.6	0.4	52.0	5.9	(s)	3.3	1.5	59.5	1.5	26.9	159.6	0.0	[R] 111.1	[R] 11.1	[R] 0.1	-130.0	[R] 382.7
1996	135.7	63.2	11.3	0.5	57.2	5.7	(s)	6.0	1.4	61.7	1.2	30.4	175.3	0.0	[R] 142.9	[R] 11.4	[R] 0.1	[R] -131.2	[R] 397.7
1997	160.7	61.7	9.6	0.4	62.8	4.5	(s)	6.1	1.5	60.3	1.0	29.3	175.4	0.0	138.3	11.0	0.1	-169.8	377.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 174. Residential Energy Consumption Estimates, Selected Years 1960-1997, Montana

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	11	0	11	17	262	0	506	768	R 237	–	–	935	–	2,327	–
1965	8	0	8	20	277	0	636	914	R 182	–	–	1,216	–	2,904	–
1970	4	0	4	25	249	0	887	1,137	R 139	–	–	1,534	–	3,717	–
1975	4	0	4	24	589	0	973	1,562	R 153	–	–	2,143	–	5,169	–
1980	5	0	5	19	421	0	829	1,250	R 125	–	–	2,916	–	7,091	–
1985	3	0	3	19	345	9	604	959	R 174	–	–	3,614	–	8,491	–
1986	8	0	8	17	351	14	641	1,006	R 169	–	–	3,214	–	7,393	–
1987	3	0	3	15	247	1	709	957	R 83	–	–	3,139	–	7,173	–
1988	3	0	3	17	235	1	715	951	R 86	–	–	3,301	–	7,463	–
1989	18	(s)	19	18	366	1	831	1,198	R 89	–	–	3,456	–	R 7,765	–
1990	20	0	20	17	288	1	813	1,102	89	–	–	3,358	–	R 7,346	–
1991	16	0	16	18	356	1	703	1,060	94	–	–	3,459	–	R 7,530	–
1992	7	0	7	17	218	(s)	598	816	99	–	–	3,286	–	R 7,020	–
1993	4	0	4	20	267	7	548	822	91	–	–	3,598	–	7,602	–
1994	1	0	1	19	189	6	541	736	R 89	–	–	3,567	–	R 7,443	–
1995	4	0	4	20	252	1	473	726	99	–	–	3,640	–	R 7,583	–
1996	1	0	1	22	438	1	519	958	99	–	–	3,911	–	8,139	–
1997	29	0	29	21	910	2	519	1,432	72	–	–	3,804	–	7,900	–
	Trillion Btu														
1960	0.2	0.0	0.2	17.5	1.5	0.0	2.0	3.6	R 4.7	0.0	0.0	3.2	R 29.2	7.9	R 37.2
1965	0.2	0.0	0.2	19.9	1.6	0.0	2.6	4.2	R 3.6	0.0	0.0	4.1	R 32.1	9.9	R 42.0
1970	0.1	0.0	0.1	25.6	1.5	0.0	3.4	4.8	R 2.8	0.0	0.0	5.2	R 38.5	12.7	R 51.2
1975	0.1	0.0	0.1	24.6	3.4	0.0	3.6	7.0	R 3.1	0.0	0.0	7.3	R 42.1	17.6	R 59.7
1980	0.1	0.0	0.1	19.5	2.5	0.0	3.0	5.5	R 2.5	0.0	0.0	9.9	R 37.5	24.2	R 61.7
1985	(s)	0.0	(s)	19.4	2.0	0.1	2.2	4.2	R 3.5	0.0	0.0	12.3	R 39.4	29.0	R 68.4
1986	0.1	0.0	0.1	16.8	2.0	0.1	2.3	4.5	R 3.4	0.0	0.0	11.0	R 35.7	25.2	R 61.0
1987	(s)	0.0	(s)	15.6	1.4	(s)	2.6	4.0	R 1.7	0.0	0.0	10.7	R 32.1	24.5	R 56.6
1988	0.1	0.0	0.1	17.3	1.4	(s)	2.6	4.0	R 1.7	0.0	0.0	11.3	R 34.3	25.5	R 59.8
1989	0.4	(s)	0.4	18.5	2.1	(s)	3.1	5.2	R 1.8	[e] (s)	R [e] (s)	11.8	R [e] 37.7	26.5	R [e] 64.2
1990	0.4	0.0	0.4	17.3	1.7	(s)	2.9	4.6	1.8	(s)	(s)	11.5	R 35.6	25.1	60.6
1991	0.3	0.0	0.3	18.9	2.1	(s)	2.5	4.6	1.9	(s)	(s)	11.8	R 37.6	25.7	63.2
1992	0.1	0.0	0.1	17.0	1.3	(s)	2.2	3.4	2.0	(s)	(s)	11.2	33.8	24.0	57.8
1993	0.1	0.0	0.1	20.7	1.6	(s)	2.0	3.6	1.8	(s)	(s)	12.3	38.5	25.9	64.4
1994	(s)	0.0	(s)	19.2	1.1	(s)	2.0	3.1	1.8	(s)	(s)	12.2	R 36.3	25.4	R 61.7
1995	0.1	0.0	0.1	20.2	1.5	(s)	1.7	3.2	2.0	(s)	(s)	12.4	37.9	25.9	63.8
1996	(s)	0.0	(s)	22.8	2.6	(s)	1.9	4.4	2.0	(s)	(s)	13.3	42.6	27.8	70.4
1997	0.5	0.0	0.5	21.6	5.3	(s)	1.9	7.2	1.4	(s)	(s)	13.0	43.8	27.0	70.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 175. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Montana

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	20	0	20	12	297	466	89	135	2	989	R 4	–	688	–	1,711	–
1965	15	0	15	14	315	227	112	144	1	800	R 3	–	925	–	2,208	–
1970	8	0	8	19	283	94	157	220	1	755	R 3	–	1,187	–	2,877	–
1975	7	0	7	19	668	54	172	174	2	1,071	R 3	–	1,645	–	3,968	–
1980	9	0	9	14	346	0	146	92	7	591	R 3	–	2,094	–	5,092	–
1985	5	0	5	15	863	(s)	107	72	126	1,167	NA	–	4,245	–	9,973	–
1986	14	0	14	13	403	7	113	76	37	636	NA	–	4,456	–	10,250	–
1987	5	0	5	11	305	(s)	125	80	13	523	NA	–	2,979	–	6,807	–
1988	6	0	6	12	199	(s)	126	76	9	410	NA	–	3,202	–	7,239	–
1989	34	(s)	34	13	204	(s)	147	77	13	440	NA	–	3,070	–	R 6,898	–
1990	37	0	37	12	153	(s)	143	84	11	391	NA	–	3,237	–	R 7,080	–
1991	29	0	29	13	204	(s)	124	63	3	394	NA	–	3,326	–	R 7,239	–
1992	14	0	14	12	169	(s)	106	55	4	334	NA	–	3,396	–	7,253	–
1993	7	0	7	14	194	1	97	12	5	308	R 7	–	3,495	–	7,384	–
1994	3	0	3	13	189	1	95	15	3	304	R 7	–	3,657	–	7,630	–
1995	7	0	7	13	118	(s)	83	13	3	218	R 7	–	3,411	–	R 7,106	–
1996	3	0	3	15	308	(s)	92	19	3	422	R 8	–	3,603	–	R 7,499	–
1997	54	0	54	14	215	(s)	92	12	1	320	7	–	3,577	–	7,428	–
	Trillion Btu															
1960	0.4	0.0	0.4	12.3	1.7	2.6	0.4	0.7	(s)	5.5	R 0.1	0.0	2.3	R 20.6	5.8	26.4
1965	0.3	0.0	0.3	14.1	1.8	1.3	0.5	0.8	(s)	4.3	R 0.1	0.0	3.2	R 22.0	7.5	29.5
1970	0.2	0.0	0.2	19.2	1.6	0.5	0.6	1.2	(s)	3.9	R 0.1	0.0	4.1	R 27.4	9.8	R 37.2
1975	0.1	0.0	0.1	19.0	3.9	0.3	0.6	0.9	(s)	5.8	R 0.1	0.0	5.6	R 30.6	13.5	44.1
1980	0.2	0.0	0.2	14.4	2.0	0.0	0.5	0.5	(s)	3.1	R 0.1	0.0	7.1	R 24.9	17.4	R 42.3
1985	0.1	0.0	0.1	14.8	5.0	(s)	0.4	0.4	0.8	6.6	NA	0.0	14.5	36.0	34.0	70.0
1986	0.3	0.0	0.3	12.5	2.3	(s)	0.4	0.4	0.2	3.4	NA	0.0	15.2	31.4	35.0	66.4
1987	0.1	0.0	0.1	11.2	1.8	(s)	0.5	0.4	0.1	2.7	NA	0.0	10.2	24.2	23.2	47.4
1988	0.1	0.0	0.1	12.3	1.2	(s)	0.5	0.4	0.1	2.1	NA	0.0	10.9	25.4	24.7	50.1
1989	0.7	(s)	0.7	13.4	1.2	(s)	0.5	0.4	0.1	2.2	NA	0.1	10.5	26.8	23.5	50.3
1990	0.7	0.0	0.7	12.5	0.9	(s)	0.5	0.4	0.1	1.9	NA	0.1	11.0	R 26.2	24.2	R 50.4
1991	0.5	0.0	0.5	13.2	1.2	(s)	0.4	0.3	(s)	2.0	NA	0.1	11.3	27.1	24.7	51.8
1992	0.2	0.0	0.2	11.8	1.0	(s)	0.4	0.3	(s)	1.7	NA	0.1	11.6	R 25.4	24.7	50.1
1993	0.1	0.0	0.1	14.1	1.1	(s)	0.3	0.1	(s)	1.6	0.1	0.1	11.9	R 28.0	25.2	53.1
1994	(s)	0.0	(s)	13.3	1.1	(s)	0.3	0.1	(s)	1.6	0.1	0.1	12.5	R 27.6	26.0	R 53.6
1995	0.1	0.0	0.1	13.9	0.7	(s)	0.3	0.1	(s)	1.1	0.1	0.1	11.6	R 26.9	24.2	R 51.2
1996	(s)	0.0	(s)	15.3	1.8	(s)	0.3	0.1	(s)	2.2	0.2	0.1	12.3	R 30.1	25.6	R 55.7
1997	1.0	0.0	1.0	14.3	1.3	(s)	0.3	0.1	(s)	1.7	0.1	0.1	12.2	29.4	25.3	54.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 176. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Montana

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	36	26	865	1,500	11	112	23	816	1,684	1,635	6,647	0	–	–	2,951	–	7,341	–
1965	52	34	1,003	1,693	21	164	41	887	914	2,531	7,255	0	–	–	3,939	–	9,406	–
1970	28	41	1,347	1,274	282	246	46	635	1,123	3,155	8,107	0	–	–	6,029	–	14,610	–
1975	50	34	924	2,494	68	174	46	774	1,963	3,410	9,853	0	–	–	5,160	–	12,447	–
1980	154	20	1,020	1,925	0	786	51	619	4,018	3,007	11,426	0	–	–	5,815	–	14,140	–
1985	225	10	1,463	5,798	(s)	814	46	677	7	2,581	11,386	0	–	–	5,841	–	13,722	–
1986	319	9	1,989	2,124	2	696	45	637	10	2,657	8,160	0	–	–	6,150	–	14,147	–
1987	192	10	1,642	1,802	7	844	51	574	10	3,392	8,322	0	–	–	6,304	–	14,405	–
1988	215	10	1,473	1,619	2	626	50	575	212	3,801	8,359	0	–	–	6,438	–	14,555	–
1989	197	12	1,749	2,783	2	578	51	631	169	3,913	9,875	[f] NA	–	–	6,535	–	[R] 14,683	–
1990	220	12	1,487	2,749	7	717	52	615	209	4,255	10,092	NA	–	–	6,529	–	14,281	–
1991	281	12	1,350	3,559	2	178	47	611	143	3,714	9,603	NA	–	–	6,622	–	[R] 14,416	–
1992	251	14	1,309	2,589	(s)	279	48	572	86	4,725	9,608	NA	–	–	6,414	–	13,701	–
1993	367	15	1,707	2,737	(s)	1,513	49	567	684	4,171	11,427	NA	–	–	5,837	–	12,332	–
1994	572	16	1,964	2,275	(s)	360	51	603	371	4,497	10,121	NA	–	–	5,961	–	[R] 12,438	–
1995	622	20	1,293	2,645	(s)	333	50	646	237	4,462	9,666	NA	–	–	6,368	–	[R] 13,266	–
1996	131	21	1,702	3,461	(s)	1,032	48	663	181	5,050	12,137	NA	–	–	6,306	–	[R] 13,123	–
1997	148	21	1,448	3,220	(s)	1,050	51	686	164	4,864	11,483	NA	–	–	4,537	–	9,422	–
			Trillion Btu															
1960	0.8	27.0	5.7	8.7	0.1	0.5	0.1	4.3	10.6	9.8	39.8	0.0	[R] 2.7	0.0	10.1	[R] 80.4	25.0	[R] 105.4
1965	1.2	34.3	6.7	9.9	0.1	0.7	0.3	4.7	5.7	15.2	43.2	0.0	[R] 3.7	0.0	13.4	[R] 95.8	32.1	[R] 127.9
1970	0.6	42.5	8.9	7.4	1.6	0.9	0.3	3.3	7.1	19.0	48.5	0.0	[R] 3.0	0.0	20.6	[R] 115.2	49.8	[R] 165.1
1975	1.0	34.6	6.1	14.5	0.4	0.6	0.3	4.1	12.3	20.5	58.9	0.0	[R] 3.0	0.0	17.6	[R] 115.1	42.5	[R] 157.5
1980	2.9	20.3	6.8	11.2	0.0	2.9	0.3	3.3	25.3	18.1	67.8	0.0	[R] 4.1	0.0	19.8	[R] 115.0	48.2	[R] 163.2
1985	4.1	10.3	9.7	33.8	(s)	2.9	0.3	3.6	(s)	15.9	66.2	0.0	[R] 4.8	0.0	19.9	[R] 105.3	46.8	[R] 152.1
1986	5.7	9.3	13.2	12.4	(s)	2.5	0.3	3.3	0.1	16.4	48.2	0.0	[R] 11.7	0.0	21.0	[R] 95.9	48.3	[R] 144.2
1987	3.4	10.1	10.9	10.5	(s)	3.1	0.3	3.0	0.1	20.7	48.6	0.0	[R] 11.7	0.0	21.5	[R] 95.3	49.1	[R] 144.4
1988	3.9	10.6	9.8	9.4	(s)	2.3	0.3	3.0	1.3	23.0	49.2	0.0	[R] 12.1	0.0	22.0	[R] 97.8	49.7	[R] 147.5
1989	3.6	11.9	11.6	16.2	(s)	2.1	0.3	3.3	1.1	23.6	58.2	[R f] 0.3	[R f] 10.6	[R f] (s)	22.3	[R f] 107.0	50.1	[R f] 157.1
1990	4.0	12.0	9.9	16.0	(s)	2.6	0.3	3.2	1.3	25.6	59.0	0.5	[R] 5.8	[R] (s)	22.3	[R] 103.6	48.7	[R] 152.4
1991	5.2	11.9	9.0	20.7	(s)	0.6	0.3	3.2	0.9	22.5	57.2	0.5	[R] 6.0	[R] (s)	22.6	[R] 103.4	49.2	[R] 152.6
1992	4.7	14.4	8.7	15.1	(s)	1.0	0.3	3.0	0.5	28.4	57.0	0.5	[R] 6.3	[R] (s)	21.9	[R] 104.9	46.7	[R] 151.6
1993	6.8	15.3	11.3	15.9	(s)	5.5	0.3	3.0	4.3	25.2	65.5	0.7	[R] 6.4	[R] (s)	19.9	[R] 114.6	42.1	[R] 156.7
1994	10.5	16.6	13.0	13.3	(s)	1.3	0.3	3.2	2.3	27.1	60.5	0.6	[R] 8.3	[R] (s)	20.3	[R] 116.8	42.4	[R] 159.3
1995	11.2	21.0	8.6	15.4	(s)	1.2	0.3	3.4	1.5	26.9	57.3	0.5	[R] 9.0	[R] (s)	21.7	[R] 120.7	45.3	[R] 166.0
1996	2.4	21.1	11.3	20.2	(s)	3.7	0.3	3.5	1.1	30.4	70.5	0.6	[R] 9.3	[R] (s)	21.5	[R] 125.4	44.8	[R] 170.1
1997	2.7	21.7	9.6	18.8	(s)	3.8	0.3	3.6	1.0	29.3	66.4	0.6	9.4	(s)	15.5	116.3	32.1	148.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 177. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Montana

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	1	(s)	1,006	2,839	265	29	137	5,972	377	10,624	0	0	–	0	–
1965	(s)	(s)	312	2,676	384	13	148	6,678	325	10,536	0	0	–	0	–
1970	(s)	1	43	3,020	649	36	154	8,407	119	12,428	0	0	–	0	–
1975	(s)	2	79	3,835	818	50	162	9,682	160	14,786	0	0	–	0	–
1980	0	3	159	4,759	920	45	196	9,705	0	15,786	0	0	–	0	–
1985	0	2	91	4,273	678	51	179	9,439	(s)	14,711	0	0	–	0	–
1986	0	2	105	4,101	867	55	175	9,445	0	14,748	0	0	–	0	–
1987	0	2	82	4,157	718	39	197	9,604	0	14,798	0	0	–	0	–
1988	0	2	107	4,192	809	48	190	9,789	0	15,137	0	0	–	0	–
1989	0	2	95	4,266	750	53	195	9,602	0	14,962	R e 515	0	–	0	–
1990	0	2	111	4,169	708	67	201	9,630	0	14,885	594	0	–	0	–
1991	0	2	108	4,161	615	48	180	9,687	0	14,798	471	0	–	0	–
1992	0	3	75	4,705	864	35	183	10,100	0	15,963	573	0	–	0	–
1993	0	4	64	4,758	901	43	187	10,421	0	16,373	639	0	–	0	–
1994	0	4	75	5,559	855	58	195	10,479	0	17,221	0	0	–	0	–
1995	0	4	78	5,856	1,052	28	192	10,669	0	17,875	698	0	–	0	–
1996	0	3	99	5,570	999	16	186	11,070	0	17,941	0	0	–	0	–
1997	0	3	71	6,397	792	15	197	10,782	0	18,254	0	0	–	0	–
			Trillion Btu												
1960	(s)	0.5	5.1	16.5	1.4	0.1	0.8	31.4	2.4	57.7	0.0	0.0	58.2	0.0	58.2
1965	(s)	0.4	1.6	15.6	2.1	0.1	0.9	35.1	2.0	57.3	0.0	0.0	57.8	0.0	57.8
1970	(s)	0.7	0.2	17.6	3.6	0.1	0.9	44.2	0.7	67.4	0.0	0.0	68.1	0.0	68.1
1975	(s)	1.8	0.4	22.3	4.6	0.2	1.0	50.9	1.0	80.4	0.0	0.0	82.1	0.0	82.1
1980	0.0	2.9	0.8	27.7	5.2	0.2	1.2	51.0	0.0	86.0	0.0	0.0	88.9	0.0	88.9
1985	0.0	2.2	0.5	24.9	3.8	0.2	1.1	49.6	(s)	80.0	0.0	0.0	82.2	0.0	82.2
1986	0.0	2.1	0.5	23.9	4.8	0.2	1.1	49.6	0.0	80.1	0.0	0.0	82.2	0.0	82.2
1987	0.0	2.0	0.4	24.2	4.0	0.1	1.2	50.4	0.0	80.5	0.0	0.0	82.5	0.0	82.5
1988	0.0	2.3	0.5	24.4	4.5	0.2	1.2	51.4	0.0	82.2	0.0	0.0	84.5	0.0	84.5
1989	0.0	2.5	0.5	24.8	4.2	0.2	1.2	50.4	0.0	81.3	R e (s)	0.0	e 83.8	0.0	e 83.8
1990	0.0	2.1	0.6	24.3	4.0	0.2	1.2	50.6	0.0	80.9	(s)	0.0	83.0	0.0	83.0
1991	0.0	2.4	0.5	24.2	3.5	0.2	1.1	50.9	0.0	80.4	(s)	0.0	82.8	0.0	82.8
1992	0.0	3.1	0.4	27.4	4.8	0.1	1.1	53.1	0.0	86.9	(s)	0.0	90.0	0.0	90.0
1993	0.0	3.8	0.3	27.7	5.0	0.2	1.1	54.7	0.0	89.1	(s)	0.0	92.9	0.0	92.9
1994	0.0	3.6	0.4	32.4	4.8	0.2	1.2	55.0	0.0	94.0	0.0	0.0	97.6	0.0	97.6
1995	0.0	4.1	0.4	34.1	5.9	0.1	1.2	56.0	0.0	97.7	0.1	0.0	101.7	0.0	101.7
1996	0.0	3.5	0.5	32.4	5.7	0.1	1.1	58.2	0.0	97.9	0.0	0.0	101.5	0.0	101.5
1997	0.0	3.6	0.4	37.3	4.5	0.1	1.2	56.6	0.0	100.0	0.0	0.0	103.6	0.0	103.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 178. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Montana

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	187	0	187	(s)	(s)	(s)	0	(s)	0	5,800	0	0	0	–
1965	296	0	296	2	1	(s)	0	1	0	8,388	37	0	0	–
1970	723	0	723	3	26	(s)	0	26	0	8,744	73	0	0	–
1975	1,089	0	1,089	1	53	1	0	54	0	10,164	14	0	0	–
1980	3,352	0	3,352	4	0	59	0	59	0	9,963	17	0	0	–
1985	5,480	0	5,480	(s)	0	38	0	38	0	10,244	59	0	(s)	–
1986	7,438	0	7,438	(s)	0	25	0	25	0	10,855	61	0	(s)	–
1987	7,530	0	7,530	(s)	0	44	0	44	0	8,951	49	0	0	–
1988	10,410	0	10,410	(s)	0	63	0	63	0	8,240	55	0	0	–
1989	10,208	0	10,208	(s)	0	60	0	60	0	R 9,561	72	0	0	–
1990	9,399	0	9,399	(s)	0	63	0	63	0	10,711	75	0	0	–
1991	10,223	0	10,223	(s)	0	41	0	41	0	11,944	62	0	0	–
1992	10,768	0	10,768	(s)	0	35	0	35	0	8,254	79	0	(s)	–
1993	8,869	0	8,869	(s)	0	48	0	48	0	9,575	78	0	0	–
1994	10,513	0	10,513	1	0	42	0	42	0	8,171	42	0	0	–
1995	9,373	0	9,373	(s)	0	53	0	53	0	10,727	0	0	0	–
1996	7,897	0	7,897	(s)	0	41	0	41	0	13,776	0	0	0	–
1997	9,286	0	9,286	(s)	0	39	0	39	0	13,357	0	0	0	–
	Trillion Btu													
1960	2.5	0.0	2.5	0.4	(s)	(s)	0.0	(s)	0.0	62.4	0.0	0.0	0.0	65.3
1965	3.9	0.0	3.9	2.0	(s)	(s)	0.0	(s)	0.0	87.7	0.4	0.0	0.0	94.0
1970	11.2	0.0	11.2	2.6	0.2	(s)	0.0	0.2	0.0	91.8	0.8	0.0	0.0	106.5
1975	17.4	0.0	17.4	1.2	0.3	(s)	0.0	0.3	0.0	105.8	0.1	0.0	0.0	124.8
1980	57.0	0.0	57.0	4.4	0.0	0.3	0.0	0.3	0.0	103.5	0.2	0.0	0.0	165.4
1985	94.8	0.0	94.8	0.6	0.0	0.2	0.0	0.2	0.0	107.0	0.6	0.0	(s)	203.3
1986	127.2	0.0	127.2	0.5	0.0	0.1	0.0	0.1	0.0	113.4	0.6	0.0	(s)	241.9
1987	129.4	0.0	129.4	0.6	0.0	0.3	0.0	0.3	0.0	93.3	0.5	0.0	0.0	224.0
1988	177.4	0.0	177.4	0.3	0.0	0.4	0.0	0.4	0.0	85.1	0.6	0.0	0.0	263.7
1989	173.7	0.0	173.7	0.4	0.0	0.4	0.0	0.4	0.0	R 99.7	0.8	0.0	0.0	275.0
1990	161.0	0.0	161.0	0.5	0.0	0.4	0.0	0.4	0.0	111.4	0.8	0.0	0.0	274.1
1991	174.2	0.0	174.2	0.3	0.0	0.2	0.0	0.2	0.0	R 124.6	R 0.7	0.0	0.0	R 300.1
1992	184.7	0.0	184.7	0.3	0.0	0.2	0.0	0.2	0.0	R 85.4	0.8	0.0	(s)	271.4
1993	150.7	0.0	150.7	0.3	0.0	0.3	0.0	0.3	0.0	98.7	0.8	0.0	0.0	250.8
1994	178.7	0.0	178.7	0.7	0.0	0.2	0.0	0.2	0.0	R 84.3	0.4	0.0	0.0	264.8
1995	159.7	0.0	159.7	0.4	0.0	0.3	0.0	0.3	0.0	R 110.6	0.0	0.0	0.0	R 271.2
1996	133.3	0.0	133.3	0.5	0.0	0.2	0.0	0.2	0.0	142.4	0.0	0.0	0.0	276.5
1997	156.5	0.0	156.5	0.4	0.0	0.2	0.0	0.2	0.0	137.7	0.0	0.0	0.0	294.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 179. Energy Consumption Estimates by Source, Selected Years 1960-1997, Nebraska

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	889	136	780	371	4,151	1,202	677	2,650	424	14,998	415	59	25,729	0	959	–	–	-536	–
1965	896	166	655	410	3,689	1,371	790	3,407	425	15,745	332	50	26,875	-5	1,116	–	–	2,652	–
1970	1,283	222	1,137	199	7,449	1,783	582	5,616	479	18,525	793	94	36,656	0	1,371	–	–	7,502	–
1975	1,595	219	754	141	8,507	1,679	554	5,740	492	20,636	1,092	145	39,740	5,916	1,213	–	–	-3,822	–
1980	4,990	163	719	213	9,149	1,588	62	4,499	389	19,100	228	146	36,093	5,783	1,336	–	–	-5,079	–
1985	6,653	126	473	96	12,384	1,357	74	2,590	354	17,737	62	75	35,203	4,134	1,441	–	–	2,271	–
1986	6,288	105	954	117	12,051	1,353	168	2,449	346	17,757	252	277	35,725	7,658	1,678	–	–	-8,000	–
1987	6,744	109	1,241	90	12,299	1,373	104	3,218	391	17,885	265	282	37,149	8,589	1,567	–	–	-11,817	–
1988	8,057	122	1,262	96	13,995	1,505	76	3,500	377	18,609	412	290	40,121	6,828	1,350	–	–	-9,257	–
1989	7,587	120	1,130	93	12,432	1,488	22	3,622	387	18,427	376	286	38,263	8,077	[i] NA	–	–	[R] -9,906	–
1990	8,266	111	1,388	83	12,455	1,501	41	2,912	398	18,451	260	316	37,806	7,511	NA	–	–	[R] -11,415	–
1991	8,859	116	1,418	84	13,022	1,192	17	3,167	356	17,801	200	26	37,285	8,048	NA	–	–	[R] -13,169	–
1992	8,212	107	898	81	14,091	1,198	20	3,225	363	17,951	187	28	38,042	8,748	NA	–	–	-14,971	–
1993	9,666	126	797	72	14,049	1,157	24	2,984	370	18,029	278	30	37,791	6,805	NA	–	–	-13,252	–
1994	9,300	127	1,031	76	15,692	1,259	21	3,080	387	18,043	215	31	39,834	6,345	NA	–	–	[R] -8,075	–
1995	10,396	136	929	77	15,558	1,001	17	3,020	380	19,302	123	31	40,435	7,485	NA	–	–	[R] -14,939	–
1996	10,379	133	1,771	75	17,033	1,007	19	3,485	369	19,474	170	37	43,441	9,457	NA	–	–	[R] -19,715	–
1997	11,210	132	1,450	90	17,674	1,075	23	3,520	390	19,825	112	33	44,192	9,269	NA	–	–	-19,722	–
			Trillion Btu																
1960	20.0	140.4	5.2	1.9	24.2	6.4	3.8	10.6	2.6	78.8	2.6	0.4	136.5	0.0	10.3	[R] 3.1	0.0	-1.8	[R] 308.5
1965	20.8	164.7	4.3	2.1	21.5	7.4	4.5	13.7	2.6	82.7	2.1	0.3	141.1	-0.1	11.7	[R] 1.9	0.0	9.0	[R] 349.2
1970	29.7	224.1	7.5	1.0	43.4	9.8	3.3	21.2	2.9	97.3	5.0	0.6	192.0	0.0	14.4	[R] 1.6	0.0	25.6	[R] 487.4
1975	32.9	217.5	5.0	0.7	49.6	9.2	3.1	21.3	3.0	108.4	6.9	0.9	208.1	65.2	12.6	[R] 2.8	0.0	-13.0	[R] 526.0
1980	93.9	159.5	4.8	1.1	53.3	8.7	0.4	16.5	2.4	100.3	1.4	0.9	189.7	63.1	13.9	[R] 7.1	0.0	-17.3	[R] 509.9
1985	115.5	123.9	3.1	0.5	72.1	7.4	0.4	9.3	2.1	93.2	0.4	0.4	189.1	44.7	15.1	[R] 6.6	0.0	7.8	[R] 502.5
1986	109.9	104.0	6.3	0.6	70.2	7.4	1.0	8.9	2.1	93.3	1.6	1.5	192.9	82.7	17.5	[R] 6.7	0.0	-27.3	[R] 486.4
1987	116.5	107.7	8.2	0.5	71.6	7.5	0.6	11.8	2.4	94.0	1.7	1.5	199.7	92.6	16.3	[R] 6.0	0.0	-40.3	[R] 498.5
1988	139.3	119.9	8.4	0.5	81.5	8.2	0.4	12.8	2.3	97.8	2.6	1.6	216.0	73.4	13.9	[R] 6.2	0.0	-31.6	[R] 537.2
1989	132.0	118.7	7.5	0.5	72.4	8.2	0.1	13.3	2.3	96.8	2.4	1.6	205.1	86.6	[i] 12.1	[R i] 8.4	[R i] 0.1	-33.8	[R i] 527.1
1990	142.0	109.2	9.2	0.4	72.6	8.3	0.2	10.6	2.4	96.9	1.6	1.7	204.0	80.2	11.9	[R] 6.7	[R] 0.1	[R] -38.9	[R] 512.7
1991	152.0	114.0	9.4	0.4	75.9	6.6	0.1	11.4	2.2	93.5	1.3	0.1	200.9	86.4	10.9	[R] 6.4	[R] 0.1	-44.9	[R] 523.9
1992	140.9	104.6	6.0	0.4	82.1	6.6	0.1	11.7	2.2	94.3	1.2	0.2	204.7	93.4	11.1	[R] 7.2	[R] 0.1	-51.1	[R] 508.7
1993	166.1	123.0	5.3	0.4	81.8	6.4	0.1	10.8	2.2	94.7	1.7	0.2	203.7	72.7	10.3	[R] 7.0	[R] 0.2	-45.2	[R] 535.1
1994	160.3	124.8	6.8	0.4	91.4	7.0	0.1	11.2	2.3	94.8	1.4	0.2	215.6	67.7	13.5	[R] 6.3	[R] 0.2	-27.6	[R] 559.2
1995	179.4	133.7	6.2	0.4	90.6	5.7	0.1	10.9	2.3	101.4	0.8	0.2	218.5	79.8	14.7	[R] 7.1	[R] 0.2	-51.0	[R] 580.4
1996	179.0	133.8	11.8	0.4	99.2	5.7	0.1	12.6	2.2	102.3	1.1	0.2	235.6	100.5	16.6	[R] 6.4	[R] 0.2	-67.3	[R] 603.4
1997	193.3	131.9	9.6	0.5	103.0	6.1	0.1	12.7	2.4	104.1	0.7	0.2	239.4	98.5	17.2	5.4	0.3	-67.3	617.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 180. Residential Energy Consumption Estimates, Selected Years 1960-1997, Nebraska

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	76	0	76	39	140	337	1,790	2,267	R 108	–	–	1,907	–	4,744	–
1965	21	0	21	48	111	453	2,545	3,110	R 69	–	–	2,816	–	6,723	–
1970	13	0	13	58	196	379	3,889	4,464	R 52	–	–	4,107	–	9,953	–
1975	3	0	3	54	173	372	3,143	3,688	R 60	–	–	4,693	–	11,321	–
1980	7	0	7	49	360	10	1,406	1,775	R 344	–	–	5,521	–	13,425	–
1985	4	0	4	47	340	40	998	1,379	R 323	–	–	6,195	–	14,554	–
1986	1	0	1	42	283	19	889	1,190	R 314	–	–	6,325	–	14,549	–
1987	1	0	1	39	202	13	1,221	1,436	R 277	–	–	6,378	–	14,574	–
1988	16	0	16	44	199	16	1,195	1,410	R 288	–	–	6,813	–	15,403	–
1989	2	0	2	45	249	8	1,210	1,467	R 298	–	–	6,723	–	R 15,106	–
1990	1	0	1	41	169	4	978	1,151	201	–	–	6,800	–	14,872	–
1991	3	2	5	45	197	5	1,227	1,430	212	–	–	7,138	–	R 15,539	–
1992	2	1	3	41	145	10	1,245	1,401	223	–	–	6,561	–	14,015	–
1993	2	0	2	48	168	11	1,171	1,349	R 185	–	–	7,226	–	15,267	–
1994	2	0	2	44	161	5	1,090	1,256	182	–	–	7,379	–	R 15,399	–
1995	3	0	3	45	95	4	1,173	1,272	202	–	–	7,597	–	R 15,826	–
1996	0	1	1	49	115	4	1,396	1,514	R 201	–	–	7,741	–	R 16,110	–
1997	41	0	41	47	95	7	1,396	1,498	146	–	–	7,989	–	16,590	–
	Trillion Btu														
1960	1.6	0.0	1.6	40.9	0.8	1.9	7.2	9.9	R 2.2	0.0	0.0	6.5	R 61.0	16.2	R 77.2
1965	0.4	0.0	0.4	47.2	0.6	2.6	10.2	13.4	R 1.4	0.0	0.0	9.6	R 72.1	22.9	R 95.0
1970	0.3	0.0	0.3	58.8	1.1	2.1	14.7	18.0	R 1.0	0.0	0.0	14.0	R 92.1	34.0	R 126.0
1975	0.1	0.0	0.1	53.6	1.0	2.1	11.7	14.8	R 1.2	0.0	0.0	16.0	R 85.7	38.6	R 124.3
1980	0.1	0.0	0.1	47.9	2.1	0.1	5.2	7.3	R 6.9	0.0	0.0	18.8	R 81.1	45.8	R 126.9
1985	0.1	0.0	0.1	45.8	2.0	0.2	3.6	5.8	R 6.5	0.0	0.0	21.1	R 79.3	49.7	R 129.0
1986	(s)	0.0	(s)	42.0	1.6	0.1	3.2	5.0	R 6.3	0.0	0.0	21.6	R 74.9	49.6	R 124.5
1987	(s)	0.0	(s)	38.3	1.2	0.1	4.5	5.7	R 5.5	0.0	0.0	21.8	R 71.3	49.7	R 121.1
1988	0.3	0.0	0.3	42.8	1.2	0.1	4.4	5.6	R 5.8	0.0	0.0	23.2	R 77.7	52.6	R 130.2
1989	(s)	0.0	(s)	44.2	1.5	(s)	4.5	6.0	R 6.0	e (s)	R e (s)	22.9	R e 79.2	51.5	R e 130.7
1990	(s)	0.0	(s)	40.8	1.0	(s)	3.5	4.6	4.0	(s)	(s)	23.2	72.7	50.7	123.4
1991	0.1	(s)	0.1	44.0	1.1	(s)	4.4	5.6	4.2	(s)	(s)	24.4	R 78.4	53.0	131.4
1992	(s)	(s)	0.1	40.6	0.8	0.1	4.5	5.4	4.5	0.1	(s)	22.4	72.9	47.8	R 120.8
1993	(s)	0.0	(s)	47.0	1.0	0.1	4.2	5.3	3.7	0.1	(s)	24.7	R 80.8	52.1	R 132.9
1994	0.1	0.0	0.1	43.7	0.9	(s)	4.0	4.9	3.6	0.1	(s)	25.2	R 77.6	52.5	130.1
1995	0.1	0.0	0.1	44.1	0.6	(s)	4.2	4.8	4.0	0.1	(s)	25.9	79.0	54.0	133.0
1996	0.0	(s)	(s)	49.3	0.7	(s)	5.0	5.7	4.0	0.1	(s)	26.4	R 85.6	55.0	R 140.6
1997	0.7	0.0	0.7	47.0	0.6	(s)	5.0	5.6	2.9	0.1	(s)	27.3	83.6	56.6	140.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 181. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Nebraska

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	142	0	142	22	140	65	316	84	43	649	R 2	–	1,269	–	3,157	–
1965	39	0	39	26	112	87	449	95	84	827	R 1	–	2,025	–	4,835	–
1970	24	0	24	47	197	73	686	110	241	1,307	R 1	–	3,505	–	8,493	–
1975	6	0	6	43	174	71	555	120	159	1,079	R 1	–	3,660	–	8,829	–
1980	12	0	12	43	181	21	248	149	23	622	R 8	–	4,068	–	9,892	–
1985	8	0	8	39	800	12	176	158	0	1,146	NA	–	5,714	–	13,425	–
1986	3	0	3	36	333	8	157	142	0	640	NA	–	5,798	–	13,336	–
1987	3	0	3	34	354	4	216	139	(s)	713	NA	–	5,956	–	13,608	–
1988	29	0	29	39	299	2	211	134	13	659	NA	–	6,342	–	14,337	–
1989	3	0	3	37	228	3	214	126	43	613	NA	–	6,473	–	R 14,544	–
1990	3	0	3	36	247	23	173	155	20	618	NA	–	6,451	–	R 14,109	–
1991	5	1	6	40	183	3	217	100	27	529	NA	–	6,777	–	R 14,753	–
1992	3	1	3	34	270	1	220	92	41	624	NA	–	6,470	–	R 13,821	–
1993	3	0	3	35	306	4	207	21	19	557	R 15	–	6,560	–	13,861	–
1994	5	0	5	39	362	5	192	21	19	600	R 15	–	7,149	–	R 14,918	–
1995	6	0	6	40	175	4	207	21	1	408	R 15	–	7,494	–	R 15,613	–
1996	0	(s)	(s)	41	234	4	246	21	0	505	R 17	–	7,563	–	R 15,741	–
1997	77	0	77	34	175	3	246	21	10	454	14	–	8,014	–	16,643	–
	Trillion Btu															
1960	3.0	0.0	3.0	22.7	0.8	0.4	1.3	0.4	0.3	3.2	(s)	0.0	4.3	33.2	10.8	R 44.0
1965	0.8	0.0	0.8	25.3	0.7	0.5	1.8	0.5	0.5	4.0	(s)	0.0	6.9	37.0	16.5	53.5
1970	0.5	0.0	0.5	47.2	1.1	0.4	2.6	0.6	1.5	6.2	(s)	0.0	12.0	65.9	29.0	94.9
1975	0.1	0.0	0.1	43.0	1.0	0.4	2.1	0.6	1.0	5.1	(s)	0.0	12.5	60.7	30.1	90.8
1980	0.2	0.0	0.2	42.5	1.1	0.1	0.9	0.8	0.1	3.0	R 0.2	0.0	13.9	R 59.8	33.8	R 93.5
1985	0.2	0.0	0.2	38.7	4.7	0.1	0.6	0.8	0.0	6.2	NA	0.0	19.5	64.6	45.8	110.4
1986	0.1	0.0	0.1	36.1	1.9	(s)	0.6	0.7	0.0	3.3	NA	0.0	19.8	59.3	45.5	104.8
1987	0.1	0.0	0.1	33.7	2.1	(s)	0.8	0.7	(s)	3.6	NA	0.0	20.3	57.7	46.4	104.1
1988	0.5	0.0	0.5	38.7	1.7	(s)	0.8	0.7	0.1	3.3	NA	0.0	21.6	64.2	48.9	113.1
1989	0.1	0.0	0.1	36.9	1.3	(s)	0.8	0.7	0.3	3.1	NA	[e] (s)	22.1	62.1	49.6	111.7
1990	0.1	0.0	0.1	35.9	1.4	0.1	0.6	0.8	0.1	3.1	NA	(s)	22.0	R 61.2	48.1	109.3
1991	0.1	(s)	0.1	39.7	1.1	(s)	0.8	0.5	0.2	2.6	NA	0.1	23.1	R 65.6	50.3	115.9
1992	0.1	(s)	0.1	33.8	1.6	(s)	0.8	0.5	0.3	3.1	NA	0.1	22.1	R 59.1	47.2	R 106.3
1993	0.1	0.0	0.1	33.9	1.8	(s)	0.7	0.1	0.1	2.8	R 0.3	0.1	22.4	R 59.5	47.3	R 106.8
1994	0.1	0.0	0.1	38.4	2.1	(s)	0.7	0.1	0.1	3.1	R 0.3	0.1	24.4	R 66.3	50.9	R 117.2
1995	0.1	0.0	0.1	39.2	1.0	(s)	0.7	0.1	(s)	1.9	R 0.3	0.1	25.6	R 67.3	53.3	R 120.5
1996	0.0	(s)	(s)	41.1	1.4	(s)	0.9	0.1	0.0	2.4	R 0.3	0.2	25.8	R 69.8	53.7	R 123.5
1997	1.3	0.0	1.3	33.8	1.0	(s)	0.9	0.1	0.1	2.1	0.3	0.2	27.3	65.0	56.8	121.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 182. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Nebraska

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	408	37	780	2,405	275	441	97	2,146	18	59	6,222	(s)	–	–	889	–	2,210	–
1965	349	48	655	1,956	250	314	130	1,790	32	50	5,177	(s)	–	–	1,182	–	2,821	–
1970	240	56	1,137	3,271	130	823	160	1,319	139	94	7,073	(s)	–	–	2,145	–	5,198	–
1975	308	74	754	3,234	111	1,811	193	1,644	137	145	8,030	0	–	–	3,200	–	7,718	–
1980	269	52	719	3,411	31	2,675	41	1,471	29	146	8,523	0	–	–	4,155	–	10,104	–
1985	261	33	473	4,292	22	1,359	38	1,392	62	75	7,713	0	–	–	3,794	–	8,913	–
1986	339	20	954	4,264	142	1,365	37	1,189	199	277	8,427	0	–	–	3,757	–	8,643	–
1987	312	30	1,241	3,880	87	1,732	41	1,248	206	282	8,717	0	–	–	3,851	–	8,799	–
1988	268	32	1,262	4,352	58	2,042	40	1,064	322	290	9,430	0	–	–	4,104	–	9,278	–
1989	279	31	1,130	3,996	11	2,133	41	1,059	271	286	8,927	[f] NA	–	–	4,370	–	[R] 9,819	–
1990	235	26	1,388	4,140	14	1,700	42	950	239	316	8,790	NA	–	–	4,618	–	[R] 10,101	–
1991	324	25	1,418	4,654	9	1,659	38	940	170	26	8,915	NA	–	–	4,690	–	[R] 10,209	–
1992	325	26	898	4,915	8	1,713	39	825	146	28	8,571	NA	–	–	4,752	–	10,151	–
1993	364	39	797	4,922	9	1,559	39	696	259	30	8,312	NA	–	–	4,963	–	10,485	–
1994	414	37	1,031	5,884	10	1,726	41	734	196	31	9,652	NA	–	–	5,345	–	[R] 11,153	–
1995	339	45	929	5,131	9	1,617	40	759	122	31	8,638	NA	–	–	5,802	–	[R] 12,086	–
1996	287	36	1,771	4,668	12	1,823	39	773	170	37	9,292	NA	–	–	6,193	–	12,890	–
1997	296	44	1,450	4,975	14	1,860	41	810	103	33	9,285	NA	–	–	6,580	–	13,664	–
			Trillion Btu															
1960	9.0	38.3	5.2	14.0	1.6	1.8	0.6	11.3	0.1	0.4	34.8	(s)	[R] 0.4	0.0	3.0	[R] 85.5	7.5	[R] 93.0
1965	7.6	47.7	4.3	11.4	1.4	1.3	0.8	9.4	0.2	0.3	29.1	(s)	[R] 0.5	0.0	4.0	[R] 88.9	9.6	[R] 98.6
1970	4.9	56.9	7.5	19.1	0.7	3.1	1.0	6.9	0.9	0.6	39.8	(s)	[R] 0.5	0.0	7.3	[R] 109.4	17.7	[R] 127.2
1975	5.9	73.5	5.0	18.8	0.6	6.7	1.2	8.6	0.9	0.9	42.7	0.0	[R] 1.5	0.0	10.9	[R] 134.6	26.3	[R] 161.0
1980	5.2	50.9	4.8	19.9	0.2	9.8	0.3	7.7	0.2	0.9	43.7	0.0	[R] 0.1	0.0	14.2	[R] 114.0	34.5	[R] 148.5
1985	4.9	32.6	3.1	25.0	0.1	4.9	0.2	7.3	0.4	0.4	41.5	0.0	[R] 0.1	0.0	12.9	[R] 92.1	30.4	[R] 122.5
1986	6.3	20.3	6.3	24.8	0.8	5.0	0.2	6.2	1.3	1.5	46.2	0.0	[R] 0.4	0.0	12.8	[R] 86.0	29.5	[R] 115.5
1987	5.8	29.6	8.2	22.6	0.5	6.3	0.3	6.6	1.3	1.5	47.3	0.0	[R] 0.4	0.0	13.1	[R] 96.3	30.0	[R] 126.3
1988	5.0	31.8	8.4	25.3	0.3	7.5	0.2	5.6	2.0	1.6	51.0	0.0	[R] 0.4	0.0	14.0	[R] 102.2	31.7	[R] 133.9
1989	5.3	30.2	7.5	23.3	0.1	7.9	0.2	5.6	1.7	1.6	47.8	[f] 0.0	[R f] 0.4	[f] 0.0	14.9	[R f] 98.6	33.5	[R f] 132.1
1990	4.5	25.4	9.2	24.1	0.1	6.2	0.3	5.0	1.5	1.7	48.0	0.0	[R] 0.3	0.0	15.8	[R] 93.9	34.5	[R] 128.4
1991	6.1	24.4	9.4	27.1	0.1	6.0	0.2	4.9	1.1	0.1	49.0	0.0	[R] 0.3	0.0	16.0	[R] 95.8	34.8	[R] 130.6
1992	6.0	25.9	6.0	28.6	(s)	6.2	0.2	4.3	0.9	0.2	46.5	0.0	[R] 0.3	0.0	16.2	[R] 94.9	34.6	[R] 129.6
1993	6.8	37.7	5.3	28.7	0.1	5.6	0.2	3.7	1.6	0.2	45.3	0.0	[R] 0.3	0.0	16.9	[R] 107.1	35.8	[R] 142.9
1994	7.9	36.5	6.8	34.3	0.1	6.3	0.2	3.9	1.2	0.2	53.0	0.0	[R] 0.6	0.0	18.2	[R] 116.2	38.1	[R] 154.2
1995	6.6	43.9	6.2	29.9	0.1	5.9	0.2	4.0	0.8	0.2	47.1	0.0	[R] 0.6	0.0	19.8	[R] 118.0	41.2	[R] 159.2
1996	5.4	36.4	11.8	27.2	0.1	6.6	0.2	4.1	1.1	0.2	51.2	0.0	[R] 0.6	0.0	21.1	[R] 114.8	44.0	[R] 158.7
1997	5.7	44.4	9.6	29.0	0.1	6.7	0.3	4.3	0.6	0.2	50.7	0.0	0.6	0.0	22.4	123.9	46.6	170.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 183. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Nebraska

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	7	6	371	1,402	1,202	103	328	12,768	258	16,432	0	0	–	0	–
1965	1	9	410	1,439	1,371	99	295	13,861	109	17,583	0	0	–	0	–
1970	(s)	13	199	3,658	1,783	217	319	17,096	225	23,497	0	0	–	0	–
1975	(s)	10	141	4,618	1,679	231	299	18,871	138	25,976	0	0	–	0	–
1980	0	7	213	5,112	1,588	171	348	17,480	0	24,911	0	0	–	0	–
1985	0	6	96	6,890	1,357	57	317	16,187	0	24,903	0	0	–	0	–
1986	0	4	117	7,122	1,353	38	309	16,426	(s)	25,366	0	0	–	0	–
1987	0	4	90	7,831	1,373	50	350	16,498	(s)	26,191	0	0	–	0	–
1988	0	5	96	9,081	1,505	51	337	17,411	0	28,481	0	0	–	0	–
1989	0	5	93	7,911	1,488	66	346	17,242	0	27,145	R e 27,364	0	–	0	–
1990	0	4	83	7,869	1,501	61	356	17,346	0	27,216	31,603	0	–	0	–
1991	0	2	84	7,961	1,192	64	319	16,760	0	26,380	25,051	0	–	0	–
1992	0	3	81	8,737	1,198	47	325	17,034	0	27,422	30,447	0	–	0	–
1993	0	3	72	8,611	1,157	48	331	17,312	0	27,531	33,978	0	–	0	–
1994	0	3	76	9,240	1,259	72	346	17,288	0	28,281	22,719	0	–	0	–
1995	0	3	77	10,096	1,001	23	340	18,521	0	30,056	26,633	0	–	0	–
1996	0	5	75	11,970	1,007	20	330	18,679	0	32,082	17,267	0	–	0	–
1997	0	4	90	12,358	1,075	18	348	18,994	0	32,883	20,361	0	–	0	–
			Trillion Btu												
1960	0.2	6.5	1.9	8.2	6.4	0.4	2.0	67.1	1.6	87.6	0.0	0.0	94.2	0.0	94.2
1965	(s)	8.6	2.1	8.4	7.4	0.4	1.8	72.8	0.7	93.5	0.0	0.0	102.2	0.0	102.2
1970	(s)	13.2	1.0	21.3	9.8	0.8	1.9	89.8	1.4	126.1	0.0	0.0	139.3	0.0	139.3
1975	(s)	10.4	0.7	26.9	9.2	0.9	1.8	99.1	0.9	139.5	0.0	0.0	149.9	0.0	149.9
1980	0.0	6.9	1.1	29.8	8.7	0.6	2.1	91.8	0.0	134.1	0.0	0.0	141.0	0.0	141.0
1985	0.0	5.5	0.5	40.1	7.4	0.2	1.9	85.0	0.0	135.2	0.0	0.0	140.7	0.0	140.7
1986	0.0	3.9	0.6	41.5	7.4	0.1	1.9	86.3	(s)	137.8	0.0	0.0	141.7	0.0	141.7
1987	0.0	4.4	0.5	45.6	7.5	0.2	2.1	86.7	(s)	142.5	0.0	0.0	146.9	0.0	146.9
1988	0.0	4.6	0.5	52.9	8.2	0.2	2.0	91.5	0.0	155.3	0.0	0.0	159.9	0.0	159.9
1989	0.0	4.8	0.5	46.1	8.2	0.2	2.1	90.6	0.0	147.6	R e 2.1	0.0	e 152.5	0.0	e 152.5
1990	0.0	3.5	0.4	45.8	8.3	0.2	2.2	91.1	0.0	148.0	2.4	0.0	151.5	0.0	151.5
1991	0.0	2.3	0.4	46.4	6.6	0.2	1.9	88.0	0.0	143.6	1.9	0.0	145.9	0.0	145.9
1992	0.0	2.5	0.4	50.9	6.6	0.2	2.0	89.5	0.0	149.5	2.3	0.0	152.0	0.0	152.0
1993	0.0	2.5	0.4	50.2	6.4	0.2	2.0	90.9	0.0	150.1	2.6	0.0	152.5	0.0	152.5
1994	0.0	3.2	0.4	53.8	7.0	0.3	2.1	90.8	0.0	154.4	1.7	0.0	157.6	0.0	157.6
1995	0.0	3.3	0.4	58.8	5.7	0.1	2.1	97.3	0.0	164.3	2.0	0.0	167.6	0.0	167.6
1996	0.0	4.6	0.4	69.7	5.7	0.1	2.0	98.1	0.0	176.0	1.3	0.0	180.6	0.0	180.6
1997	0.0	4.1	0.5	72.0	6.1	0.1	2.1	99.8	0.0	180.5	1.6	0.0	184.6	0.0	184.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 184. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Nebraska

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	256	0	256	31	96	64	0	160	0	959	48	0	0	–
1965	486	0	486	36	107	71	0	178	-5	1,115	0	0	0	–
1970	1,006	0	1,006	48	188	126	0	314	0	1,370	0	0	0	–
1975	1,278	0	1,278	38	658	308	0	967	5,916	1,213	0	0	0	–
1980	4,702	0	4,702	12	176	86	0	262	5,783	1,336	0	0	0	–
1985	6,380	0	6,380	1	0	62	0	62	4,134	1,441	0	0	0	–
1986	5,945	0	5,945	2	53	50	0	103	7,658	1,678	0	0	0	–
1987	6,428	0	6,428	2	59	33	0	92	8,589	1,567	0	0	0	–
1988	7,744	0	7,744	2	76	64	0	140	6,828	1,350	0	0	0	–
1989	7,303	0	7,303	3	61	49	0	110	8,077	1,158	0	0	0	–
1990	8,027	0	8,027	4	1	31	0	31	7,511	1,140	0	0	0	–
1991	8,524	0	8,524	4	3	27	0	30	8,048	1,045	0	0	0	–
1992	7,881	0	7,881	2	0	25	0	25	8,748	1,075	6	0	0	–
1993	9,297	0	9,297	2	0	42	0	42	6,805	1,002	6	0	0	–
1994	8,879	0	8,879	3	1	45	0	45	6,345	1,312	9	0	0	–
1995	10,048	0	10,048	3	0	61	0	61	7,485	1,426	16	0	0	–
1996	10,091	0	10,091	2	0	47	0	47	9,457	1,602	12	0	0	–
1997	10,796	0	10,796	3	(s)	71	0	72	9,269	1,672	1	0	0	–
	Trillion Btu													
1960	6.3	0.0	6.3	32.1	0.6	0.4	0.0	1.0	0.0	10.3	0.5	0.0	0.0	50.2
1965	11.9	0.0	11.9	35.9	0.7	0.4	0.0	1.1	-0.1	11.7	0.0	0.0	0.0	60.6
1970	24.1	0.0	24.1	48.0	1.2	0.7	0.0	1.9	0.0	14.4	0.0	0.0	0.0	88.4
1975	26.8	0.0	26.8	37.0	4.1	1.8	0.0	5.9	65.2	12.6	0.0	0.0	0.0	147.5
1980	88.4	0.0	88.4	11.3	1.1	0.5	0.0	1.6	63.1	13.9	0.0	0.0	0.0	178.3
1985	110.4	0.0	110.4	1.2	0.0	0.4	0.0	0.4	44.7	15.1	0.0	0.0	0.0	171.7
1986	103.6	0.0	103.6	1.7	0.3	0.3	0.0	0.6	82.7	17.5	0.0	0.0	0.0	206.1
1987	110.6	0.0	110.6	1.7	0.4	0.2	0.0	0.6	92.6	16.3	0.0	0.0	0.0	221.7
1988	133.5	0.0	133.5	2.0	0.5	0.4	0.0	0.9	73.4	13.9	0.0	0.0	0.0	223.6
1989	126.5	0.0	126.5	2.5	0.4	0.3	0.0	0.7	86.6	12.1	0.0	0.0	0.0	228.4
1990	137.4	0.0	137.4	3.6	(s)	0.2	0.0	0.2	80.2	11.9	0.0	0.0	0.0	233.3
1991	145.6	0.0	145.6	3.5	(s)	0.2	0.0	0.2	86.4	10.9	0.0	0.0	0.0	246.6
1992	134.8	0.0	134.8	1.8	0.0	0.1	0.0	0.1	93.4	11.1	0.1	0.0	0.0	241.4
1993	159.2	0.0	159.2	1.8	0.0	0.2	0.0	0.2	72.7	10.3	0.1	0.0	0.0	244.3
1994	152.2	0.0	152.2	3.0	(s)	0.3	0.0	0.3	67.7	13.5	0.1	0.0	0.0	R 236.9
1995	172.7	0.0	172.7	3.1	0.0	0.4	0.0	0.4	79.8	14.7	0.2	0.0	0.0	270.8
1996	173.5	0.0	173.5	2.3	0.0	0.3	0.0	0.3	100.5	16.6	0.1	0.0	0.0	293.3
1997	185.6	0.0	185.6	2.7	(s)	0.4	0.0	0.4	98.5	17.2	(s)	0.0	0.0	304.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 185. Energy Consumption Estimates by Source, Selected Years 1960-1997, Nevada

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	151	12	247	281	2,409	2,462	3	773	92	3,621	246	0	10,134	0	1,967	–	–	-655	–
1965	309	28	367	335	2,775	2,999	5	720	121	5,504	137	0	12,963	0	1,595	–	–	1,603	–
1970	680	53	609	186	2,834	4,584	16	839	105	7,374	143	11	16,700	0	1,646	–	–	2,134	–
1975	4,521	61	837	197	2,565	5,859	29	493	120	9,633	1,339	0	21,070	0	1,690	–	–	-18,450	–
1980	4,215	58	614	206	3,966	7,223	0	880	108	11,224	2,439	53	26,715	0	2,372	–	–	-10,964	–
1985	5,539	39	844	105	5,410	5,715	53	1,043	99	11,627	165	36	25,097	0	4,374	–	–	-14,328	–
1986	7,195	34	567	124	5,517	5,952	52	924	97	12,211	641	36	26,120	0	4,584	–	–	-25,190	–
1987	6,920	41	864	101	6,507	6,431	35	938	109	13,075	525	44	28,630	0	2,545	–	–	-13,481	–
1988	8,276	48	931	120	6,809	6,416	28	1,098	105	14,059	1,004	56	30,627	0	2,091	–	–	-19,595	–
1989	7,667	64	1,398	118	7,450	6,105	26	1,762	108	14,570	667	58	32,263	0	[i] NA	–	–	[R] -14,303	–
1990	7,442	65	1,083	111	7,355	6,114	19	1,430	111	14,942	454	0	31,619	0	NA	–	–	-8,888	–
1991	8,091	65	1,072	111	7,102	6,556	23	1,157	99	15,353	464	73	32,008	0	NA	–	–	[R] -13,203	–
1992	8,088	68	841	105	7,356	6,162	23	1,009	101	16,040	598	92	32,329	0	NA	–	–	-10,282	–
1993	7,806	85	1,147	113	7,629	6,510	14	910	103	16,233	497	81	33,237	0	NA	–	–	-4,771	–
1994	7,968	102	1,258	108	7,576	6,813	8	1,446	108	17,231	382	90	35,019	0	NA	–	–	-5,553	–
1995	7,340	111	1,486	63	7,700	7,374	9	815	106	18,017	1,125	85	36,780	0	NA	–	–	-433	–
1996	7,604	123	1,432	93	9,506	7,843	9	995	103	18,962	279	102	39,324	0	NA	–	–	161	–
1997	7,440	129	445	76	9,134	7,556	8	1,005	109	19,952	234	102	38,621	0	NA	–	–	3,485	–
			Trillion Btu																
1960	4.0	12.9	1.6	1.4	14.0	13.2	(s)	3.1	0.6	19.0	1.5	0.0	54.5	0.0	21.2	[R] 0.9	0.0	-2.2	[R] 91.3
1965	7.9	29.4	2.4	1.7	16.2	16.3	(s)	2.9	0.7	28.9	0.9	0.0	70.0	0.0	16.7	[R] 0.9	0.0	5.5	[R] 130.3
1970	17.3	56.9	4.0	0.9	16.5	25.3	0.1	3.2	0.6	38.7	0.9	0.1	90.4	0.0	17.3	[R] 1.1	0.0	7.3	[R] 190.2
1975	101.3	65.4	5.6	1.0	14.9	32.7	0.2	1.8	0.7	50.6	8.4	0.0	115.9	0.0	17.6	[R] 1.2	0.0	-63.0	[R] 238.4
1980	93.2	62.0	4.1	1.0	23.1	40.4	0.0	3.2	0.7	59.0	15.3	0.3	147.1	0.0	24.6	[R] 2.8	0.0	-37.4	[R] 292.3
1985	126.2	41.6	5.6	0.5	31.5	31.7	0.3	3.8	0.6	61.1	1.0	0.2	136.3	0.0	45.7	[R] 4.0	0.0	-48.9	[R] 304.9
1986	161.6	35.8	3.8	0.6	32.1	33.0	0.3	3.4	0.6	64.1	4.0	0.2	142.2	0.0	47.9	[R] 3.9	0.0	-85.9	[R] 305.4
1987	154.9	41.7	5.7	0.5	37.9	35.7	0.2	3.4	0.7	68.7	3.3	0.3	156.4	0.0	26.5	[R] 2.1	0.0	-46.0	[R] 335.6
1988	183.5	48.4	6.2	0.6	39.7	35.6	0.2	4.0	0.6	73.9	6.3	0.3	167.4	0.0	21.6	[R] 2.2	0.0	-66.9	[R] 356.1
1989	170.3	65.6	9.3	0.6	43.4	33.9	0.1	6.5	0.7	76.5	4.2	0.3	175.6	0.0	[R i] 20.0	[R i] 2.8	[R i] 16.6	-48.8	[R i] 401.6
1990	165.7	66.9	7.2	0.6	42.8	34.0	0.1	5.2	0.7	78.5	2.9	0.0	171.9	0.0	18.0	[R] 3.3	[R] 18.7	-30.3	[R] 413.5
1991	180.1	66.9	7.1	0.6	41.4	36.5	0.1	4.2	0.6	80.6	2.9	0.4	174.5	0.0	[R] 24.7	[R] 3.3	[R] 21.7	[R] -45.1	[R] 425.7
1992	178.9	70.5	5.6	0.5	42.9	34.4	0.1	3.7	0.6	84.3	3.8	0.6	176.3	0.0	20.8	[R] 3.6	[R] 26.4	-35.1	[R] 441.0
1993	172.2	87.8	7.6	0.6	44.4	36.5	0.1	3.3	0.6	85.3	3.1	0.5	182.0	0.0	20.6	[R] 4.0	[R] 34.2	-16.3	[R] 483.9
1994	180.1	105.4	8.3	0.5	44.1	38.6	(s)	5.3	0.7	90.5	2.4	0.5	191.1	0.0	19.4	[R] 3.3	[R] 35.3	-18.9	[R] 515.7
1995	162.7	114.7	9.9	0.3	44.9	41.8	(s)	3.0	0.6	94.6	7.1	0.5	202.7	0.0	20.3	[R] 4.6	[R] 35.7	-1.5	[R] 538.5
1996	169.5	127.6	9.5	0.5	55.4	44.5	0.1	3.6	0.6	99.6	1.8	0.6	216.1	0.0	22.4	[R] 3.7	[R] 35.9	[R] 0.5	[R] 575.7
1997	166.3	132.1	3.0	0.4	53.2	42.8	(s)	3.6	0.7	104.8	1.5	0.6	210.6	0.0	26.7	2.8	34.1	11.9	584.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 186. Residential Energy Consumption Estimates, Selected Years 1960-1997, Nevada

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	8	4	12	2	219	0	275	493	R 46	–	–	719	–	1,788	–
1965	22	3	25	4	286	0	519	805	R 43	–	–	1,268	–	3,029	–
1970	22	2	24	7	328	0	621	949	R 52	–	–	1,990	–	4,821	–
1975	3	1	3	11	265	0	316	581	R 61	–	–	2,803	–	6,762	–
1980	1	1	2	13	187	0	427	614	R 135	–	–	3,697	–	8,990	–
1985	1	0	1	13	284	47	650	982	R 201	–	–	4,126	–	9,693	–
1986	1	0	1	12	246	43	547	835	R 195	–	–	4,097	–	9,424	–
1987	1	0	1	14	325	20	523	869	R 104	–	–	4,537	–	10,366	–
1988	1	0	1	15	291	17	623	930	R 108	–	–	4,968	–	11,232	–
1989	1	0	1	17	252	14	852	1,119	R 112	–	–	5,169	–	R 11,614	–
1990	1	1	1	17	239	8	817	1,064	R 128	–	–	5,540	–	12,116	–
1991	1	0	1	19	221	10	733	965	135	–	–	5,782	–	R 12,586	–
1992	(s)	0	(s)	18	217	10	632	859	R 142	–	–	6,064	–	12,953	–
1993	1	0	1	21	179	11	623	813	148	–	–	6,281	–	13,270	–
1994	(s)	0	(s)	21	151	4	642	797	145	–	–	6,845	–	R 14,283	–
1995	(s)	0	(s)	21	130	6	509	644	161	–	–	6,655	–	R 13,865	–
1996	(s)	0	(s)	23	135	6	549	691	161	–	–	7,526	–	R 15,664	–
1997	(s)	0	(s)	25	204	5	549	759	117	–	–	7,801	–	16,202	–
	Trillion Btu														
1960	0.2	0.1	0.3	2.0	1.3	0.0	1.1	2.4	R 0.9	0.0	0.0	2.5	R 8.1	6.1	R 14.2
1965	0.6	0.1	0.6	4.4	1.7	0.0	2.1	3.7	R 0.9	0.0	0.0	4.3	R 14.0	10.3	R 24.3
1970	0.5	(s)	0.6	7.9	1.9	0.0	2.3	4.3	R 1.0	0.0	0.0	6.8	R 20.5	16.5	R 37.0
1975	0.1	(s)	0.1	11.8	1.5	0.0	1.2	2.7	R 1.2	0.0	0.0	9.6	R 25.4	23.1	R 48.5
1980	(s)	(s)	(s)	13.9	1.1	0.0	1.6	2.7	R 2.7	0.0	0.0	12.6	R 31.9	30.7	R 62.5
1985	(s)	0.0	(s)	13.4	1.7	0.3	2.3	4.3	R 4.0	0.0	0.0	14.1	R 35.7	33.1	R 68.8
1986	(s)	0.0	(s)	13.0	1.4	0.2	2.0	3.7	R 3.9	0.0	0.0	14.0	R 34.5	32.2	R 66.7
1987	(s)	0.0	(s)	14.2	1.9	0.1	1.9	3.9	R 2.1	0.0	0.0	15.5	R 35.7	35.4	R 71.1
1988	(s)	0.0	(s)	15.2	1.7	0.1	2.3	4.1	R 2.2	0.0	0.0	17.0	R 38.4	38.3	R 76.7
1989	(s)	0.0	(s)	17.3	1.5	0.1	3.1	4.7	R 2.2	e 0.1	R e (s)	17.6	R e 42.1	39.6	R e 81.7
1990	(s)	(s)	(s)	17.7	1.4	(s)	3.0	4.4	2.6	0.1	0.1	18.9	R 43.8	41.3	R 85.1
1991	(s)	0.0	(s)	19.8	1.3	0.1	2.7	4.0	2.7	0.1	0.1	19.7	R 46.5	42.9	R 89.4
1992	(s)	0.0	(s)	18.8	1.3	0.1	2.3	3.6	R 2.8	0.2	0.1	20.7	R 46.2	44.2	R 90.4
1993	(s)	0.0	(s)	21.4	1.0	0.1	2.2	3.3	3.0	0.2	0.1	21.4	R 49.4	45.3	R 94.7
1994	(s)	0.0	(s)	22.0	0.9	(s)	2.3	3.2	2.9	0.1	0.1	23.4	R 51.8	48.7	R 100.5
1995	(s)	0.0	(s)	21.4	0.8	(s)	1.8	2.6	3.2	0.1	0.2	22.7	R 50.3	47.3	R 97.6
1996	(s)	0.0	(s)	23.5	0.8	(s)	2.0	2.8	3.2	0.1	0.2	25.7	R 55.6	53.4	R 109.0
1997	(s)	0.0	(s)	25.9	1.2	(s)	2.0	3.2	2.3	0.2	0.2	26.6	58.4	55.3	113.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 187. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Nevada

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	15	3	18	1	107	0	48	29	86	271	R 1	–	655	–	1,629	–
1965	42	2	43	2	140	1	92	44	38	316	R 1	–	1,235	–	2,950	–
1970	41	1	42	10	161	10	110	49	29	358	R 1	–	2,069	–	5,013	–
1975	5	1	5	15	130	12	56	69	34	301	R 1	–	2,876	–	6,938	–
1980	2	(s)	2	10	353	0	75	61	7	496	R 3	–	1,775	–	4,316	–
1985	1	0	1	12	324	5	115	82	25	551	NA	–	3,408	–	8,006	–
1986	1	0	1	11	492	5	96	83	14	690	NA	–	3,454	–	7,945	–
1987	1	0	1	14	714	4	92	85	11	907	NA	–	3,737	–	8,539	–
1988	1	0	1	15	455	8	110	81	5	659	NA	–	4,032	–	9,114	–
1989	1	0	1	15	379	5	150	81	2	617	NA	–	4,295	–	R 9,651	–
1990	1	(s)	2	15	349	4	144	84	2	583	NA	–	4,550	–	9,951	–
1991	1	0	1	17	294	3	129	78	2	507	NA	–	4,671	–	R 10,168	–
1992	1	0	1	16	297	4	112	69	(s)	483	NA	–	4,909	–	10,485	–
1993	1	0	1	18	608	3	110	12	0	734	R 12	–	5,037	–	10,643	–
1994	1	0	1	19	528	2	113	12	0	656	R 12	–	5,417	–	R 11,303	–
1995	1	0	1	19	614	1	90	13	0	717	R 12	–	5,509	–	R 11,476	–
1996	1	0	1	20	672	2	97	13	0	783	R 13	–	5,973	–	R 12,431	–
1997	1	0	1	22	221	1	97	13	1	333	11	–	6,383	–	13,257	–
	Trillion Btu															
1960	0.4	0.1	0.4	0.9	0.6	0.0	0.2	0.2	0.5	1.5	(s)	0.0	2.2	5.1	5.6	10.7
1965	1.0	(s)	1.1	2.5	0.8	(s)	0.4	0.2	0.2	1.7	(s)	0.0	4.2	9.5	10.1	19.6
1970	1.0	(s)	1.0	10.4	0.9	0.1	0.4	0.3	0.2	1.8	(s)	0.0	7.1	R 20.4	17.1	R 37.5
1975	0.1	(s)	0.1	16.0	0.8	0.1	0.2	0.4	0.2	1.6	(s)	0.0	9.8	27.5	23.7	51.2
1980	(s)	(s)	0.1	10.7	2.1	0.0	0.3	0.3	(s)	2.7	R 0.1	0.0	6.1	R 19.6	14.7	34.3
1985	(s)	0.0	(s)	13.0	1.9	(s)	0.4	0.4	0.2	2.9	NA	0.0	11.6	27.6	27.3	54.9
1986	(s)	0.0	(s)	12.1	2.9	(s)	0.4	0.4	0.1	3.8	NA	0.0	11.8	27.7	27.1	54.8
1987	(s)	0.0	(s)	13.8	4.2	(s)	0.3	0.4	0.1	5.0	NA	0.0	12.8	31.6	29.1	60.8
1988	(s)	0.0	(s)	14.8	2.7	(s)	0.4	0.4	(s)	3.6	NA	0.0	13.8	32.2	31.1	63.3
1989	(s)	0.0	(s)	15.6	2.2	(s)	0.6	0.4	(s)	3.2	NA	0.4	14.7	R 33.9	32.9	R 66.8
1990	(s)	(s)	(s)	15.5	2.0	(s)	0.5	0.4	(s)	3.0	NA	0.4	15.5	R 34.6	34.0	R 68.5
1991	(s)	0.0	(s)	17.6	1.7	(s)	0.5	0.4	(s)	2.6	NA	0.4	15.9	R 36.6	34.7	R 71.3
1992	(s)	0.0	(s)	16.7	1.7	(s)	0.4	0.4	(s)	2.5	NA	0.4	16.7	R 36.4	35.8	R 72.1
1993	(s)	0.0	(s)	18.2	3.5	(s)	0.4	0.1	0.0	4.0	R 0.2	0.4	17.2	R 40.1	36.3	R 76.4
1994	(s)	0.0	(s)	19.4	3.1	(s)	0.4	0.1	0.0	3.6	R 0.2	0.4	18.5	R 42.1	38.6	R 80.7
1995	(s)	0.0	(s)	19.4	3.6	(s)	0.3	0.1	0.0	4.0	R 0.2	0.4	18.8	R 42.8	39.2	R 81.9
1996	(s)	0.0	(s)	21.2	3.9	(s)	0.4	0.1	0.0	4.3	R 0.3	0.4	20.4	R 46.7	42.4	R 89.1
1997	(s)	0.0	(s)	22.5	1.3	(s)	0.4	0.1	(s)	1.7	0.2	0.4	21.8	46.7	45.2	91.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 188. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Nevada

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	119	3	247	575	3	445	18	120	118	0	1,527	(s)	–	–	793	–	1,974	–
1965	61	8	367	740	4	101	36	131	40	0	1,419	(s)	–	–	1,059	–	2,529	–
1970	70	10	609	840	6	99	23	166	34	11	1,788	(s)	–	–	1,635	–	3,963	–
1975	77	10	837	705	17	107	26	115	44	0	1,852	0	–	–	1,964	–	4,737	–
1980	147	7	614	651	0	374	25	111	1	53	1,830	0	–	–	4,936	–	12,003	–
1985	110	6	844	1,540	1	247	23	131	88	36	2,910	0	–	–	3,808	–	8,946	–
1986	107	3	567	1,555	4	259	22	138	123	36	2,703	0	–	–	4,103	–	9,439	–
1987	111	6	864	1,637	11	305	25	154	90	44	3,130	0	–	–	4,480	–	10,236	–
1988	121	7	931	2,355	3	344	24	145	124	56	3,981	0	–	–	4,685	–	10,591	–
1989	178	8	1,398	2,966	7	740	25	148	64	58	5,406	[f] NA	–	–	5,504	–	[R] 12,366	–
1990	169	8	1,083	3,257	7	446	26	170	8	0	4,997	NA	–	–	6,263	–	13,698	–
1991	197	7	1,072	2,984	9	273	23	179	82	73	4,694	NA	–	–	6,173	–	[R] 13,437	–
1992	173	9	841	3,000	10	241	23	172	80	92	4,459	NA	–	–	6,723	–	[R] 14,361	–
1993	196	25	1,147	2,596	1	151	24	140	101	81	4,241	NA	–	–	7,181	–	15,172	–
1994	195	29	1,258	2,531	1	647	25	191	141	90	4,884	NA	–	–	7,775	–	[R] 16,224	–
1995	255	31	1,486	2,547	2	197	25	201	1,099	85	5,641	NA	–	–	8,496	–	[R] 17,699	–
1996	179	33	1,432	2,695	2	326	24	206	131	102	4,918	NA	–	–	9,075	–	[R] 18,886	–
1997	178	29	445	3,190	2	338	25	299	210	102	4,610	NA	–	–	10,034	–	20,839	–
			Trillion Btu															
1960	3.2	3.4	1.6	3.3	(s)	1.8	0.1	0.6	0.7	0.0	8.3	(s)	0.0	0.0	2.7	17.6	6.7	24.3
1965	1.6	8.4	2.4	4.3	(s)	0.4	0.2	0.7	0.3	0.0	8.3	(s)	0.0	0.0	3.6	21.9	8.6	30.5
1970	1.7	11.2	4.0	4.9	(s)	0.4	0.1	0.9	0.2	0.1	10.6	(s)	0.0	0.0	5.6	29.1	13.5	42.7
1975	1.8	10.7	5.6	4.1	0.1	0.4	0.2	0.6	0.3	0.0	11.2	0.0	0.0	0.0	6.7	30.4	16.2	46.6
1980	3.4	7.7	4.1	3.8	0.0	1.4	0.2	0.6	(s)	0.3	10.3	0.0	0.0	0.0	16.8	38.3	41.0	79.2
1985	2.6	6.6	5.6	9.0	(s)	0.9	0.1	0.7	0.6	0.2	17.1	0.0	0.0	0.0	13.0	39.2	30.5	69.7
1986	2.5	3.7	3.8	9.1	(s)	0.9	0.1	0.7	0.8	0.2	15.6	0.0	0.0	0.0	14.0	35.8	32.2	68.0
1987	2.6	6.2	5.7	9.5	0.1	1.1	0.2	0.8	0.6	0.3	18.2	0.0	0.0	0.0	15.3	42.4	34.9	77.3
1988	2.8	7.2	6.2	13.7	(s)	1.3	0.1	0.8	0.8	0.3	23.2	0.0	0.0	0.0	16.0	49.2	36.1	85.3
1989	3.8	8.1	9.3	17.3	(s)	2.7	0.2	0.8	0.4	0.3	31.0	[f] 0.0	[f] 0.0	[R f] 16.0	18.8	[R f] 77.7	42.2	[R f] 119.9
1990	3.9	7.7	7.2	19.0	(s)	1.6	0.2	0.9	(s)	0.0	28.9	0.0	[R] 0.1	[R] 18.0	21.4	80.1	46.7	126.8
1991	4.6	6.9	7.1	17.4	0.1	1.0	0.1	0.9	0.5	0.4	27.6	0.0	[R] 0.1	[R] 21.1	21.1	[R] 81.3	45.8	[R] 127.1
1992	4.0	9.6	5.6	17.5	0.1	0.9	0.1	0.9	0.5	0.6	26.1	(s)	[R] 0.1	[R] 25.7	22.9	88.4	49.0	137.4
1993	4.5	25.6	7.6	15.1	(s)	0.5	0.1	0.7	0.6	0.5	25.3	0.1	[R] 0.1	[R] 33.5	24.5	[R] 113.7	51.8	[R] 165.5
1994	4.5	29.9	8.3	14.7	(s)	2.4	0.2	1.0	0.9	0.5	28.0	0.1	[R] 0.2	[R] 34.6	26.5	[R] 123.9	55.4	179.3
1995	5.8	31.7	9.9	14.8	(s)	0.7	0.1	1.1	6.9	0.5	34.0	0.2	[R] 0.2	[R] 35.0	29.0	136.0	60.4	196.4
1996	4.0	33.9	9.5	15.7	(s)	1.2	0.1	1.1	0.8	0.6	29.1	0.2	[R] 0.2	[R] 35.2	31.0	[R] 133.6	64.4	[R] 198.0
1997	4.1	29.7	3.0	18.6	(s)	1.2	0.2	1.6	1.3	0.6	26.4	0.2	0.2	33.3	34.2	128.1	71.1	199.2

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 189. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Nevada

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	2	0	281	1,501	2,462	5	73	3,472	0	7,795	0	0	–	0	–
1965	(s)	0	335	1,599	2,999	9	86	5,329	7	10,364	0	0	–	0	–
1970	(s)	0	186	1,492	4,584	9	83	7,158	1	13,512	0	0	–	0	–
1975	(s)	0	197	1,407	5,859	13	94	9,449	5	17,023	0	0	–	0	–
1980	0	(s)	206	2,754	7,223	3	83	11,052	0	21,322	0	0	–	0	–
1985	0	(s)	105	3,209	5,715	31	76	11,414	0	20,549	0	0	–	0	–
1986	0	(s)	124	3,197	5,952	22	74	11,990	3	21,363	0	0	–	0	–
1987	0	(s)	101	3,796	6,431	18	84	12,836	0	23,265	0	0	–	0	–
1988	0	(s)	120	3,639	6,416	22	81	13,834	0	24,111	0	0	–	0	–
1989	0	1	118	3,786	6,105	20	83	14,341	0	24,452	R e 7,728	0	–	0	–
1990	0	1	111	3,420	6,114	22	85	14,688	0	24,440	8,926	0	–	0	–
1991	0	(s)	111	3,536	6,556	21	76	15,096	0	25,395	7,075	0	–	0	–
1992	0	(s)	105	3,776	6,162	24	78	15,799	0	25,944	8,599	0	–	0	–
1993	0	1	113	4,206	6,510	26	79	16,080	0	27,015	9,596	0	–	0	–
1994	0	1	108	4,320	6,813	43	83	17,028	0	28,395	0	0	–	0	–
1995	0	1	63	4,383	7,374	19	81	17,803	0	29,724	12,496	0	–	0	–
1996	0	1	93	5,974	7,843	23	79	18,743	0	32,755	0	0	–	0	–
1997	0	1	76	5,473	7,556	21	83	19,640	0	32,850	0	0	–	0	–
			Trillion Btu												
1960	0.1	0.0	1.4	8.7	13.2	(s)	0.4	18.2	0.0	42.1	0.0	0.0	42.1	0.0	42.1
1965	(s)	0.0	1.7	9.3	16.3	(s)	0.5	28.0	(s)	55.9	0.0	0.0	55.9	0.0	55.9
1970	(s)	0.0	0.9	8.7	25.3	(s)	0.5	37.6	(s)	73.1	0.0	0.0	73.1	0.0	73.1
1975	(s)	0.0	1.0	8.2	32.7	(s)	0.6	49.6	(s)	92.1	0.0	0.0	92.1	0.0	92.1
1980	0.0	0.2	1.0	16.0	40.4	(s)	0.5	58.1	0.0	116.0	0.0	0.0	116.2	0.0	116.2
1985	0.0	0.1	0.5	18.7	31.7	0.1	0.5	60.0	0.0	111.4	0.0	0.0	111.5	0.0	111.5
1986	0.0	(s)	0.6	18.6	33.0	0.1	0.4	63.0	(s)	115.8	0.0	0.0	115.9	0.0	115.9
1987	0.0	0.2	0.5	22.1	35.7	0.1	0.5	67.4	0.0	126.3	0.0	0.0	126.5	0.0	126.5
1988	0.0	0.2	0.6	21.2	35.6	0.1	0.5	72.7	0.0	130.6	0.0	0.0	130.8	0.0	130.8
1989	0.0	0.7	0.6	22.1	33.9	0.1	0.5	75.3	0.0	132.5	R e 0.6	0.0	e 133.2	0.0	e 133.2
1990	0.0	0.8	0.6	19.9	34.0	0.1	0.5	77.2	0.0	132.3	0.7	0.0	133.1	0.0	133.1
1991	0.0	0.4	0.6	20.6	36.5	0.1	0.5	79.3	0.0	137.5	0.5	0.0	137.9	0.0	137.9
1992	0.0	0.5	0.5	22.0	34.4	0.1	0.5	83.0	0.0	140.5	0.7	0.0	141.0	0.0	141.0
1993	0.0	0.7	0.6	24.5	36.5	0.1	0.5	84.5	0.0	146.6	0.7	0.0	147.3	0.0	147.3
1994	0.0	0.7	0.5	25.2	38.6	0.2	0.5	89.4	0.0	154.4	0.0	0.0	155.2	0.0	155.2
1995	0.0	0.9	0.3	25.5	41.8	0.1	0.5	93.5	0.0	161.7	1.0	0.0	162.6	0.0	162.6
1996	0.0	0.8	0.5	34.8	44.5	0.1	0.5	98.5	0.0	178.8	0.0	0.0	179.5	0.0	179.5
1997	0.0	0.7	0.4	31.9	42.8	0.1	0.5	103.2	0.0	178.9	0.0	0.0	179.6	0.0	179.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 190. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Nevada

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	6	41	7	0	48	0	1,967	0	0	0	–
1965	180	0	180	13	51	8	0	60	0	1,594	0	0	0	–
1970	544	0	544	25	80	13	0	93	0	1,645	0	0	0	–
1975	4,435	0	4,435	25	1,256	58	0	1,314	0	1,690	0	0	0	–
1980	4,064	0	4,064	28	2,431	22	0	2,453	0	2,372	0	0	0	–
1985	5,427	0	5,427	8	51	54	0	104	0	4,374	0	0	0	–
1986	7,086	0	7,086	7	501	26	0	527	0	4,584	0	0	0	–
1987	6,807	0	6,807	7	424	35	0	459	0	2,545	0	0	0	–
1988	8,153	0	8,153	11	875	69	0	945	0	2,091	0	0	0	–
1989	7,487	0	7,487	23	601	68	0	669	0	R 1,916	0	0	0	–
1990	7,270	0	7,270	24	444	91	0	535	0	1,732	0	0	0	–
1991	7,892	0	7,892	22	380	67	0	447	0	2,364	0	0	0	–
1992	7,914	0	7,914	24	518	67	0	584	0	2,012	0	0	0	–
1993	7,608	0	7,608	21	396	40	0	436	0	1,985	0	0	0	–
1994	7,772	0	7,772	32	241	46	0	287	0	1,873	0	0	0	–
1995	7,084	0	7,084	40	26	27	0	54	0	1,951	0	0	0	–
1996	7,424	0	7,424	47	147	30	0	177	0	2,143	0	0	0	–
1997	7,261	0	7,261	52	23	45	0	69	0	2,567	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	6.6	0.3	(s)	0.0	0.3	0.0	21.2	0.0	0.0	0.0	28.0
1965	4.6	0.0	4.6	14.1	0.3	(s)	0.0	0.4	0.0	16.7	0.0	0.0	0.0	35.7
1970	14.0	0.0	14.0	27.4	0.5	0.1	0.0	0.6	0.0	17.3	0.0	0.0	0.0	59.2
1975	99.3	0.0	99.3	26.8	7.9	0.3	0.0	8.2	0.0	17.6	0.0	0.0	0.0	151.9
1980	89.7	0.0	89.7	29.5	15.3	0.1	0.0	15.4	0.0	24.6	0.0	0.0	0.0	159.3
1985	123.6	0.0	123.6	8.6	0.3	0.3	0.0	0.6	0.0	45.7	0.0	0.0	0.0	178.5
1986	159.1	0.0	159.1	6.9	3.1	0.2	0.0	3.3	0.0	47.9	0.0	0.0	0.0	217.2
1987	152.2	0.0	152.2	7.3	2.7	0.2	0.0	2.9	0.0	26.5	0.0	0.0	0.0	188.9
1988	180.7	0.0	180.7	10.9	5.5	0.4	0.0	5.9	0.0	21.6	0.0	0.0	0.0	219.1
1989	166.5	0.0	166.5	23.8	3.8	0.4	0.0	4.2	0.0	R 20.0	0.0	0.0	0.0	214.6
1990	161.7	0.0	161.7	25.1	2.8	0.5	0.0	3.3	0.0	18.0	0.0	0.0	0.0	R 208.2
1991	175.5	0.0	175.5	22.3	2.4	0.4	0.0	2.8	0.0	R 24.7	0.0	0.0	0.0	R 225.3
1992	174.9	0.0	174.9	25.0	3.3	0.4	0.0	3.6	0.0	20.8	0.0	0.0	0.0	224.4
1993	167.6	0.0	167.6	21.9	2.5	0.2	0.0	2.7	0.0	20.5	0.0	0.0	0.0	212.8
1994	175.5	0.0	175.5	33.3	1.5	0.3	0.0	1.8	0.0	19.3	0.0	0.0	0.0	230.0
1995	156.9	0.0	156.9	41.3	0.2	0.2	0.0	0.3	0.0	20.1	0.0	0.0	0.0	218.8
1996	165.4	0.0	165.4	48.1	0.9	0.2	0.0	1.1	0.0	22.2	0.0	0.0	0.0	236.8
1997	162.2	0.0	162.2	53.3	0.1	0.3	0.0	0.4	0.0	26.5	0.0	0.0	0.0	242.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 191. Energy Consumption Estimates by Source, Selected Years 1960-1997, New Hampshire

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	216	3	470	18	4,590	1,151	843	532	97	4,940	2,195	22	14,856	0	1,373	–	–	-1,500	–
1965	407	4	424	46	5,912	1,097	758	657	84	5,773	2,416	29	17,195	0	1,053	–	–	-692	–
1970	992	7	541	38	7,681	1,053	777	829	72	8,122	5,520	170	24,802	0	1,239	–	–	-3,659	–
1975	982	8	431	33	7,194	916	463	1,436	70	9,373	4,611	181	24,707	0	1,251	–	–	1,442	–
1980	1,093	9	253	40	5,820	777	340	1,280	83	9,382	5,692	434	24,103	0	1,027	–	–	1,383	–
1985	1,481	11	854	24	5,243	521	902	1,586	76	10,340	3,442	153	23,141	0	2,023	–	–	3,441	–
1986	933	10	553	38	5,781	620	380	1,680	74	11,130	7,082	130	27,467	0	2,091	–	–	4,409	–
1987	1,176	12	779	28	7,541	644	466	2,056	84	11,846	5,499	135	29,077	0	2,163	–	–	5,638	–
1988	1,229	13	430	37	6,804	725	492	2,084	81	12,320	6,351	139	29,464	0	1,844	–	–	5,252	–
1989	1,183	14	742	33	7,559	759	538	2,470	83	12,285	6,186	137	30,791	0	[i] NA	–	–	[R] 7,066	–
1990	1,186	14	1,198	21	6,325	647	266	2,122	85	11,778	5,252	145	27,839	4,081	NA	–	–	[R] -5,545	–
1991	1,315	14	659	26	6,353	468	322	1,652	76	12,135	4,006	122	25,819	6,788	NA	–	–	[R] -14,503	–
1992	1,311	17	791	19	6,612	378	293	1,761	78	12,111	3,763	126	25,931	7,869	NA	–	–	-16,536	–
1993	1,428	17	320	43	6,721	388	395	2,163	79	12,494	4,105	127	26,836	9,047	NA	–	–	-22,013	–
1994	1,287	20	381	33	6,848	342	337	2,221	83	12,811	4,199	132	27,386	6,204	NA	–	–	[R] -12,831	–
1995	1,355	20	365	22	7,410	333	394	2,285	81	13,495	3,319	127	27,832	8,379	NA	–	–	[R] -20,425	–
1996	1,377	19	627	20	7,947	360	451	2,413	79	13,939	2,915	133	28,882	9,845	NA	–	–	[R] -23,846	–
1997	1,705	21	412	23	8,054	408	560	2,437	83	14,666	3,142	143	29,928	7,979	NA	–	–	-20,652	–
			Trillion Btu																
1960	5.4	3.0	3.1	0.1	26.7	6.2	4.8	2.1	0.6	25.9	13.8	0.1	83.5	0.0	14.8	[R] 10.9	0.0	-5.1	[R] 112.3
1965	11.2	4.1	2.8	0.2	34.4	5.9	4.3	2.6	0.5	30.3	15.2	0.2	96.5	0.0	11.0	[R] 11.0	0.0	-2.4	[R] 131.4
1970	27.1	6.8	3.6	0.2	44.7	5.7	4.4	3.1	0.4	42.7	34.7	0.9	140.5	0.0	13.0	[R] 12.3	0.0	-12.5	[R] 187.2
1975	26.2	7.7	2.9	0.2	41.9	4.9	2.6	5.3	0.4	49.2	29.0	1.1	137.5	0.0	13.0	[R] 12.8	0.0	4.9	[R] 202.2
1980	29.3	9.7	1.7	0.2	33.9	4.2	1.9	4.7	0.5	49.3	35.8	2.5	134.6	0.0	10.7	[R] 23.6	0.0	4.7	[R] 212.5
1985	39.7	10.9	5.7	0.1	30.5	2.8	5.1	5.7	0.5	54.3	21.6	0.8	127.2	0.0	21.1	[R] 25.8	0.0	11.7	[R] 236.5
1986	25.1	10.6	3.7	0.2	33.7	3.3	2.2	6.1	0.4	58.5	44.5	0.7	153.3	0.0	21.8	[R] 10.6	0.0	15.0	[R] 236.4
1987	31.6	12.3	5.2	0.1	43.9	3.5	2.6	7.5	0.5	62.2	34.6	0.7	160.9	0.0	22.5	[R] 9.5	0.0	19.2	[R] 256.1
1988	32.8	13.3	2.9	0.2	39.6	3.9	2.8	7.6	0.5	64.7	39.9	0.8	162.9	0.0	19.0	[R] 9.9	0.0	17.9	[R] 255.9
1989	31.6	14.2	4.9	0.2	44.0	4.1	3.0	9.1	0.5	64.5	38.9	0.8	170.1	0.0	[R i] 15.6	[R i] 18.9	[R i] (s)	24.1	[R i] 274.8
1990	31.5	14.5	8.0	0.1	36.8	3.6	1.5	7.7	0.5	61.9	33.0	0.8	153.9	43.6	19.6	[R] 30.3	(s)	-18.9	[R] 274.8
1991	34.8	14.2	4.4	0.1	37.0	2.6	1.8	6.0	0.5	63.7	25.2	0.7	142.0	72.9	22.5	[R] 30.4	(s)	-49.5	[R] 269.4
1992	34.7	17.0	5.2	0.1	38.5	2.1	1.7	6.4	0.5	63.6	23.7	0.7	142.4	84.0	22.0	[R] 32.6	(s)	-56.4	[R] 278.6
1993	37.5	17.1	2.1	0.2	39.1	2.2	2.2	7.8	0.5	65.6	25.8	0.7	146.3	96.6	23.1	[R] 33.4	(s)	-75.1	[R] 281.5
1994	33.5	20.0	2.5	0.2	39.9	1.9	1.9	8.1	0.5	67.3	26.4	0.7	149.4	66.2	21.9	[R] 32.6	(s)	-43.8	[R] 284.3
1995	35.5	20.1	2.4	0.1	43.2	1.9	2.2	8.3	0.5	70.9	20.9	0.7	151.0	89.3	24.7	[R] 33.0	(s)	-69.7	[R] 289.7
1996	36.2	19.4	4.2	0.1	46.3	2.0	2.6	8.7	0.5	73.2	18.3	0.7	156.6	104.6	29.2	[R] 34.2	(s)	-81.4	302.2
1997	44.5	21.1	2.7	0.1	46.9	2.3	3.2	8.8	0.5	77.0	19.8	0.8	162.1	84.8	24.2	32.5	(s)	-70.5	303.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 192. Residential Energy Consumption Estimates, Selected Years 1960-1997, New Hampshire

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	12	12	2	3,622	803	412	4,837	R 186	–	–	619	–	1,540	–
1965	0	8	8	3	4,724	710	460	5,894	R 156	–	–	868	–	2,072	–
1970	0	5	5	4	6,039	705	474	7,218	R 136	–	–	1,476	–	3,577	–
1975	0	3	3	4	5,709	406	692	6,807	R 159	–	–	2,148	–	5,181	–
1980	0	2	2	4	3,519	322	588	4,430	R 276	–	–	2,478	–	6,026	–
1985	0	5	5	5	3,241	855	856	4,951	R 241	–	–	2,851	–	6,697	–
1986	0	7	7	5	3,239	353	1,033	4,626	R 234	–	–	3,075	–	7,072	–
1987	0	6	6	6	3,943	403	1,226	5,572	R 183	–	–	3,261	–	7,452	–
1988	(s)	6	6	6	3,692	438	1,355	5,485	R 190	–	–	3,464	–	7,830	–
1989	(s)	4	5	6	4,308	469	1,614	6,391	R 197	–	–	3,542	–	R 7,959	–
1990	(s)	7	7	6	3,395	233	1,449	5,078	184	–	–	3,444	–	7,533	–
1991	0	13	13	6	3,566	269	1,229	5,064	194	–	–	3,357	–	R 7,307	–
1992	2	7	9	6	3,683	250	1,285	5,218	204	–	–	3,428	–	7,323	–
1993	0	6	6	6	3,815	351	1,480	5,646	212	–	–	3,420	–	7,226	–
1994	0	5	5	7	3,814	282	1,533	5,629	R 208	–	–	3,431	–	R 7,159	–
1995	1	3	4	7	4,307	331	1,662	6,300	R 231	–	–	3,364	–	R 7,009	–
1996	1	3	4	7	4,709	393	1,749	6,851	230	–	–	3,427	–	R 7,133	–
1997	(s)	3	3	7	4,783	476	1,749	7,008	168	–	–	3,368	–	6,994	–
	Trillion Btu														
1960	0.0	0.3	0.3	1.8	21.1	4.6	1.7	27.3	R 3.7	0.0	0.0	2.1	R 35.2	5.3	R 40.4
1965	0.0	0.2	0.2	2.7	27.5	4.0	1.8	33.4	R 3.1	0.0	0.0	3.0	R 42.3	7.1	R 49.4
1970	0.0	0.1	0.1	3.7	35.2	4.0	1.8	41.0	R 2.7	0.0	0.0	5.0	R 52.5	12.2	R 64.7
1975	0.0	0.1	0.1	3.8	33.3	2.3	2.6	38.1	R 3.2	0.0	0.0	7.3	R 52.5	17.7	R 70.1
1980	0.0	(s)	(s)	4.4	20.5	1.8	2.2	24.5	R 5.5	0.0	0.0	8.5	R 42.9	20.6	R 63.5
1985	0.0	0.1	0.1	4.8	18.9	4.8	3.1	26.8	R 4.8	0.0	0.0	9.7	R 46.3	22.9	R 69.1
1986	0.0	0.2	0.2	5.2	18.9	2.0	3.8	24.6	R 4.7	0.0	0.0	10.5	R 45.2	24.1	R 69.4
1987	0.0	0.2	0.2	5.8	23.0	2.3	4.5	29.7	R 3.7	0.0	0.0	11.1	R 50.5	25.4	R 75.9
1988	(s)	0.2	0.2	6.1	21.5	2.5	4.9	28.9	R 3.8	0.0	0.0	11.8	R 50.8	26.7	R 77.5
1989	(s)	0.1	0.1	6.4	25.1	2.7	5.9	33.7	R 3.9	e 0.0	R e (s)	12.1	R e 56.3	R 27.2	R e 83.4
1990	(s)	0.2	0.2	6.0	19.8	1.3	5.3	26.4	3.7	0.0	(s)	11.8	48.0	25.7	73.7
1991	0.0	0.3	0.3	5.6	20.8	1.5	4.4	26.7	3.9	0.0	(s)	11.5	48.1	24.9	73.0
1992	(s)	0.2	0.2	6.5	21.5	1.4	4.7	27.5	4.1	0.0	(s)	11.7	50.0	25.0	75.0
1993	0.0	0.1	0.1	6.6	22.2	2.0	5.3	29.5	4.2	0.0	(s)	11.7	52.2	24.7	76.8
1994	0.0	0.1	0.1	6.7	22.2	1.6	5.6	29.4	R 4.2	0.0	(s)	11.7	R 52.1	24.4	76.5
1995	(s)	0.1	0.1	6.6	25.1	1.9	6.0	33.0	4.6	0.0	(s)	11.5	55.8	23.9	79.7
1996	(s)	0.1	0.1	7.1	27.4	2.2	6.3	36.0	4.6	0.0	(s)	11.7	R 59.6	24.3	83.9
1997	(s)	0.1	0.1	7.0	27.9	2.7	6.3	36.9	3.4	0.0	(s)	11.5	58.9	23.9	82.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 193. Commercial Energy Consumption Estimates, Selected Years 1960-1997, New Hampshire

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	8	8	1	376	30	73	37	18	534	R 4	–	371	–	922	–
1965	0	5	5	1	491	26	81	43	26	667	R 3	–	468	–	1,117	–
1970	0	3	3	2	628	26	84	46	71	854	R 3	–	699	–	1,694	–
1975	0	2	2	3	593	15	122	52	56	839	R 3	–	883	–	2,131	–
1980	0	1	1	4	1,044	9	104	116	372	1,645	R 7	–	1,110	–	2,699	–
1985	0	3	3	5	550	41	151	126	87	956	NA	–	1,582	–	3,718	–
1986	0	5	5	4	897	20	182	146	522	1,767	NA	–	1,718	–	3,953	–
1987	0	4	4	5	1,675	36	216	129	282	2,339	NA	–	1,910	–	4,363	–
1988	1	4	5	5	1,153	44	239	142	488	2,066	NA	–	2,046	–	4,625	–
1989	1	3	3	5	1,186	54	285	128	478	2,132	NA	–	2,123	–	R 4,771	–
1990	1	4	5	5	1,191	25	256	74	657	2,202	NA	–	2,117	–	4,630	–
1991	0	9	9	5	1,140	21	217	55	675	2,109	NA	–	2,140	–	R 4,659	–
1992	3	5	7	6	1,129	22	227	48	326	1,752	NA	–	2,193	–	4,685	–
1993	0	4	4	6	1,123	35	261	11	380	1,809	R 17	–	2,241	–	4,735	–
1994	0	3	3	6	1,279	41	271	11	453	2,053	R 17	–	3,343	–	R 6,977	–
1995	2	2	4	7	1,093	44	293	11	443	1,883	R 17	–	3,357	–	R 6,993	–
1996	2	2	4	7	1,339	42	309	11	455	2,155	R 19	–	3,366	–	R 7,005	–
1997	(s)	2	2	7	1,367	58	309	11	484	2,229	16	–	3,375	–	7,009	–
	Trillion Btu															
1960	0.0	0.2	0.2	0.5	2.2	0.2	0.3	0.2	0.1	3.0	R 0.1	0.0	1.3	R 5.0	3.1	R 8.2
1965	0.0	0.1	0.1	0.8	2.9	0.1	0.3	0.2	0.2	3.7	R 0.1	0.0	1.6	6.3	3.8	10.1
1970	0.0	0.1	0.1	2.3	3.7	0.1	0.3	0.2	0.4	4.8	R 0.1	0.0	2.4	R 9.6	5.8	R 15.4
1975	0.0	(s)	(s)	2.6	3.5	0.1	0.5	0.3	0.4	4.6	R 0.1	0.0	3.0	R 10.4	7.3	R 17.7
1980	0.0	(s)	(s)	4.2	6.1	0.1	0.4	0.6	2.3	9.5	R 0.1	0.0	3.8	R 17.6	9.2	R 26.8
1985	0.0	0.1	0.1	5.1	3.2	0.2	0.5	0.7	0.5	5.2	NA	0.0	5.4	15.8	12.7	28.4
1986	0.0	0.1	0.1	4.6	5.2	0.1	0.7	0.8	3.3	10.1	NA	0.0	5.9	20.6	13.5	34.1
1987	0.0	0.1	0.1	4.7	9.8	0.2	0.8	0.7	1.8	13.2	NA	0.0	6.5	24.6	14.9	39.5
1988	(s)	0.1	0.1	5.2	6.7	0.2	0.9	0.7	3.1	11.7	NA	0.0	7.0	23.9	15.8	39.7
1989	(s)	0.1	0.1	5.5	6.9	0.3	1.0	0.7	3.0	11.9	NA	0.0	7.2	24.8	16.3	41.0
1990	(s)	0.1	0.1	5.1	6.9	0.1	0.9	0.4	4.1	12.5	NA	0.0	7.2	25.0	15.8	40.8
1991	0.0	0.2	0.2	5.1	6.6	0.1	0.8	0.3	4.2	12.1	NA	0.0	7.3	24.7	15.9	40.6
1992	0.1	0.1	0.2	5.9	6.6	0.1	0.8	0.3	2.0	9.8	NA	0.0	7.5	23.4	16.0	39.4
1993	0.0	0.1	0.1	6.2	6.5	0.2	0.9	0.1	2.4	10.1	R 0.3	0.0	7.6	R 24.4	16.2	R 40.6
1994	0.0	0.1	0.1	6.5	7.5	0.2	1.0	0.1	2.8	11.6	R 0.3	0.0	11.4	R 29.9	23.8	R 53.7
1995	(s)	0.1	0.1	6.6	6.4	0.2	1.1	0.1	2.8	10.5	R 0.3	0.0	11.5	R 29.0	23.9	R 52.9
1996	(s)	0.1	0.1	7.2	7.8	0.2	1.1	0.1	2.9	12.1	R 0.4	0.0	11.5	R 31.3	23.9	R 55.2
1997	(s)	0.1	0.1	7.6	8.0	0.3	1.1	0.1	3.0	12.5	0.3	0.0	11.5	32.0	23.9	55.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 194. Industrial Energy Consumption Estimates, Selected Years 1960-1997, New Hampshire

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	100	1	470	280	10	47	22	66	727	22	1,644	239	–	–	596	–	1,483	–
1965	36	1	424	421	22	114	24	53	1,046	29	2,132	170	–	–	902	–	2,152	–
1970	9	1	541	511	46	267	17	38	2,842	170	4,432	184	–	–	1,452	–	3,519	–
1975	6	1	431	460	42	617	22	31	2,266	181	4,048	178	–	–	1,839	–	4,436	–
1980	10	1	253	558	9	514	23	27	923	434	2,741	155	–	–	2,406	–	5,851	–
1985	40	1	854	384	6	556	21	61	1,024	153	3,059	155	–	–	2,974	–	6,987	–
1986	4	1	553	341	7	448	21	67	1,976	130	3,542	155	–	–	3,079	–	7,083	–
1987	3	2	779	534	26	595	23	64	1,441	135	3,598	155	–	–	3,202	–	7,317	–
1988	1	2	430	497	11	476	23	68	909	139	2,551	155	–	–	3,339	–	7,548	–
1989	15	2	742	539	14	558	23	91	615	137	2,719	[f] NA	–	–	3,420	–	[R] 7,684	–
1990	28	3	1,198	435	8	402	24	55	529	145	2,797	NA	–	–	3,418	–	[R] 7,477	–
1991	51	3	659	446	31	198	21	50	461	122	1,988	NA	–	–	3,265	–	[R] 7,108	–
1992	44	4	791	500	20	239	22	51	1,031	126	2,781	NA	–	–	3,333	–	7,119	–
1993	79	4	320	423	9	405	22	91	1,432	127	2,830	NA	–	–	3,100	–	6,549	–
1994	0	4	381	365	14	393	23	99	1,323	132	2,730	NA	–	–	2,182	–	4,554	–
1995	1	5	365	419	19	312	23	109	1,109	127	2,482	NA	–	–	2,286	–	4,763	–
1996	0	5	627	399	17	340	22	108	973	133	2,619	NA	–	–	2,334	–	4,858	–
1997	0	6	412	321	26	366	23	116	846	143	2,253	NA	–	–	2,339	–	4,857	–
			Trillion Btu															
1960	2.5	0.7	3.1	1.6	0.1	0.2	0.1	0.3	4.6	0.1	10.2	2.6	[R] 7.1	0.0	2.0	[R] 25.0	5.1	[R] 30.0
1965	0.9	0.7	2.8	2.5	0.1	0.5	0.1	0.3	6.6	0.2	13.0	1.8	[R] 7.8	0.0	3.1	[R] 27.2	7.3	[R] 34.6
1970	0.2	0.8	3.6	3.0	0.3	1.0	0.1	0.2	17.9	0.9	26.9	1.9	[R] 9.5	0.0	5.0	[R] 44.4	12.0	[R] 56.4
1975	0.1	1.1	2.9	2.7	0.2	2.3	0.1	0.2	14.2	1.1	23.7	1.9	[R] 9.6	0.0	6.3	[R] 42.6	15.1	[R] 57.8
1980	0.2	1.0	1.7	3.2	0.1	1.9	0.1	0.1	5.8	2.5	15.4	1.6	[R] 17.9	0.0	8.2	[R] 44.4	20.0	[R] 64.4
1985	1.0	0.9	5.7	2.2	(s)	2.0	0.1	0.3	6.4	0.8	17.7	1.6	[R] 21.0	0.0	10.1	[R] 52.3	23.8	[R] 76.1
1986	0.1	0.7	3.7	2.0	(s)	1.6	0.1	0.4	12.4	0.7	20.9	1.6	[R] 5.9	0.0	10.5	[R] 39.8	24.2	[R] 64.0
1987	0.1	1.8	5.2	3.1	0.1	2.2	0.1	0.3	9.1	0.7	20.9	1.6	[R] 5.9	0.0	10.9	[R] 41.2	25.0	[R] 66.1
1988	(s)	2.0	2.9	2.9	0.1	1.7	0.1	0.4	5.7	0.8	14.5	1.6	[R] 6.1	0.0	11.4	[R] 35.7	25.8	[R] 61.4
1989	0.4	2.3	4.9	3.1	0.1	2.1	0.1	0.5	3.9	0.8	15.4	[R f] 2.7	[R f] 14.9	[f] 0.0	11.7	[R f] 47.4	26.2	[R f] 73.6
1990	0.7	3.3	8.0	2.5	(s)	1.5	0.1	0.3	3.3	0.8	16.5	2.8	[R] 26.6	0.0	11.7	[R] 61.6	25.5	[R] 87.1
1991	1.3	3.5	4.4	2.6	0.2	0.7	0.1	0.3	2.9	0.7	11.8	2.9	[R] 26.5	0.0	11.1	[R] 57.2	[R] 24.3	[R] 81.4
1992	1.1	3.9	5.2	2.9	0.1	0.9	0.1	0.3	6.5	0.7	16.7	4.5	[R] 28.5	0.0	11.4	[R] 66.0	24.3	[R] 90.3
1993	2.0	3.8	2.1	2.5	0.1	1.5	0.1	0.5	9.0	0.7	16.4	[R] 4.3	[R] 28.8	0.0	10.6	[R] 65.8	22.3	[R] 88.2
1994	0.0	4.5	2.5	2.1	0.1	1.4	0.1	0.5	8.3	0.7	15.9	4.4	[R] 28.1	0.0	7.4	[R] 60.4	15.5	[R] 75.9
1995	(s)	4.7	2.4	2.4	0.1	1.1	0.1	0.6	7.0	0.7	14.5	4.2	[R] 28.1	0.0	7.8	[R] 59.2	[R] 16.3	[R] 75.4
1996	0.0	5.0	4.2	2.3	0.1	1.2	0.1	0.6	6.1	0.7	15.3	5.2	[R] 29.2	0.0	8.0	[R] 62.7	16.6	[R] 79.3
1997	0.0	5.9	2.7	1.9	0.1	1.3	0.1	0.6	5.3	0.8	12.9	4.8	28.8	0.0	8.0	60.5	16.6	77.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 195. Transportation Energy Consumption Estimates, Selected Years 1960-1997, New Hampshire

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	2	0	18	209	1,151	(s)	74	4,837	49	6,338	0	0	–	0	–
1965	(s)	0	46	178	1,097	1	60	5,677	1	7,061	0	0	–	0	–
1970	(s)	0	38	319	1,053	5	55	8,038	69	9,577	0	0	–	0	–
1975	(s)	0	33	418	903	5	48	9,290	9	10,706	0	0	–	0	–
1980	0	(s)	40	687	771	74	60	9,240	49	10,921	0	0	–	0	–
1985	0	(s)	24	1,038	521	24	55	10,152	0	11,813	0	0	–	0	–
1986	0	(s)	38	1,269	620	16	53	10,917	50	12,963	0	0	–	0	–
1987	0	(s)	28	1,361	644	19	60	11,653	227	13,992	0	0	–	0	–
1988	0	(s)	37	1,400	725	14	58	12,110	146	14,491	0	0	–	0	–
1989	0	(s)	33	1,464	759	14	60	12,066	20	14,414	[e] 0	0	–	0	–
1990	0	(s)	21	1,267	647	15	61	11,649	83	13,743	0	0	–	0	–
1991	0	(s)	26	1,166	468	9	55	12,030	200	13,954	0	0	–	0	–
1992	0	(s)	19	1,268	378	10	56	12,012	122	13,865	0	0	–	0	–
1993	0	(s)	43	1,314	388	17	57	12,393	1	14,213	0	0	–	0	–
1994	0	1	33	1,362	342	24	60	12,702	10	14,531	0	0	–	0	–
1995	0	(s)	22	1,543	333	18	59	13,376	0	15,351	0	0	–	0	–
1996	0	(s)	20	1,473	360	15	57	13,820	5	15,749	0	0	–	0	–
1997	0	(s)	23	1,548	408	14	60	14,540	3	16,595	0	0	–	0	–
			Trillion Btu												
1960	(s)	0.0	0.1	1.2	6.2	(s)	0.5	25.4	0.3	33.6	0.0	0.0	33.7	0.0	33.7
1965	(s)	0.0	0.2	1.0	5.9	(s)	0.4	29.8	(s)	37.3	0.0	0.0	37.3	0.0	37.3
1970	(s)	0.0	0.2	1.9	5.7	(s)	0.3	42.2	0.4	50.7	0.0	0.0	50.7	0.0	50.7
1975	(s)	0.0	0.2	2.4	4.8	(s)	0.3	48.8	0.1	56.6	0.0	0.0	56.6	0.0	56.6
1980	0.0	(s)	0.2	4.0	4.1	0.3	0.4	48.5	0.3	57.8	0.0	0.0	57.9	0.0	57.9
1985	0.0	0.1	0.1	6.0	2.8	0.1	0.3	53.3	0.0	62.7	0.0	0.0	62.8	0.0	62.8
1986	0.0	(s)	0.2	7.4	3.3	0.1	0.3	57.3	0.3	69.0	0.0	0.0	69.0	0.0	69.0
1987	0.0	(s)	0.1	7.9	3.5	0.1	0.4	61.2	1.4	74.6	0.0	0.0	74.7	0.0	74.7
1988	0.0	(s)	0.2	8.2	3.9	0.1	0.4	63.6	0.9	77.2	0.0	0.0	77.2	0.0	77.2
1989	0.0	(s)	0.2	8.5	4.1	0.1	0.4	63.4	0.1	76.7	[e] 0.0	0.0	[e] 76.8	0.0	[e] 76.8
1990	0.0	(s)	0.1	7.4	3.6	0.1	0.4	61.2	0.5	73.2	0.0	0.0	73.2	0.0	73.2
1991	0.0	(s)	0.1	6.8	2.6	(s)	0.3	63.2	1.3	74.3	0.0	0.0	74.4	0.0	74.4
1992	0.0	0.1	0.1	7.4	2.1	(s)	0.3	63.1	0.8	73.8	0.0	0.0	73.9	0.0	73.9
1993	0.0	0.3	0.2	7.7	2.2	0.1	0.3	65.1	(s)	75.5	0.0	0.0	75.9	0.0	75.9
1994	0.0	1.0	0.2	7.9	1.9	0.1	0.4	66.7	0.1	77.2	0.0	0.0	78.2	0.0	78.2
1995	0.0	(s)	0.1	9.0	1.9	0.1	0.4	70.3	0.0	81.7	0.0	0.0	81.7	0.0	81.7
1996	0.0	(s)	0.1	8.6	2.0	0.1	0.3	72.6	(s)	83.7	0.0	0.0	83.8	0.0	83.8
1997	0.0	(s)	0.1	9.0	2.3	(s)	0.4	76.4	(s)	88.3	0.0	0.0	88.3	0.0	88.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 196. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, New Hampshire

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	94	0	94	0	1,401	102	0	1,504	0	1,134	0	0	0	–
1965	358	0	358	0	1,343	98	0	1,441	0	882	0	0	0	–
1970	975	0	975	0	2,537	184	0	2,721	0	1,056	0	0	0	–
1975	972	0	972	(s)	2,279	27	0	2,306	0	1,073	0	0	0	–
1980	1,080	0	1,080	0	4,348	18	0	4,366	0	872	0	0	0	–
1985	1,433	0	1,433	0	2,332	31	0	2,363	0	1,868	0	0	0	–
1986	917	0	917	0	4,535	35	0	4,569	0	1,936	0	0	0	–
1987	1,163	0	1,163	(s)	3,548	28	0	3,576	0	2,007	0	0	0	–
1988	1,217	0	1,217	(s)	4,808	62	0	4,870	0	1,688	0	0	0	–
1989	1,160	0	1,160	(s)	5,074	61	0	5,135	0	R 1,235	0	0	0	–
1990	1,146	0	1,146	0	3,983	37	0	4,020	4,081	1,620	0	0	0	–
1991	1,242	0	1,242	0	2,669	35	0	2,704	6,788	1,878	0	0	0	–
1992	1,251	0	1,251	1	2,283	32	0	2,315	7,869	1,696	0	0	0	–
1993	1,339	0	1,339	(s)	2,291	46	0	2,338	9,047	1,830	0	0	0	–
1994	1,279	0	1,279	1	2,414	28	0	2,442	6,204	1,696	0	0	0	–
1995	1,346	0	1,346	2	1,768	48	0	1,816	8,379	1,990	0	0	0	–
1996	1,369	0	1,369	(s)	1,482	26	0	1,508	9,845	2,320	0	0	0	–
1997	1,699	0	1,699	1	1,809	35	0	1,843	7,979	1,875	0	0	0	–
	Trillion Btu													
1960	2.4	0.0	2.4	0.0	8.8	0.6	0.0	9.4	0.0	12.2	0.0	0.0	0.0	24.0
1965	10.0	0.0	10.0	0.0	8.4	0.6	0.0	9.0	0.0	9.2	0.0	0.0	0.0	28.2
1970	26.7	0.0	26.7	0.0	16.0	1.1	0.0	17.0	0.0	11.1	0.0	0.0	0.0	54.9
1975	26.0	0.0	26.0	0.2	14.3	0.2	0.0	14.5	0.0	11.2	0.0	0.0	0.0	51.8
1980	29.0	0.0	29.0	0.0	27.3	0.1	0.0	27.4	0.0	9.1	0.0	0.0	0.0	65.5
1985	38.6	0.0	38.6	0.0	14.7	0.2	0.0	14.8	0.0	19.5	0.0	0.0	0.0	72.9
1986	24.7	0.0	24.7	0.0	28.5	0.2	0.0	28.7	0.0	20.2	0.0	0.0	0.0	73.6
1987	31.2	0.0	31.2	(s)	22.3	0.2	0.0	22.5	0.0	20.9	0.0	0.0	0.0	74.6
1988	32.4	0.0	32.4	0.1	30.2	0.4	0.0	30.6	0.0	17.4	0.0	0.0	0.0	80.5
1989	31.0	0.0	31.0	(s)	31.9	0.4	0.0	32.3	0.0	R 12.9	0.0	0.0	0.0	76.5
1990	30.5	0.0	30.5	0.0	25.0	0.2	0.0	25.3	43.6	16.8	0.0	0.0	0.0	116.6
1991	32.9	0.0	32.9	0.0	16.8	0.2	0.0	17.0	72.9	19.6	0.0	0.0	0.0	R 144.5
1992	33.2	0.0	33.2	0.6	14.4	0.2	0.0	14.5	84.0	17.5	0.0	0.0	0.0	152.2
1993	35.3	0.0	35.3	0.1	14.4	0.3	0.0	14.7	96.6	18.9	0.0	0.0	0.0	168.2
1994	33.3	0.0	33.3	1.3	15.2	0.2	0.0	15.3	66.2	17.5	0.0	0.0	0.0	138.1
1995	35.3	0.0	35.3	2.3	11.1	0.3	0.0	11.4	89.3	20.5	0.0	0.0	0.0	R 164.5
1996	36.0	0.0	36.0	(s)	9.3	0.2	0.0	9.5	104.6	24.0	0.0	0.0	0.0	177.3
1997	44.4	0.0	44.4	0.6	11.4	0.2	0.0	11.6	84.8	19.3	0.0	0.0	0.0	165.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 197. Energy Consumption Estimates by Source, Selected Years 1960-1997, New Jersey

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh		Trillion Btu		Million kWh	Trillion Btu
1960	6,424	139	4,657	1,147	46,051	2,125	2,468	3,213	1,879	48,706	42,854	12,732	165,832	0	45	–	–	4,034	–
1965	9,034	210	5,340	1,153	53,611	5,280	2,096	4,268	2,052	55,149	42,900	20,461	192,311	0	-31	–	–	5,282	–
1970	4,946	323	5,828	160	63,391	6,705	1,829	6,748	1,952	66,231	80,770	25,007	258,622	3,454	-403	–	–	5,934	–
1975	2,397	244	5,012	92	59,630	6,267	1,211	7,328	1,741	77,617	49,463	26,247	234,608	3,146	-272	–	–	70,001	–
1980	2,634	340	4,369	83	52,854	8,781	1,694	7,383	2,371	72,740	53,617	30,958	234,849	7,627	-282	–	–	74,427	–
1985	3,943	379	4,733	184	40,389	43,910	1,404	7,184	2,158	75,405	23,986	22,278	221,631	17,770	-244	–	–	68,612	–
1986	2,961	353	5,565	159	44,963	39,197	1,223	6,405	2,110	80,692	30,986	27,233	238,532	14,770	-286	–	–	90,455	–
1987	3,434	421	5,312	201	43,820	43,323	1,318	7,721	2,385	81,324	25,218	28,248	238,869	22,697	-309	–	–	65,237	–
1988	3,058	414	4,332	152	46,124	40,820	1,380	7,480	2,300	81,081	23,318	29,372	236,360	23,890	-219	–	–	74,131	–
1989	3,545	457	4,032	128	45,037	44,140	1,537	6,336	2,359	81,405	22,749	29,920	237,643	23,032	[i] NA	–	–	[R] 73,915	–
1990	3,029	428	3,586	119	34,884	46,377	729	4,295	2,428	78,343	15,364	31,092	217,216	23,770	NA	–	–	[R] 84,146	–
1991	2,326	463	3,137	100	33,247	43,733	615	6,066	2,172	79,704	17,673	28,919	215,367	24,807	NA	–	–	[R] 86,826	–
1992	2,348	546	3,378	122	33,601	46,133	820	6,594	2,214	76,633	15,949	30,487	215,933	21,595	NA	–	–	[R] 98,512	–
1993	2,353	552	8,291	121	34,087	48,161	519	3,722	2,255	70,463	12,813	30,753	211,185	24,932	NA	–	–	95,302	–
1994	1,969	585	5,220	158	37,272	48,376	1,504	3,827	2,357	81,556	13,603	32,373	226,243	22,129	NA	–	–	[R] 102,231	–
1995	2,074	591	6,151	145	33,032	50,059	1,216	4,062	2,316	82,325	12,700	30,818	222,824	16,806	NA	–	–	[R] 120,661	–
1996	2,402	603	5,373	114	35,912	43,002	841	3,730	2,248	86,044	9,861	34,430	221,555	11,028	NA	–	–	[R] 144,090	–
1997	2,867	621	8,214	133	36,317	38,738	1,701	3,768	2,375	88,850	9,348	36,235	225,678	13,908	NA	–	–	127,805	–
1960	168.8	144.1	30.9	5.8	268.2	11.5	14.0	12.9	11.4	255.9	269.4	75.7	955.7	0.0	0.5	[R] 20.0	0.0	13.8	[R] 1,302.9
1965	236.6	219.2	35.4	5.8	312.3	29.4	11.9	17.1	12.4	289.7	269.7	117.3	1,101.1	0.0	-0.3	[R] 24.0	0.0	18.0	[R] 1,598.6
1970	123.3	331.2	38.7	0.8	369.3	37.5	10.4	25.5	11.8	347.9	507.8	141.7	1,491.4	37.9	-4.2	[R] 30.1	0.0	20.2	[R] 2,030.0
1975	60.5	251.7	33.3	0.5	347.3	35.1	6.9	27.2	10.6	407.7	311.0	149.9	1,329.4	34.6	-2.8	[R] 33.8	0.0	238.8	[R] 1,946.0
1980	68.7	351.0	29.0	0.4	307.9	49.3	9.6	27.1	14.4	382.1	337.1	175.0	1,331.9	83.2	-2.9	[R] 60.7	0.0	253.9	[R] 2,146.5
1985	103.3	389.1	31.4	0.9	235.3	248.6	8.0	25.9	13.1	396.1	150.8	124.8	1,234.8	192.1	-2.6	[R] 50.8	0.0	234.1	[R] 2,201.7
1986	77.9	363.0	36.9	0.8	261.9	221.8	6.9	23.3	12.8	423.9	194.8	153.5	1,336.7	159.5	-3.0	[R] 44.9	0.0	308.6	[R] 2,287.7
1987	90.5	432.4	35.2	1.0	255.3	245.2	7.5	28.3	14.5	427.2	158.5	158.1	1,330.8	244.6	-3.2	[R] 43.8	0.0	222.6	[R] 2,361.4
1988	81.1	425.0	28.7	0.8	268.7	231.1	7.8	27.3	13.9	425.9	146.6	165.0	1,315.9	256.7	-2.3	[R] 45.5	0.0	252.9	[R] 2,374.9
1989	94.0	469.0	26.8	0.6	262.3	249.9	8.7	23.3	14.3	427.6	143.0	167.9	1,324.6	247.0	[R i] -2.5	[R i] 44.3	[R i] 0.4	[R] 252.2	[R i] 2,428.8
1990	80.9	439.0	23.8	0.6	203.2	262.6	4.1	15.6	14.7	411.5	96.6	173.8	1,206.6	253.9	-1.2	[R] 29.7	[R] 0.4	287.1	[R] 2,296.2
1991	62.0	475.5	20.8	0.5	193.7	247.0	3.5	21.9	13.2	418.7	111.1	162.8	1,193.1	266.4	-1.4	[R] 28.7	[R] 0.4	[R] 296.3	[R] 2,320.9
1992	62.8	560.5	22.4	0.6	195.7	261.2	4.7	23.9	13.4	402.6	100.3	170.4	1,195.1	230.6	-1.2	[R] 30.1	0.4	336.1	[R] 2,414.4
1993	62.7	571.8	55.0	0.6	198.6	272.8	2.9	13.4	13.7	370.1	80.6	172.3	1,180.0	266.3	-1.1	[R] 32.5	0.4	325.2	[R] 2,437.8
1994	52.4	607.7	34.6	0.8	217.1	274.2	8.5	13.9	14.3	428.4	85.5	181.5	1,258.9	236.3	-1.6	[R] 32.6	[R] 0.5	348.8	[R] 2,535.2
1995	55.0	610.9	40.8	0.7	192.4	283.8	6.9	14.7	14.0	432.5	79.8	172.7	1,238.4	179.1	-0.9	[R] 35.8	[R] 0.5	[R] 411.7	[R] 2,529.7
1996	62.4	624.6	35.7	0.6	209.2	243.8	4.8	13.5	13.6	452.0	62.0	192.9	1,228.0	117.1	-1.0	[R] 38.0	[R] 0.6	[R] 491.6	[R] 2,560.6
1997	75.0	642.8	54.5	0.7	211.5	219.6	9.6	13.6	14.4	466.7	58.8	203.5	1,253.0	147.7	-0.9	32.0	0.6	436.1	2,585.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 198. Residential Energy Consumption Estimates, Selected Years 1960-1997, New Jersey

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	23	232	255	75	25,587	1,200	737	27,524	R 353	–	–	5,080	–	12,635	–
1965	12	146	158	114	29,038	969	672	30,679	R 338	–	–	7,410	–	17,692	–
1970	1	89	90	140	32,933	769	834	34,536	R 503	–	–	12,131	–	29,398	–
1975	1	47	47	129	30,655	431	964	32,050	R 550	–	–	14,495	–	34,964	–
1980	0	34	34	136	23,976	262	777	25,015	R 1,956	–	–	16,329	–	39,707	–
1985	4	58	62	151	18,071	907	918	19,896	R 1,331	–	–	17,177	–	40,356	–
1986	1	36	36	158	17,268	644	1,025	18,937	R 1,296	–	–	18,089	–	41,609	–
1987	0	17	17	169	17,440	513	1,108	19,061	R 1,241	–	–	19,308	–	44,118	–
1988	0	14	14	182	17,480	472	1,351	19,303	R 1,289	–	–	20,656	–	46,700	–
1989	(s)	8	9	196	15,926	570	1,303	17,800	R 1,337	–	–	20,695	–	R 46,497	–
1990	(s)	7	8	172	11,498	295	899	12,692	647	–	–	20,498	–	R 44,834	–
1991	(s)	6	7	177	11,069	329	1,108	12,505	R 682	–	–	21,539	–	R 46,888	–
1992	1	7	8	198	11,201	273	1,317	12,790	717	–	–	20,547	–	R 43,888	–
1993	0	5	5	196	11,535	223	1,391	13,149	R 764	–	–	22,042	–	46,570	–
1994	0	6	6	217	12,340	291	1,304	13,935	R 749	–	–	22,154	–	R 46,228	–
1995	0	4	4	194	11,647	236	1,548	13,431	R 832	–	–	22,470	–	R 46,811	–
1996	0	5	5	223	12,344	284	1,606	14,233	R 830	–	–	22,632	–	R 47,102	–
1997	0	4	4	217	11,723	292	1,606	13,621	604	–	–	22,286	–	46,284	–
	Trillion Btu														
1960	0.6	5.7	6.3	77.7	149.0	6.8	3.0	158.8	R 7.1	0.0	0.0	17.3	R 267.2	43.1	R 310.4
1965	0.3	3.5	3.8	119.6	169.1	5.5	2.7	177.3	R 6.8	0.0	0.0	25.3	R 332.8	60.4	R 393.1
1970	(s)	2.1	2.1	143.9	191.8	4.4	3.2	199.3	R 10.1	0.0	0.0	41.4	R 396.8	100.3	R 497.1
1975	(s)	1.0	1.1	133.4	178.6	2.4	3.6	184.6	R 11.0	0.0	0.0	49.5	R 379.5	119.3	R 498.8
1980	0.0	0.8	0.8	140.9	139.7	1.5	2.9	144.0	R 39.1	0.0	0.0	55.7	R 380.5	135.5	R 516.0
1985	0.1	1.3	1.4	154.3	105.3	5.1	3.3	113.7	R 26.6	0.0	0.0	58.6	R 354.6	137.7	R 492.3
1986	(s)	0.9	0.9	162.4	100.6	3.7	3.7	108.0	R 25.9	0.0	0.0	61.7	R 358.9	142.0	R 500.8
1987	0.0	0.5	0.5	172.8	101.6	2.9	4.1	108.5	R 24.8	0.0	0.0	65.9	R 372.5	150.5	R 523.0
1988	0.0	0.4	0.4	186.0	101.8	2.7	4.9	109.4	R 25.8	0.0	0.0	70.5	R 392.1	159.3	R 551.5
1989	(s)	0.2	0.2	200.4	92.8	3.2	4.8	100.8	R 26.7	e 0.1	R e 0.3	70.6	R e 399.2	158.6	R e 557.8
1990	(s)	0.2	0.2	176.0	67.0	1.7	3.3	71.9	12.9	0.1	0.3	69.9	R 331.4	153.0	484.3
1991	(s)	0.2	0.2	181.1	64.5	1.9	4.0	70.3	13.6	0.1	0.3	73.5	R 339.1	160.0	R 499.1
1992	(s)	0.2	0.2	203.5	65.2	1.5	4.8	71.6	14.3	0.1	0.4	70.1	360.1	149.7	R 509.9
1993	0.0	0.1	0.1	202.6	67.2	1.3	5.0	73.5	15.3	0.1	0.4	75.2	R 367.2	158.9	R 526.1
1994	0.0	0.2	0.2	225.4	71.9	1.7	4.7	78.3	15.0	0.1	0.4	75.6	394.9	157.7	552.6
1995	0.0	0.1	0.1	201.1	67.8	1.3	5.6	74.8	R 16.6	0.1	0.4	76.7	369.8	159.7	529.5
1996	0.0	0.1	0.1	230.8	71.9	1.6	5.8	79.3	R 16.6	0.1	0.5	77.2	404.6	160.7	565.3
1997	0.0	0.1	0.1	224.5	68.3	1.7	5.8	75.8	12.1	0.1	0.5	76.0	389.0	157.9	547.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 199. Commercial Energy Consumption Estimates, Selected Years 1960-1997, New Jersey

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	42	155	197	10	8,640	466	130	308	7,117	16,661	R 7	–	4,391	–	10,922	–
1965	23	97	120	20	9,805	377	119	420	7,473	18,194	R 6	–	6,945	–	R 16,582	–
1970	2	59	61	56	11,121	299	147	613	11,415	23,595	R 9	–	R 10,799	–	R 26,170	–
1975	1	31	32	53	10,351	168	170	634	6,484	17,807	R 10	–	R 13,849	–	R 33,405	–
1980	0	22	22	60	9,167	39	137	297	10,950	20,590	R 47	–	R 16,878	–	R 41,041	–
1985	7	39	46	83	5,638	77	162	660	3,128	9,665	NA	–	R 20,903	–	R 49,109	–
1986	1	24	25	86	8,889	108	181	652	2,717	12,546	NA	–	R 22,169	–	R 50,994	–
1987	0	12	12	94	7,787	109	196	666	2,390	11,148	NA	–	R 23,659	–	R 54,059	–
1988	0	10	10	101	7,899	116	238	647	2,854	11,755	NA	–	R 25,512	–	R 57,678	–
1989	1	6	6	117	8,167	264	230	670	1,795	11,125	NA	–	R 26,830	–	R 60,281	–
1990	1	5	5	116	6,916	178	159	754	1,480	9,487	NA	–	R 27,201	–	R 59,494	–
1991	(s)	4	4	121	6,559	192	195	692	1,607	9,244	NA	–	R 27,992	–	R 60,936	–
1992	2	5	7	131	6,364	389	232	613	1,371	8,970	NA	–	R 27,764	–	R 59,304	–
1993	0	3	3	129	5,605	160	245	77	1,997	8,084	R 61	–	R 28,862	–	R 60,979	–
1994	0	4	4	132	4,983	615	230	84	2,109	8,022	R 63	–	R 29,727	–	R 62,033	–
1995	0	3	3	139	3,357	566	273	78	1,257	5,531	R 63	–	R 30,170	–	R 62,854	–
1996	0	3	3	150	5,015	243	283	77	1,303	6,922	R 68	–	R 30,520	–	R 63,518	–
1997	0	2	2	169	3,515	750	283	79	810	5,437	59	–	30,127	–	62,568	–
	Trillion Btu															
1960	1.0	3.8	4.9	10.7	50.3	2.6	0.5	1.6	44.7	99.9	R 0.1	0.0	15.0	R 130.5	37.3	R 167.8
1965	0.6	2.4	2.9	21.1	57.1	2.1	0.5	2.2	47.0	108.9	R 0.1	0.0	23.7	R 156.8	56.6	R 213.4
1970	(s)	1.4	1.4	57.4	64.8	1.7	0.6	3.2	71.8	142.0	R 0.2	0.0	R 36.8	R 237.9	R 89.3	R 327.2
1975	(s)	0.7	0.7	55.0	60.3	1.0	0.6	3.3	40.8	106.0	R 0.2	0.0	47.3	R 209.2	114.0	R 323.1
1980	0.0	0.5	0.5	62.5	53.4	0.2	0.5	1.6	68.8	124.5	R 0.9	0.0	57.6	R 246.0	140.0	R 386.1
1985	0.2	0.9	1.1	85.3	32.8	0.4	0.6	3.5	19.7	57.0	NA	0.0	71.3	214.7	167.6	382.3
1986	(s)	0.6	0.6	88.0	51.8	0.6	0.7	3.4	17.1	73.6	NA	0.0	R 75.6	237.8	R 174.0	R 411.8
1987	0.0	0.3	0.3	96.8	45.4	0.6	0.7	3.5	15.0	65.2	NA	0.0	R 80.7	R 243.0	R 184.5	R 427.5
1988	0.0	0.2	0.2	103.9	46.0	0.7	0.9	3.4	17.9	68.9	NA	0.0	R 87.0	R 260.0	R 196.8	R 456.8
1989	(s)	0.2	0.2	120.3	47.6	1.5	0.8	3.5	11.3	64.7	NA	0.0	R 91.5	R 276.7	R 205.7	R 482.4
1990	(s)	0.1	0.1	118.5	40.3	1.0	0.6	4.0	9.3	55.1	NA	0.0	R 92.8	266.6	R 203.0	R 469.6
1991	(s)	0.1	0.1	124.3	38.2	1.1	0.7	3.6	10.1	53.7	NA	0.0	R 95.5	R 273.6	R 207.9	R 481.5
1992	(s)	0.1	0.2	134.2	37.1	2.2	0.8	3.2	8.6	52.0	NA	0.0	R 94.7	281.1	R 202.3	R 483.4
1993	0.0	0.1	0.1	133.6	32.6	0.9	0.9	0.4	12.6	47.4	R 1.2	0.0	R 98.5	R 280.8	R 208.1	R 488.8
1994	0.0	0.1	0.1	137.2	29.0	3.5	0.8	0.4	13.3	47.1	R 1.3	0.0	R 101.4	R 287.0	R 211.7	R 498.7
1995	0.0	0.1	0.1	143.7	19.6	3.2	1.0	0.4	7.9	32.1	R 1.3	0.0	R 102.9	R 280.1	R 214.5	R 494.5
1996	0.0	0.1	0.1	156.0	29.2	1.4	1.0	0.4	8.2	40.2	R 1.4	0.0	R 104.1	R 301.7	R 216.7	R 518.5
1997	0.0	0.1	0.1	174.6	20.5	4.3	1.0	0.4	5.1	31.3	1.2	0.0	102.8	309.9	213.5	523.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 200. Industrial Energy Consumption Estimates, Selected Years 1960-1997, New Jersey

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,368	28	4,657	6,719	802	2,340	1,194	612	18,822	12,732	47,878	10	–	–	8,021	–	19,952	–
1965	1,921	52	5,340	8,423	750	3,438	1,433	532	17,049	20,461	57,426	4	–	–	11,519	–	27,503	–
1970	740	80	5,828	9,560	761	5,665	1,379	401	22,609	25,007	71,209	4	–	–	15,215	–	36,872	–
1975	67	52	5,012	7,963	612	6,096	1,136	233	14,809	26,247	62,108	4	–	–	14,562	–	35,126	–
1980	33	63	4,369	7,339	1,393	6,429	1,658	147	17,694	30,958	69,988	3	–	–	16,345	–	39,745	–
1985	359	81	4,733	2,539	420	5,994	1,509	462	4,851	22,278	42,786	3	–	–	15,657	–	36,784	–
1986	263	70	5,565	3,430	470	5,097	1,476	466	5,360	27,233	49,097	3	–	–	15,631	–	35,955	–
1987	324	80	5,312	2,967	696	6,336	1,668	517	6,125	28,248	51,868	3	–	–	15,665	–	35,792	–
1988	261	78	4,332	3,199	793	5,803	1,609	524	5,266	29,372	50,897	3	–	–	15,844	–	35,819	–
1989	286	85	4,032	3,474	703	4,719	1,650	500	4,103	29,920	49,102	[f] NA	–	–	15,713	–	[R] 35,305	–
1990	276	90	3,586	2,907	256	3,163	1,698	460	3,673	31,092	46,833	NA	–	–	15,041	–	[R] 32,898	–
1991	234	101	3,137	2,529	95	4,693	1,519	420	3,146	28,919	44,459	NA	–	–	15,031	–	[R] 32,721	–
1992	215	175	3,378	2,001	158	4,969	1,549	423	3,114	30,487	46,080	NA	–	–	14,687	–	[R] 31,372	–
1993	222	189	8,291	2,074	136	2,005	1,577	542	2,615	30,753	47,994	NA	–	–	14,596	–	30,838	–
1994	72	191	5,220	2,228	597	2,157	1,648	556	2,527	32,373	47,307	NA	–	–	14,251	–	[R] 29,738	–
1995	13	209	6,151	1,931	414	2,172	1,620	602	1,930	30,818	45,639	NA	–	–	13,989	–	[R] 29,143	–
1996	7	201	5,373	1,954	314	1,781	1,572	597	1,689	34,430	47,711	NA	–	–	13,603	–	[R] 28,310	–
1997	10	202	8,214	1,846	658	1,824	1,661	628	1,384	36,235	52,450	NA	–	–	13,369	–	27,764	–
			Trillion Btu															
1960	61.2	28.7	30.9	39.1	4.5	9.4	7.2	3.2	118.3	75.7	288.5	0.1	[R] 12.8	0.0	27.4	[R] 418.7	68.1	[R] 486.8
1965	49.0	54.6	35.4	49.1	4.3	13.8	8.7	2.8	107.2	117.3	338.5	(s)	[R] 17.1	0.0	39.3	[R] 498.6	93.8	[R] 592.4
1970	18.6	81.9	38.7	55.7	4.3	21.4	8.4	2.1	142.1	141.7	414.4	(s)	[R] 19.9	0.0	51.9	[R] 586.8	125.8	[R] 712.6
1975	1.6	54.0	33.3	46.4	3.5	22.6	6.9	1.2	93.1	149.9	356.9	(s)	[R] 22.6	0.0	49.7	[R] 484.7	119.9	[R] 604.6
1980	0.8	64.9	29.0	42.7	7.9	23.6	10.1	0.8	111.2	175.0	400.3	(s)	[R] 20.6	0.0	55.8	[R] 542.5	135.6	[R] 678.1
1985	8.8	83.0	31.4	14.8	2.4	21.6	9.2	2.4	30.5	124.8	237.1	(s)	[R] 24.2	0.0	53.4	[R] 406.5	125.5	[R] 532.0
1986	6.6	71.5	36.9	20.0	2.7	18.6	8.9	2.5	33.7	153.5	276.7	(s)	[R] 19.0	0.0	53.3	[R] 427.3	122.7	[R] 550.0
1987	8.2	81.7	35.2	17.3	3.9	23.2	10.1	2.7	38.5	158.1	289.1	(s)	[R] 18.9	0.0	53.4	[R] 451.5	122.1	[R] 573.6
1988	6.6	79.5	28.7	18.6	4.5	21.2	9.8	2.8	33.1	165.0	283.7	(s)	[R] 19.7	0.0	54.1	[R] 443.6	122.2	[R] 565.8
1989	7.2	86.9	26.8	20.2	4.0	17.4	10.0	2.6	25.8	167.9	274.7	[R f] 0.2	[R f] 17.4	[f] 0.0	53.6	[R f] 440.0	[R] 120.5	[R f] 560.5
1990	7.0	92.7	23.8	16.9	1.5	11.5	10.3	2.4	23.1	173.8	263.3	0.3	[R] 16.6	0.0	51.3	[R] 431.2	112.2	[R] 543.4
1991	5.9	103.3	20.8	14.7	0.5	17.0	9.2	2.2	19.8	162.8	247.0	0.2	[R] 15.0	0.0	51.3	[R] 422.7	111.6	[R] 534.3
1992	5.4	179.0	22.4	11.7	0.9	18.0	9.4	2.2	19.6	170.4	254.5	0.2	[R] 15.7	0.0	50.1	[R] 505.0	107.0	[R] 612.0
1993	5.6	195.7	55.0	12.1	0.8	7.2	9.6	2.8	16.4	172.3	276.3	0.2	[R] 15.9	0.0	49.8	[R] 543.5	105.2	[R] 648.7
1994	1.8	198.3	34.6	13.0	3.4	7.8	10.0	2.9	15.9	181.5	269.2	0.2	[R] 16.0	0.0	48.6	[R] 534.1	101.5	[R] 635.6
1995	0.3	216.2	40.8	11.2	2.3	7.9	9.8	3.2	12.1	172.7	260.1	0.1	[R] 17.0	0.0	47.7	[R] 541.4	99.4	[R] 640.8
1996	0.2	208.3	35.7	11.4	1.8	6.4	9.5	3.1	10.6	192.9	271.5	0.2	[R] 19.2	0.0	46.4	[R] 545.8	96.6	[R] 642.4
1997	0.3	209.5	54.5	10.8	3.7	6.6	10.1	3.3	8.7	203.5	301.1	0.5	17.9	0.0	45.6	574.8	94.7	669.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 201. Transportation Energy Consumption Estimates, Selected Years 1960-1997, New Jersey

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	40	1	1,147	4,748	2,125	6	685	47,786	5,754	62,252	0	4	–	9	–
1965	6	(s)	1,153	5,964	5,280	40	619	54,198	6,431	73,684	0	4	–	R 10	–
1970	1	1	160	8,558	6,705	102	574	65,217	9,081	90,396	0	R 39	–	R 95	–
1975	(s)	(s)	92	8,907	5,777	98	605	76,750	4,246	96,475	0	R 43	–	R 105	–
1980	0	(s)	83	10,243	8,088	40	713	72,296	12,053	103,516	0	R 33	–	R 80	–
1985	0	2	184	13,470	43,910	111	649	74,283	11,010	143,615	0	R 95	–	R 224	–
1986	0	3	159	14,680	39,197	102	634	79,574	14,420	148,766	0	R 105	–	R 240	–
1987	0	3	201	14,603	43,323	81	717	80,141	12,032	151,097	0	R 114	–	R 261	–
1988	0	3	152	15,889	40,820	88	691	79,910	7,651	145,201	0	R 99	–	R 225	–
1989	0	4	128	15,347	44,140	83	709	80,235	8,992	149,634	R e 912	R 121	–	R 272	–
1990	0	3	119	12,950	46,377	75	730	77,129	7,374	144,754	1,054	R 117	–	R 256	–
1991	0	3	100	12,515	43,733	69	653	78,592	10,203	145,866	835	R 120	–	R 261	–
1992	0	4	122	13,718	46,133	76	666	75,597	9,688	146,000	1,015	R 124	–	R 264	–
1993	0	3	121	14,486	48,161	80	678	69,845	6,492	139,863	1,133	R 121	–	R 256	–
1994	0	3	158	17,082	48,376	135	708	80,915	6,376	153,751	3,951	R 126	–	R 262	–
1995	0	2	145	15,732	50,059	69	696	81,644	8,174	156,519	12,012	R 125	–	R 260	–
1996	0	3	114	16,176	43,002	59	676	85,370	6,111	151,507	10,150	R 135	–	R 281	–
1997	0	3	133	18,882	38,738	54	714	88,143	6,802	153,465	11,901	132	–	274	–
			Trillion Btu												
1960	1.0	0.6	5.8	27.7	11.5	(s)	4.2	251.0	36.2	336.3	0.0	(s)	337.9	(s)	338.0
1965	0.2	0.5	5.8	34.7	29.4	0.2	3.8	284.7	40.4	399.0	0.0	(s)	399.6	(s)	399.7
1970	(s)	1.0	0.8	49.8	37.5	0.4	3.5	342.6	57.1	491.7	0.0	0.1	492.8	0.3	493.1
1975	(s)	0.4	0.5	51.9	32.3	0.4	3.7	403.2	26.7	518.6	0.0	0.1	519.1	0.4	519.5
1980	0.0	0.5	0.4	59.7	45.4	0.1	4.3	379.8	75.8	565.5	0.0	0.1	566.1	0.3	566.3
1985	0.0	2.3	0.9	78.5	248.6	0.4	3.9	390.2	69.2	791.7	0.0	0.3	794.3	R 0.8	R 795.1
1986	0.0	2.9	0.8	85.5	221.8	0.4	3.8	418.0	90.7	821.0	0.0	R 0.4	R 824.3	R 0.8	R 825.1
1987	0.0	3.5	1.0	85.1	245.2	0.3	4.3	421.0	75.6	832.6	0.0	R 0.4	836.4	R 0.9	R 837.3
1988	0.0	2.9	0.8	92.6	231.1	0.3	4.2	419.8	48.1	796.8	0.0	0.3	800.0	R 0.8	R 800.8
1989	0.0	4.1	0.6	89.4	249.9	0.3	4.3	421.5	56.5	822.6	R e 0.1	R 0.4	R e 827.1	R 0.9	R e 828.0
1990	0.0	2.7	0.6	75.4	262.6	0.3	4.4	405.2	46.4	794.9	0.1	R 0.4	797.9	R 0.9	R 798.8
1991	0.0	3.0	0.5	72.9	247.0	0.3	4.0	412.8	64.1	801.6	0.1	0.4	R 805.0	R 0.9	R 805.9
1992	0.0	3.7	0.6	79.9	261.2	0.3	4.0	397.1	60.9	804.0	0.1	0.4	808.1	R 0.9	R 809.0
1993	0.0	3.0	0.6	84.4	272.8	0.3	4.1	366.9	40.8	769.9	0.1	R 0.4	R 773.3	R 0.9	R 774.2
1994	0.0	2.6	0.8	99.5	274.2	0.5	4.3	425.0	40.1	844.4	0.3	R 0.4	847.4	R 0.9	R 848.3
1995	0.0	2.6	0.7	91.6	283.8	0.2	4.2	428.9	51.4	860.9	0.9	R 0.4	R 863.9	R 0.9	R 864.8
1996	0.0	3.2	0.6	94.2	243.8	0.2	4.1	448.4	38.4	829.8	0.8	R 0.5	R 833.5	R 1.0	R 834.4
1997	0.0	3.5	0.7	110.0	219.6	0.2	4.3	463.0	42.8	840.6	0.9	0.5	844.6	0.9	845.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 202. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, New Jersey

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	3,563	1	3,565	25	11,160	357	0	11,518	0	35	0	0	0	–
1965	6,829	(s)	6,829	22	11,947	382	0	12,329	0	-35	0	0	0	–
1970	4,054	0	4,054	46	37,665	1,220	0	38,885	3,454	-407	0	0	0	–
1975	2,250	0	2,250	9	23,924	2,244	0	26,168	3,146	-276	0	0	0	–
1980	2,545	0	2,545	80	12,919	2,821	0	15,740	7,627	-286	0	0	0	–
1985	3,476	0	3,476	61	4,997	671	0	5,668	17,770	-247	0	0	0	–
1986	2,637	0	2,637	37	8,489	697	0	9,186	14,770	-289	0	0	0	–
1987	3,081	0	3,081	75	4,671	1,024	0	5,695	22,697	-312	0	0	0	–
1988	2,773	0	2,773	51	7,547	1,657	0	9,204	23,890	-222	0	0	0	–
1989	3,244	0	3,244	55	7,859	2,123	0	9,982	23,032	-261	0	0	0	–
1990	2,740	0	2,740	48	2,836	613	0	3,450	23,770	-150	0	0	0	–
1991	2,081	0	2,081	62	2,717	576	0	3,293	24,807	-155	0	0	0	–
1992	2,118	0	2,118	39	1,775	317	0	2,092	21,595	-138	0	0	0	–
1993	2,123	0	2,123	36	1,708	387	0	2,095	24,932	-123	0	0	0	–
1994	1,887	0	1,887	43	2,590	639	0	3,229	22,129	-167	0	0	0	–
1995	2,054	0	2,054	46	1,339	366	0	1,704	16,806	-95	0	0	0	–
1996	2,387	0	2,387	26	759	423	0	1,182	11,028	-114	0	0	0	–
1997	2,851	0	2,851	30	352	352	0	705	13,908	-130	0	0	0	–
	Trillion Btu													
1960	95.4	(s)	95.4	26.4	70.2	2.1	0.0	72.2	0.0	0.4	0.0	0.0	0.0	194.4
1965	180.7	(s)	180.7	23.4	75.1	2.2	0.0	77.3	0.0	-0.4	0.0	0.0	0.0	281.1
1970	101.1	0.0	101.1	47.1	236.8	7.1	0.0	243.9	37.9	-4.3	0.0	0.0	0.0	425.8
1975	57.2	0.0	57.2	8.8	150.4	13.0	0.0	163.4	34.6	-2.9	0.0	0.0	0.0	261.2
1980	66.6	0.0	66.6	82.2	81.2	16.3	0.0	97.5	83.2	-3.0	0.0	0.0	0.0	326.6
1985	92.0	0.0	92.0	64.2	31.4	3.9	0.0	35.3	192.1	-2.6	0.0	0.0	0.0	381.1
1986	69.8	0.0	69.8	38.2	53.4	4.1	0.0	57.4	159.5	-3.0	0.0	0.0	0.0	321.9
1987	81.6	0.0	81.6	77.6	29.4	6.0	0.0	35.3	244.6	-3.3	0.0	0.0	0.0	435.8
1988	73.9	0.0	73.9	52.8	47.4	9.7	0.0	57.1	256.7	-2.3	0.0	0.0	0.0	438.1
1989	86.4	0.0	86.4	57.2	49.4	12.4	0.0	61.8	247.0	-2.7	0.0	0.0	0.0	449.7
1990	73.6	0.0	73.6	49.1	17.8	3.6	0.0	21.4	253.9	-1.6	0.0	0.0	0.0	396.4
1991	55.8	0.0	55.8	63.9	17.1	3.4	0.0	20.4	266.4	-1.6	0.0	0.0	0.0	404.9
1992	57.0	0.0	57.0	40.1	11.2	1.8	0.0	13.0	230.6	-1.4	0.0	0.0	0.0	339.3
1993	56.9	0.0	56.9	36.8	10.7	2.3	0.0	13.0	266.3	-1.3	0.0	0.0	0.0	371.8
1994	50.4	0.0	50.4	44.1	16.3	3.7	0.0	20.0	236.3	-1.7	0.0	0.0	0.0	349.0
1995	54.6	0.0	54.6	47.3	8.4	2.1	0.0	10.5	179.1	-1.0	0.0	0.0	0.0	290.6
1996	62.0	0.0	62.0	26.3	4.8	2.5	0.0	7.2	117.1	-1.2	0.0	0.0	0.0	211.6
1997	74.6	0.0	74.6	30.6	2.2	2.1	0.0	4.3	147.7	-1.3	0.0	0.0	0.0	255.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 203. Energy Consumption Estimates by Source, Selected Years 1960-1997, New Mexico

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	174	200	964	201	3,067	2,186	485	3,014	226	9,555	191	484	20,372	0	69	–	–	951	–
1965	2,450	202	1,388	239	3,895	2,530	376	3,334	237	10,806	699	645	24,148	0	43	–	–	-14,477	–
1970	5,529	270	1,208	111	5,410	3,110	994	4,413	270	13,146	220	731	29,615	0	66	–	–	-27,673	–
1975	7,425	240	1,632	81	6,717	2,667	654	3,865	317	16,493	3,046	1,450	36,923	0	63	–	–	-39,258	–
1980	11,458	222	1,138	167	7,967	2,673	1,339	4,710	332	16,913	1,033	1,801	38,074	0	94	–	–	-46,980	–
1985	14,589	151	1,501	95	8,517	2,873	191	3,002	302	17,905	825	1,013	36,223	0	128	–	–	-47,212	–
1986	13,245	134	1,616	104	9,711	2,783	68	1,757	295	18,298	263	1,153	36,048	0	166	–	–	-37,723	–
1987	14,395	153	2,069	87	10,654	2,983	60	1,537	334	18,941	87	1,288	38,038	0	164	–	–	-41,747	–
1988	14,715	173	2,113	55	10,229	2,812	51	1,497	322	19,302	120	1,517	38,018	0	100	–	–	-42,863	–
1989	15,295	196	1,666	96	8,977	2,849	70	3,879	330	18,897	183	1,572	38,519	0	[i] NA	–	–	[R] -47,334	–
1990	15,111	239	1,451	86	9,127	2,912	56	7,943	340	18,647	149	1,613	42,323	0	NA	–	–	[R] -44,911	–
1991	12,858	219	1,525	94	9,435	2,441	65	11,735	304	19,148	129	1,856	46,731	0	NA	–	–	[R] -32,733	–
1992	14,832	203	1,874	94	9,980	2,834	23	10,457	310	19,432	130	2,143	47,275	0	NA	–	–	[R] -40,399	–
1993	15,012	216	2,438	71	8,234	3,303	17	9,616	315	20,394	184	2,020	46,592	0	NA	–	–	-41,553	–
1994	15,374	221	2,114	62	7,278	2,576	11	8,767	330	20,806	179	2,121	44,244	0	NA	–	–	[R] -42,503	–
1995	15,221	215	1,859	53	4,739	2,222	16	8,191	324	21,014	182	2,042	40,642	0	NA	–	–	[R] -39,920	–
1996	15,297	222	1,648	100	9,960	1,615	17	2,067	314	20,247	198	2,312	38,479	0	NA	–	–	[R] -37,992	–
1997	15,887	269	1,233	101	10,247	1,751	14	2,088	332	21,505	162	2,331	39,765	0	NA	–	–	-40,874	–
			Trillion Btu																
1960	4.1	207.3	6.4	1.0	17.9	11.7	2.7	12.1	1.4	50.2	1.2	2.9	107.5	0.0	0.7	[R] 6.6	0.0	3.2	[R] 329.5
1965	44.3	224.3	9.2	1.2	22.7	13.7	2.1	13.4	1.4	56.8	4.4	3.9	128.8	0.0	0.4	[R] 5.6	0.0	-49.4	[R] 354.0
1970	99.4	292.5	8.0	0.6	31.5	17.0	5.6	16.7	1.6	69.1	1.4	4.4	155.9	0.0	0.7	[R] 4.9	0.0	-94.4	[R] 458.9
1975	132.5	255.6	10.8	0.4	39.1	14.6	3.7	14.4	1.9	86.6	19.1	8.7	199.5	0.0	0.7	[R] 5.3	0.0	-133.9	[R] 459.7
1980	202.9	231.3	7.6	0.8	46.4	14.6	7.6	17.3	2.0	88.8	6.5	10.8	202.4	0.0	1.0	[R] 5.2	0.0	-160.3	[R] 482.6
1985	268.4	162.3	10.0	0.5	49.6	15.7	1.1	10.8	1.8	94.1	5.2	6.3	195.0	0.0	1.3	[R] 7.1	0.0	-161.1	[R] 473.0
1986	241.6	144.5	10.7	0.5	56.6	15.2	0.4	6.4	1.8	96.1	1.7	7.1	196.5	0.0	1.7	[R] 7.8	0.0	-128.7	[R] 463.5
1987	260.7	164.6	13.7	0.4	62.1	16.4	0.3	5.6	2.0	99.5	0.5	7.8	208.4	0.0	1.7	[R] 5.2	0.0	-142.4	[R] 498.1
1988	266.1	185.2	14.0	0.3	59.6	15.4	0.3	5.5	2.0	101.4	0.8	9.1	208.2	0.0	1.0	[R] 5.4	0.0	-146.2	[R] 519.8
1989	279.5	205.1	11.1	0.5	52.3	15.6	0.4	14.3	2.0	99.3	1.2	9.4	205.9	0.0	[i] 2.4	[R i] 5.2	[R i] 0.6	-161.5	[R i] 537.2
1990	275.7	251.4	9.6	0.4	53.2	16.0	0.3	28.8	2.1	98.0	0.9	9.6	218.9	0.0	2.1	[R] 4.4	[R] 0.6	-153.2	[R] 599.7
1991	234.0	227.3	10.1	0.5	55.0	13.5	0.4	42.4	1.8	100.6	0.8	11.1	236.1	0.0	2.5	[R] 4.6	[R] 0.6	-111.7	593.2
1992	267.5	211.0	12.4	0.5	58.1	15.6	0.1	37.9	1.9	102.1	0.8	12.7	242.1	0.0	2.6	[R] 5.0	[R] 0.6	-137.8	590.8
1993	270.2	224.9	16.2	0.4	48.0	18.3	0.1	34.7	1.9	107.1	1.2	12.0	239.8	0.0	3.0	[R] 5.0	[R] 0.6	-141.8	[R] 601.6
1994	278.3	221.4	14.0	0.3	42.4	14.6	0.1	31.9	2.0	109.3	1.1	12.6	228.3	0.0	2.2	[R] 5.7	[R] 0.7	-145.0	[R] 591.1
1995	275.3	219.4	12.3	0.3	27.6	12.6	0.1	29.7	2.0	110.4	1.1	12.1	208.2	0.0	2.7	[R] 7.1	[R] 0.7	-136.2	[R] 575.7
1996	279.2	228.2	10.9	0.5	58.0	9.2	0.1	7.5	1.9	106.4	1.2	13.7	209.4	0.0	2.2	[R] 6.8	[R] 0.7	-129.6	[R] 595.6
1997	288.4	274.4	8.2	0.5	59.7	9.9	0.1	7.6	2.0	113.0	1.0	13.8	215.7	0.0	2.7	5.9	0.7	-139.5	647.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 204. Residential Energy Consumption Estimates, Selected Years 1960-1997, New Mexico

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	15	0	15	20	3	17	1,441	1,461	R 287	–	–	872	–	2,169	–
1965	4	0	4	24	2	14	1,518	1,534	R 234	–	–	988	–	2,360	–
1970	(s)	0	(s)	31	3	29	2,004	2,036	R 202	–	–	1,475	–	3,574	–
1975	0	0	0	28	5	27	1,270	1,301	R 210	–	–	1,957	–	4,720	–
1980	15	0	15	29	11	132	1,209	1,352	R 196	–	–	2,453	–	5,965	–
1985	3	0	3	22	21	41	2,091	2,153	R 281	–	–	3,098	–	7,279	–
1986	2	0	2	24	35	21	1,000	1,056	R 274	–	–	3,144	–	7,231	–
1987	2	0	2	28	13	22	1,017	1,051	R 141	–	–	3,306	–	7,554	–
1988	1	0	1	28	12	11	903	926	R 147	–	–	3,394	–	7,672	–
1989	3	0	3	27	11	10	1,223	1,243	R 152	–	–	3,463	–	R 7,780	–
1990	2	0	2	28	12	4	1,705	1,721	157	–	–	3,566	–	R 7,799	–
1991	3	0	3	30	9	6	1,349	1,364	165	–	–	3,665	–	R 7,979	–
1992	3	(s)	3	31	14	5	1,096	1,115	174	–	–	3,791	–	8,098	–
1993	3	(s)	4	32	6	4	808	818	163	–	–	3,884	–	8,207	–
1994	3	(s)	3	31	8	3	772	784	160	–	–	4,080	–	R 8,513	–
1995	3	0	3	29	2	6	860	868	R 178	–	–	4,124	–	R 8,592	–
1996	3	0	3	34	2	7	853	862	R 178	–	–	4,328	–	R 9,008	–
1997	3	0	3	37	2	5	853	860	129	–	–	4,502	–	9,350	–
	Trillion Btu														
1960	0.3	0.0	0.3	21.1	(s)	0.1	5.8	5.9	R 5.7	0.0	0.0	3.0	R 36.0	7.4	R 43.4
1965	0.1	0.0	0.1	26.9	(s)	0.1	6.1	6.2	R 4.7	0.0	0.0	3.4	R 41.2	8.1	R 49.2
1970	(s)	0.0	(s)	33.3	(s)	0.2	7.6	7.8	R 4.0	0.0	0.0	5.0	R 50.2	12.2	R 62.4
1975	0.0	0.0	0.0	29.9	(s)	0.2	4.7	4.9	R 4.2	0.0	0.0	6.7	R 45.7	16.1	R 61.8
1980	0.3	0.0	0.3	29.9	0.1	0.7	4.4	5.3	R 3.9	0.0	0.0	8.4	R 47.8	20.4	R 68.1
1985	0.1	0.0	0.1	23.9	0.1	0.2	7.5	7.9	R 5.6	0.0	0.0	10.6	R 48.0	24.8	R 72.9
1986	(s)	0.0	(s)	26.0	0.2	0.1	3.6	4.0	R 5.5	0.0	0.0	10.7	R 46.2	24.7	R 70.9
1987	(s)	0.0	(s)	29.8	0.1	0.1	3.7	3.9	R 2.8	0.0	0.0	11.3	R 47.8	25.8	R 73.6
1988	(s)	0.0	(s)	29.9	0.1	0.1	3.3	3.4	R 2.9	0.0	0.0	11.6	R 47.9	26.2	R 74.0
1989	0.1	0.0	0.1	27.9	0.1	0.1	4.5	4.6	R 3.0	e (s)	R e 0.5	11.8	R e 48.0	26.5	R e 74.5
1990	(s)	0.0	(s)	29.7	0.1	(s)	6.2	6.3	3.1	(s)	0.5	12.2	51.8	26.6	R 78.5
1991	0.1	0.0	0.1	31.0	(s)	(s)	4.9	5.0	3.3	(s)	0.5	12.5	52.4	27.2	79.6
1992	0.1	(s)	0.1	32.8	0.1	(s)	4.0	4.1	3.5	(s)	0.5	12.9	53.9	27.6	81.5
1993	0.1	(s)	0.1	33.2	(s)	(s)	2.9	3.0	3.3	(s)	0.5	13.3	53.3	28.0	81.3
1994	0.1	(s)	0.1	30.9	(s)	(s)	2.8	2.9	3.2	(s)	0.5	13.9	R 51.5	29.0	80.5
1995	0.1	0.0	0.1	29.4	(s)	(s)	3.1	3.2	R 3.6	(s)	0.5	14.1	50.7	29.3	R 80.1
1996	0.1	0.0	0.1	34.8	(s)	(s)	3.1	3.1	R 3.6	(s)	0.5	14.8	56.8	30.7	87.5
1997	0.1	0.0	0.1	37.4	(s)	(s)	3.1	3.1	2.6	(s)	0.5	15.4	59.1	31.9	91.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 205. Commercial Energy Consumption Estimates, Selected Years 1960-1997, New Mexico

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	27	0	27	9	107	4	254	46	0	412	R 5	–	963	–	2,395	–
1965	7	0	7	13	65	4	268	54	0	391	R 4	–	1,485	–	3,547	–
1970	1	0	1	33	114	8	354	70	0	545	R 4	–	2,216	–	5,371	–
1975	0	0	0	23	179	7	224	91	0	501	R 4	–	2,743	–	6,618	–
1980	29	0	29	25	133	659	213	108	0	1,113	R 5	–	3,380	–	8,219	–
1985	5	0	5	17	452	61	369	113	4	999	NA	–	4,664	–	10,958	–
1986	3	0	3	21	406	13	177	116	0	712	NA	–	4,855	–	11,168	–
1987	4	0	4	20	707	15	179	123	0	1,025	NA	–	5,171	–	11,816	–
1988	2	0	2	31	561	31	159	118	0	869	NA	–	5,329	–	12,049	–
1989	5	0	5	28	506	14	216	119	0	856	NA	–	5,699	–	R 12,805	–
1990	3	0	3	24	627	15	301	127	0	1,069	NA	–	5,842	–	R 12,779	–
1991	5	0	5	25	462	20	238	113	0	833	NA	–	5,872	–	R 12,783	–
1992	6	(s)	6	28	241	9	193	100	0	543	NA	–	6,031	–	12,883	–
1993	6	(s)	6	28	339	6	143	18	0	506	R 13	–	6,226	–	13,155	–
1994	6	(s)	6	25	212	3	136	18	0	369	R 13	–	6,595	–	R 13,762	–
1995	5	0	5	24	200	4	152	18	0	374	R 13	–	6,641	–	R 13,835	–
1996	5	0	5	26	154	1	150	18	(s)	324	R 15	–	6,924	–	14,411	–
1997	5	0	5	31	120	3	150	18	0	292	13	–	6,839	–	14,203	–
	Trillion Btu															
1960	0.6	0.0	0.6	9.3	0.6	(s)	1.0	0.2	0.0	1.9	R 0.1	0.0	3.3	R 15.3	8.2	R 23.4
1965	0.2	0.0	0.2	13.9	0.4	(s)	1.1	0.3	0.0	1.8	R 0.1	0.0	5.1	R 21.0	12.1	R 33.1
1970	(s)	0.0	(s)	35.8	0.7	(s)	1.3	0.4	0.0	2.4	R 0.1	0.0	7.6	45.8	18.3	R 64.2
1975	0.0	0.0	0.0	24.5	1.0	(s)	0.8	0.5	0.0	2.4	R 0.1	0.0	9.4	R 36.4	22.6	58.9
1980	0.6	0.0	0.6	25.7	0.8	3.7	0.8	0.6	0.0	5.9	R 0.1	0.0	11.5	R 43.7	28.0	R 71.8
1985	0.1	0.0	0.1	18.2	2.6	0.3	1.3	0.6	(s)	4.9	NA	0.0	15.9	39.1	37.4	76.5
1986	0.1	0.0	0.1	22.4	2.4	0.1	0.6	0.6	0.0	3.7	NA	0.0	16.6	42.7	38.1	80.8
1987	0.1	0.0	0.1	21.5	4.1	0.1	0.7	0.6	0.0	5.5	NA	0.0	17.6	44.8	40.3	85.1
1988	(s)	0.0	(s)	33.3	3.3	0.2	0.6	0.6	0.0	4.6	NA	0.0	18.2	56.2	41.1	97.3
1989	0.1	0.0	0.1	29.9	2.9	0.1	0.8	0.6	0.0	4.5	NA	[e] (s)	19.4	R 54.0	43.7	97.6
1990	0.1	0.0	0.1	25.0	3.7	0.1	1.1	0.7	0.0	5.5	NA	(s)	19.9	R 50.6	43.6	R 94.2
1991	0.1	0.0	0.1	26.1	2.7	0.1	0.9	0.6	0.0	4.3	NA	(s)	20.0	R 50.5	43.6	94.1
1992	0.1	(s)	0.1	29.1	1.4	(s)	0.7	0.5	0.0	2.7	NA	(s)	20.6	52.5	44.0	R 96.5
1993	0.1	(s)	0.1	29.1	2.0	(s)	0.5	0.1	0.0	2.6	R 0.3	(s)	21.2	R 53.4	44.9	R 98.3
1994	0.1	(s)	0.1	25.0	1.2	(s)	0.5	0.1	0.0	1.8	R 0.3	(s)	22.5	R 49.7	47.0	R 96.7
1995	0.1	0.0	0.1	24.4	1.2	(s)	0.6	0.1	0.0	1.8	R 0.3	(s)	22.7	R 49.3	47.2	R 96.5
1996	0.1	0.0	0.1	27.3	0.9	(s)	0.5	0.1	(s)	1.5	R 0.3	(s)	23.6	R 52.9	49.2	R 102.1
1997	0.1	0.0	0.1	32.0	0.7	(s)	0.5	0.1	0.0	1.4	0.3	(s)	23.3	57.1	48.5	105.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 206. Industrial Energy Consumption Estimates, Selected Years 1960-1997, New Mexico

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	105	120	964	1,028	463	1,194	67	295	59	484	4,555	0	–	–	1,548	–	3,851	–
1965	22	97	1,388	1,206	358	1,345	72	241	621	645	5,876	0	–	–	1,299	–	3,103	–
1970	11	121	1,208	2,127	957	1,813	104	192	123	731	7,256	0	–	–	1,911	–	4,632	–
1975	0	95	1,632	2,299	620	2,160	120	145	1,342	1,450	9,769	0	–	–	1,960	–	4,728	–
1980	8	74	1,138	2,196	548	3,260	118	84	858	1,801	10,003	0	–	–	2,945	–	7,161	–
1985	83	58	1,501	3,669	89	447	108	361	781	1,013	7,968	0	–	–	4,111	–	9,658	–
1986	93	44	1,616	3,795	34	488	105	341	222	1,153	7,755	0	–	–	3,902	–	8,976	–
1987	49	62	2,069	4,026	23	268	119	329	57	1,288	8,179	0	–	–	3,855	–	8,808	–
1988	51	56	2,113	3,572	8	362	115	333	78	1,517	8,098	0	–	–	4,032	–	9,116	–
1989	37	61	1,666	2,244	46	2,330	118	348	148	1,572	8,471	[f] NA	–	–	4,208	–	[R] 9,454	–
1990	41	85	1,451	2,187	37	5,819	121	330	117	1,613	11,675	NA	–	–	4,413	–	9,652	–
1991	41	64	1,525	2,366	39	10,067	108	361	119	1,856	16,440	NA	–	–	4,546	–	[R] 9,897	–
1992	48	71	1,874	1,911	10	9,068	111	328	128	2,143	15,572	NA	–	–	4,609	–	9,844	–
1993	60	67	2,438	1,515	7	8,568	113	561	182	2,020	15,404	NA	–	–	4,816	–	10,176	–
1994	68	74	2,114	1,235	5	7,715	118	600	179	2,121	14,086	NA	–	–	5,184	–	[R] 10,818	–
1995	76	74	1,859	1,577	7	7,085	116	653	181	2,042	13,520	NA	–	–	5,651	–	[R] 11,772	–
1996	74	105	1,648	1,776	10	974	112	658	198	2,312	7,688	NA	–	–	5,921	–	[R] 12,322	–
1997	77	105	1,233	1,484	6	1,003	119	693	161	2,331	7,030	NA	–	–	6,187	–	12,849	–
			Trillion Btu															
1960	2.4	124.5	6.4	6.0	2.6	4.8	0.4	1.6	0.4	2.9	25.0	0.0	[R] 0.8	0.0	5.3	[R] 158.0	13.1	[R] 171.1
1965	0.5	107.1	9.2	7.0	2.0	5.4	0.4	1.3	3.9	3.9	33.1	0.0	[R] 0.9	0.0	4.4	[R] 146.1	10.6	[R] 156.6
1970	0.2	131.2	8.0	12.4	5.4	6.8	0.6	1.0	0.8	4.4	39.5	0.0	[R] 0.7	0.0	6.5	[R] 178.2	15.8	[R] 194.0
1975	0.0	102.6	10.8	13.4	3.5	8.0	0.7	0.8	8.4	8.7	54.4	0.0	[R] 1.1	0.0	6.7	[R] 164.7	16.1	[R] 180.9
1980	0.2	77.6	7.6	12.8	3.1	12.0	0.7	0.4	5.4	10.8	52.8	0.0	[R] 1.2	0.0	10.0	[R] 141.9	24.4	[R] 166.3
1985	1.8	63.5	10.0	21.4	0.5	1.6	0.7	1.9	4.9	6.3	47.2	0.0	[R] 1.4	0.0	14.0	[R] 127.9	33.0	[R] 160.9
1986	2.0	47.2	10.7	22.1	0.2	1.8	0.6	1.8	1.4	7.1	45.8	0.0	[R] 2.3	0.0	13.3	[R] 110.7	30.6	[R] 141.3
1987	1.0	66.6	13.7	23.5	0.1	1.0	0.7	1.7	0.4	7.8	48.9	0.0	[R] 2.3	0.0	13.2	[R] 132.0	30.1	[R] 162.1
1988	1.1	60.6	14.0	20.8	(s)	1.3	0.7	1.7	0.5	9.1	48.3	0.0	[R] 2.4	0.0	13.8	[R] 126.1	31.1	[R] 157.3
1989	0.9	64.0	11.1	13.1	0.3	8.6	0.7	1.8	0.9	9.4	45.8	[f] 0.0	[R f] 2.0	[R f] 0.1	14.4	[R f] 127.2	[R] 32.3	[R f] 159.5
1990	0.9	90.0	9.6	12.7	0.2	21.1	0.7	1.7	0.7	9.6	56.5	0.0	[R] 1.1	[R] 0.1	15.1	[R] 163.6	32.9	[R] 196.5
1991	0.9	66.8	10.1	13.8	0.2	36.4	0.7	1.9	0.7	11.1	74.9	0.0	[R] 1.1	[R] 0.1	15.5	[R] 159.3	33.8	193.1
1992	1.0	73.8	12.4	11.1	0.1	32.9	0.7	1.7	0.8	12.7	72.4	0.0	[R] 1.3	[R] 0.1	15.7	164.3	33.6	[R] 197.8
1993	1.3	69.5	16.2	8.8	(s)	30.9	0.7	2.9	1.1	12.0	72.7	0.0	[R] 1.3	[R] 0.1	16.4	161.4	34.7	196.1
1994	1.5	73.5	14.0	7.2	(s)	28.0	0.7	3.2	1.1	12.6	66.9	0.0	[R] 1.7	[R] 0.1	17.7	161.4	36.9	198.3
1995	1.7	75.2	12.3	9.2	(s)	25.7	0.7	3.4	1.1	12.1	64.6	0.0	[R] 1.8	[R] 0.1	19.3	[R] 162.7	40.2	[R] 202.8
1996	1.6	107.9	10.9	10.3	0.1	3.5	0.7	3.5	1.2	13.7	43.9	0.0	[R] 1.7	[R] 0.1	20.2	[R] 175.5	42.0	[R] 217.6
1997	1.7	107.6	8.2	8.6	(s)	3.6	0.7	3.6	1.0	13.8	39.6	0.0	1.8	0.1	21.1	171.9	43.8	215.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 207. Transportation Energy Consumption Estimates, Selected Years 1960-1997, New Mexico

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	2	17	201	1,919	2,186	124	159	9,213	25	13,826	0	0	–	0	–
1965	(s)	25	239	2,618	2,530	203	165	10,511	36	16,301	0	0	–	0	–
1970	(s)	30	111	3,158	3,110	243	166	12,884	11	19,684	0	0	–	0	–
1975	0	29	81	4,200	2,667	211	197	16,257	0	23,615	0	0	–	0	–
1980	0	38	167	5,411	2,673	29	213	16,721	0	25,214	0	0	–	0	–
1985	0	26	95	4,330	2,873	95	194	17,431	0	25,018	0	0	–	0	–
1986	0	26	104	5,433	2,783	92	190	17,840	0	26,443	0	0	–	0	–
1987	0	26	87	5,855	2,983	72	215	18,489	0	27,700	0	0	–	0	–
1988	0	37	55	6,032	2,812	73	207	18,852	0	28,030	0	0	–	0	–
1989	0	52	96	6,167	2,849	110	212	18,430	0	27,865	R e 2,004	0	–	0	–
1990	0	76	86	6,264	2,912	118	218	18,190	0	27,788	2,315	0	–	0	–
1991	0	72	94	6,542	2,441	80	195	18,674	0	28,026	1,835	0	–	0	–
1992	0	50	94	7,743	2,834	100	199	19,004	0	29,973	2,230	0	–	0	–
1993	0	62	71	6,303	3,303	97	203	19,815	0	29,792	2,489	0	–	0	–
1994	0	59	62	5,777	2,576	143	212	20,187	0	28,958	6,380	0	–	0	–
1995	0	57	53	2,916	2,222	94	208	20,342	0	25,835	19,407	0	–	0	–
1996	0	27	100	7,984	1,615	91	202	19,570	0	29,562	16,399	0	–	0	–
1997	0	62	101	8,599	1,751	82	214	20,794	0	31,542	16,990	0	–	0	–
			Trillion Btu												
1960	(s)	17.6	1.0	11.2	11.7	0.5	1.0	48.4	0.2	73.9	0.0	0.0	91.5	0.0	91.5
1965	(s)	27.6	1.2	15.3	13.7	0.8	1.0	55.2	0.2	87.4	0.0	0.0	115.0	0.0	115.0
1970	(s)	32.8	0.6	18.4	17.0	0.9	1.0	67.7	0.1	105.7	0.0	0.0	138.5	0.0	138.5
1975	0.0	31.2	0.4	24.5	14.6	0.8	1.2	85.4	0.0	126.9	0.0	0.0	158.1	0.0	158.1
1980	0.0	40.2	0.8	31.5	14.6	0.1	1.3	87.8	0.0	136.2	0.0	0.0	176.3	0.0	176.3
1985	0.0	28.2	0.5	25.2	15.7	0.3	1.2	91.6	0.0	134.5	0.0	0.0	162.7	0.0	162.7
1986	0.0	27.9	0.5	31.6	15.2	0.3	1.2	93.7	0.0	142.6	0.0	0.0	170.5	0.0	170.5
1987	0.0	27.8	0.4	34.1	16.4	0.3	1.3	97.1	0.0	149.6	0.0	0.0	177.4	0.0	177.4
1988	0.0	39.8	0.3	35.1	15.4	0.3	1.3	99.0	0.0	151.3	0.0	0.0	191.2	0.0	191.2
1989	0.0	55.0	0.5	35.9	15.6	0.4	1.3	96.8	0.0	150.5	R e 0.2	0.0	e 205.6	0.0	e 205.6
1990	0.0	80.4	0.4	36.5	16.0	0.4	1.3	95.6	0.0	150.2	0.2	0.0	230.6	0.0	230.6
1991	0.0	74.8	0.5	38.1	13.5	0.3	1.2	98.1	0.0	151.6	0.1	0.0	226.5	0.0	226.5
1992	0.0	52.5	0.5	45.1	15.6	0.4	1.2	99.8	0.0	162.6	0.2	0.0	215.0	0.0	215.0
1993	0.0	64.9	0.4	36.7	18.3	0.4	1.2	104.1	0.0	161.1	0.2	0.0	226.0	0.0	226.0
1994	0.0	59.2	0.3	33.7	14.6	0.5	1.3	106.0	0.0	156.4	0.5	0.0	215.6	0.0	215.6
1995	0.0	58.0	0.3	17.0	12.6	0.3	1.3	106.9	0.0	138.3	1.5	0.0	196.3	0.0	196.3
1996	0.0	27.9	0.5	46.5	9.2	0.3	1.2	102.8	0.0	160.5	1.3	0.0	188.4	0.0	188.4
1997	0.0	63.4	0.5	50.1	9.9	0.3	1.3	109.2	0.0	171.4	1.3	0.0	234.7	0.0	234.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 208. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, New Mexico

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	26	0	26	34	107	10	0	117	0	69	0	0	0	–
1965	2,418	0	2,418	44	42	4	0	46	0	43	0	0	0	–
1970	5,518	0	5,518	55	86	8	0	94	0	66	0	0	0	–
1975	7,425	0	7,425	65	1,704	34	0	1,738	0	63	0	0	0	–
1980	11,406	0	11,406	56	175	216	0	391	0	94	0	0	0	–
1985	14,498	0	14,498	28	41	45	0	86	0	128	0	0	0	–
1986	13,147	0	13,147	20	41	42	0	83	0	166	0	0	0	–
1987	14,340	0	14,340	18	30	52	0	83	0	164	0	0	0	–
1988	14,661	0	14,661	21	42	52	0	94	0	100	0	0	0	–
1989	15,250	0	15,250	27	36	49	0	84	0	232	0	0	0	–
1990	15,065	0	15,065	25	32	37	0	69	0	205	0	0	0	–
1991	12,809	0	12,809	28	10	57	0	67	0	237	0	0	0	–
1992	14,775	0	14,775	22	2	71	0	73	0	255	0	0	0	–
1993	14,942	0	14,942	28	1	70	0	72	0	294	0	0	0	–
1994	15,297	0	15,297	32	(s)	46	0	47	0	213	0	0	0	–
1995	15,137	0	15,137	32	1	44	0	44	0	264	0	0	0	–
1996	15,215	0	15,215	30	(s)	43	0	43	0	211	0	0	0	–
1997	15,802	0	15,802	33	(s)	41	0	42	0	259	0	0	0	–
	Trillion Btu													
1960	0.6	0.0	0.6	34.9	0.7	0.1	0.0	0.7	0.0	0.7	0.0	0.0	0.0	37.0
1965	43.5	0.0	43.5	48.7	0.3	(s)	0.0	0.3	0.0	0.4	0.0	0.0	0.0	93.0
1970	99.1	0.0	99.1	59.5	0.5	(s)	0.0	0.6	0.0	0.7	0.0	0.0	0.0	159.9
1975	132.5	0.0	132.5	67.4	10.7	0.2	0.0	10.9	0.0	0.7	0.0	0.0	0.0	211.5
1980	201.8	0.0	201.8	57.9	1.1	1.3	0.0	2.4	0.0	1.0	0.0	0.0	0.0	263.1
1985	266.4	0.0	266.4	28.5	0.3	0.3	0.0	0.5	0.0	1.3	0.0	0.0	0.0	296.8
1986	239.5	0.0	239.5	21.0	0.3	0.2	0.0	0.5	0.0	1.7	0.0	0.0	0.0	262.7
1987	259.5	0.0	259.5	18.9	0.2	0.3	0.0	0.5	0.0	1.7	0.0	0.0	0.0	280.7
1988	264.9	0.0	264.9	21.6	0.3	0.3	0.0	0.6	0.0	1.0	0.0	0.0	0.0	288.2
1989	278.4	0.0	278.4	28.3	0.2	0.3	0.0	0.5	0.0	2.4	0.0	0.0	0.0	309.6
1990	274.7	0.0	274.7	26.3	0.2	0.2	0.0	0.4	0.0	2.1	0.0	0.0	0.0	303.5
1991	232.9	0.0	232.9	28.6	0.1	0.3	0.0	0.4	0.0	2.5	0.0	0.0	0.0	264.3
1992	266.3	0.0	266.3	22.9	(s)	0.4	0.0	0.4	0.0	2.6	0.0	0.0	0.0	292.3
1993	268.7	0.0	268.7	28.2	(s)	0.4	0.0	0.4	0.0	3.0	0.0	0.0	0.0	300.3
1994	276.7	0.0	276.7	32.9	(s)	0.3	0.0	0.3	0.0	2.2	0.0	0.0	0.0	312.0
1995	273.5	0.0	273.5	32.5	(s)	0.3	0.0	0.3	0.0	2.7	0.0	0.0	0.0	308.9
1996	277.4	0.0	277.4	30.3	(s)	0.3	0.0	0.3	0.0	2.2	0.0	0.0	0.0	310.2
1997	286.6	0.0	286.6	33.9	(s)	0.2	0.0	0.2	0.0	2.7	0.0	0.0	0.0	323.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 209. Energy Consumption Estimates by Source, Selected Years 1960-1997, New York

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	26,413	419	5,424	13,729	82,380	9,411	5,302	2,849	2,312	95,706	77,563	3,203	297,879	0	15,709	–	–	-18,429	–
1965	28,735	545	6,234	2,427	104,033	23,620	5,623	3,174	2,221	109,226	104,296	6,937	367,791	727	20,072	–	–	-10,286	–
1970	23,935	711	5,612	249	111,107	38,338	6,994	4,506	2,199	130,737	152,252	8,647	460,640	4,273	25,995	–	–	-14,477	–
1975	12,678	577	5,733	274	105,118	38,634	5,206	5,188	1,948	133,461	144,721	9,454	449,737	13,111	29,955	–	–	-17,753	–
1980	12,503	737	4,983	320	72,559	35,936	2,309	5,631	2,091	127,422	115,488	12,023	378,763	19,276	33,641	–	–	-5,317	–
1985	11,944	763	7,208	221	62,013	3,856	5,319	4,923	1,903	136,330	66,334	6,862	294,971	24,092	44,477	–	–	-25,342	–
1986	9,931	729	6,438	256	70,542	3,738	3,061	4,878	1,861	136,798	79,619	7,683	314,875	22,084	45,175	–	–	-14,093	–
1987	11,471	779	6,553	126	73,069	2,904	4,158	5,474	2,104	142,918	77,490	9,158	323,954	22,926	43,241	–	–	-20,539	–
1988	12,956	790	7,989	104	75,460	4,915	5,263	5,238	2,029	130,449	88,972	9,410	329,831	24,175	36,327	–	–	-8,492	–
1989	14,105	846	4,967	89	76,608	6,047	4,797	5,579	2,081	133,483	85,410	9,186	328,248	22,847	[i] NA	–	–	[R] 926	–
1990	13,465	863	5,524	78	66,310	5,447	2,283	5,606	2,141	139,180	77,570	10,619	314,757	23,623	NA	–	–	[R] 14,647	–
1991	13,338	875	6,375	65	61,552	5,300	2,646	7,206	1,916	133,311	67,888	9,680	295,939	28,448	NA	–	–	[R] 12,439	–
1992	12,996	959	6,904	74	65,721	5,357	1,862	7,076	1,953	129,064	51,559	11,110	280,679	24,155	NA	–	–	[R] 45,378	–
1993	11,878	944	8,068	60	70,070	5,131	2,421	6,139	1,989	131,710	48,130	10,320	284,037	26,889	NA	–	–	56,859	–
1994	11,474	1,012	7,439	99	67,740	5,729	2,289	6,351	2,079	128,228	40,402	10,812	271,166	29,231	NA	–	–	[R] 46,403	–
1995	11,062	1,140	7,073	76	69,385	7,697	2,364	6,332	2,043	132,627	30,392	10,616	268,605	26,336	NA	–	–	[R] 61,603	–
1996	11,337	1,131	6,184	66	73,165	11,532	2,884	6,930	1,983	130,979	36,975	11,172	281,870	35,226	NA	–	–	[R] 62,251	–
1997	11,719	1,228	6,327	68	72,805	12,133	2,906	7,001	2,094	130,923	30,340	11,407	276,005	29,570	NA	–	–	59,714	–
			Trillion Btu																
1960	691.6	434.1	36.0	69.3	479.9	52.6	30.1	11.4	14.0	502.7	487.6	18.9	1,702.6	0.0	169.0	[R] 59.3	0.0	-62.9	[R] 2,993.8
1965	755.2	558.7	41.4	12.3	606.0	133.2	31.9	12.7	13.5	573.8	655.7	39.6	2,120.0	8.6	209.8	[R] 58.1	0.0	-35.1	[R] 3,675.3
1970	598.9	725.8	37.2	1.3	647.2	216.7	39.7	17.0	13.3	686.8	957.2	48.7	2,665.1	46.9	272.8	[R] 62.6	0.0	-49.4	[R] 4,322.8
1975	312.5	585.5	38.0	1.4	612.3	218.5	29.5	19.3	11.8	701.1	909.9	53.6	2,595.4	144.4	311.7	[R] 60.2	0.0	-60.6	[R] 3,949.1
1980	313.7	755.9	33.1	1.6	422.7	203.3	13.1	20.7	12.7	669.3	726.1	67.3	2,169.8	210.3	349.5	[R] 160.1	0.0	-18.1	[R] 3,941.1
1985	301.4	784.7	47.8	1.1	361.2	21.4	30.2	17.7	11.5	716.1	417.0	38.0	1,662.1	260.5	464.6	[R] 136.7	0.0	-86.5	[R] 3,523.6
1986	253.3	749.9	42.7	1.3	410.9	20.8	17.4	17.8	11.3	718.6	500.6	42.5	1,783.8	238.5	471.9	[R] 134.1	0.0	-48.1	[R] 3,583.5
1987	294.3	801.9	43.5	0.6	425.6	16.0	23.6	20.0	12.8	750.7	487.2	51.2	1,831.2	247.1	450.5	[R] 129.8	0.0	-70.1	[R] 3,684.7
1988	333.0	813.1	53.0	0.5	439.6	27.4	29.8	19.1	12.3	685.3	559.4	52.9	1,879.2	259.7	375.0	[R] 135.0	0.0	-29.0	[R] 3,766.1
1989	362.6	870.4	33.0	0.4	446.2	33.8	27.2	20.5	12.6	701.2	537.0	51.5	1,863.5	245.0	[R i] 294.8	[R i] 139.6	[R i] 0.3	[R] 3.2	[R i] 3,792.7
1990	346.1	889.0	36.7	0.4	386.3	30.4	12.9	20.3	13.0	731.1	487.7	59.8	1,778.6	252.3	[R] 302.3	[R] 123.0	[R] 0.3	50.0	[R] 3,724.1
1991	344.4	899.7	42.3	0.3	358.5	29.6	15.0	26.0	11.6	700.3	426.8	54.3	1,664.8	305.5	[R] 312.1	[R] 118.7	[R] 0.3	[R] 42.4	[R] 3,684.4
1992	336.7	986.8	45.8	0.4	382.8	29.9	10.6	25.6	11.8	678.0	324.2	62.5	1,571.5	257.9	[R] 320.9	[R] 124.2	[R] 0.4	[R] 154.8	[R] 3,752.0
1993	306.5	971.2	53.5	0.3	408.2	28.7	13.7	22.1	12.1	691.9	302.6	57.7	1,590.8	287.2	354.3	[R] 137.1	[R] 0.4	194.0	[R] 3,849.4
1994	297.3	1,040.8	49.4	0.5	394.6	32.3	13.0	23.1	12.6	673.6	254.0	60.5	1,513.5	312.1	[R] 358.0	[R] 134.5	[R] 0.5	[R] 158.3	[R] 3,859.8
1995	288.1	1,172.4	46.9	0.4	404.2	43.6	13.4	22.9	12.4	696.7	191.1	59.5	1,491.1	280.7	[R] 319.7	[R] 143.2	[R] 0.6	[R] 210.2	[R] 3,931.9
1996	294.3	1,159.9	41.0	0.3	426.2	65.4	16.4	25.0	12.0	688.0	232.5	62.4	1,569.3	374.2	343.3	[R] 148.4	[R] 0.7	212.4	[R] 4,110.7
1997	306.1	1,260.3	42.0	0.3	424.1	68.8	16.5	25.3	12.7	687.7	190.7	63.7	1,531.9	314.1	337.2	132.4	0.7	203.7	4,093.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 210. Residential Energy Consumption Estimates, Selected Years 1960-1997, New York

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	146	927	1,074	225	44,927	4,174	2,130	51,232	R 1,295	–	–	12,496	–	31,082	–
1965	111	583	694	288	57,623	4,161	2,254	64,037	R 1,070	–	–	17,027	–	40,655	–
1970	26	356	381	347	60,128	5,581	2,782	68,491	R 1,096	–	–	25,492	–	61,777	–
1975	41	187	228	327	55,966	3,746	3,078	62,790	R 1,103	–	–	28,710	–	69,253	–
1980	47	134	181	334	37,690	1,723	2,511	41,923	R 4,812	–	–	30,583	–	74,367	–
1985	73	134	208	320	30,992	3,219	3,227	37,438	R 3,240	–	–	32,757	–	76,961	–
1986	102	104	206	337	34,065	2,209	3,282	39,555	R 3,154	–	–	33,771	–	77,683	–
1987	69	104	173	334	36,220	3,212	3,834	43,266	R 2,952	–	–	35,294	–	80,645	–
1988	65	74	139	357	36,422	4,163	3,718	44,304	R 3,066	–	–	37,460	–	84,690	–
1989	59	78	137	365	34,788	2,771	3,931	41,490	R 3,181	–	–	37,878	–	R 85,106	–
1990	49	80	129	338	26,529	1,765	4,079	32,373	2,325	–	–	38,574	–	R 84,371	–
1991	52	78	130	339	25,021	2,098	5,051	32,170	2,450	–	–	39,177	–	R 85,285	–
1992	51	77	128	379	27,997	1,252	4,965	34,214	2,577	–	–	38,720	–	R 82,705	–
1993	26	94	120	384	28,707	1,565	4,293	34,565	2,758	–	–	39,897	–	84,295	–
1994	33	55	88	385	26,760	1,396	4,350	32,505	2,704	–	–	40,105	–	R 83,688	–
1995	38	68	105	375	27,713	1,240	4,516	33,469	3,001	–	–	39,887	–	R 83,098	–
1996	48	87	135	403	30,674	1,450	4,707	36,830	2,996	–	–	40,285	–	R 83,841	–
1997	53	61	114	376	30,303	1,744	4,707	36,754	2,180	–	–	40,059	–	83,192	–
	Trillion Btu														
1960	3.6	22.9	26.5	232.5	261.7	23.7	8.5	293.9	R 25.9	0.0	0.0	42.6	R 621.4	106.1	R 727.5
1965	2.7	14.2	16.9	295.0	335.7	23.6	9.0	368.3	R 21.4	0.0	0.0	58.1	R 759.7	138.7	R 898.4
1970	0.6	8.3	9.0	353.8	350.2	31.6	10.5	392.4	R 21.9	0.0	0.0	87.0	R 864.1	210.8	R 1,074.8
1975	1.0	4.2	5.1	332.2	326.0	21.2	11.4	358.7	R 22.1	0.0	0.0	98.0	R 816.0	236.3	R 1,052.3
1980	1.1	3.1	4.2	341.5	219.5	9.8	9.2	238.5	R 96.2	0.0	0.0	104.3	R 784.8	253.7	R 1,038.6
1985	1.8	3.1	4.9	328.8	180.5	18.3	11.6	210.4	R 64.8	0.0	0.0	111.8	R 720.7	262.6	R 983.3
1986	2.5	2.5	5.0	345.9	198.4	12.5	11.9	222.9	R 63.1	0.0	0.0	115.2	R 752.2	265.1	R 1,017.2
1987	1.7	2.7	4.5	344.4	211.0	18.2	14.0	243.2	R 59.0	0.0	0.0	120.4	R 771.6	275.2	R 1,046.7
1988	1.6	1.9	3.5	367.5	212.2	23.6	13.6	249.3	R 61.3	0.0	0.0	127.8	R 809.5	289.0	R 1,098.4
1989	1.5	2.1	3.6	375.4	202.6	15.7	14.5	232.8	R 63.6	e (s)	R e 0.2	129.2	R e 804.9	R 290.4	R e 1,095.3
1990	1.2	2.0	3.2	347.8	154.5	10.0	14.8	179.3	46.5	(s)	0.2	131.6	708.7	287.9	R 996.6
1991	1.3	2.0	3.3	348.1	145.7	11.9	18.3	175.9	49.0	(s)	0.2	133.7	R 710.2	R 291.0	R 1,001.2
1992	1.3	1.9	3.2	389.6	163.1	7.1	18.0	188.2	51.5	(s)	0.3	132.1	R 764.9	282.2	R 1,047.1
1993	0.7	2.3	2.9	395.2	167.2	8.9	15.5	191.6	55.2	0.1	0.3	136.1	781.3	287.6	1,068.9
1994	0.8	1.4	2.2	395.9	155.9	7.9	15.8	179.6	54.1	(s)	0.3	136.8	769.0	285.5	R 1,054.6
1995	0.9	1.7	2.6	385.7	161.4	7.0	16.4	184.8	60.0	0.1	0.4	136.1	769.7	283.5	1,053.2
1996	1.2	2.1	3.4	413.6	178.7	8.2	17.0	203.9	59.9	0.1	0.5	137.5	R 818.7	286.1	R 1,104.8
1997	1.3	1.5	2.8	385.4	176.5	9.9	17.0	203.4	43.6	0.1	0.5	136.7	772.5	283.9	1,056.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 211. Commercial Energy Consumption Estimates, Selected Years 1960-1997, New York

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	272	618	890	63	15,225	468	376	636	28,208	44,913	R 25	–	R 17,546	–	R 43,644	–
1965	207	389	596	87	19,527	467	398	828	37,514	58,733	R 20	–	R 23,528	–	R 56,176	–
1970	48	237	285	139	20,376	626	491	1,052	43,318	65,863	R 21	–	R 32,790	–	R 79,460	–
1975	75	125	200	128	18,965	420	543	1,162	28,482	49,573	R 21	–	R 37,827	–	R 91,244	–
1980	87	90	177	162	14,492	169	443	1,035	25,431	41,569	R 115	–	R 40,471	–	R 98,412	–
1985	136	90	226	165	11,835	862	569	1,911	16,677	31,855	NA	–	R 48,816	–	R 114,688	–
1986	189	69	258	168	16,471	228	579	1,856	19,955	39,090	NA	–	R 50,430	–	R 116,002	–
1987	129	69	198	167	14,782	318	677	1,371	18,987	36,134	NA	–	R 52,256	–	R 119,401	–
1988	121	49	170	188	14,720	207	656	1,104	18,154	34,842	NA	–	R 55,305	–	R 125,033	–
1989	110	52	162	196	15,473	519	694	1,348	15,878	33,912	NA	–	R 56,051	–	R 125,938	–
1990	91	53	144	195	12,974	269	720	1,201	17,643	32,806	NA	–	R 56,025	–	R 122,541	–
1991	96	52	148	200	12,758	213	891	716	17,102	31,679	NA	–	R 56,408	–	R 122,793	–
1992	96	51	147	217	13,899	408	876	681	15,951	31,816	NA	–	R 56,079	–	R 119,785	–
1993	49	63	112	221	15,123	616	758	198	17,531	34,226	R 222	–	R 57,410	–	R 121,296	–
1994	60	37	97	223	14,592	538	768	180	16,301	32,379	R 227	–	R 58,802	–	R 122,704	–
1995	70	45	115	231	15,210	714	797	208	13,766	30,695	R 227	–	R 62,509	–	R 130,226	–
1996	90	58	148	253	15,754	751	831	200	13,008	30,544	R 247	–	R 62,663	–	R 130,415	–
1997	99	41	139	321	14,794	801	831	195	10,315	26,935	211	–	64,029	–	132,972	–
	Trillion Btu															
1960	6.7	15.3	22.0	65.2	88.7	2.7	1.5	3.3	177.3	273.5	R 0.5	0.0	R 59.9	R 421.1	R 148.9	R 570.0
1965	5.1	9.5	14.5	88.8	113.7	2.6	1.6	4.3	235.9	358.2	R 0.4	0.0	R 80.3	R 542.2	R 191.7	R 733.8
1970	1.1	5.6	6.7	142.4	118.7	3.5	1.9	5.5	272.3	402.0	R 0.4	0.0	R 111.9	R 663.4	R 271.1	R 934.5
1975	1.8	2.8	4.5	130.2	110.5	2.4	2.0	6.1	179.1	300.0	R 0.4	0.0	R 129.1	R 564.2	R 311.3	R 875.6
1980	2.1	2.0	4.2	165.5	84.4	1.0	1.6	5.4	159.9	252.3	R 2.3	0.0	R 138.1	R 562.4	R 335.8	R 898.2
1985	3.4	2.1	5.4	170.0	68.9	4.9	2.1	10.0	104.8	190.8	NA	0.0	R 166.6	R 532.8	R 391.3	R 924.1
1986	4.6	1.7	6.3	172.1	95.9	1.3	2.1	9.7	125.5	234.6	NA	0.0	R 172.1	R 585.1	R 395.8	R 980.9
1987	3.2	1.8	5.0	172.2	86.1	1.8	2.5	7.2	119.4	217.0	NA	0.0	R 178.3	R 572.5	R 407.4	R 979.9
1988	3.0	1.3	4.3	193.4	85.7	1.2	2.4	5.8	114.1	209.3	NA	0.0	R 188.7	R 595.6	R 426.6	1022.2
1989	2.7	1.4	4.1	202.1	90.1	2.9	2.6	7.1	99.8	202.5	NA	[e] (s)	R 191.2	R 600.0	R 429.7	1029.7
1990	2.2	1.3	3.6	200.6	75.6	1.5	2.6	6.3	110.9	196.9	NA	(s)	R 191.2	R 592.3	R 418.1	1010.4
1991	2.4	1.3	3.7	205.0	74.3	1.2	3.2	3.8	107.5	190.0	NA	(s)	R 192.5	R 591.2	R 419.0	1010.2
1992	2.4	1.3	3.6	223.5	81.0	2.3	3.2	3.6	100.3	190.3	NA	0.1	R 191.3	R 608.8	R 408.7	1017.5
1993	1.2	1.5	2.7	227.0	88.1	3.5	2.7	1.0	110.2	205.6	R 4.4	0.1	R 195.9	R 635.7	R 413.9	1049.6
1994	1.5	0.9	2.4	229.4	85.0	3.1	2.8	0.9	102.5	194.3	R 4.5	0.1	R 200.6	R 631.3	R 418.7	1050.0
1995	1.8	1.1	2.9	238.0	88.6	4.1	2.9	1.1	86.5	183.2	R 4.5	0.1	R 213.3	R 641.9	R 444.3	1086.3
1996	2.2	1.4	3.7	259.5	91.8	4.3	3.0	1.1	81.8	181.9	R 4.9	0.2	R 213.8	R 664.0	R 445.0	1109.0
1997	2.5	1.0	3.5	329.2	86.2	4.5	3.0	1.0	64.8	159.6	4.2	0.2	218.5	715.1	453.7	1,168.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 212. Industrial Energy Consumption Estimates, Selected Years 1960-1997, New York

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	11,947	72	5,424	12,930	660	325	944	3,369	22,444	3,203	49,298	341	–	–	14,428	–	35,888	–
1965	13,811	93	6,234	16,909	996	485	1,099	3,708	29,213	6,937	65,581	275	–	–	23,101	–	55,156	–
1970	12,125	116	5,612	16,810	787	1,125	1,003	3,281	33,696	8,647	70,962	269	–	–	27,152	–	65,799	–
1975	6,125	105	5,733	15,761	1,039	1,442	998	1,351	23,039	9,454	58,817	188	–	–	27,247	–	65,723	–
1980	5,699	114	4,983	9,339	417	2,598	1,027	1,535	14,815	12,023	46,738	233	–	–	32,110	–	78,081	–
1985	3,723	101	7,208	4,816	1,238	980	935	1,224	5,553	6,862	28,816	233	–	–	28,659	–	67,331	–
1986	3,169	88	6,438	3,148	624	909	914	1,252	6,033	7,683	27,001	233	–	–	28,107	–	64,653	–
1987	3,272	97	6,553	3,866	628	877	1,033	1,287	5,232	9,158	28,635	233	–	–	28,726	–	65,637	–
1988	3,528	92	7,989	3,705	893	742	997	1,410	4,919	9,410	30,064	233	–	–	30,155	–	68,174	–
1989	3,649	97	4,967	3,846	1,507	800	1,022	1,389	4,366	9,186	27,084	[f] NA	–	–	31,448	–	[R] 70,659	–
1990	3,199	102	5,524	3,428	249	657	1,052	1,145	4,750	10,619	27,423	NA	–	–	31,929	–	[R] 69,837	–
1991	3,185	120	6,375	3,043	335	1,107	941	1,097	2,383	9,680	24,961	NA	–	–	31,112	–	[R] 67,726	–
1992	2,758	148	6,904	3,117	201	1,092	959	1,110	3,095	11,110	27,587	NA	–	–	31,027	–	[R] 66,274	–
1993	2,947	161	8,068	4,047	241	961	977	984	3,911	10,320	29,509	NA	–	–	30,187	–	63,779	–
1994	2,893	215	7,439	3,066	355	948	1,021	1,079	3,208	10,812	27,928	NA	–	–	29,467	–	[R] 61,489	–
1995	2,791	280	7,073	2,973	409	881	1,004	1,126	2,021	10,616	26,101	NA	–	–	25,317	–	[R] 52,744	–
1996	2,799	324	6,184	3,097	682	1,272	974	1,114	2,498	11,172	26,992	NA	–	–	25,947	–	[R] 54,002	–
1997	2,740	306	6,327	3,015	361	1,353	1,029	1,173	2,006	11,407	26,671	NA	–	–	25,282	–	52,505	–
			Trillion Btu															
1960	311.9	74.2	36.0	75.3	3.7	1.3	5.7	17.7	141.1	18.9	299.8	3.7	[R] 32.9	0.0	49.2	[R] 771.7	122.5	[R] 894.1
1965	360.1	95.3	41.4	98.5	5.6	1.9	6.7	19.5	183.7	39.6	396.9	2.9	[R] 36.3	0.0	78.8	[R] 970.3	188.2	[R] 1,158.5
1970	308.4	118.0	37.2	97.9	4.5	4.3	6.1	17.2	211.8	48.7	427.8	2.8	[R] 40.3	0.0	92.6	[R] 989.9	224.5	[R] 1,214.4
1975	155.5	106.2	38.0	91.8	5.9	5.4	6.1	7.1	144.8	53.6	352.7	2.0	[R] 37.7	0.0	93.0	[R] 747.1	224.2	[R] 971.4
1980	146.5	116.4	33.1	54.4	2.4	9.5	6.2	8.1	93.1	67.3	274.1	2.4	[R] 61.4	0.0	109.6	[R] 710.4	266.4	[R] 976.9
1985	94.8	103.6	47.8	28.1	7.0	3.5	5.7	6.4	34.9	38.0	171.4	2.4	[R] 71.9	0.0	97.8	[R] 542.0	229.7	[R] 771.7
1986	81.7	90.0	42.7	18.3	3.5	3.3	5.5	6.6	37.9	42.5	160.5	2.4	[R] 71.1	0.0	95.9	[R] 501.6	220.6	[R] 722.2
1987	84.7	100.0	43.5	22.5	3.6	3.2	6.3	6.8	32.9	51.2	169.9	2.4	[R] 70.8	0.0	98.0	[R] 525.7	224.0	[R] 749.6
1988	91.5	94.3	53.0	21.6	5.1	2.7	6.0	7.4	30.9	52.9	179.6	2.4	[R] 73.6	0.0	102.9	[R] 544.3	232.6	[R] 776.9
1989	94.4	100.3	33.0	22.4	8.5	2.9	6.2	7.3	27.4	51.5	159.3	[R f] 11.4	[R f] 75.8	[f] 0.0	107.3	[R f] 548.5	[R] 241.1	[R f] 789.6
1990	82.6	105.1	36.7	20.0	1.4	2.4	6.4	6.0	29.9	59.8	162.4	[R] 12.5	[R] 76.2	0.0	108.9	[R] 547.8	238.3	[R] 786.1
1991	82.2	123.3	42.3	17.7	1.9	4.0	5.7	5.8	15.0	54.3	146.7	[R] 11.8	[R] 69.6	0.0	106.2	[R] 539.6	[R] 231.1	[R] 770.7
1992	71.3	152.7	45.8	18.2	1.1	4.0	5.8	5.8	19.5	62.5	162.6	[R] 15.0	[R] 72.4	0.0	105.9	[R] 579.9	226.1	[R] 806.0
1993	76.2	165.6	53.5	23.6	1.4	3.5	5.9	5.2	24.6	57.7	175.3	13.7	[R] 77.1	0.0	103.0	[R] 610.9	217.6	[R] 828.5
1994	75.1	221.1	49.4	17.9	2.0	3.4	6.2	5.7	20.2	60.5	165.2	[R] 15.1	[R] 75.1	0.0	100.5	[R] 652.1	209.8	[R] 861.9
1995	72.4	287.6	46.9	17.3	2.3	3.2	6.1	5.9	12.7	59.5	154.0	12.6	[R] 76.5	0.0	86.4	[R] 689.5	[R] 180.0	[R] 869.5
1996	72.5	331.9	41.0	18.0	3.9	4.6	5.9	5.9	15.7	62.4	157.4	[R] 19.2	[R] 81.4	0.0	88.5	[R] 750.9	184.3	[R] 935.2
1997	71.1	314.3	42.0	17.6	2.0	4.9	6.2	6.2	12.6	63.7	155.2	17.0	82.6	0.0	86.3	726.5	179.1	905.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 213. Transportation Energy Consumption Estimates, Selected Years 1960-1997, New York

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	201	2	13,729	8,758	9,411	18	1,368	91,701	17,060	142,046	0	R 2,045	–	R 5,087	–
1965	44	3	2,427	8,800	23,620	38	1,122	104,690	16,158	156,856	0	R 2,144	–	R 5,120	–
1970	19	3	249	10,653	38,338	107	1,196	126,403	18,450	195,396	0	R 2,366	–	R 5,734	–
1975	1	3	274	10,488	37,252	125	950	130,948	8,862	188,899	0	R 2,057	–	R 4,961	–
1980	0	4	320	10,309	35,916	79	1,064	124,853	11,344	183,885	0	R 2,146	–	R 5,218	–
1985	0	4	221	13,551	3,856	147	968	133,195	884	152,822	0	R 2,442	–	R 5,738	–
1986	0	3	256	15,509	3,738	108	947	133,690	1,526	155,775	0	R 2,601	–	R 5,983	–
1987	0	7	126	16,759	2,904	87	1,070	140,259	2,175	163,381	0	R 2,693	–	R 6,154	–
1988	0	5	104	18,450	4,915	122	1,032	127,936	3,059	155,619	0	R 2,722	–	R 6,153	–
1989	0	5	89	18,865	6,047	154	1,059	130,745	531	157,490	R e 2,810	R 2,825	–	R 6,348	–
1990	0	5	78	22,363	5,447	150	1,089	136,834	1,377	167,339	3,246	R 2,795	–	R 6,114	–
1991	0	5	65	19,846	5,300	158	975	131,498	3,971	161,813	2,573	R 2,714	–	R 5,909	–
1992	0	6	74	20,290	5,357	144	994	127,273	3,730	157,862	3,127	R 2,644	–	R 5,647	–
1993	0	6	60	21,625	5,131	127	1,012	130,528	3,258	161,740	3,490	R 2,676	–	R 5,653	–
1994	0	6	99	22,381	5,729	286	1,058	126,968	3,169	159,690	8,547	R 2,803	–	R 5,849	–
1995	0	8	76	22,342	7,697	138	1,039	131,294	2,354	164,941	26,922	R 2,757	–	R 5,744	–
1996	0	8	66	22,562	11,532	121	1,009	129,665	6,550	171,505	22,748	R 2,632	–	R 5,478	–
1997	0	8	68	23,662	12,133	110	1,066	129,555	5,215	171,808	22,647	2,567	–	5,331	–
	Trillion Btu														
1960	5.2	2.4	69.3	51.0	52.6	0.1	8.3	481.7	107.3	770.3	0.0	R 7.0	R 784.8	R 17.4	R 802.2
1965	1.1	3.4	12.3	51.3	133.2	0.2	6.8	549.9	101.6	855.2	0.0	R 7.3	R 867.1	R 17.5	R 884.5
1970	0.5	3.2	1.3	62.1	216.7	0.4	7.3	664.0	116.0	1,067.7	0.0	R 8.1	R 1,079.5	R 19.6	R 1,099.0
1975	(s)	3.0	1.4	61.1	210.7	0.5	5.8	687.9	55.7	1,023.0	0.0	R 7.0	1,033.0	R 16.9	R 1,049.9
1980	0.0	3.6	1.6	60.1	203.2	0.3	6.5	655.9	71.3	998.8	0.0	R 7.3	R 1,009.7	R 17.8	R 1,027.5
1985	0.0	3.6	1.1	78.9	21.4	0.5	5.9	699.7	5.6	813.0	0.0	R 8.3	R 825.0	R 19.6	R 844.6
1986	0.0	3.5	1.3	90.3	20.8	0.4	5.7	702.3	9.6	830.4	0.0	R 8.9	R 842.7	R 20.4	R 863.1
1987	0.0	6.8	0.6	97.6	16.0	0.3	6.5	736.8	13.7	871.5	0.0	R 9.2	R 887.5	R 21.0	R 908.5
1988	0.0	4.9	0.5	107.5	27.4	0.4	6.3	672.0	19.2	833.4	0.0	R 9.3	R 847.6	R 21.0	R 868.5
1989	0.0	5.4	0.4	109.9	33.8	0.6	6.4	686.8	3.3	841.3	R e 0.2	R 9.6	R e 856.4	R 21.7	R e 878.0
1990	0.0	4.9	0.4	130.3	30.4	0.5	6.6	718.8	8.7	895.7	0.2	R 9.5	R 910.1	R 20.9	R 931.0
1991	0.0	5.2	0.3	115.6	29.6	0.6	5.9	690.8	25.0	867.7	0.2	R 9.3	R 882.1	R 20.2	R 902.3
1992	0.0	6.1	0.4	118.2	29.9	0.5	6.0	668.6	23.4	847.0	0.2	R 9.0	R 862.1	R 19.3	R 881.4
1993	0.0	6.3	0.3	126.0	28.7	0.5	6.1	685.7	20.5	867.7	0.3	R 9.1	R 883.1	R 19.3	R 902.4
1994	0.0	6.3	0.5	130.4	32.3	1.0	6.4	667.0	19.9	857.5	0.7	R 9.6	R 873.4	R 20.0	R 893.3
1995	0.0	8.4	0.4	130.1	43.6	0.5	6.3	689.7	14.8	885.4	2.1	R 9.4	R 903.3	R 19.6	R 922.9
1996	0.0	8.1	0.3	131.4	65.4	0.4	6.1	681.1	41.2	926.0	1.7	R 9.0	R 943.1	R 18.7	R 961.8
1997	0.0	8.3	0.3	137.8	68.8	0.4	6.5	680.6	32.8	927.2	1.7	8.8	944.2	18.2	962.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 214. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, New York

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	12,179	123	12,302	58	9,851	540	0	10,391	0	15,369	0	0	0	–
1965	13,591	0	13,591	74	21,410	1,174	0	22,584	727	19,797	0	0	0	–
1970	11,125	0	11,125	106	56,787	3,139	0	59,927	4,273	25,726	0	0	0	–
1975	6,124	0	6,124	14	84,338	5,319	0	89,658	13,111	29,766	0	0	0	–
1980	6,446	0	6,446	124	63,898	749	0	64,647	19,276	33,408	13	0	0	–
1985	7,787	0	7,787	173	43,220	821	0	44,041	24,092	44,243	(s)	0	0	–
1986	6,298	0	6,298	134	52,104	1,349	0	53,453	22,084	44,942	0	0	0	–
1987	7,828	0	7,828	173	51,096	1,442	0	52,538	22,926	43,007	(s)	0	0	–
1988	9,120	0	9,120	148	62,840	2,162	0	65,002	24,175	36,094	0	0	0	–
1989	10,158	0	10,158	182	64,636	3,636	0	68,272	22,847	R 27,163	0	0	0	–
1990	9,993	0	9,993	223	53,800	1,016	0	54,816	23,623	27,855	0	0	0	–
1991	9,874	0	9,874	212	44,432	884	0	45,315	28,448	28,778	0	0	0	–
1992	9,963	0	9,963	209	28,784	417	0	29,201	24,155	29,586	0	0	0	–
1993	8,699	0	8,699	172	23,430	567	0	23,998	26,889	33,038	13	0	0	–
1994	8,395	0	8,395	183	17,724	941	0	18,664	29,231	33,241	11	0	0	–
1995	8,051	0	8,051	246	12,251	1,146	0	13,398	26,336	29,776	12	0	0	–
1996	8,254	0	8,254	143	14,919	1,079	0	15,998	35,226	31,359	40	0	0	–
1997	8,726	0	8,726	218	12,805	1,031	0	13,836	29,570	31,055	18	0	0	–
	Trillion Btu													
1960	323.9	2.2	326.1	59.8	61.9	3.1	0.0	65.1	0.0	165.4	0.0	0.0	0.0	616.4
1965	362.6	0.0	362.6	76.1	134.6	6.8	0.0	141.4	8.6	206.9	0.0	0.0	0.0	795.7
1970	274.4	0.0	274.4	108.4	357.0	18.3	0.0	375.3	46.9	270.0	0.0	0.0	0.0	1,074.9
1975	147.3	0.0	147.3	14.0	530.2	30.8	0.0	561.0	144.4	309.8	0.0	0.0	0.0	1,176.4
1980	158.8	0.0	158.8	128.9	401.7	4.4	0.0	406.1	210.3	347.0	0.1	0.0	0.0	1,251.2
1985	196.2	0.0	196.2	178.7	271.7	4.8	0.0	276.5	260.5	462.2	(s)	0.0	0.0	1,374.1
1986	160.2	0.0	160.2	138.4	327.6	7.9	0.0	335.4	238.5	469.5	0.0	0.0	0.0	1,342.0
1987	200.2	0.0	200.2	178.5	321.2	8.4	0.0	329.6	247.1	448.1	(s)	0.0	0.0	1,403.5
1988	233.7	0.0	233.7	153.1	395.1	12.6	0.0	407.7	259.7	372.6	0.0	0.0	0.0	1,426.8
1989	260.5	0.0	260.5	187.1	406.4	21.2	0.0	427.5	245.0	R 283.4	0.0	0.0	0.0	1,417.1
1990	256.7	0.0	256.7	230.6	338.2	5.9	0.0	344.2	252.3	289.7	0.0	0.0	0.0	R 1,356.4
1991	255.2	0.0	255.2	218.2	279.3	5.1	0.0	284.5	305.5	R 300.3	0.0	0.0	0.0	R 1,360.3
1992	258.6	0.0	258.6	215.0	181.0	2.4	0.0	183.4	257.9	R 306.0	0.0	0.0	0.0	R 1,219.8
1993	224.7	0.0	224.7	177.1	147.3	3.3	0.0	150.6	287.2	340.6	0.1	0.0	0.0	1,188.5
1994	217.6	0.0	217.6	188.2	111.4	5.5	0.0	116.9	312.1	R 342.9	0.1	0.0	0.0	R 1,223.2
1995	210.1	0.0	210.1	252.7	77.0	6.7	0.0	83.7	280.7	R 307.0	0.1	0.0	0.0	R 1,162.4
1996	214.8	0.0	214.8	146.8	93.8	6.3	0.0	100.1	374.2	R 324.1	0.4	0.0	0.0	R 1,170.4
1997	228.7	0.0	228.7	223.2	80.5	6.0	0.0	86.5	314.1	320.2	0.2	0.0	0.0	1,181.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 215. Energy Consumption Estimates by Source, Selected Years 1960-1997, North Carolina

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	8,948	45	2,617	692	13,445	3,401	12,091	2,635	724	35,875	4,603	186	76,268	0	4,998	–	–	735	–
1965	12,708	76	2,699	714	17,182	3,649	12,717	4,188	835	43,144	4,723	835	90,687	0	5,385	–	–	-6,408	–
1970	20,417	151	3,621	151	22,612	4,702	11,612	5,489	851	56,348	6,778	1,416	113,580	0	4,374	–	–	-9,690	–
1975	20,055	115	3,049	219	21,259	3,809	5,832	6,445	944	66,935	7,779	1,815	118,083	1,405	7,055	–	–	22,308	–
1980	25,466	153	3,089	215	24,116	5,209	3,259	7,979	1,206	66,222	9,058	3,112	123,465	5,775	5,486	–	–	10,592	–
1985	22,052	134	3,450	174	24,824	6,668	4,775	7,546	1,097	70,856	6,233	2,493	128,116	19,303	4,094	–	–	23,946	–
1986	23,242	136	4,533	227	27,613	7,123	3,941	7,289	1,073	74,004	6,338	4,155	136,296	20,286	2,521	–	–	31,547	–
1987	19,965	149	4,022	218	28,380	7,749	3,662	8,791	1,213	76,719	6,281	4,599	141,634	28,600	5,101	–	–	37,444	–
1988	20,506	152	4,490	236	31,546	8,318	4,803	7,863	1,170	78,933	6,119	4,655	148,132	29,146	2,893	–	–	46,352	–
1989	22,239	162	3,766	231	27,059	7,689	3,372	9,308	1,200	77,874	5,512	4,504	140,516	29,212	[i] NA	–	–	[R] 28,391	–
1990	21,150	161	4,207	213	25,075	5,567	1,625	8,892	1,235	77,525	5,939	5,173	135,450	25,905	NA	–	–	[R] 50,546	–
1991	20,877	166	3,821	170	23,954	4,384	1,937	10,308	1,104	77,046	6,108	5,192	134,024	30,312	NA	–	–	[R] 45,407	–
1992	24,075	180	4,250	154	25,733	4,684	2,026	11,092	1,126	77,196	7,529	5,801	139,592	22,754	NA	–	–	[R] 51,590	–
1993	25,760	186	4,645	118	26,479	4,897	2,097	11,870	1,147	81,432	8,090	5,541	146,317	23,759	NA	–	–	50,542	–
1994	23,282	188	4,824	136	28,599	4,359	1,732	12,331	1,198	83,445	6,395	5,693	148,712	32,346	NA	–	–	[R] 38,739	–
1995	24,084	203	6,426	139	31,828	4,947	2,360	12,137	1,178	86,421	6,361	5,528	157,325	35,910	NA	–	–	[R] 40,132	–
1996	27,624	213	4,046	148	33,386	9,127	2,890	13,613	1,143	88,147	6,944	5,814	165,258	33,718	NA	–	–	[R] 30,693	–
1997	29,608	214	4,163	159	33,792	7,153	2,968	13,751	1,207	90,933	6,124	6,012	166,262	32,453	NA	–	–	22,544	–
			Trillion Btu																
1960	231.4	47.0	17.4	3.5	78.3	18.2	68.6	10.6	4.4	188.4	28.9	1.1	419.4	0.0	53.8	[R] 73.7	0.0	2.5	[R] 827.8
1965	325.9	78.2	17.9	3.6	100.1	19.7	72.1	16.8	5.1	226.6	29.7	4.7	496.3	0.0	56.3	[R] 67.3	0.0	-21.9	[R] 1,002.2
1970	491.4	154.9	24.0	0.8	131.7	25.7	65.8	20.7	5.2	296.0	42.6	8.0	620.6	0.0	45.9	[R] 65.9	0.0	-33.1	[R] 1,345.6
1975	476.5	116.9	20.2	1.1	123.8	20.8	33.1	23.9	5.7	351.6	48.9	10.2	639.5	15.5	73.4	[R] 66.4	0.0	76.1	[R] 1,464.3
1980	624.7	155.2	20.5	1.1	140.5	28.7	18.5	29.3	7.3	347.9	56.9	17.2	667.9	63.0	57.0	[R] 84.8	0.0	36.1	[R] 1,688.7
1985	550.5	138.4	22.9	0.9	144.6	37.0	27.1	27.2	6.7	372.2	39.2	13.7	691.5	208.7	42.8	[R] 105.3	0.0	81.7	[R] 1,818.8
1986	583.2	140.3	30.1	1.1	160.8	39.7	22.3	26.5	6.5	388.7	39.8	22.8	738.5	219.1	26.3	[R] 37.8	0.0	107.6	[R] 1,852.8
1987	500.9	153.3	26.7	1.1	165.3	43.2	20.8	32.2	7.4	403.0	39.5	25.3	764.4	308.2	53.1	[R] 33.7	0.0	127.8	[R] 1,941.4
1988	515.4	156.6	29.8	1.2	183.8	46.4	27.2	28.7	7.1	414.6	38.5	25.8	803.0	313.1	29.9	[R] 35.0	0.0	158.2	[R] 2,011.2
1989	556.8	166.8	25.0	1.2	157.6	42.8	19.1	34.3	7.3	409.1	34.7	24.9	755.9	313.3	[R i] 73.1	[R i] 44.7	[R i] 0.3	[R] 96.9	[R i] 2,007.5
1990	530.2	166.4	27.9	1.1	146.1	30.8	9.2	32.2	7.5	407.2	37.3	28.7	728.1	276.7	[R] 72.5	[R] 76.3	[R] 0.3	172.5	[R] 2,022.5
1991	522.5	171.7	25.4	0.9	139.5	24.3	11.0	37.3	6.7	404.7	38.4	28.8	716.9	325.6	[R] 63.0	[R] 81.4	[R] 0.3	154.9	[R] 2,036.0
1992	600.3	185.7	28.2	0.8	149.9	26.0	11.5	40.2	6.8	405.5	47.3	32.2	748.4	243.0	60.8	[R] 88.7	[R] 0.3	176.0	[R] 2,102.9
1993	642.7	192.1	30.8	0.6	154.2	27.2	11.9	42.8	7.0	427.8	50.9	30.6	783.8	253.8	54.0	[R] 92.4	[R] 0.3	172.5	[R] 2,191.3
1994	578.8	194.6	32.0	0.7	166.6	24.5	9.8	44.8	7.3	438.3	40.2	31.5	795.7	345.3	[R] 78.3	[R] 96.9	[R] 0.3	[R] 132.2	[R] 2,221.2
1995	601.1	209.4	42.6	0.7	185.4	28.0	13.4	44.0	7.1	454.0	40.0	30.6	845.8	382.7	[R] 59.9	[R] 100.1	[R] 0.3	136.9	[R] 2,336.3
1996	687.0	220.8	26.8	0.7	194.5	51.7	16.4	49.2	6.9	463.0	43.7	32.0	885.1	358.2	[R] 66.4	[R] 104.1	[R] 0.3	[R] 104.7	[R] 2,424.0
1997	733.1	221.9	27.6	0.8	196.8	40.6	16.8	49.7	7.3	477.7	38.5	33.2	889.1	344.7	61.2	100.5	0.3	76.9	2,425.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 216. Residential Energy Consumption Estimates, Selected Years 1960-1997, North Carolina

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	348	0	348	9	5,887	10,429	1,615	17,931	R 2,196	–	–	5,796	–	14,417	–
1965	190	0	190	15	6,654	10,547	2,563	19,765	R 1,527	–	–	8,601	–	20,537	–
1970	153	0	153	27	8,663	10,045	3,003	21,711	R 1,024	–	–	14,660	–	35,527	–
1975	129	0	129	27	7,261	4,901	2,245	14,408	R 1,047	–	–	18,999	–	45,828	–
1980	60	0	60	34	7,044	2,747	2,846	12,637	R 810	–	–	24,377	–	59,277	–
1985	68	1	69	29	4,880	3,994	3,194	12,067	R 1,267	–	–	26,852	–	63,086	–
1986	54	0	54	32	4,980	3,324	3,180	11,483	R 1,233	–	–	29,506	–	67,871	–
1987	57	0	57	36	5,684	3,210	3,877	12,770	R 1,033	–	–	31,507	–	71,990	–
1988	71	(s)	71	38	5,735	4,079	3,591	13,405	R 1,073	–	–	32,212	–	72,824	–
1989	53	(s)	54	39	4,676	3,012	4,823	12,512	R 1,113	–	–	32,784	–	R 73,659	–
1990	55	0	55	35	3,556	1,408	4,277	9,241	772	–	–	33,144	–	R 72,494	–
1991	34	(s)	34	38	3,201	1,674	4,790	9,664	813	–	–	34,391	–	R 74,865	–
1992	71	(s)	71	43	3,501	1,834	5,377	10,713	856	–	–	34,761	–	R 74,250	–
1993	80	(s)	80	47	3,701	1,888	5,552	11,140	R 931	–	–	37,742	–	79,742	–
1994	92	(s)	92	47	3,258	1,308	5,568	10,133	R 913	–	–	37,207	–	R 77,641	–
1995	78	0	78	49	3,895	2,098	5,850	11,842	R 1,013	–	–	39,506	–	R 82,304	–
1996	72	0	72	59	4,318	2,546	6,384	13,248	R 1,012	–	–	41,592	–	R 86,561	–
1997	67	(s)	67	53	3,535	2,603	6,384	12,523	736	–	–	40,611	–	84,340	–
	Trillion Btu														
1960	8.6	0.0	8.6	8.9	34.3	59.1	6.5	99.9	R 43.9	0.0	0.0	19.8	R 181.1	49.2	R 230.3
1965	4.7	0.0	4.7	15.1	38.8	59.8	10.3	108.8	R 30.5	0.0	0.0	29.3	R 188.5	70.1	R 258.5
1970	3.6	0.0	3.6	28.0	50.5	57.0	11.3	118.8	R 20.5	0.0	0.0	50.0	R 220.9	121.2	R 342.1
1975	3.0	0.0	3.0	28.0	42.3	27.8	8.3	78.4	R 20.9	0.0	0.0	64.8	R 195.2	156.4	R 351.6
1980	1.5	0.0	1.5	34.4	41.0	15.6	10.5	67.1	R 16.2	0.0	0.0	83.2	R 202.3	202.3	R 404.5
1985	1.7	(s)	1.7	29.6	28.4	22.6	11.5	62.6	R 25.3	0.0	0.0	91.6	R 210.9	215.2	R 426.1
1986	1.4	0.0	1.4	32.7	29.0	18.8	11.6	59.4	R 24.7	0.0	0.0	100.7	R 218.9	231.6	R 450.4
1987	1.4	0.0	1.4	37.0	33.1	18.2	14.2	65.5	R 20.7	0.0	0.0	107.5	R 232.1	245.6	R 477.7
1988	1.8	(s)	1.8	39.5	33.4	23.1	13.1	69.7	R 21.5	0.0	0.0	109.9	R 242.3	248.5	R 490.8
1989	1.3	(s)	1.3	39.9	27.2	17.1	17.8	62.1	R 22.3	e 0.1	R e 0.1	111.9	R e 237.6	251.3	R e 489.0
1990	1.4	0.0	1.4	36.1	20.7	8.0	15.5	44.2	15.4	0.1	0.1	113.1	R 210.5	247.3	R 457.8
1991	0.9	(s)	0.9	39.2	18.6	9.5	17.3	45.4	16.3	0.1	0.1	117.3	R 219.4	255.4	R 474.8
1992	1.8	(s)	1.8	44.0	20.4	10.4	19.5	50.3	17.1	0.1	0.1	118.6	R 232.1	253.3	R 485.5
1993	2.0	(s)	2.0	48.8	21.6	10.7	20.0	52.3	R 18.6	0.2	0.1	128.8	R 250.7	272.1	R 522.8
1994	2.3	(s)	2.3	49.2	19.0	7.4	20.2	46.6	18.3	0.1	0.1	126.9	R 243.6	264.9	R 508.5
1995	2.0	0.0	2.0	51.0	22.7	11.9	21.2	55.8	20.3	0.2	0.1	134.8	R 264.1	280.8	R 544.9
1996	1.8	0.0	1.8	60.9	25.2	14.4	23.1	62.7	R 20.2	0.2	0.2	141.9	R 287.8	R 295.3	R 583.2
1997	1.7	(s)	1.7	54.8	20.6	14.8	23.1	58.4	14.7	0.2	0.2	138.6	268.5	287.8	556.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 217. Commercial Energy Consumption Estimates, Selected Years 1960-1997, North Carolina

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	647	0	647	4	1,156	248	285	206	122	2,018	R 42	–	2,667	–	6,634	–
1965	352	0	352	7	1,307	251	452	278	120	2,409	R 29	–	5,360	–	12,797	–
1970	284	0	284	22	1,701	239	530	355	179	3,004	R 19	–	9,697	–	23,499	–
1975	240	0	240	22	1,426	117	396	414	233	2,586	R 20	–	11,679	–	28,170	–
1980	111	0	111	26	1,673	118	502	790	491	3,574	R 19	–	14,258	–	34,671	–
1985	125	1	126	25	2,649	245	564	633	322	4,412	NA	–	19,163	–	45,021	–
1986	101	0	101	25	2,418	172	561	647	241	4,040	NA	–	20,858	–	47,979	–
1987	105	0	105	30	2,934	137	684	723	63	4,542	NA	–	22,110	–	50,519	–
1988	132	(s)	132	32	3,087	257	634	682	282	4,942	NA	–	23,117	–	52,262	–
1989	99	(s)	99	33	2,351	176	851	625	226	4,231	NA	–	24,273	–	R 54,538	–
1990	102	0	102	31	1,938	78	755	782	226	3,778	NA	–	25,516	–	R 55,809	–
1991	63	(s)	63	34	1,821	93	845	375	118	3,252	NA	–	26,411	–	R 57,495	–
1992	132	(s)	132	36	1,639	46	949	323	112	3,070	NA	–	26,912	–	R 57,485	–
1993	149	(s)	149	37	1,886	50	980	59	288	3,264	R 75	–	28,547	–	60,315	–
1994	170	(s)	171	39	1,959	340	983	78	268	3,627	R 77	–	29,275	–	R 61,090	–
1995	145	0	145	37	2,270	147	1,032	61	188	3,699	R 77	–	31,104	–	R 64,798	–
1996	134	0	134	40	2,864	178	1,127	312	223	4,705	R 83	–	32,563	–	R 67,770	–
1997	125	(s)	125	38	2,952	205	1,127	176	172	4,632	71	–	33,344	–	69,247	–
	Trillion Btu															
1960	16.0	0.0	16.0	3.8	6.7	1.4	1.1	1.1	0.8	11.1	R 0.8	0.0	9.1	R 40.9	22.6	R 63.6
1965	8.7	0.0	8.7	7.5	7.6	1.4	1.8	1.5	0.8	13.1	R 0.6	0.0	18.3	R 48.1	43.7	R 91.8
1970	6.7	0.0	6.7	22.0	9.9	1.4	2.0	1.9	1.1	16.3	R 0.4	0.0	33.1	R 78.5	80.2	R 158.7
1975	5.6	0.0	5.6	22.0	8.3	0.7	1.5	2.2	1.5	14.1	R 0.4	0.0	39.8	R 82.0	96.1	R 178.1
1980	2.7	0.0	2.7	26.5	9.7	0.7	1.8	4.1	3.1	19.5	R 0.4	0.0	48.6	R 97.7	118.3	R 216.0
1985	3.1	(s)	3.1	25.9	15.4	1.4	2.0	3.3	2.0	24.2	NA	0.0	65.4	118.6	153.6	272.2
1986	2.5	0.0	2.5	26.3	14.1	1.0	2.0	3.4	1.5	22.0	NA	0.0	71.2	122.0	163.7	285.7
1987	2.6	0.0	2.6	30.9	17.1	0.8	2.5	3.8	0.4	24.6	NA	0.0	75.4	133.6	172.4	306.0
1988	3.3	(s)	3.3	33.4	18.0	1.5	2.3	3.6	1.8	27.1	NA	0.0	78.9	142.7	178.3	321.1
1989	2.5	(s)	2.5	34.2	13.7	1.0	3.1	3.3	1.4	22.5	NA	0.0	82.8	142.0	R 186.1	R 328.1
1990	2.6	0.0	2.6	32.3	11.3	0.4	2.7	4.1	1.4	20.0	NA	0.0	87.1	141.9	190.4	332.3
1991	1.6	(s)	1.6	35.4	10.6	0.5	3.1	2.0	0.7	16.9	NA	0.0	90.1	144.0	R 196.2	340.2
1992	3.3	(s)	3.3	37.7	9.5	0.3	3.4	1.7	0.7	15.7	NA	0.0	91.8	148.4	196.1	344.6
1993	3.7	(s)	3.7	38.7	11.0	0.3	3.5	0.3	1.8	16.9	R 1.5	0.0	97.4	R 158.2	205.8	R 364.0
1994	4.3	(s)	4.3	40.3	11.4	1.9	3.6	0.4	1.7	19.0	R 1.5	0.0	99.9	R 165.0	208.4	R 373.5
1995	3.7	0.0	3.7	38.6	13.2	0.8	3.7	0.3	1.2	19.3	R 1.5	0.0	106.1	R 169.2	221.1	R 390.3
1996	3.3	0.0	3.3	41.9	16.7	1.0	4.1	1.6	1.4	24.8	1.7	0.0	111.1	R 182.8	231.2	414.1
1997	3.1	(s)	3.1	39.4	17.2	1.2	4.1	0.9	1.1	24.4	1.4	0.0	113.8	182.1	236.3	418.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 218. Industrial Energy Consumption Estimates, Selected Years 1960-1997, North Carolina

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,421	26	2,617	3,155	1,413	730	179	1,089	3,967	186	13,336	48	–	–	8,773	–	21,822	–
1965	2,563	47	2,699	4,710	1,919	1,156	258	1,315	4,005	835	16,896	37	–	–	10,707	–	25,565	–
1970	2,267	75	3,621	4,514	1,328	1,891	328	1,004	5,809	1,416	19,911	10	–	–	16,099	–	39,013	–
1975	1,479	62	3,049	4,271	814	3,695	446	782	7,045	1,815	21,915	5	–	–	20,875	–	50,354	–
1980	1,375	86	3,089	4,131	394	4,581	571	514	8,468	3,112	24,859	3	–	–	25,254	–	61,409	–
1985	2,247	75	3,450	3,236	537	3,606	520	832	5,814	2,493	20,486	3	–	–	26,272	–	61,725	–
1986	2,545	72	4,533	4,584	445	3,378	508	815	5,967	4,155	24,386	3	–	–	27,072	–	62,273	–
1987	2,548	76	4,022	3,808	315	4,105	574	822	5,569	4,599	23,815	3	–	–	28,993	–	66,247	–
1988	2,536	75	4,490	3,717	467	3,490	554	739	5,421	4,655	23,533	3	–	–	30,211	–	68,301	–
1989	2,570	83	3,766	3,564	184	3,480	568	837	4,616	4,504	21,520	[f] NA	–	–	31,152	–	[R] 69,994	–
1990	2,989	86	4,207	2,918	139	3,700	585	807	5,193	5,173	22,722	NA	–	–	31,265	–	[R] 68,383	–
1991	2,702	85	3,821	2,977	170	4,487	523	860	5,244	5,192	23,275	NA	–	–	31,514	–	[R] 68,603	–
1992	2,860	91	4,250	3,205	146	4,623	533	819	6,758	5,801	26,135	NA	–	–	32,522	–	[R] 69,467	–
1993	2,476	92	4,645	3,138	158	5,184	543	845	7,374	5,541	27,430	NA	–	–	33,488	–	70,753	–
1994	2,396	95	4,824	3,117	84	5,503	568	890	5,915	5,693	26,593	NA	–	–	33,307	–	[R] 69,503	–
1995	2,437	107	6,426	4,492	115	5,115	558	977	5,869	5,528	29,080	NA	–	–	34,063	–	[R] 70,964	–
1996	2,336	104	4,046	4,434	165	5,970	541	1,003	6,387	5,814	28,361	NA	–	–	34,142	–	[R] 71,056	–
1997	2,210	112	4,163	4,147	160	6,120	572	1,041	5,669	6,012	27,884	NA	–	–	35,095	–	72,884	–
			Trillion Btu															
1960	61.6	27.0	17.4	18.4	8.0	2.9	1.1	5.7	24.9	1.1	79.5	0.5	[R] 29.0	0.0	29.9	[R] 227.6	74.5	[R] 302.0
1965	64.6	48.3	17.9	27.4	10.9	4.6	1.6	6.9	25.2	4.7	99.2	0.4	[R] 36.2	0.0	36.5	[R] 285.3	87.2	[R] 372.5
1970	53.9	76.9	24.0	26.3	7.5	7.1	2.0	5.3	36.5	8.0	116.8	0.1	[R] 45.0	0.0	54.9	[R] 347.6	133.1	[R] 480.7
1975	34.7	63.2	20.2	24.9	4.6	13.7	2.7	4.1	44.3	10.2	124.8	0.1	[R] 45.1	0.0	71.2	[R] 339.1	171.8	[R] 510.9
1980	33.6	86.6	20.5	24.1	2.2	16.8	3.5	2.7	53.2	17.2	140.2	(s)	[R] 68.3	0.0	86.2	[R] 414.9	209.5	[R] 624.4
1985	55.9	77.4	22.9	18.8	3.0	13.0	3.2	4.4	36.6	13.7	115.6	(s)	[R] 80.0	0.0	89.6	[R] 418.5	210.6	[R] 629.1
1986	63.5	74.9	30.1	26.7	2.5	12.3	3.1	4.3	37.5	22.8	139.3	(s)	[R] 13.1	0.0	92.4	[R] 383.2	212.5	[R] 595.7
1987	63.8	78.8	26.7	22.2	1.8	15.0	3.5	4.3	35.0	25.3	133.8	(s)	[R] 13.1	0.0	98.9	[R] 388.4	226.0	[R] 614.4
1988	63.5	77.1	29.8	21.6	2.6	12.7	3.4	3.9	34.1	25.8	133.9	(s)	[R] 13.6	0.0	103.1	[R] 391.3	233.0	[R] 624.3
1989	63.9	85.2	25.0	20.8	1.0	12.8	3.4	4.4	29.0	24.9	121.3	[R f] 0.1	[R f] 22.2	[f] 0.0	106.3	[R f] 399.1	238.8	[R f] 637.9
1990	74.5	88.9	27.9	17.0	0.8	13.4	3.5	4.2	32.6	28.7	128.2	0.1	[R] 60.6	0.0	106.7	[R] 459.1	233.3	[R] 692.4
1991	67.8	87.6	25.4	17.3	1.0	16.2	3.2	4.5	33.0	28.8	129.3	0.1	[R] 64.9	0.0	107.5	[R] 457.3	[R] 234.1	[R] 691.4
1992	71.7	94.1	28.2	18.7	0.8	16.8	3.2	4.3	42.5	32.2	146.6	0.4	[R] 71.3	0.0	111.0	[R] 495.2	237.0	[R] 732.2
1993	62.3	95.5	30.8	18.3	0.9	18.7	3.3	4.4	46.4	30.6	153.4	0.3	[R] 72.0	0.0	114.3	[R] 497.8	241.4	[R] 739.2
1994	60.1	98.3	32.0	18.2	0.5	20.0	3.4	4.7	37.2	31.5	147.4	[R] 20.5	[R] 76.1	0.0	113.6	[R] 516.1	237.1	[R] 753.2
1995	61.6	110.3	42.6	26.2	0.7	18.5	3.4	5.1	36.9	30.6	164.0	[R] 18.5	[R] 78.2	0.0	116.2	[R] 548.8	242.1	[R] 790.9
1996	58.7	107.9	26.8	25.8	0.9	21.6	3.3	5.3	40.2	32.0	155.9	[R] 19.7	[R] 79.7	0.0	116.5	[R] 538.4	[R] 242.4	[R] 780.8
1997	55.4	115.5	27.6	24.2	0.9	22.1	3.5	5.5	35.6	33.2	152.6	18.4	81.7	0.0	119.7	543.4	248.7	792.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 219. Transportation Energy Consumption Estimates, Selected Years 1960-1997, North Carolina

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	43	2	692	3,187	3,401	5	545	34,580	494	42,905	0	0	–	0	–
1965	9	4	714	4,458	3,649	17	578	41,551	581	51,548	0	0	–	0	–
1970	4	6	151	6,301	4,702	65	523	54,989	345	67,077	0	0	–	0	–
1975	(s)	4	219	8,207	3,809	108	498	65,739	263	78,844	0	0	–	0	–
1980	0	6	215	10,707	5,209	50	635	64,918	99	81,834	0	0	–	0	–
1985	0	5	174	13,617	6,668	183	578	69,392	97	90,708	0	0	–	0	–
1986	0	5	227	15,281	7,123	170	565	72,542	130	96,038	0	0	–	0	–
1987	0	5	218	15,519	7,749	125	638	75,173	648	100,071	0	0	–	0	–
1988	0	5	236	18,549	8,318	148	616	77,511	415	105,793	0	0	–	0	–
1989	0	6	231	15,910	7,689	153	631	76,412	670	101,696	R e 2,652	0	–	0	–
1990	0	6	213	16,289	5,567	160	650	75,937	520	99,336	3,063	0	–	0	–
1991	0	6	170	15,605	4,384	186	581	75,811	746	97,483	2,428	0	–	0	–
1992	0	6	154	17,073	4,684	143	593	76,054	659	99,361	2,951	0	–	0	–
1993	0	6	118	17,403	4,897	155	604	80,528	428	104,133	3,293	0	–	0	–
1994	0	6	136	19,819	4,359	278	631	82,476	213	107,912	12,428	0	–	0	–
1995	0	6	139	20,665	4,947	141	620	85,383	304	112,199	1,166	0	–	0	–
1996	0	7	148	21,201	9,127	133	602	86,832	334	118,376	32,566	0	–	0	–
1997	0	7	159	22,690	7,153	121	636	89,716	283	120,757	33,981	0	–	0	–
			Trillion Btu												
1960	1.1	2.5	3.5	18.6	18.2	(s)	3.3	181.6	3.1	228.4	0.0	0.0	232.0	0.0	232.0
1965	0.2	4.4	3.6	26.0	19.7	0.1	3.5	218.3	3.7	274.8	0.0	0.0	279.4	0.0	279.4
1970	0.1	6.3	0.8	36.7	25.7	0.2	3.2	288.9	2.2	357.7	0.0	0.0	364.0	0.0	364.0
1975	(s)	3.6	1.1	47.8	20.8	0.4	3.0	345.3	1.7	420.1	0.0	0.0	423.8	0.0	423.8
1980	0.0	5.9	1.1	62.4	28.7	0.2	3.8	341.0	0.6	437.8	0.0	0.0	443.7	0.0	443.7
1985	0.0	4.9	0.9	79.3	37.0	0.7	3.5	364.5	0.6	486.5	0.0	0.0	491.4	0.0	491.4
1986	0.0	5.2	1.1	89.0	39.7	0.6	3.4	381.1	0.8	515.8	0.0	0.0	521.0	0.0	521.0
1987	0.0	5.3	1.1	90.4	43.2	0.5	3.9	394.9	4.1	538.0	0.0	0.0	543.3	0.0	543.3
1988	0.0	5.4	1.2	108.0	46.4	0.5	3.7	407.2	2.6	569.7	0.0	0.0	575.0	0.0	575.0
1989	0.0	5.9	1.2	92.7	42.8	0.6	3.8	401.4	4.2	546.7	R e 0.2	0.0	e 552.5	0.0	e 552.5
1990	0.0	6.5	1.1	94.9	30.8	0.6	3.9	398.9	3.3	533.5	0.2	0.0	539.9	0.0	539.9
1991	0.0	6.4	0.9	90.9	24.3	0.7	3.5	398.2	4.7	523.2	0.2	0.0	529.6	0.0	529.6
1992	0.0	6.7	0.8	99.5	26.0	0.5	3.6	399.5	4.1	534.0	0.2	0.0	540.6	0.0	540.6
1993	0.0	6.2	0.6	101.4	27.2	0.6	3.7	423.0	2.7	559.1	0.3	0.0	565.3	0.0	565.3
1994	0.0	6.0	0.7	115.4	24.5	1.0	3.8	433.2	1.3	580.1	0.9	0.0	586.1	0.0	586.1
1995	0.0	6.3	0.7	120.4	28.0	0.5	3.8	448.5	1.9	603.8	0.1	0.0	610.1	0.0	610.1
1996	0.0	7.6	0.7	123.5	51.7	0.5	3.6	456.1	2.1	638.3	2.5	0.0	646.0	0.0	646.0
1997	0.0	7.5	0.8	132.2	40.6	0.4	3.9	471.3	1.8	650.9	2.6	0.0	658.4	0.0	658.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 220. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, North Carolina

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	5,488	0	5,488	5	19	60	0	79	0	4,951	0	0	0	–
1965	9,595	0	9,595	3	16	53	0	70	0	5,349	0	0	0	–
1970	17,709	0	17,709	21	445	1,432	0	1,877	0	4,363	0	0	0	–
1975	18,206	0	18,206	(s)	237	93	0	330	1,405	7,050	0	0	0	–
1980	23,920	0	23,920	2	(s)	561	0	561	5,775	5,483	0	0	0	–
1985	19,610	0	19,610	1	0	443	0	443	19,303	4,091	0	0	0	–
1986	20,542	0	20,542	1	0	349	0	349	20,286	2,518	0	0	0	–
1987	17,255	0	17,255	1	0	435	0	435	28,600	5,098	0	0	0	–
1988	17,766	0	17,766	1	0	458	0	458	29,146	2,890	0	0	0	–
1989	19,516	0	19,516	2	0	557	0	557	29,212	6,996	0	0	0	–
1990	18,005	0	18,005	2	0	373	0	373	25,905	6,957	0	0	0	–
1991	18,078	0	18,078	3	0	349	0	349	30,312	6,024	0	0	0	–
1992	21,011	0	21,011	3	0	314	0	314	22,754	5,835	0	0	0	–
1993	23,055	0	23,055	3	0	351	0	351	23,759	5,207	0	0	0	–
1994	20,624	0	20,624	1	0	447	0	447	32,346	5,606	0	0	0	–
1995	21,424	0	21,424	3	0	505	0	505	35,910	4,014	0	0	0	–
1996	25,083	0	25,083	2	0	569	0	569	33,718	4,517	0	0	0	–
1997	27,206	0	27,206	5	0	467	0	467	32,453	4,148	0	0	0	–
	Trillion Btu													
1960	144.0	0.0	144.0	4.8	0.1	0.4	0.0	0.5	0.0	53.3	0.0	0.0	0.0	202.6
1965	247.7	0.0	247.7	3.0	0.1	0.3	0.0	0.4	0.0	55.9	0.0	0.0	0.0	307.0
1970	427.0	0.0	427.0	21.6	2.8	8.3	0.0	11.1	0.0	45.8	0.0	0.0	0.0	505.6
1975	433.1	0.0	433.1	0.1	1.5	0.5	0.0	2.0	15.5	73.4	0.0	0.0	0.0	524.1
1980	586.9	0.0	586.9	1.8	(s)	3.3	0.0	3.3	63.0	57.0	0.0	0.0	0.0	711.9
1985	489.8	0.0	489.8	0.6	0.0	2.6	0.0	2.6	208.7	42.7	0.0	0.0	0.0	744.4
1986	515.7	0.0	515.7	1.2	0.0	2.0	0.0	2.0	219.1	26.3	0.0	0.0	0.0	764.3
1987	433.1	0.0	433.1	1.2	0.0	2.5	0.0	2.5	308.2	53.1	0.0	0.0	0.0	798.1
1988	446.8	0.0	446.8	1.1	0.0	2.7	0.0	2.7	313.1	29.8	0.0	0.0	0.0	793.5
1989	489.1	0.0	489.1	1.7	0.0	3.2	0.0	3.2	313.3	73.0	0.0	0.0	0.0	880.3
1990	451.7	0.0	451.7	2.5	0.0	2.2	0.0	2.2	276.7	R 72.4	0.0	0.0	0.0	R 805.5
1991	452.2	0.0	452.2	3.1	0.0	2.0	0.0	2.0	325.6	R 62.9	0.0	0.0	0.0	845.7
1992	523.4	0.0	523.4	3.3	0.0	1.8	0.0	1.8	243.0	R 60.4	0.0	0.0	0.0	831.9
1993	574.8	0.0	574.8	3.0	0.0	2.0	0.0	2.0	253.8	53.7	0.0	0.0	0.0	887.3
1994	512.1	0.0	512.1	0.9	0.0	2.6	0.0	2.6	345.3	57.8	0.0	0.0	0.0	918.8
1995	533.9	0.0	533.9	3.2	0.0	2.9	0.0	2.9	382.7	41.4	0.0	0.0	0.0	R 964.3
1996	623.2	0.0	623.2	2.5	0.0	3.3	0.0	3.3	358.2	46.7	0.0	0.0	0.0	1,033.8
1997	673.0	0.0	673.0	4.7	0.0	2.7	0.0	2.7	344.7	42.8	0.0	0.0	0.0	1,067.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 221. Energy Consumption Estimates by Source, Selected Years 1960-1997, North Dakota

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	2,101	26	1,123	66	3,773	2,103	904	1,212	202	7,719	687	803	18,592	0	1,060	–	–	-3,501	–
1965	1,719	32	795	165	5,170	2,069	52	1,154	167	8,212	868	925	19,576	0	2,497	–	–	-6,185	–
1970	4,186	33	1,402	95	4,975	2,074	245	1,719	166	8,766	728	985	21,154	0	3,108	–	–	-14,183	–
1975	5,100	37	1,054	85	4,446	1,855	70	1,580	158	10,044	1,089	1,071	21,453	0	4,511	–	–	-18,295	–
1980	12,346	23	753	64	8,139	1,702	15	1,302	177	9,167	716	1,127	23,162	0	5,364	–	–	-43,747	–
1985	22,958	28	1,047	4	7,505	1,682	15	549	162	8,822	505	871	21,161	0	4,818	–	–	-58,231	–
1986	23,587	25	877	37	7,405	1,646	16	1,730	158	8,580	377	877	21,703	0	3,304	–	–	-54,289	–
1987	24,101	25	884	29	6,819	1,254	8	1,773	179	8,837	355	980	21,118	0	3,365	–	–	-56,153	–
1988	28,029	29	956	32	6,776	1,315	15	1,606	172	8,588	349	1,159	20,967	0	2,273	–	–	-67,478	–
1989	27,401	30	924	31	7,010	1,336	11	1,747	177	8,398	297	1,172	21,103	0	[i] NA	–	–	[R] -62,366	–
1990	28,114	32	814	28	6,764	1,178	6	1,426	182	8,151	331	1,151	20,031	0	NA	–	–	[R] -68,895	–
1991	28,597	40	778	28	7,413	964	10	2,025	163	8,255	306	1,008	20,950	0	NA	–	–	[R] -69,707	–
1992	30,301	37	1,465	28	7,034	1,405	7	1,771	166	8,233	291	1,197	21,597	0	NA	–	–	[R] -74,114	–
1993	30,302	40	915	62	7,443	1,254	10	1,369	169	8,482	399	1,124	21,227	0	NA	–	–	-75,248	–
1994	30,363	43	1,252	43	8,338	846	7	1,316	176	8,387	343	1,175	21,884	0	NA	–	–	[R] -74,130	–
1995	30,237	45	791	65	8,553	333	5	1,754	173	8,650	166	1,135	21,626	0	NA	–	–	[R] -72,042	–
1996	30,511	49	911	50	8,511	246	8	1,994	168	8,683	138	1,297	22,006	0	NA	–	–	[R] -78,695	–
1997	29,360	56	1,241	33	8,424	189	7	2,014	178	8,628	190	1,289	22,193	0	NA	–	–	-72,053	–
			Trillion Btu																
1960	30.5	27.4	7.5	0.3	22.0	11.3	5.1	4.9	1.2	40.5	4.3	4.8	101.9	0.0	11.4	[R] 0.5	0.0	-11.9	[R] 159.8
1965	24.7	32.4	5.3	0.8	30.1	11.1	0.3	4.6	1.0	43.1	5.5	5.6	107.4	0.0	26.1	[R] 0.3	0.0	-21.1	[R] 169.9
1970	57.5	33.7	9.3	0.5	29.0	11.2	1.4	6.5	1.0	46.0	4.6	5.9	115.4	0.0	32.6	[R] 0.4	0.0	-48.4	[R] 191.2
1975	67.9	36.9	7.0	0.4	25.9	10.0	0.4	5.9	1.0	52.8	6.8	6.4	116.6	0.0	46.9	[R] 0.5	0.0	-62.4	[R] 206.4
1980	163.3	24.0	5.0	0.3	47.4	9.2	0.1	4.8	1.1	48.2	4.5	6.8	127.3	0.0	55.7	[R] 2.9	0.0	-149.3	[R] 224.1
1985	302.0	29.8	6.9	(s)	43.7	9.1	0.1	2.0	1.0	46.3	3.2	5.4	117.7	0.0	50.3	[R] 2.7	(s)	-198.7	[R] 303.9
1986	310.9	26.6	5.8	0.2	43.1	8.9	0.1	6.3	1.0	45.1	2.4	5.5	118.3	0.0	34.5	[R] 2.7	(s)	-185.2	[R] 307.6
1987	319.3	26.0	5.9	0.1	39.7	6.8	(s)	6.5	1.1	46.4	2.2	6.0	114.8	0.0	35.1	[R] 2.3	(s)	-191.6	[R] 305.9
1988	369.8	30.2	6.3	0.2	39.5	7.1	0.1	5.9	1.0	45.1	2.2	7.0	114.4	0.0	23.5	[R] 2.4	0.0	-230.2	[R] 310.0
1989	361.7	31.6	6.1	0.2	40.8	7.2	0.1	6.4	1.1	44.1	1.9	7.1	115.0	0.0	[R i] 19.8	[R i] 2.9	[R i] 0.1	-212.8	[R i] 318.4
1990	374.6	33.5	5.4	0.1	39.4	6.4	(s)	5.2	1.1	42.8	2.1	6.9	109.5	0.0	24.3	2.1	[R] 0.1	-235.1	[R] 308.9
1991	379.2	41.6	5.2	0.1	43.2	5.2	0.1	7.3	1.0	43.4	1.9	6.1	113.5	0.0	25.3	2.1	[R] 0.1	-237.8	[R] 321.4
1992	399.1	38.2	9.7	0.1	41.0	7.6	(s)	6.4	1.0	43.3	1.8	7.2	118.2	0.0	23.4	2.3	[R] 0.1	-252.9	[R] 329.2
1993	399.7	42.4	6.1	0.3	43.4	6.8	0.1	4.9	1.0	44.6	2.5	6.8	116.4	0.0	29.0	2.1	[R] 0.1	-256.7	[R] 332.8
1994	402.4	45.3	8.3	0.2	48.6	4.6	(s)	4.8	1.1	44.1	2.2	7.1	120.9	0.0	24.3	2.3	[R] 0.1	-252.9	[R] 344.3
1995	399.8	47.6	5.2	0.3	49.8	1.9	(s)	6.4	1.1	45.4	1.0	6.9	118.0	0.0	28.5	2.5	[R] 0.1	-245.8	[R] 351.4
1996	404.1	51.5	6.0	0.3	49.6	1.4	(s)	7.2	1.0	45.6	0.9	7.8	119.8	0.0	40.8	2.3	[R] 0.2	-268.5	[R] 352.1
1997	386.5	58.9	8.2	0.2	49.1	1.1	(s)	7.3	1.1	45.3	1.2	7.7	121.2	0.0	35.3	1.8	0.2	-245.8	355.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 222. Residential Energy Consumption Estimates, Selected Years 1960-1997, North Dakota

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	195	0	195	4	874	860	787	2,521	R 23	–	–	728	–	1,810	–
1965	108	0	108	7	1,269	40	758	2,067	R 16	–	–	911	–	2,176	–
1970	50	0	50	8	1,103	190	1,283	2,576	R 19	–	–	1,399	–	3,391	–
1975	53	0	53	10	776	21	1,181	1,978	R 22	–	–	1,901	–	4,584	–
1980	50	0	50	10	1,173	5	511	1,689	R 143	–	–	2,456	–	5,972	–
1985	69	0	69	10	1,119	14	169	1,302	R 137	–	–	3,012	–	7,075	–
1986	62	0	62	9	1,056	8	623	1,687	R 133	–	–	2,954	–	6,795	–
1987	36	0	36	8	895	6	637	1,538	R 117	–	–	2,788	–	6,370	–
1988	49	(s)	49	9	965	8	751	1,724	R 121	–	–	3,050	–	6,896	–
1989	61	(s)	61	10	913	10	838	1,761	R 126	–	–	3,060	–	R 6,876	–
1990	47	0	47	9	845	5	653	1,502	84	–	–	2,954	–	6,461	–
1991	47	(s)	47	10	902	7	976	1,885	R 89	–	–	3,096	–	R 6,740	–
1992	42	0	42	10	642	6	1,081	1,729	93	–	–	3,020	–	6,451	–
1993	48	0	48	11	751	8	762	1,521	77	–	–	3,209	–	6,780	–
1994	49	0	49	11	733	6	693	1,432	R 75	–	–	3,243	–	R 6,767	–
1995	38	0	38	11	775	4	775	1,553	84	–	–	3,384	–	R 7,049	–
1996	51	2	52	13	829	5	922	1,756	84	–	–	3,602	–	7,496	–
1997	49	0	49	11	638	5	922	1,565	61	–	–	3,437	–	7,138	–
	Trillion Btu														
1960	3.0	0.0	3.0	4.0	5.1	4.9	3.2	13.1	R 0.5	0.0	0.0	2.5	R 23.1	6.2	R 29.2
1965	1.7	0.0	1.7	6.6	7.4	0.2	3.0	10.7	R 0.3	0.0	0.0	3.1	R 22.4	7.4	R 29.8
1970	0.7	0.0	0.7	8.4	6.4	1.1	4.8	12.4	R 0.4	0.0	0.0	4.8	R 26.7	11.6	R 38.3
1975	0.7	0.0	0.7	10.2	4.5	0.1	4.4	9.0	R 0.4	0.0	0.0	6.5	R 26.9	15.6	R 42.5
1980	0.7	0.0	0.7	10.1	6.8	(s)	1.9	8.7	R 2.9	0.0	0.0	8.4	R 30.8	20.4	R 51.2
1985	0.9	0.0	0.9	11.0	6.5	0.1	0.6	7.2	R 2.7	0.0	0.0	10.3	R 32.1	24.1	R 56.3
1986	0.8	0.0	0.8	9.8	6.2	(s)	2.3	8.5	R 2.7	0.0	0.0	10.1	R 31.8	23.2	R 54.9
1987	0.5	0.0	0.5	8.5	5.2	(s)	2.3	7.6	R 2.3	0.0	0.0	9.5	R 28.4	21.7	R 50.1
1988	0.6	(s)	0.6	9.7	5.6	(s)	2.7	8.4	R 2.4	0.0	0.0	10.4	R 31.5	23.5	R 55.1
1989	0.8	(s)	0.8	10.3	5.3	0.1	3.1	8.5	R 2.5	[e] 0.1	R [e] (s)	10.4	R [e] 32.6	23.5	R [e] 56.1
1990	0.7	0.0	0.7	9.5	4.9	(s)	2.4	7.3	1.7	0.1	(s)	10.1	R 29.3	22.0	R 51.3
1991	0.7	(s)	0.7	10.8	5.3	(s)	3.5	8.8	1.8	0.1	(s)	10.6	R 32.7	23.0	R 55.7
1992	0.6	0.0	0.6	10.1	3.7	(s)	3.9	7.7	1.9	0.1	(s)	10.3	R 30.7	22.0	R 52.7
1993	0.7	0.0	0.7	11.4	4.4	(s)	2.7	7.2	1.5	0.1	(s)	10.9	R 31.8	23.1	54.9
1994	0.7	0.0	0.7	11.3	4.3	(s)	2.5	6.8	1.5	0.1	(s)	11.1	R 31.5	23.1	R 54.6
1995	0.6	0.0	0.6	11.8	4.5	(s)	2.8	7.3	1.7	0.1	(s)	11.5	R 33.0	R 24.1	R 57.1
1996	0.7	(s)	0.8	13.2	4.8	(s)	3.3	8.2	1.7	0.1	(s)	12.3	R 36.3	25.6	R 61.8
1997	0.7	0.0	0.7	11.9	3.7	(s)	3.3	7.1	1.2	0.1	(s)	11.7	32.8	24.4	57.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 223. Commercial Energy Consumption Estimates, Selected Years 1960-1997, North Dakota

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	362	0	362	3	198	0	139	32	73	442	R (s)	–	304	–	757	–
1965	201	0	201	5	288	0	134	179	209	809	R (s)	–	443	–	1,058	–
1970	93	0	93	8	250	0	226	151	104	731	R (s)	–	696	–	1,686	–
1975	99	0	99	12	176	0	208	95	493	972	R (s)	–	805	–	1,942	–
1980	93	0	93	11	642	0	90	73	400	1,206	R 3	–	1,145	–	2,784	–
1985	128	0	128	10	484	(s)	30	69	64	647	NA	–	2,026	–	4,760	–
1986	114	0	114	9	314	(s)	110	71	78	573	NA	–	2,005	–	4,611	–
1987	67	0	67	8	242	1	112	73	33	462	NA	–	1,970	–	4,502	–
1988	90	(s)	90	10	154	1	133	73	46	407	NA	–	1,987	–	4,491	–
1989	114	(s)	114	11	186	1	148	61	27	423	NA	–	1,989	–	R 4,468	–
1990	88	0	88	10	151	(s)	115	70	23	359	NA	–	2,300	–	5,031	–
1991	88	(s)	88	11	160	1	172	44	8	384	NA	–	2,397	–	R 5,218	–
1992	79	0	79	10	157	(s)	191	37	12	397	NA	–	2,273	–	4,855	–
1993	89	0	89	11	143	1	134	10	16	305	R 6	–	2,318	–	4,898	–
1994	90	0	90	11	192	1	122	10	15	340	R 6	–	2,427	–	R 5,064	–
1995	71	0	71	12	160	1	137	10	19	327	R 6	–	2,728	–	R 5,683	–
1996	94	1	95	12	211	2	163	10	6	392	R 7	–	2,877	–	5,988	–
1997	91	0	91	11	273	1	163	10	9	455	6	–	2,769	–	5,751	–
	Trillion Btu															
1960	5.6	0.0	5.6	2.9	1.2	0.0	0.6	0.2	0.5	2.3	(s)	0.0	1.0	R 12.0	2.6	14.5
1965	3.1	0.0	3.1	5.0	1.7	0.0	0.5	0.9	1.3	4.5	(s)	0.0	1.5	14.1	3.6	17.7
1970	1.4	0.0	1.4	8.6	1.5	0.0	0.9	0.8	0.7	3.8	(s)	0.0	2.4	16.1	5.8	21.8
1975	1.4	0.0	1.4	12.4	1.0	0.0	0.8	0.5	3.1	5.4	(s)	0.0	2.7	21.9	6.6	28.6
1980	1.2	0.0	1.2	11.6	3.7	0.0	0.3	0.4	2.5	7.0	R 0.1	0.0	3.9	R 23.8	9.5	R 33.3
1985	1.7	0.0	1.7	10.7	2.8	(s)	0.1	0.4	0.4	3.7	NA	0.0	6.9	23.0	16.2	39.3
1986	1.5	0.0	1.5	9.5	1.8	(s)	0.4	0.4	0.5	3.1	NA	0.0	6.8	20.9	15.7	36.6
1987	0.9	0.0	0.9	8.3	1.4	(s)	0.4	0.4	0.2	2.4	NA	0.0	6.7	18.3	15.4	33.7
1988	1.2	(s)	1.2	10.4	0.9	(s)	0.5	0.4	0.3	2.1	NA	0.0	6.8	20.4	15.3	35.7
1989	1.5	(s)	1.5	11.1	1.1	(s)	0.5	0.3	0.2	2.1	NA	e (s)	6.8	21.5	15.2	36.8
1990	1.2	0.0	1.2	10.6	0.9	(s)	0.4	0.4	0.1	1.8	NA	(s)	7.8	R 21.5	17.2	38.6
1991	1.2	(s)	1.2	11.2	0.9	(s)	0.6	0.2	(s)	1.8	NA	(s)	8.2	22.5	17.8	40.3
1992	1.1	0.0	1.1	10.2	0.9	(s)	0.7	0.2	0.1	1.9	NA	(s)	7.8	21.0	16.6	R 37.6
1993	1.3	0.0	1.3	11.3	0.8	(s)	0.5	0.1	0.1	1.5	0.1	(s)	7.9	22.1	16.7	R 38.9
1994	1.3	0.0	1.3	11.4	1.1	(s)	0.4	0.1	0.1	1.7	0.1	0.1	8.3	22.9	17.3	R 40.2
1995	1.1	0.0	1.1	12.2	0.9	(s)	0.5	0.1	0.1	1.6	0.1	0.1	9.3	R 24.4	19.4	R 43.8
1996	1.4	(s)	1.4	12.8	1.2	(s)	0.6	0.1	(s)	1.9	0.1	0.1	9.8	R 26.1	20.4	R 46.6
1997	1.4	0.0	1.4	11.4	1.6	(s)	0.6	0.1	0.1	2.3	0.1	0.1	9.4	24.7	19.6	44.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 224. Industrial Energy Consumption Estimates, Selected Years 1960-1997, North Dakota

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	521	20	1,123	2,104	44	257	44	2,927	530	803	7,832	0	–	–	121	–	300	–
1965	444	21	795	2,696	12	240	20	2,533	632	925	7,853	0	–	–	241	–	576	–
1970	523	16	1,402	2,174	55	206	28	2,315	558	985	7,723	0	–	–	720	–	1,745	–
1975	570	14	1,054	1,613	49	189	21	2,193	577	1,071	6,767	0	–	–	1,007	–	2,428	–
1980	585	2	753	2,460	10	690	26	1,540	315	1,127	6,921	0	–	–	1,576	–	3,832	–
1985	5,407	7	1,047	2,783	1	340	24	1,080	440	871	6,586	0	–	–	1,988	–	4,672	–
1986	6,120	7	877	3,084	8	973	23	924	297	877	7,065	0	–	–	1,890	–	4,348	–
1987	6,563	8	884	2,574	1	1,010	26	1,028	322	980	6,825	0	–	–	1,839	–	4,202	–
1988	6,204	8	956	2,466	6	706	25	896	303	1,159	6,516	0	–	–	2,070	–	4,680	–
1989	6,688	8	924	2,782	1	743	26	819	269	1,172	6,737	[f] NA	–	–	2,013	–	[R] 4,522	–
1990	6,400	11	814	2,596	1	644	27	799	308	1,151	6,339	NA	–	–	1,760	–	3,849	–
1991	6,287	17	778	3,063	2	862	24	784	298	1,008	6,820	NA	–	–	1,762	–	[R] 3,836	–
1992	6,988	14	1,465	2,940	(s)	483	24	720	279	1,197	7,108	NA	–	–	1,835	–	[R] 3,921	–
1993	6,875	14	915	2,952	1	455	25	674	383	1,124	6,529	NA	–	–	1,905	–	4,024	–
1994	6,976	17	1,252	3,234	1	480	26	698	328	1,175	7,195	NA	–	–	2,011	–	4,197	–
1995	7,447	18	791	3,272	(s)	830	25	685	147	1,135	6,885	NA	–	–	1,771	–	3,690	–
1996	6,724	20	911	2,952	1	901	25	575	132	1,297	6,793	NA	–	–	1,835	–	3,820	–
1997	6,466	29	1,241	2,768	1	922	26	450	181	1,289	6,878	NA	–	–	2,076	–	4,312	–
			Trillion Btu															
1960	7.7	20.3	7.5	12.3	0.2	1.0	0.3	15.4	3.3	4.8	44.8	0.0	0.0	0.0	0.4	73.3	1.0	74.3
1965	6.5	20.9	5.3	15.7	0.1	1.0	0.1	13.3	4.0	5.6	45.0	0.0	0.0	0.0	0.8	73.2	2.0	75.1
1970	7.2	16.3	9.3	12.7	0.3	0.8	0.2	12.2	3.5	5.9	44.8	0.0	0.0	0.0	2.5	70.8	6.0	76.8
1975	7.4	14.0	7.0	9.4	0.3	0.7	0.1	11.5	3.6	6.4	39.1	0.0	0.0	0.0	3.4	63.9	8.3	72.2
1980	7.7	2.1	5.0	14.3	0.1	2.5	0.2	8.1	2.0	6.8	38.9	0.0	0.0	0.0	5.4	54.1	13.1	67.1
1985	71.2	7.3	6.9	16.2	(s)	1.2	0.1	5.7	2.8	5.4	38.4	0.0	0.0	0.0	6.8	123.7	15.9	139.6
1986	81.0	7.0	5.8	18.0	(s)	3.5	0.1	4.9	1.9	5.5	39.7	0.0	0.0	0.0	6.4	134.2	14.8	149.1
1987	87.8	8.3	5.9	15.0	(s)	3.7	0.2	5.4	2.0	6.0	38.1	0.0	0.0	0.0	6.3	140.5	14.3	154.8
1988	82.4	8.4	6.3	14.4	(s)	2.6	0.2	4.7	1.9	7.0	37.1	0.0	0.0	0.0	7.1	134.9	16.0	150.9
1989	89.1	8.3	6.1	16.2	(s)	2.7	0.2	4.3	1.7	7.1	38.3	[f] 0.0	[f] 0.0	[f] 0.0	6.9	[f] 142.6	15.4	[f] 158.0
1990	86.3	11.7	5.4	15.1	(s)	2.3	0.2	4.2	1.9	6.9	36.1	0.0	0.0	0.0	6.0	140.1	13.1	153.2
1991	84.3	17.5	5.2	17.8	(s)	3.1	0.1	4.1	1.9	6.1	38.4	0.0	0.0	0.0	6.0	146.2	13.1	159.3
1992	93.1	15.1	9.7	17.1	(s)	1.8	0.1	3.8	1.8	7.2	41.5	0.0	0.0	0.0	6.3	155.9	13.4	169.3
1993	91.6	15.2	6.1	17.2	(s)	1.6	0.1	3.5	2.4	6.8	37.8	0.0	0.0	0.0	6.5	151.2	13.7	164.9
1994	93.8	18.1	8.3	18.8	(s)	1.7	0.2	3.7	2.1	7.1	41.9	0.0	0.1	0.0	6.9	160.9	14.3	175.2
1995	99.4	18.7	5.2	19.1	(s)	3.0	0.2	3.6	0.9	6.9	38.8	0.0	0.2	0.0	6.0	163.3	12.6	175.9
1996	90.0	20.5	6.0	17.2	(s)	3.3	0.1	3.0	0.8	7.8	38.3	0.0	0.1	0.0	6.3	155.1	13.0	168.2
1997	85.9	30.6	8.2	16.1	(s)	3.3	0.2	2.4	1.1	7.7	39.1	0.0	(s)	0.0	7.1	162.8	14.7	177.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 225. Transportation Energy Consumption Estimates, Selected Years 1960-1997, North Dakota

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	9	(s)	66	592	2,103	29	158	4,760	69	7,778	0	0	–	0	–
1965	1	(s)	165	916	2,069	22	147	5,499	25	8,843	0	0	–	0	–
1970	1	(s)	95	1,441	2,074	3	138	6,300	41	10,092	0	0	–	0	–
1975	(s)	(s)	85	1,880	1,855	2	137	7,756	0	11,715	0	0	–	0	–
1980	0	(s)	64	3,795	1,702	12	151	7,553	0	13,278	0	0	–	0	–
1985	0	1	4	3,046	1,682	11	138	7,673	0	12,553	0	0	–	0	–
1986	0	(s)	37	2,894	1,646	23	135	7,584	2	12,320	0	0	–	0	–
1987	0	1	29	3,058	1,254	14	152	7,736	0	12,244	0	0	–	0	–
1988	0	2	32	3,145	1,315	16	147	7,619	0	12,273	0	0	–	0	–
1989	0	2	31	3,056	1,336	18	151	7,518	0	12,110	R[e] 4,968	0	–	0	–
1990	0	2	28	3,116	1,178	14	155	7,282	0	11,774	5,738	0	–	0	–
1991	0	2	28	3,219	964	15	139	7,427	0	11,792	4,549	0	–	0	–
1992	0	3	28	3,238	1,405	16	141	7,477	0	12,305	5,528	0	–	0	–
1993	0	4	62	3,527	1,254	18	144	7,798	0	12,803	6,169	0	–	0	–
1994	0	4	43	4,067	846	20	151	7,679	0	12,805	7,241	0	–	0	–
1995	0	5	65	4,248	333	13	148	7,955	0	12,762	6,753	0	–	0	–
1996	0	5	50	4,363	246	8	144	8,098	0	12,910	5,014	0	–	0	–
1997	0	5	33	4,593	189	8	152	8,168	0	13,142	5,064	0	–	0	–
	Trillion Btu														
1960	0.1	(s)	0.3	3.5	11.3	0.1	1.0	25.0	0.4	41.6	0.0	0.0	41.7	0.0	41.7
1965	(s)	(s)	0.8	5.3	11.1	0.1	0.9	28.9	0.2	47.3	0.0	0.0	47.3	0.0	47.3
1970	(s)	(s)	0.5	8.4	11.2	(s)	0.8	33.1	0.3	54.2	0.0	0.0	54.3	0.0	54.3
1975	(s)	0.1	0.4	11.0	10.0	(s)	0.8	40.7	0.0	63.0	0.0	0.0	63.1	0.0	63.1
1980	0.0	0.2	0.3	22.1	9.2	(s)	0.9	39.7	0.0	72.3	0.0	0.0	72.5	0.0	72.5
1985	0.0	0.7	(s)	17.7	9.1	(s)	0.8	40.3	0.0	68.0	0.0	0.0	68.8	0.0	68.8
1986	0.0	0.3	0.2	16.9	8.9	0.1	0.8	39.8	(s)	66.7	0.0	0.0	67.0	0.0	67.0
1987	0.0	1.0	0.1	17.8	6.8	0.1	0.9	40.6	0.0	66.3	0.0	0.0	67.4	0.0	67.4
1988	0.0	1.8	0.2	18.3	7.1	0.1	0.9	40.0	0.0	66.6	0.0	0.0	68.4	0.0	68.4
1989	0.0	1.9	0.2	17.8	7.2	0.1	0.9	39.5	0.0	65.7	R[e] 0.4	0.0	[e] 67.6	0.0	[e] 67.6
1990	0.0	1.8	0.1	18.2	6.4	0.1	0.9	38.3	0.0	63.9	0.4	0.0	65.7	0.0	65.7
1991	0.0	2.1	0.1	18.8	5.2	0.1	0.8	39.0	0.0	64.0	0.3	0.0	66.1	0.0	66.1
1992	0.0	2.9	0.1	18.9	7.6	0.1	0.9	39.3	0.0	66.8	0.4	0.0	69.6	0.0	69.6
1993	0.0	4.5	0.3	20.5	6.8	0.1	0.9	41.0	0.0	69.5	0.5	0.0	74.1	0.0	74.1
1994	0.0	4.5	0.2	23.7	4.6	0.1	0.9	40.3	0.0	69.8	0.6	0.0	74.3	0.0	74.3
1995	0.0	4.9	0.3	24.7	1.9	(s)	0.9	41.8	0.0	69.7	0.5	0.0	74.6	0.0	74.6
1996	0.0	5.0	0.3	25.4	1.4	(s)	0.9	42.5	0.0	70.5	0.4	0.0	75.5	0.0	75.5
1997	0.0	5.0	0.2	26.8	1.1	(s)	0.9	42.9	0.0	71.8	0.4	0.0	76.8	0.0	76.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 226. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, North Dakota

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	1,014	0	1,014	(s)	15	4	0	20	0	1,060	0	0	0	–
1965	964	0	964	(s)	2	1	0	3	0	2,497	0	0	0	–
1970	3,519	0	3,519	(s)	25	7	0	32	0	3,108	0	0	0	–
1975	4,377	0	4,377	(s)	18	2	0	20	0	4,511	0	0	0	–
1980	11,618	0	11,618	(s)	0	68	0	68	0	5,364	0	0	0	–
1985	17,354	0	17,354	(s)	0	74	0	74	0	4,818	0	0	(s)	–
1986	17,291	0	17,291	(s)	0	57	0	57	0	3,304	0	0	(s)	–
1987	17,434	0	17,434	(s)	0	50	0	50	0	3,365	0	0	(s)	–
1988	21,686	0	21,686	(s)	0	46	0	46	0	2,273	0	0	0	–
1989	20,538	0	20,538	(s)	0	72	0	72	0	R 1,896	0	0	0	–
1990	21,579	0	21,579	(s)	0	57	0	57	0	2,334	0	0	0	–
1991	22,174	0	22,174	(s)	0	69	0	69	0	2,426	0	0	0	–
1992	23,192	0	23,192	(s)	0	58	0	58	0	2,259	0	0	0	–
1993	23,290	0	23,290	(s)	0	69	0	69	0	2,817	0	0	0	–
1994	23,248	0	23,248	(s)	0	112	0	112	0	2,353	0	0	0	–
1995	22,680	0	22,680	(s)	0	99	0	99	0	2,764	0	0	0	–
1996	23,640	0	23,640	(s)	0	155	0	155	0	3,946	0	0	0	–
1997	22,754	0	22,754	(s)	0	153	0	153	0	3,421	0	0	0	–
	Trillion Btu													
1960	14.0	0.0	14.0	0.1	0.1	(s)	0.0	0.1	0.0	11.4	0.0	0.0	0.0	25.7
1965	13.4	0.0	13.4	(s)	(s)	(s)	0.0	(s)	0.0	26.1	0.0	0.0	0.0	39.6
1970	48.1	0.0	48.1	0.4	0.2	(s)	0.0	0.2	0.0	32.6	0.0	0.0	0.0	81.3
1975	58.4	0.0	58.4	0.2	0.1	(s)	0.0	0.1	0.0	46.9	0.0	0.0	0.0	105.6
1980	153.8	0.0	153.8	(s)	0.0	0.4	0.0	0.4	0.0	55.7	0.0	0.0	0.0	209.9
1985	228.2	0.0	228.2	(s)	0.0	0.4	0.0	0.4	0.0	50.3	0.0	0.0	(s)	279.0
1986	227.5	0.0	227.5	(s)	0.0	0.3	0.0	0.3	0.0	34.5	0.0	0.0	(s)	262.4
1987	230.2	0.0	230.2	(s)	0.0	0.3	0.0	0.3	0.0	35.1	0.0	0.0	(s)	265.5
1988	285.6	0.0	285.6	(s)	0.0	0.3	0.0	0.3	0.0	23.5	0.0	0.0	0.0	309.3
1989	270.3	0.0	270.3	(s)	0.0	0.4	0.0	0.4	0.0	R 19.8	0.0	0.0	0.0	291.0
1990	286.4	0.0	286.4	(s)	0.0	0.3	0.0	0.3	0.0	24.3	0.0	0.0	0.0	311.3
1991	293.0	0.0	293.0	(s)	0.0	0.4	0.0	0.4	0.0	25.3	0.0	0.0	0.0	316.5
1992	304.2	0.0	304.2	(s)	0.0	0.3	0.0	0.3	0.0	23.4	0.0	0.0	0.0	R 329.2
1993	306.0	0.0	306.0	(s)	0.0	0.4	0.0	0.4	0.0	29.0	0.0	0.0	0.0	335.7
1994	306.5	0.0	306.5	(s)	0.0	0.7	0.0	0.7	0.0	24.3	0.0	0.0	0.0	333.8
1995	298.7	0.0	298.7	(s)	0.0	0.6	0.0	0.6	0.0	28.5	0.0	0.0	0.0	328.7
1996	311.9	0.0	311.9	(s)	0.0	0.9	0.0	0.9	0.0	40.8	0.0	0.0	0.0	355.9
1997	298.5	0.0	298.5	(s)	0.0	0.9	0.0	0.9	0.0	35.3	0.0	0.0	0.0	332.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 227. Energy Consumption Estimates by Source, Selected Years 1960-1997, Ohio

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	51,256	700	6,862	1,395	23,919	1,808	3,955	3,680	3,064	78,170	11,605	9,158	143,617	0	20	–	–	49,779	–
1965	54,023	880	7,344	2,125	27,663	3,075	6,328	5,441	3,312	86,271	10,963	14,615	167,137	22	11	–	–	52,423	–
1970	66,863	1,053	9,017	712	34,458	5,857	6,494	8,712	3,631	106,296	6,445	16,283	197,905	0	7	–	–	49,736	–
1975	70,764	957	8,749	491	42,168	6,039	3,600	9,910	3,609	118,808	10,399	16,834	220,607	0	7	–	–	41,054	–
1980	64,914	897	7,324	473	48,833	7,219	2,452	44,263	3,821	113,232	6,918	22,807	257,344	2,119	6	–	–	47,144	–
1985	57,979	733	6,339	330	35,980	7,204	1,709	27,919	3,477	108,763	2,322	15,991	210,034	1,943	175	–	–	84,049	–
1986	59,324	717	7,341	375	35,839	9,924	1,566	14,652	3,399	111,933	2,313	16,813	204,157	24	172	–	–	73,779	–
1987	59,350	715	9,006	239	33,518	10,800	1,458	15,912	3,843	116,091	2,079	18,825	211,771	7,513	225	–	–	69,918	–
1988	61,096	805	6,356	331	37,060	9,218	1,743	11,025	3,706	117,072	2,814	19,580	208,905	8,455	187	–	–	66,907	–
1989	61,016	814	10,622	250	38,238	10,405	1,337	13,213	3,801	114,574	2,316	19,511	214,269	12,661	[i] NA	–	–	[R] 66,396	–
1990	59,205	747	9,880	239	36,666	10,602	901	10,994	3,912	110,487	1,677	20,528	205,886	10,664	NA	–	–	[R] 77,740	–
1991	58,578	766	8,993	214	35,684	10,400	971	11,120	3,500	109,920	1,345	18,722	200,869	14,833	NA	–	–	[R] 65,297	–
1992	58,671	810	9,910	224	38,323	10,631	932	14,638	3,568	108,696	1,623	21,698	210,243	14,805	NA	–	–	[R] 51,318	–
1993	59,031	834	7,682	207	39,642	10,650	1,352	15,065	3,633	114,756	2,164	20,518	215,669	10,011	NA	–	–	65,178	–
1994	56,711	843	8,847	186	43,195	11,678	1,063	15,234	3,797	113,178	2,048	21,242	220,468	10,952	NA	–	–	[R] 90,864	–
1995	56,580	896	8,973	235	42,641	11,236	1,024	14,273	3,732	116,222	1,444	20,446	220,227	16,768	NA	–	–	[R] 78,947	–
1996	59,835	936	11,258	345	45,241	11,960	1,194	14,578	3,622	115,361	1,713	22,767	228,039	13,919	NA	–	–	[R] 63,879	–
1997	58,933	899	14,376	379	49,086	12,604	1,144	14,725	3,826	118,336	1,272	23,000	238,749	15,331	NA	–	–	67,731	–
			Trillion Btu																
1960	1,269.4	724.8	45.5	7.0	139.3	9.8	22.4	14.8	18.6	410.6	73.0	54.9	796.0	0.0	0.2	[R] 36.8	0.0	169.8	[R] 2,997.0
1965	1,324.4	909.4	48.7	10.7	161.1	17.0	35.9	21.8	20.1	453.2	68.9	85.3	922.8	0.3	0.1	[R] 38.6	0.0	178.9	[R] 3,374.4
1970	1,571.4	1,077.2	59.8	3.6	200.7	32.8	36.8	32.9	22.0	558.4	40.5	94.1	1,081.7	0.0	0.1	[R] 44.1	0.0	169.7	[R] 3,944.1
1975	1,619.1	978.9	58.1	2.5	245.6	33.9	20.4	36.8	21.9	624.1	65.4	97.8	1,206.5	0.0	0.1	[R] 46.2	0.0	140.1	[R] 3,990.8
1980	1,528.1	911.3	48.6	2.4	284.5	40.6	13.9	162.6	23.2	594.8	43.5	129.8	1,343.9	23.1	0.1	[R] 105.5	0.0	160.9	[R] 4,072.8
1985	1,389.5	765.4	42.1	1.7	209.6	40.6	9.7	100.6	21.1	571.3	14.6	92.3	1,103.6	21.0	1.8	[R] 116.9	0.0	286.8	[R] 3,684.9
1986	1,431.8	749.7	48.7	1.9	208.8	56.0	8.9	53.3	20.6	588.0	14.5	96.9	1,097.7	0.3	1.8	[R] 110.2	0.0	251.7	[R] 3,643.3
1987	1,433.1	747.1	59.8	1.2	195.2	61.0	8.3	58.2	23.3	609.8	13.1	107.8	1,137.7	81.0	2.3	[R] 115.4	0.0	238.6	[R] 3,755.2
1988	1,474.7	837.5	42.2	1.7	215.9	52.0	9.9	40.3	22.5	615.0	17.7	112.6	1,129.6	90.8	1.9	[R] 119.8	0.0	228.3	[R] 3,882.7
1989	1,463.9	848.3	70.5	1.3	222.7	58.7	7.6	48.7	23.1	601.9	14.6	111.8	1,160.7	135.8	[i] 1.4	[R i] 127.4	[R i] 0.3	[R] 226.5	[R i] 3,952.3
1990	1,424.8	776.6	65.6	1.2	213.6	59.9	5.1	39.9	23.7	580.4	10.5	117.6	1,117.5	113.9	1.9	[R] 111.1	[R] 0.4	265.2	[R] 3,797.3
1991	1,413.0	799.3	59.7	1.1	207.9	58.8	5.5	40.2	21.2	577.4	8.5	107.5	1,087.7	159.3	1.6	[R] 113.9	[R] 0.4	[R] 222.8	[R] 3,787.0
1992	1,418.7	839.3	65.8	1.1	223.2	60.1	5.3	53.0	21.6	571.0	10.2	124.1	1,135.4	158.1	2.6	[R] 119.0	[R] 0.4	175.1	[R] 3,835.2
1993	1,432.3	865.5	51.0	1.0	230.9	60.2	7.7	54.3	22.0	602.8	13.6	117.4	1,161.0	106.9	2.0	[R] 103.1	[R] 0.5	222.4	[R] 3,878.5
1994	1,377.1	874.5	58.7	0.9	251.6	66.1	6.0	55.4	23.0	594.5	12.9	121.8	1,191.0	116.9	2.0	[R] 106.2	[R] 0.5	[R] 310.0	[R] 3,960.8
1995	1,379.8	930.1	59.5	1.2	248.4	63.7	5.8	51.7	22.6	610.5	9.1	117.4	1,190.0	178.7	2.4	[R] 110.6	[R] 0.6	[R] 269.4	[R] 4,045.4
1996	1,448.8	972.0	74.7	1.7	263.5	67.8	6.8	52.7	22.0	606.0	10.8	130.6	1,236.6	147.9	4.1	[R] 104.2	[R] 0.6	218.0	[R] 4,125.8
1997	1,409.7	939.2	95.4	1.9	285.9	71.5	6.5	53.2	23.2	621.6	8.0	131.9	1,299.2	162.9	5.2	108.3	0.7	231.1	4,144.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 228. Residential Energy Consumption Estimates, Selected Years 1960-1997, Ohio

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	1,177	29	1,206	362	7,270	1,837	1,750	10,857	R 990	–	–	10,786	–	26,830	–
1965	778	18	797	412	7,795	3,626	2,293	13,715	R 805	–	–	14,504	–	34,630	–
1970	560	11	571	460	9,320	2,979	3,892	16,191	R 925	–	–	22,266	–	53,958	–
1975	393	6	399	428	10,776	2,060	4,876	17,713	R 963	–	–	27,890	–	67,275	–
1980	192	4	196	394	7,430	1,016	2,556	11,003	R 2,255	–	–	33,459	–	81,361	–
1985	296	7	304	328	4,474	941	3,339	8,754	R 2,237	–	–	33,945	–	79,750	–
1986	368	1	369	327	4,583	1,181	3,444	9,207	R 2,178	–	–	35,220	–	81,017	–
1987	283	2	285	326	4,162	1,072	4,058	9,291	R 2,417	–	–	36,711	–	83,882	–
1988	252	4	256	351	4,656	1,259	3,985	9,899	R 2,511	–	–	38,713	–	87,522	–
1989	189	4	192	359	4,573	874	4,519	9,966	R 2,604	–	–	38,792	–	R 87,159	–
1990	228	1	229	308	4,080	625	4,205	8,909	1,560	–	–	37,889	–	R 82,873	–
1991	170	2	172	322	4,221	677	4,451	9,348	1,644	–	–	40,942	–	R 89,127	–
1992	202	7	209	341	4,662	728	3,987	9,377	1,729	–	–	39,141	–	R 83,604	–
1993	203	3	205	354	4,473	839	4,721	10,032	882	–	–	41,950	–	88,633	–
1994	171	6	177	343	4,895	709	4,623	10,227	865	–	–	41,791	–	R 87,207	–
1995	143	1	143	358	4,321	748	4,979	10,048	960	–	–	44,010	–	R 91,687	–
1996	225	7	232	375	3,829	818	5,925	10,572	958	–	–	44,573	–	R 92,766	–
1997	112	6	118	355	3,522	774	5,925	10,221	697	–	–	43,635	–	90,619	–
	Trillion Btu														
1960	28.1	0.7	28.8	374.5	42.3	10.4	7.0	59.8	R 19.8	0.0	0.0	36.8	R 519.7	91.5	R 611.2
1965	18.5	0.4	18.9	425.6	45.4	20.6	9.2	75.2	R 16.1	0.0	0.0	49.5	R 585.3	118.2	R 703.4
1970	12.8	0.3	13.1	470.6	54.3	16.9	14.7	85.9	R 18.5	0.0	0.0	76.0	R 664.0	184.1	R 848.1
1975	8.8	0.1	8.9	438.1	62.8	11.7	18.1	92.6	R 19.3	0.0	0.0	95.2	R 654.0	229.5	R 883.5
1980	4.5	0.1	4.6	400.1	43.3	5.8	9.4	58.4	R 45.1	0.0	0.0	114.2	R 622.3	277.6	R 899.9
1985	7.1	0.2	7.2	342.0	26.1	5.3	12.0	43.4	R 44.7	0.0	0.0	115.8	R 553.2	272.1	R 825.3
1986	8.8	(s)	8.8	342.4	26.7	6.7	12.5	45.9	R 43.6	0.0	0.0	120.2	R 560.9	276.4	R 837.3
1987	6.8	(s)	6.9	341.2	24.2	6.1	14.8	45.2	R 48.3	0.0	0.0	125.3	R 566.8	286.2	R 853.0
1988	6.1	0.1	6.2	364.6	27.1	7.1	14.6	48.8	R 50.2	0.0	0.0	132.1	R 602.0	298.6	R 900.6
1989	4.5	0.1	4.6	374.2	26.6	5.0	16.6	48.2	R 52.1	e 0.3	R e (s)	132.4	R e 611.9	R 297.4	R e 909.3
1990	5.5	(s)	5.5	320.7	23.8	3.5	15.2	42.5	31.2	0.3	(s)	129.3	R 529.6	282.8	R 812.4
1991	4.1	(s)	4.2	335.9	24.6	3.8	16.1	44.5	32.9	0.4	(s)	139.7	R 557.6	304.1	R 861.7
1992	4.9	0.2	5.1	352.9	27.2	4.1	14.4	45.7	34.6	0.4	(s)	133.5	R 572.3	285.3	R 857.5
1993	4.9	0.1	5.0	367.6	26.1	4.8	17.0	47.8	17.6	0.4	(s)	143.1	R 581.6	302.4	R 884.1
1994	4.2	0.1	4.3	356.0	28.5	4.0	16.8	49.3	17.3	0.4	(s)	142.6	R 570.0	R 297.6	R 867.5
1995	3.5	(s)	3.5	371.4	25.2	4.2	18.0	47.5	19.2	0.4	(s)	150.2	R 592.1	312.8	R 905.0
1996	5.4	0.2	5.5	389.1	22.3	4.6	21.4	48.4	19.2	0.5	(s)	152.1	R 614.7	316.5	R 931.2
1997	2.7	0.1	2.8	370.5	20.5	4.4	21.4	46.3	13.9	0.5	(s)	148.9	583.0	309.2	892.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 229. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Ohio

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	2,187	19	2,206	108	1,443	95	309	541	2,118	4,507	R 19	–	R 7,594	–	R 18,890	–
1965	1,446	12	1,458	127	1,548	188	405	572	1,997	4,710	R 15	–	R 10,384	–	R 24,793	–
1970	1,040	7	1,047	183	1,850	155	687	401	824	3,917	R 17	–	R 17,073	–	R 41,374	–
1975	729	4	733	169	2,139	107	861	956	1,457	5,520	R 18	–	R 20,047	–	R 48,355	–
1980	357	3	360	166	2,591	130	451	2,058	380	5,610	R 54	–	R 23,323	–	R 56,715	–
1985	550	5	555	143	2,036	440	589	604	83	3,752	NA	–	R 29,176	–	R 68,546	–
1986	683	(s)	684	139	2,127	190	608	1,863	160	4,947	NA	–	R 30,476	–	R 70,102	–
1987	526	1	527	147	2,116	189	716	2,020	50	5,091	NA	–	R 31,771	–	R 72,594	–
1988	468	2	470	159	2,232	264	703	3,024	79	6,302	NA	–	R 33,318	–	R 75,324	–
1989	351	2	353	162	1,687	240	798	2,059	18	4,802	NA	–	R 34,470	–	R 77,448	–
1990	424	(s)	425	144	1,652	189	742	1,059	22	3,665	NA	–	R 34,850	–	R 76,225	–
1991	316	1	317	150	1,615	180	785	925	40	3,547	NA	–	R 36,813	–	R 80,138	–
1992	374	5	379	161	1,683	68	704	673	74	3,201	NA	–	R 36,150	–	R 77,217	–
1993	376	2	378	164	1,384	201	833	393	27	2,838	R 71	–	R 37,740	–	R 79,736	–
1994	318	4	322	167	1,501	144	816	448	8	2,916	R 72	–	R 38,526	–	R 80,393	–
1995	265	(s)	265	175	1,847	89	879	438	5	3,257	R 72	–	R 40,093	–	R 83,525	–
1996	419	5	423	190	1,354	155	1,046	365	2	2,920	R 79	–	R 40,570	–	R 84,434	–
1997	207	4	211	184	1,485	127	1,046	1,956	2	4,615	68	–	40,935	–	85,011	–
	Trillion Btu															
1960	52.2	0.5	52.6	111.7	8.4	0.5	1.2	2.8	13.3	26.3	R 0.4	0.0	25.9	R 217.0	R 64.5	R 281.4
1965	34.3	0.3	34.6	131.0	9.0	1.1	1.6	3.0	12.6	27.3	R 0.3	0.0	35.4	R 228.6	84.6	R 313.2
1970	23.8	0.2	24.0	187.6	10.8	0.9	2.6	2.1	5.2	21.5	R 0.3	0.0	58.3	R 291.8	R 141.2	R 432.9
1975	16.3	0.1	16.4	173.4	12.5	0.6	3.2	5.0	9.2	30.4	R 0.4	0.0	68.4	R 289.0	165.0	R 454.0
1980	8.3	0.1	8.3	168.9	15.1	0.7	1.7	10.8	2.4	30.7	R 1.1	0.0	79.6	R 288.6	193.5	R 482.1
1985	13.1	0.1	13.2	149.6	11.9	2.5	2.1	3.2	0.5	20.2	NA	0.0	R 99.5	282.6	233.9	516.5
1986	16.4	(s)	16.4	145.5	12.4	1.1	2.2	9.8	1.0	26.5	NA	0.0	104.0	292.4	239.2	531.6
1987	12.7	(s)	12.7	153.6	12.3	1.1	2.6	10.6	0.3	26.9	NA	0.0	108.4	301.7	R 247.7	R 549.4
1988	11.4	0.1	11.4	165.1	13.0	1.5	2.6	15.9	0.5	33.4	NA	0.0	113.7	323.7	R 257.0	R 580.7
1989	8.4	0.1	8.4	168.3	9.8	1.4	2.9	10.8	0.1	25.1	NA	0.0	117.6	319.4	R 264.3	583.7
1990	10.2	(s)	10.3	149.3	9.6	1.1	2.7	5.6	0.1	19.1	NA	0.0	118.9	297.5	260.1	557.6
1991	7.6	(s)	7.7	157.0	9.4	1.0	2.8	4.9	0.3	18.4	NA	0.0	125.6	R 308.6	273.4	582.1
1992	9.1	0.1	9.2	166.4	9.8	0.4	2.5	3.5	0.5	16.7	NA	0.0	R 123.3	R 315.7	263.5	R 579.2
1993	9.2	(s)	9.2	170.3	8.1	1.1	3.0	2.1	0.2	14.4	R 1.4	0.0	128.8	R 324.1	272.1	R 596.2
1994	7.7	0.1	7.8	173.0	8.7	0.8	3.0	2.4	(s)	14.9	R 1.4	0.1	131.5	R 328.7	274.3	R 603.0
1995	6.5	(s)	6.5	181.8	10.8	0.5	3.2	2.3	(s)	16.8	R 1.4	0.1	136.8	R 343.4	285.0	R 628.4
1996	10.0	0.1	10.1	197.2	7.9	0.9	3.8	1.9	(s)	14.5	R 1.6	0.1	R 138.4	R 361.9	R 288.1	R 650.0
1997	5.0	0.1	5.0	192.1	8.7	0.7	3.8	10.3	(s)	23.4	1.4	0.2	139.7	361.8	290.1	651.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 230. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Ohio

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	25,835	218	6,862	7,112	2,023	1,585	1,683	3,354	9,082	9,158	40,860	12	–	–	39,246	–	97,619	–
1965	26,758	327	7,344	8,479	2,513	2,649	2,050	2,598	8,228	14,615	48,476	1	–	–	41,757	–	99,701	–
1970	29,875	376	9,017	11,429	3,360	3,999	2,390	1,926	4,166	16,283	52,571	0	–	–	45,827	–	111,055	–
1975	22,307	345	8,749	11,150	1,433	3,993	1,987	1,519	7,038	16,834	52,704	0	–	–	55,597	–	134,108	–
1980	15,821	321	7,324	12,591	1,306	41,031	2,395	1,154	5,678	22,807	94,285	0	–	–	55,283	–	134,429	–
1985	10,420	253	6,339	6,688	328	23,612	2,180	1,074	2,098	15,991	58,310	0	–	–	61,109	–	143,571	–
1986	10,487	241	7,341	5,841	196	10,190	2,131	1,019	2,067	16,813	45,598	0	–	–	58,497	–	134,560	–
1987	11,019	229	9,006	5,302	198	10,788	2,409	1,031	1,909	18,825	49,468	0	–	–	61,855	–	141,334	–
1988	11,478	285	6,356	5,193	220	5,989	2,324	1,025	2,336	19,580	43,023	0	–	–	62,238	–	140,706	–
1989	9,992	282	10,622	5,255	223	7,522	2,383	1,016	1,778	19,511	48,311	[f] NA	–	–	68,314	–	[R] 153,489	–
1990	9,703	284	9,880	5,141	87	5,689	2,453	973	1,514	20,528	46,265	NA	–	–	69,682	–	[R] 152,410	–
1991	8,511	281	8,993	5,254	114	5,592	2,194	963	1,128	18,722	42,962	NA	–	–	67,856	–	[R] 147,715	–
1992	7,725	296	9,910	6,395	136	9,696	2,237	2,794	1,433	21,698	54,299	NA	–	–	69,674	–	[R] 148,824	–
1993	6,992	303	7,682	6,524	313	9,265	2,278	1,123	2,100	20,518	49,804	NA	–	–	68,831	–	145,426	–
1994	6,886	312	8,847	7,127	209	9,334	2,381	1,099	1,949	21,242	52,188	NA	–	–	74,010	–	[R] 154,439	–
1995	6,386	338	8,973	6,334	187	8,159	2,340	1,200	1,383	20,446	49,023	NA	–	–	74,473	–	[R] 155,151	–
1996	5,636	348	11,258	5,686	221	7,387	2,271	1,203	1,627	22,767	52,421	NA	–	–	73,394	–	[R] 152,749	–
1997	5,711	337	14,376	6,060	244	7,555	2,399	1,231	1,210	23,000	56,075	NA	–	–	73,888	–	153,449	–
			Trillion Btu															
1960	664.3	226.1	45.5	41.4	11.5	6.4	10.2	17.6	57.1	54.9	244.6	0.1	[R] 16.5	0.0	133.9	[R] 1,285.6	333.1	[R] 1,618.7
1965	681.5	338.3	48.7	49.4	14.2	10.6	12.4	13.6	51.7	85.3	286.1	(s)	[R] 22.1	0.0	142.5	[R] 1,470.4	340.2	[R] 1,810.6
1970	738.5	384.8	59.8	66.6	19.1	15.1	14.5	10.1	26.2	94.1	305.4	0.0	[R] 25.2	0.0	156.4	[R] 1,610.3	378.9	[R] 1,989.2
1975	556.5	352.8	58.1	64.9	8.1	14.8	12.1	8.0	44.2	97.8	308.1	0.0	[R] 26.6	0.0	189.7	[R] 1,433.6	457.6	[R] 1,891.2
1980	404.7	326.0	48.6	73.3	7.4	150.7	14.5	6.1	35.7	129.8	466.2	0.0	[R] 59.3	0.0	188.6	[R] 1,444.8	458.7	[R] 1,903.4
1985	265.7	264.4	42.1	39.0	1.9	85.1	13.2	5.6	13.2	92.3	292.4	0.0	[R] 69.4	0.0	208.5	[R] 1,100.3	489.9	[R] 1,590.2
1986	268.3	252.2	48.7	34.0	1.1	37.1	12.9	5.4	13.0	96.9	249.2	0.0	[R] 63.7	0.0	199.6	[R] 1,032.9	459.1	[R] 1,492.1
1987	282.1	239.7	59.8	30.9	1.1	39.5	14.6	5.4	12.0	107.8	271.1	0.0	[R] 63.4	0.0	211.0	[R] 1,067.4	482.2	[R] 1,549.6
1988	293.9	296.3	42.2	30.3	1.2	21.9	14.1	5.4	14.7	112.6	242.3	0.0	[R] 66.0	0.0	212.4	[R] 1,110.9	480.1	[R] 1,591.0
1989	256.0	293.9	70.5	30.6	1.3	27.7	14.5	5.3	11.2	111.8	272.8	[R f] 0.1	[R f] 59.9	[f] 0.0	233.1	[R f] 1,115.9	[R] 523.7	[R f] 1,639.6
1990	248.2	294.9	65.6	29.9	0.5	20.6	14.9	5.1	9.5	117.6	263.7	0.1	[R] 63.1	0.0	237.8	[R] 1,107.8	520.0	[R] 1,627.8
1991	216.8	293.6	59.7	30.6	0.6	20.2	13.3	5.1	7.1	107.5	244.1	0.1	[R] 66.8	0.0	231.5	[R] 1,052.9	[R] 504.0	[R] 1,556.9
1992	197.6	306.9	65.8	37.3	0.8	35.1	13.6	14.7	9.0	124.1	300.3	0.1	[R] 67.7	0.0	237.7	[R] 1,110.3	507.8	[R] 1,618.1
1993	178.2	314.1	51.0	38.0	1.8	33.4	13.8	5.9	13.2	117.4	274.5	0.1	[R] 68.3	0.0	234.9	[R] 1,070.0	496.2	[R] 1,566.2
1994	176.0	324.0	58.7	41.5	1.2	33.9	14.4	5.8	12.3	121.8	289.6	(s)	[R] 70.0	0.0	252.5	[R] 1,112.2	526.9	[R] 1,639.1
1995	162.9	350.7	59.5	36.9	1.1	29.6	14.2	6.3	8.7	117.4	273.7	[R] 0.1	[R] 73.8	0.0	254.1	[R] 1,115.2	[R] 529.4	[R] 1,644.6
1996	142.2	361.6	74.7	33.1	1.3	26.7	13.8	6.3	10.2	130.6	296.7	0.1	[R] 77.1	0.0	250.4	[R] 1,128.1	521.2	[R] 1,649.3
1997	143.9	352.4	95.4	35.3	1.4	27.3	14.5	6.5	7.6	131.9	320.0	0.0	81.0	0.0	252.1	1,149.4	523.6	1,673.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 231. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Ohio

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	449	9	1,395	7,987	1,808	36	1,381	74,274	310	87,192	0	R 91	–	R 226	–
1965	88	11	2,125	9,722	3,075	94	1,263	83,101	633	100,013	0	R 57	–	R 135	–
1970	48	12	712	11,068	5,857	133	1,241	103,970	758	123,739	0	R 54	–	R 131	–
1975	4	9	491	15,647	5,926	180	1,622	116,333	592	140,790	0	45	–	R 108	–
1980	0	11	473	24,578	7,219	225	1,425	110,021	255	144,198	0	R 46	–	R 111	–
1985	0	8	330	22,274	7,204	379	1,297	107,086	0	138,569	0	R 46	–	R 107	–
1986	0	9	375	22,795	9,924	411	1,268	109,051	4	143,828	0	R 46	–	R 105	–
1987	0	11	239	21,419	10,800	351	1,434	113,040	31	147,312	0	R 46	–	R 104	–
1988	0	10	331	24,446	9,218	349	1,383	113,023	12	148,761	0	R 47	–	R 106	–
1989	0	10	250	26,215	10,405	374	1,418	111,499	10	150,171	R e 159,106	R 48	–	R 109	–
1990	0	10	239	25,341	10,602	358	1,459	108,455	5	146,458	183,756	R 44	–	R 97	–
1991	0	9	214	24,010	10,400	292	1,306	108,032	8	144,260	145,661	R 46	–	R 101	–
1992	0	10	224	25,156	10,631	251	1,331	105,229	55	142,877	177,034	R 51	–	R 110	–
1993	0	10	207	26,716	10,650	246	1,355	113,239	16	152,430	197,565	R 49	–	R 105	–
1994	0	18	186	28,828	11,678	460	1,417	111,632	64	154,265	229,400	R 49	–	R 103	–
1995	0	18	235	29,497	11,236	256	1,392	114,584	57	157,258	211,823	R 49	–	R 102	–
1996	0	20	345	33,788	11,960	220	1,351	113,793	84	161,541	83,698	R 50	–	R 105	–
1997	0	20	379	37,444	12,604	200	1,427	115,149	60	167,264	156,603	50	–	104	–
			Trillion Btu												
1960	11.1	9.4	7.0	46.5	9.8	0.1	8.4	390.2	2.0	464.0	0.0	0.3	484.9	0.8	R 485.6
1965	2.2	11.4	10.7	56.6	17.0	0.4	7.7	436.5	4.0	532.9	0.0	0.2	546.7	R 0.5	R 547.2
1970	1.1	12.3	3.6	64.5	32.8	0.5	7.5	546.2	4.8	659.8	0.0	R 0.2	673.4	0.4	R 673.8
1975	0.1	9.2	2.5	91.1	33.3	0.7	9.8	611.1	3.7	752.2	0.0	0.2	761.7	0.4	762.1
1980	0.0	11.6	2.4	143.2	40.6	0.8	8.6	577.9	1.6	775.2	0.0	R 0.2	787.0	0.4	R 787.4
1985	0.0	8.6	1.7	129.7	40.6	1.4	7.9	562.5	0.0	743.8	0.0	R 0.2	R 752.6	R 0.4	752.9
1986	0.0	9.1	1.9	132.8	56.0	1.5	7.7	572.8	(s)	772.8	0.0	R 0.2	782.0	R 0.4	R 782.4
1987	0.0	11.7	1.2	124.8	61.0	1.3	8.7	593.8	0.2	790.9	0.0	R 0.2	802.8	R 0.4	R 803.2
1988	0.0	10.4	1.7	142.4	52.0	1.3	8.4	593.7	0.1	799.5	0.0	R 0.2	R 810.1	R 0.4	810.4
1989	0.0	10.8	1.3	152.7	58.7	1.4	8.6	585.7	0.1	808.4	R e 12.2	R 0.2	e 819.4	R 0.4	R e 819.8
1990	0.0	10.5	1.2	147.6	59.9	1.3	8.9	569.7	(s)	788.6	14.0	R 0.2	799.2	0.3	R 799.6
1991	0.0	9.5	1.1	139.9	58.8	1.1	7.9	567.5	(s)	776.3	11.1	R 0.2	785.9	0.3	R 786.3
1992	0.0	10.0	1.1	146.5	60.1	0.9	8.1	552.8	0.3	769.8	13.5	R 0.2	780.0	R 0.4	R 780.4
1993	0.0	10.7	1.0	155.6	60.2	0.9	8.2	594.8	0.1	820.9	15.1	R 0.2	831.8	R 0.4	R 832.2
1994	0.0	18.6	0.9	167.9	66.1	1.7	8.6	586.4	0.4	832.0	17.5	R 0.2	R 850.8	R 0.4	R 851.1
1995	0.0	18.5	1.2	171.8	63.7	0.9	8.4	601.9	0.4	848.3	16.2	R 0.2	R 867.1	0.3	R 867.4
1996	0.0	21.2	1.7	196.8	67.8	0.8	8.2	597.8	0.5	873.6	6.4	R 0.2	R 895.0	R 0.4	R 895.3
1997	0.0	20.6	1.9	218.1	71.5	0.7	8.7	604.9	0.4	906.1	12.0	0.2	926.9	0.4	927.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 232. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Ohio

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	21,559	0	21,559	3	94	107	0	201	0	7	8	0	0	–
1965	24,923	0	24,923	3	105	119	0	223	22	10	7	0	0	–
1970	35,321	0	35,321	21	697	791	0	1,487	0	7	5	0	0	–
1975	47,321	0	47,321	6	1,312	2,568	0	3,880	0	7	(s)	0	0	–
1980	48,537	0	48,537	5	605	1,643	0	2,248	2,119	6	1	0	0	–
1985	46,700	0	46,700	1	141	508	0	649	1,943	175	265	0	0	–
1986	47,785	0	47,785	1	82	493	0	576	24	172	279	0	0	–
1987	47,520	0	47,520	1	90	519	0	608	7,513	225	352	0	0	–
1988	48,893	0	48,893	1	387	533	0	921	8,455	187	351	0	0	–
1989	50,479	0	50,479	1	510	508	0	1,018	12,661	130	316	0	0	–
1990	48,848	0	48,848	1	136	452	0	588	10,664	173	267	0	0	–
1991	49,577	0	49,577	3	169	584	0	753	14,833	145	298	0	0	–
1992	50,358	0	50,358	3	62	427	0	489	14,805	244	310	0	0	–
1993	51,456	0	51,456	3	21	545	0	565	10,011	183	64	0	0	–
1994	49,326	0	49,326	3	28	844	0	872	10,952	189	0	0	0	–
1995	49,785	0	49,785	7	0	642	0	642	16,768	227	0	0	0	–
1996	53,543	0	53,543	3	0	584	0	584	13,919	392	0	0	0	–
1997	52,893	0	52,893	3	0	574	0	574	15,331	507	0	0	0	–
	Trillion Btu													
1960	512.5	0.0	512.5	3.1	0.6	0.6	0.0	1.2	0.0	0.1	0.1	0.0	0.0	516.9
1965	587.3	0.0	587.3	3.0	0.7	0.7	0.0	1.3	0.3	0.1	0.1	0.0	0.0	592.1
1970	794.7	0.0	794.7	21.9	4.4	4.6	0.0	9.0	0.0	0.1	0.1	0.0	0.0	825.7
1975	1,037.2	0.0	1,037.2	5.3	8.2	14.9	0.0	23.2	0.0	0.1	(s)	0.0	0.0	1,065.8
1980	1,110.5	0.0	1,110.5	4.7	3.8	9.6	0.0	13.4	23.1	0.1	(s)	0.0	0.0	1,151.8
1985	1,103.3	0.0	1,103.3	0.7	0.9	3.0	0.0	3.8	21.0	1.8	2.8	0.0	0.0	1,133.5
1986	1,138.3	0.0	1,138.3	0.6	0.5	2.9	0.0	3.4	0.3	1.8	2.9	0.0	0.0	1,147.3
1987	1,131.4	0.0	1,131.4	0.9	0.6	3.0	0.0	3.6	81.0	2.3	3.7	0.0	0.0	1,222.8
1988	1,163.2	0.0	1,163.2	1.0	2.4	3.1	0.0	5.5	90.8	1.9	3.6	0.0	0.0	1,266.1
1989	1,194.8	0.0	1,194.8	1.0	3.2	3.0	0.0	6.2	135.8	1.4	3.3	0.0	0.0	1,342.4
1990	1,160.8	0.0	1,160.8	1.3	0.9	2.6	0.0	3.5	113.9	1.8	2.8	0.0	0.0	1,284.0
1991	1,184.4	0.0	1,184.4	3.3	1.1	3.4	0.0	4.5	159.3	1.5	3.1	0.0	0.0	1,356.1
1992	1,206.8	0.0	1,206.8	3.1	0.4	2.5	0.0	2.9	158.1	2.5	3.2	0.0	0.0	1,376.6
1993	1,240.0	0.0	1,240.0	2.8	0.1	3.2	0.0	3.3	106.9	1.9	0.7	0.0	0.0	1,355.6
1994	1,189.0	0.0	1,189.0	2.9	0.2	4.9	0.0	5.1	116.9	1.9	0.0	0.0	0.0	1,315.9
1995	1,207.0	0.0	1,207.0	7.7	0.0	3.7	0.0	3.7	178.7	2.3	0.0	0.0	0.0	1,399.4
1996	1,291.0	0.0	1,291.0	3.0	0.0	3.4	0.0	3.4	147.9	4.1	0.0	0.0	0.0	1,449.3
1997	1,257.9	0.0	1,257.9	3.6	0.0	3.3	0.0	3.3	162.9	5.2	0.0	0.0	0.0	1,432.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 233. Energy Consumption Estimates by Source, Selected Years 1960-1997, Oklahoma

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	77	308	2,034	562	2,618	2,920	431	6,433	661	22,708	1,454	7,938	47,758	0	705	–	–	-3,605	–
1965	30	468	3,586	745	2,877	3,453	945	7,654	679	25,815	851	8,617	55,222	0	825	–	–	-4,992	–
1970	7	597	4,598	448	5,584	4,378	1,103	9,618	622	32,521	807	8,730	68,410	0	1,406	–	–	-18,718	–
1975	23	669	5,675	309	9,449	3,916	328	9,342	810	38,469	641	9,555	78,495	0	2,945	–	–	-21,277	–
1980	6,046	722	4,826	328	12,125	4,900	342	8,987	1,356	39,633	732	9,296	82,525	0	1,315	–	–	-28,011	–
1985	13,602	587	4,003	217	18,377	5,870	114	8,035	1,234	42,170	219	4,955	85,195	0	3,980	–	–	-15,019	–
1986	12,395	554	3,281	250	13,948	5,942	77	5,950	1,207	40,568	393	5,139	76,755	0	2,951	–	–	-10,571	–
1987	13,476	596	2,729	179	13,960	7,440	63	5,487	1,364	38,731	332	5,874	76,159	0	2,948	–	–	-14,929	–
1988	15,006	589	3,564	172	14,916	7,224	89	4,911	1,316	38,806	660	7,003	78,661	0	2,045	–	–	-13,947	–
1989	15,086	601	2,750	165	14,762	9,239	120	5,681	1,349	38,888	394	7,294	80,644	0	[i] NA	–	–	[R] -16,291	–
1990	15,423	604	3,508	146	15,348	7,832	38	3,289	1,389	38,998	631	7,544	78,722	0	NA	–	–	[R] -2,320	–
1991	16,345	570	3,433	111	14,175	10,569	31	4,878	1,242	38,816	242	6,931	80,430	0	NA	–	–	[R] -12,275	–
1992	17,430	544	2,930	124	16,287	12,948	31	4,502	1,267	39,883	628	8,192	86,791	0	NA	–	–	[R] -20,211	–
1993	18,866	579	3,721	104	16,391	9,012	26	5,687	1,290	40,814	713	7,770	85,528	0	NA	–	–	-22,941	–
1994	17,726	572	3,542	84	17,325	10,345	32	5,626	1,348	41,524	557	7,610	87,993	0	NA	–	–	[R] -12,128	–
1995	19,596	568	3,181	154	17,675	5,359	15	3,625	1,325	42,382	447	7,417	81,580	0	NA	–	–	[R] -18,452	–
1996	20,125	567	2,762	117	20,479	4,707	32	3,729	1,286	43,763	396	8,535	85,805	0	NA	–	–	[R] -12,017	–
1997	21,109	560	1,426	80	21,857	5,257	45	3,767	1,358	42,670	274	8,663	85,397	0	NA	–	–	-12,594	–
			Trillion Btu																
1960	1.8	319.3	13.5	2.8	15.3	15.7	2.4	25.8	4.0	119.3	9.1	47.7	255.6	0.0	7.6	[R] 10.2	0.0	-12.3	[R] 582.2
1965	0.7	480.1	23.8	3.8	16.8	18.7	5.4	30.7	4.1	135.6	5.4	51.7	295.8	0.0	8.6	[R] 7.6	0.0	-17.0	[R] 775.8
1970	0.2	616.3	30.5	2.3	32.5	24.0	6.3	36.3	3.8	170.8	5.1	52.3	363.9	0.0	14.8	[R] 7.0	0.0	-63.9	[R] 938.2
1975	0.5	678.9	37.7	1.6	55.0	21.5	1.9	34.7	4.9	202.1	4.0	57.3	420.7	0.0	30.6	[R] 12.0	0.0	-72.6	[R] 1,070.1
1980	106.3	738.9	32.0	1.7	70.6	26.9	1.9	33.0	8.2	208.2	4.6	55.7	442.9	0.0	13.7	[R] 14.5	0.0	-95.6	[R] 1,220.8
1985	237.2	603.9	26.6	1.1	107.0	32.5	0.6	29.0	7.5	221.5	1.4	30.7	457.9	0.0	41.6	[R] 11.4	0.0	-51.2	[R] 1,300.7
1986	217.9	570.7	21.8	1.3	81.2	32.9	0.4	21.7	7.3	213.1	2.5	32.0	414.2	0.0	30.8	[R] 16.2	0.0	-36.1	[R] 1,213.8
1987	240.7	617.6	18.1	0.9	81.3	41.4	0.4	20.1	8.3	203.5	2.1	35.8	411.9	0.0	30.7	[R] 17.4	0.0	-50.9	[R] 1,267.2
1988	269.4	611.2	23.7	0.9	86.9	40.2	0.5	17.9	8.0	203.8	4.2	42.3	428.3	0.0	21.1	[R] 18.1	0.0	-47.6	[R] 1,300.5
1989	268.7	617.6	18.3	0.8	86.0	51.7	0.7	20.9	8.2	204.3	2.5	43.7	437.0	0.0	[i] 25.0	[R i] 19.6	[R i] 0.1	[R] -55.6	[R i] 1,312.4
1990	277.1	620.7	23.3	0.7	89.4	43.8	0.2	11.9	8.4	204.9	4.0	45.2	431.8	0.0	28.6	[R] 17.8	0.1	-7.9	[R] 1,368.3
1991	291.6	582.1	22.8	0.6	82.6	59.1	0.2	17.6	7.5	203.9	1.5	41.7	437.5	0.0	19.4	[R] 18.4	0.1	-41.9	[R] 1,307.2
1992	307.2	558.0	19.4	0.6	94.9	72.8	0.2	16.3	7.7	209.5	3.9	48.8	474.1	0.0	33.2	[R] 19.0	0.1	-69.0	[R] 1,322.6
1993	331.5	593.8	24.7	0.5	95.5	50.5	0.1	20.5	7.8	214.4	4.5	46.6	465.1	0.0	44.3	[R] 18.9	0.1	-78.3	[R] 1,375.4
1994	307.0	588.1	23.5	0.4	100.9	58.1	0.2	20.5	8.2	218.1	3.5	45.5	478.9	0.0	25.4	[R] 19.0	0.1	-41.4	[R] 1,377.0
1995	343.5	579.5	21.1	0.8	103.0	30.3	0.1	13.1	8.0	222.6	2.8	44.4	446.2	0.0	28.0	[R] 20.3	0.1	-63.0	[R] 1,354.7
1996	349.9	580.2	18.3	0.6	119.3	26.7	0.2	13.5	7.8	229.9	2.5	50.9	469.6	0.0	21.5	[R] 20.3	0.1	-41.0	[R] 1,400.5
1997	367.4	566.7	9.5	0.4	127.3	29.8	0.3	13.6	8.2	224.1	1.7	51.6	466.6	0.0	29.1	18.3	0.1	-43.0	1,405.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 234. Residential Energy Consumption Estimates, Selected Years 1960-1997, Oklahoma

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	18	0	18	60	2	18	3,938	3,959	R 460	–	–	2,372	–	5,900	–
1965	6	0	6	65	2	78	4,642	4,722	R 331	–	–	4,086	–	9,756	–
1970	2	0	2	77	3	52	5,802	5,856	R 308	–	–	7,293	–	17,674	–
1975	1	0	1	80	12	24	5,628	5,663	R 341	–	–	9,222	–	22,245	–
1980	11	0	11	77	15	21	1,759	1,795	R 441	–	–	12,309	–	29,931	–
1985	1	0	1	76	82	30	2,027	2,140	R 251	–	–	14,400	–	33,831	–
1986	1	0	1	67	30	9	1,477	1,516	R 245	–	–	13,903	–	31,981	–
1987	1	0	1	64	10	22	1,362	1,394	R 306	–	–	14,085	–	32,183	–
1988	3	(s)	3	72	28	25	1,323	1,376	R 318	–	–	14,475	–	32,724	–
1989	(s)	0	(s)	72	(s)	19	1,509	1,528	R 330	–	–	14,083	–	R 31,641	–
1990	(s)	0	(s)	66	(s)	10	1,274	1,284	345	–	–	17,077	–	R 37,352	–
1991	(s)	0	(s)	69	(s)	10	1,373	1,383	364	–	–	15,325	–	R 33,361	–
1992	(s)	(s)	(s)	66	2	11	1,112	1,124	383	–	–	14,254	–	R 30,446	–
1993	(s)	0	(s)	78	(s)	7	1,286	1,293	R 334	–	–	15,901	–	33,596	–
1994	(s)	(s)	(s)	69	(s)	5	1,198	1,203	328	–	–	16,128	–	R 33,655	–
1995	4	0	4	69	12	4	1,214	1,230	364	–	–	16,319	–	R 33,998	–
1996	(s)	0	(s)	77	24	20	1,445	1,489	R 363	–	–	17,303	–	R 36,011	–
1997	102	0	102	72	4	14	1,445	1,463	264	–	–	17,376	–	36,085	–
	Trillion Btu														
1960	0.4	0.0	0.4	61.9	(s)	0.1	15.8	15.9	R 9.2	0.0	0.0	8.1	R 95.5	20.1	R 115.6
1965	0.1	0.0	0.1	66.5	(s)	0.4	18.6	19.1	R 6.6	0.0	0.0	13.9	R 106.3	33.3	R 139.6
1970	(s)	0.0	(s)	79.9	(s)	0.3	21.9	22.2	R 6.2	0.0	0.0	24.9	R 133.3	60.3	R 193.6
1975	(s)	0.0	(s)	79.6	0.1	0.1	20.9	21.1	R 6.8	0.0	0.0	31.5	R 139.0	75.9	R 214.9
1980	0.2	0.0	0.2	76.8	0.1	0.1	6.5	6.7	R 8.8	0.0	0.0	42.0	R 134.5	102.1	R 236.6
1985	(s)	0.0	(s)	77.6	0.5	0.2	7.3	8.0	R 5.0	0.0	0.0	49.1	R 139.8	115.4	R 255.2
1986	(s)	0.0	(s)	68.2	0.2	0.1	5.4	5.6	R 4.9	0.0	0.0	47.4	R 126.1	109.1	R 235.2
1987	(s)	0.0	(s)	66.1	0.1	0.1	5.0	5.2	R 6.1	0.0	0.0	48.1	R 125.5	109.8	R 235.3
1988	0.1	(s)	0.1	74.7	0.2	0.1	4.8	5.1	R 6.4	0.0	0.0	49.4	R 135.6	111.7	R 247.3
1989	(s)	0.0	(s)	73.3	(s)	0.1	5.6	5.7	R 6.6	e (s)	R e 0.1	48.0	R e 133.7	R 108.0	R e 241.7
1990	(s)	0.0	(s)	66.9	(s)	0.1	4.6	4.7	6.9	(s)	0.1	58.3	136.9	127.4	264.3
1991	(s)	0.0	(s)	70.1	(s)	0.1	5.0	5.0	7.3	(s)	0.1	52.3	134.8	113.8	248.6
1992	(s)	(s)	(s)	67.2	(s)	0.1	4.0	4.1	7.7	(s)	0.1	48.6	127.7	103.9	231.6
1993	(s)	0.0	(s)	80.0	(s)	(s)	4.6	4.7	6.7	(s)	0.1	54.3	145.7	114.6	260.4
1994	(s)	(s)	(s)	71.0	(s)	(s)	4.4	4.4	6.6	(s)	0.1	55.0	137.1	114.8	251.9
1995	0.1	0.0	0.1	69.7	0.1	(s)	4.4	4.5	7.3	(s)	0.1	55.7	R 137.3	116.0	253.3
1996	(s)	0.0	(s)	78.4	0.1	0.1	5.2	5.5	7.3	(s)	0.1	59.0	150.2	122.9	273.1
1997	1.8	0.0	1.8	72.2	(s)	0.1	5.2	5.3	5.3	(s)	0.1	59.3	143.9	123.1	267.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 235. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Oklahoma

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	33	0	33	29	72	83	695	177	395	1,422	R 9	–	1,904	–	4,737	–
1965	12	0	12	27	68	353	819	204	233	1,677	R 6	–	2,945	–	7,032	–
1970	4	0	4	44	95	233	1,024	229	190	1,771	R 6	–	4,415	–	10,699	–
1975	2	0	2	42	406	106	993	264	196	1,965	R 6	–	6,810	–	16,427	–
1980	20	0	20	47	315	15	310	301	30	972	R 11	–	9,005	–	21,897	–
1985	2	0	2	41	705	20	358	338	0	1,420	NA	–	11,706	–	27,501	–
1986	3	0	3	37	282	5	261	346	0	893	NA	–	11,650	–	26,798	–
1987	1	0	1	32	408	5	240	359	16	1,029	NA	–	11,594	–	26,491	–
1988	5	(s)	5	48	624	43	234	341	6	1,247	NA	–	12,132	–	27,428	–
1989	(s)	0	(s)	39	638	88	266	312	45	1,350	NA	–	11,885	–	R 26,705	–
1990	(s)	0	(s)	37	539	13	225	374	82	1,231	NA	–	13,663	–	R 29,884	–
1991	1	0	1	40	485	10	242	231	76	1,045	NA	–	12,665	–	R 27,569	–
1992	(s)	(s)	1	35	374	4	196	172	43	790	NA	–	12,414	–	26,517	–
1993	(s)	0	(s)	41	324	5	227	37	0	593	R 27	–	12,931	–	27,321	–
1994	(s)	(s)	1	37	263	4	211	37	0	515	R 27	–	13,294	–	R 27,741	–
1995	7	0	7	40	292	5	214	38	(s)	549	R 27	–	13,359	–	R 27,831	–
1996	1	0	1	46	388	5	255	38	0	686	R 30	–	13,828	–	R 28,780	–
1997	189	0	189	45	600	16	255	37	0	909	26	–	14,275	–	29,647	–
	Trillion Btu															
1960	0.8	0.0	0.8	29.8	0.4	0.5	2.8	0.9	2.5	7.1	R 0.2	0.0	6.5	R 44.4	16.2	R 60.5
1965	0.3	0.0	0.3	27.9	0.4	2.0	3.3	1.1	1.5	8.2	R 0.1	0.0	10.0	R 46.6	24.0	R 70.6
1970	0.1	0.0	0.1	45.3	0.6	1.3	3.9	1.2	1.2	8.1	R 0.1	0.0	15.1	R 68.7	36.5	R 105.2
1975	(s)	0.0	(s)	41.6	2.4	0.6	3.7	1.4	1.2	9.3	R 0.1	0.0	23.2	R 74.3	56.0	R 130.4
1980	0.5	0.0	0.5	47.2	1.8	0.1	1.1	1.6	0.2	4.8	R 0.2	0.0	30.7	R 83.5	74.7	R 158.2
1985	(s)	0.0	(s)	41.6	4.1	0.1	1.3	1.8	0.0	7.3	NA	0.0	39.9	88.9	93.8	182.7
1986	0.1	0.0	0.1	37.4	1.6	(s)	0.9	1.8	0.0	4.4	NA	0.0	39.7	81.6	91.4	173.0
1987	(s)	0.0	(s)	33.4	2.4	(s)	0.9	1.9	0.1	5.3	NA	0.0	39.6	78.3	90.4	168.7
1988	0.1	(s)	0.1	49.7	3.6	0.2	0.9	1.8	(s)	6.6	NA	0.0	41.4	97.7	93.6	191.3
1989	(s)	0.0	(s)	39.3	3.7	0.5	1.0	1.6	0.3	7.1	NA	0.0	40.6	87.0	91.1	178.1
1990	(s)	0.0	(s)	38.0	3.1	0.1	0.8	2.0	0.5	6.5	NA	0.0	46.6	91.1	102.0	193.0
1991	(s)	0.0	(s)	40.1	2.8	0.1	0.9	1.2	0.5	5.5	NA	0.0	43.2	88.8	94.1	R 182.9
1992	(s)	(s)	(s)	36.0	2.2	(s)	0.7	0.9	0.3	4.1	NA	0.0	42.4	82.4	90.5	172.9
1993	(s)	0.0	(s)	41.6	1.9	(s)	0.8	0.2	0.0	2.9	R 0.5	0.0	44.1	R 89.2	93.2	R 182.4
1994	(s)	(s)	(s)	37.4	1.5	(s)	0.8	0.2	0.0	2.5	R 0.5	0.0	45.4	R 85.9	R 94.7	R 180.5
1995	0.2	0.0	0.2	40.2	1.7	(s)	0.8	0.2	(s)	2.7	R 0.5	0.0	45.6	R 89.2	R 95.0	R 184.2
1996	(s)	0.0	(s)	47.2	2.3	(s)	0.9	0.2	0.0	3.4	R 0.6	0.0	47.2	R 98.4	98.2	R 196.6
1997	3.3	0.0	3.3	45.4	3.5	0.1	0.9	0.2	0.0	4.7	0.5	0.0	48.7	102.6	101.2	203.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 236. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Oklahoma

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	25	128	2,034	1,193	330	1,511	176	1,383	1,017	7,938	15,581	0	–	–	2,561	–	6,371	–
1965	11	236	3,586	1,203	514	1,704	152	812	346	8,617	16,934	0	–	–	3,563	–	8,507	–
1970	0	218	4,598	2,084	819	2,277	166	515	477	8,730	19,667	0	–	–	4,888	–	11,845	–
1975	20	223	5,675	4,166	198	2,248	274	437	374	9,555	22,928	0	–	–	7,233	–	17,447	–
1980	264	246	4,826	3,705	306	6,683	579	359	702	9,296	26,455	0	–	–	9,795	–	23,818	–
1985	852	245	4,003	6,949	64	5,517	527	977	211	4,955	23,203	0	–	–	10,576	–	24,848	–
1986	763	233	3,281	3,480	62	4,106	515	907	386	5,139	17,877	0	–	–	10,206	–	23,477	–
1987	613	288	2,729	2,930	36	3,792	583	821	314	5,874	17,079	0	–	–	10,417	–	23,803	–
1988	563	264	3,564	3,163	21	3,252	562	792	651	7,003	19,007	0	–	–	10,719	–	24,234	–
1989	663	276	2,750	2,778	12	3,821	576	908	339	7,294	18,479	[f] NA	–	–	11,039	–	[R] 24,803	–
1990	557	307	3,508	3,091	16	1,693	593	834	491	7,544	17,770	NA	–	–	11,764	–	[R] 25,730	–
1991	676	269	3,433	3,200	12	3,154	530	895	154	6,931	18,309	NA	–	–	11,415	–	[R] 24,849	–
1992	730	268	2,930	4,200	17	3,114	541	831	574	8,192	20,399	NA	–	–	11,599	–	24,775	–
1993	1,198	279	3,721	3,135	14	4,080	551	1,026	708	7,770	21,004	NA	–	–	11,699	–	24,718	–
1994	764	287	3,542	3,484	23	4,073	576	1,109	550	7,610	20,967	NA	–	–	11,721	–	[R] 24,459	–
1995	1,455	275	3,181	3,105	6	2,138	566	1,183	334	7,417	17,930	NA	–	–	11,714	–	[R] 24,404	–
1996	738	274	2,762	3,435	7	1,991	549	1,216	263	8,535	18,757	NA	–	–	12,160	–	[R] 25,308	–
1997	717	288	1,426	3,668	15	2,032	580	1,248	264	8,663	17,896	NA	–	–	12,802	–	26,586	–
			Trillion Btu															
1960	0.6	132.5	13.5	7.0	1.9	6.1	1.1	7.3	6.4	47.7	90.8	0.0	[R] 0.8	0.0	8.7	[R] 233.5	21.7	[R] 255.2
1965	0.3	242.2	23.8	7.0	2.9	6.8	0.9	4.3	2.2	51.7	99.6	0.0	[R] 0.9	0.0	12.2	[R] 355.1	29.0	[R] 384.1
1970	0.0	225.3	30.5	12.1	4.6	8.6	1.0	2.7	3.0	52.3	114.9	0.0	[R] 0.7	0.0	16.7	[R] 357.6	40.4	[R] 398.0
1975	0.5	221.7	37.7	24.3	1.1	8.4	1.7	2.3	2.4	57.3	135.0	0.0	[R] 5.1	0.0	24.7	[R] 386.9	59.5	[R] 446.4
1980	5.6	246.4	32.0	21.6	1.7	24.6	3.5	1.9	4.4	55.7	145.4	0.0	[R] 5.5	0.0	33.4	[R] 436.3	81.3	[R] 517.6
1985	18.3	249.3	26.6	40.5	0.4	19.9	3.2	5.1	1.3	30.7	127.6	0.0	[R] 6.4	0.0	36.1	[R] 437.7	84.8	[R] 522.5
1986	16.4	237.9	21.8	20.3	0.4	14.9	3.1	4.8	2.4	32.0	99.6	0.0	[R] 11.3	0.0	34.8	[R] 400.1	80.1	[R] 480.2
1987	12.9	296.8	18.1	17.1	0.2	13.9	3.5	4.3	2.0	35.8	94.9	0.0	[R] 11.3	0.0	35.5	[R] 451.4	81.2	[R] 532.6
1988	12.0	273.9	23.7	18.4	0.1	11.9	3.4	4.2	4.1	42.3	108.0	0.0	[R] 11.7	0.0	36.6	[R] 442.2	82.7	[R] 524.9
1989	14.1	282.0	18.3	16.2	0.1	14.1	3.5	4.8	2.1	43.7	102.7	[f] 0.0	[R f] 13.0	[f] 0.0	37.7	[R f] 449.5	84.6	[R f] 534.1
1990	12.7	312.7	23.3	18.0	0.1	6.1	3.6	4.4	3.1	45.2	103.8	0.0	[R] 10.9	0.0	40.1	[R] 480.3	87.8	[R] 568.1
1991	16.1	272.6	22.8	18.6	0.1	11.4	3.2	4.7	1.0	41.7	103.5	0.0	[R] 11.1	0.0	38.9	[R] 442.2	84.8	[R] 527.0
1992	16.6	274.0	19.4	24.5	0.1	11.3	3.3	4.4	3.6	48.8	115.3	0.0	[R] 11.4	0.0	39.6	[R] 456.9	84.5	[R] 541.4
1993	26.9	285.2	24.7	18.3	0.1	14.7	3.3	5.4	4.4	46.6	117.5	0.0	[R] 11.6	0.0	39.9	[R] 481.1	84.3	[R] 565.5
1994	16.1	294.4	23.5	20.3	0.1	14.8	3.5	5.8	3.5	45.5	117.0	0.0	[R] 11.9	0.0	40.0	[R] 479.3	[R] 83.5	[R] 562.8
1995	33.0	279.0	21.1	18.1	(s)	7.7	3.4	6.2	2.1	44.4	103.1	0.0	[R] 12.5	0.0	40.0	[R] 467.5	83.3	[R] 550.8
1996	16.4	280.3	18.3	20.0	(s)	7.2	3.3	6.4	1.7	50.9	107.8	0.0	[R] 12.4	0.0	41.5	[R] 458.4	86.4	[R] 544.8
1997	15.0	289.8	9.5	21.4	0.1	7.3	3.5	6.6	1.7	51.6	101.6	0.0	12.5	0.0	43.7	462.5	90.7	553.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 237. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Oklahoma

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	(s)	9	562	1,325	2,920	290	485	21,148	8	26,737	0	0	–	0	–
1965	(s)	13	745	1,582	3,453	489	527	24,799	244	31,839	0	0	–	0	–
1970	0	23	448	3,351	4,378	516	457	31,776	75	41,000	0	0	–	0	–
1975	(s)	24	309	4,809	3,916	474	537	37,768	42	47,854	0	0	–	0	–
1980	0	23	328	8,030	4,900	235	777	38,974	0	53,244	0	0	–	0	–
1985	0	25	217	10,562	5,870	133	707	40,855	0	58,345	0	0	–	0	–
1986	0	21	250	10,041	5,942	105	692	39,316	0	56,346	0	0	–	0	–
1987	0	24	179	10,545	7,440	93	782	37,551	0	56,590	0	0	–	0	–
1988	0	28	172	11,045	7,224	102	754	37,673	0	56,971	0	0	–	0	–
1989	0	36	165	11,293	9,239	85	773	37,668	0	59,225	[e] 0	0	–	0	–
1990	0	26	146	11,690	7,832	97	796	37,790	0	58,351	0	0	–	0	–
1991	0	25	111	10,464	10,569	109	712	37,690	0	59,655	0	0	–	0	–
1992	0	26	124	11,692	12,948	80	726	38,880	0	64,450	0	0	–	0	–
1993	0	27	104	12,911	9,012	94	739	39,750	0	62,610	0	0	–	0	–
1994	0	26	84	13,559	10,345	144	772	40,378	0	65,282	0	0	–	0	–
1995	0	31	154	14,250	5,359	59	759	41,161	0	61,742	0	0	–	0	–
1996	0	34	117	16,548	4,707	38	737	42,509	0	64,656	0	0	–	0	–
1997	0	26	80	17,565	5,257	35	778	41,385	0	65,099	0	0	–	0	–
			Trillion Btu												
1960	(s)	9.3	2.8	7.7	15.7	1.2	2.9	111.1	0.1	141.4	0.0	0.0	150.8	0.0	150.8
1965	(s)	12.9	3.8	9.2	18.7	2.0	3.2	130.3	1.5	168.7	0.0	0.0	181.5	0.0	181.5
1970	0.0	23.5	2.3	19.5	24.0	1.9	2.8	166.9	0.5	217.9	0.0	0.0	241.4	0.0	241.4
1975	(s)	23.6	1.6	28.0	21.5	1.8	3.3	198.4	0.3	254.8	0.0	0.0	278.4	0.0	278.4
1980	0.0	22.8	1.7	46.8	26.9	0.9	4.7	204.7	0.0	285.6	0.0	0.0	308.4	0.0	308.4
1985	0.0	25.8	1.1	61.5	32.5	0.5	4.3	214.6	0.0	314.5	0.0	0.0	340.3	0.0	340.3
1986	0.0	21.6	1.3	58.5	32.9	0.4	4.2	206.5	0.0	303.8	0.0	0.0	325.4	0.0	325.4
1987	0.0	24.5	0.9	61.4	41.4	0.3	4.7	197.3	0.0	306.1	0.0	0.0	330.6	0.0	330.6
1988	0.0	28.8	0.9	64.3	40.2	0.4	4.6	197.9	0.0	308.3	0.0	0.0	337.0	0.0	337.0
1989	0.0	37.3	0.8	65.8	51.7	0.3	4.7	197.9	0.0	321.2	[e] 0.0	0.0	[e] 358.4	0.0	[e] 358.4
1990	0.0	26.6	0.7	68.1	43.8	0.4	4.8	198.5	0.0	316.3	0.0	0.0	342.9	0.0	342.9
1991	0.0	25.4	0.6	61.0	59.1	0.4	4.3	198.0	0.0	323.3	0.0	0.0	348.7	0.0	348.7
1992	0.0	26.3	0.6	68.1	72.8	0.3	4.4	204.2	0.0	350.4	0.0	0.0	376.7	0.0	376.7
1993	0.0	27.3	0.5	75.2	50.5	0.3	4.5	208.8	0.0	339.9	0.0	0.0	367.1	0.0	367.1
1994	0.0	27.0	0.4	79.0	58.1	0.5	4.7	212.1	0.0	354.8	0.0	0.0	381.8	0.0	381.8
1995	0.0	31.2	0.8	83.0	30.3	0.2	4.6	216.2	0.0	335.1	0.0	0.0	366.3	0.0	366.3
1996	0.0	34.5	0.6	96.4	26.7	0.1	4.5	223.3	0.0	351.6	0.0	0.0	386.0	0.0	386.0
1997	0.0	26.4	0.4	102.3	29.8	0.1	4.7	217.4	0.0	354.8	0.0	0.0	381.2	0.0	381.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 238. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Oklahoma

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	(s)	0	(s)	83	33	26	0	59	0	705	0	0	0	–
1965	1	0	1	127	28	22	0	50	0	825	0	0	0	–
1970	1	0	1	235	64	51	0	116	0	1,406	0	0	0	–
1975	(s)	0	(s)	301	29	55	0	85	0	2,945	0	0	0	–
1980	5,752	0	5,752	330	(s)	59	0	59	0	1,315	0	0	0	–
1985	12,747	0	12,747	201	9	79	0	87	0	3,980	0	0	0	–
1986	11,628	0	11,628	197	7	116	0	123	0	2,951	0	0	0	–
1987	12,861	0	12,861	188	1	67	0	68	0	2,948	0	0	0	–
1988	14,435	0	14,435	177	4	56	0	60	0	2,045	0	0	0	–
1989	14,423	0	14,423	178	10	52	0	62	0	2,392	0	0	0	–
1990	14,866	0	14,866	169	58	28	0	86	0	2,750	0	0	0	–
1991	15,668	0	15,668	167	12	26	0	38	0	1,857	0	0	0	–
1992	16,699	0	16,699	149	10	18	0	28	0	3,210	0	0	0	–
1993	17,668	0	17,668	154	6	21	0	27	0	4,296	0	0	0	–
1994	16,961	0	16,961	153	6	19	0	25	0	2,465	0	0	0	–
1995	18,130	0	18,130	154	112	17	0	129	0	2,715	0	0	0	–
1996	19,386	0	19,386	136	133	84	0	217	0	2,078	0	0	0	–
1997	20,101	0	20,101	129	10	20	0	30	0	2,824	0	0	0	–
	Trillion Btu													
1960	(s)	0.0	(s)	85.7	0.2	0.2	0.0	0.4	0.0	7.6	0.0	0.0	0.0	93.7
1965	(s)	0.0	(s)	130.5	0.2	0.1	0.0	0.3	0.0	8.6	0.0	0.0	0.0	139.5
1970	(s)	0.0	(s)	242.2	0.4	0.3	0.0	0.7	0.0	14.8	0.0	0.0	0.0	257.7
1975	(s)	0.0	(s)	312.3	0.2	0.3	0.0	0.5	0.0	30.6	0.0	0.0	0.0	343.5
1980	100.0	0.0	100.0	345.8	(s)	0.3	0.0	0.3	0.0	13.7	0.0	0.0	0.0	459.8
1985	218.8	0.0	218.8	209.5	0.1	0.5	0.0	0.5	0.0	41.6	0.0	0.0	0.0	470.4
1986	201.5	0.0	201.5	205.7	(s)	0.7	0.0	0.7	0.0	30.8	0.0	0.0	0.0	438.7
1987	227.7	0.0	227.7	196.7	(s)	0.4	0.0	0.4	0.0	30.7	0.0	0.0	0.0	455.5
1988	257.3	0.0	257.3	184.1	(s)	0.3	0.0	0.4	0.0	21.1	0.0	0.0	0.0	462.9
1989	254.6	0.0	254.6	185.7	0.1	0.3	0.0	0.4	0.0	25.0	0.0	0.0	0.0	465.6
1990	264.4	0.0	264.4	176.6	0.4	0.2	0.0	0.5	0.0	28.6	0.0	0.0	0.0	470.1
1991	275.5	0.0	275.5	173.9	0.1	0.2	0.0	0.2	0.0	19.4	0.0	0.0	0.0	469.0
1992	290.6	0.0	290.6	154.5	0.1	0.1	0.0	0.2	0.0	33.2	0.0	0.0	0.0	478.4
1993	304.6	0.0	304.6	159.7	(s)	0.1	0.0	0.2	0.0	44.3	0.0	0.0	0.0	508.8
1994	290.8	0.0	290.8	158.3	(s)	0.1	0.0	0.1	0.0	25.4	0.0	0.0	0.0	474.7
1995	310.3	0.0	310.3	159.4	0.7	0.1	0.0	0.8	0.0	28.0	0.0	0.0	0.0	498.4
1996	333.4	0.0	333.4	139.9	0.8	0.5	0.0	1.3	0.0	21.5	0.0	0.0	0.0	496.1
1997	347.4	0.0	347.4	132.9	0.1	0.1	0.0	0.2	0.0	29.1	0.0	0.0	0.0	509.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 239. Energy Consumption Estimates by Source, Selected Years 1960-1997, Oregon

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	381	31	1,820	655	10,966	384	45	1,164	476	16,361	5,562	434	37,866	0	12,466	–	–	8,038	–
1965	305	56	1,960	277	13,085	812	19	961	612	19,838	5,115	1,653	44,332	0	16,508	–	–	13,499	–
1970	140	95	2,167	305	12,904	2,086	218	1,251	768	24,958	6,632	1,613	52,903	0	29,912	–	–	-4,443	–
1975	130	110	3,218	171	13,267	2,079	225	726	679	28,904	4,321	1,395	54,984	2	34,562	–	–	8,289	–
1980	715	79	2,483	260	16,764	2,465	112	1,354	751	30,511	4,511	1,043	60,254	5,395	30,222	–	–	17,611	–
1985	591	83	2,838	141	15,394	2,142	68	1,527	684	29,047	4,961	813	57,615	6,911	45,876	–	–	-43,920	–
1986	163	71	2,225	193	14,894	2,618	31	1,517	668	29,947	5,491	1,210	58,793	7,081	42,096	–	–	-35,483	–
1987	205	80	2,140	127	16,207	2,928	17	1,490	756	30,649	5,089	1,845	61,247	4,348	40,717	–	–	-14,098	–
1988	177	87	2,423	98	16,473	3,189	20	1,581	729	32,092	6,155	1,818	64,579	6,339	36,309	–	–	-1,850	–
1989	396	108	2,802	102	16,254	3,377	50	1,612	747	31,889	5,385	1,743	63,962	5,299	[i] NA	–	–	[R] -9,328	–
1990	934	109	3,026	121	17,051	3,319	26	1,384	769	31,728	4,492	2,150	64,066	6,074	NA	–	–	[R] -19,992	–
1991	1,940	123	2,657	126	16,152	3,744	21	1,559	688	32,125	6,333	2,167	65,571	1,465	NA	–	–	[R] -14,175	–
1992	2,124	122	3,297	129	15,351	4,011	31	1,430	702	31,921	6,570	2,904	66,346	4,573	NA	–	–	[R] -9,424	–
1993	2,100	136	3,329	110	14,126	4,310	41	1,561	714	33,528	4,656	2,389	64,765	-21	NA	–	–	6,393	–
1994	2,479	146	3,422	156	14,008	4,649	74	1,423	747	33,837	4,452	2,578	65,346	0	NA	–	–	[R] 13,347	–
1995	1,125	146	2,758	143	14,700	5,114	62	1,535	734	34,021	3,645	2,631	65,344	0	NA	–	–	[R] 3,001	–
1996	1,134	169	2,745	191	14,089	5,235	89	1,669	712	35,161	3,304	2,816	66,011	0	NA	–	–	[R] -9,686	–
1997	918	172	2,965	176	15,433	5,720	62	1,686	752	33,594	3,521	2,614	66,524	0	NA	–	–	-3,161	–
			Trillion Btu																
1960	8.9	31.9	12.1	3.3	63.9	2.1	0.3	4.7	2.9	85.9	35.0	2.6	212.7	0.0	134.1	[R] 56.4	0.0	27.4	[R] 471.5
1965	7.1	60.0	13.0	1.4	76.2	4.5	0.1	3.9	3.7	104.2	32.2	9.8	249.0	0.0	172.6	[R] 57.8	0.0	46.1	[R] 592.6
1970	3.0	99.6	14.4	1.5	75.2	11.8	1.2	4.7	4.7	131.1	41.7	9.5	295.7	0.0	313.9	[R] 57.4	0.0	-15.2	[R] 754.5
1975	2.7	114.2	21.4	0.9	77.3	11.7	1.3	2.7	4.1	151.8	27.2	8.3	306.6	(s)	359.6	[R] 57.7	0.0	28.3	[R] 869.2
1980	12.1	82.3	16.5	1.3	97.7	13.9	0.6	5.0	4.6	160.3	28.4	6.1	334.3	58.8	314.0	[R] 85.2	0.0	60.1	[R] 946.8
1985	10.0	85.5	18.8	0.7	89.7	12.1	0.4	5.5	4.1	152.6	31.2	4.8	319.9	74.7	479.3	[R] 97.4	0.0	-149.9	[R] 917.0
1986	2.9	72.5	14.8	1.0	86.8	14.8	0.2	5.5	4.1	157.3	34.5	7.1	326.0	76.5	439.7	[R] 103.8	0.0	-121.1	[R] 900.3
1987	3.7	82.5	14.2	0.6	94.4	16.5	0.1	5.5	4.6	161.0	32.0	11.0	339.8	46.9	424.2	[R] 106.4	0.0	-48.1	[R] 955.4
1988	3.1	89.2	16.1	0.5	96.0	18.0	0.1	5.8	4.4	168.6	38.7	10.8	358.9	68.1	374.9	[R] 111.7	0.0	-6.3	[R] 999.5
1989	6.8	111.8	18.6	0.5	94.7	19.1	0.3	5.9	4.5	167.5	33.9	10.4	355.4	56.8	[R i] 413.4	[R i] 106.5	[R i] 0.6	[R] -31.8	[R i] 1,022.0
1990	15.7	111.7	20.1	0.6	99.3	18.8	0.1	5.0	4.7	166.7	28.2	12.8	356.3	64.9	[R] 445.6	[R] 74.2	[R] 0.7	[R] -68.2	[R] 1,002.9
1991	32.8	127.0	17.6	0.6	94.1	21.1	0.1	5.6	4.2	168.8	39.8	12.8	364.8	15.7	[R] 457.0	[R] 74.3	[R] 0.7	[R] -48.4	[R] 1,030.3
1992	40.8	126.6	21.9	0.7	89.4	22.7	0.2	5.2	4.3	167.7	41.3	17.2	370.4	48.8	[R] 377.0	[R] 77.3	[R] 0.8	[R] -32.2	[R] 1,022.0
1993	37.1	140.6	22.1	0.6	82.3	24.4	0.2	5.6	4.3	176.1	29.3	14.1	359.0	-0.2	395.9	[R] 76.6	[R] 0.8	21.8	[R] 1,036.6
1994	44.6	152.3	22.7	0.8	81.6	26.4	0.4	5.2	4.5	177.7	28.0	15.3	362.6	0.0	[R] 347.0	[R] 83.4	[R] 0.8	[R] 45.5	[R] 1,052.3
1995	20.2	151.7	18.3	0.7	85.6	29.0	0.4	5.6	4.5	178.7	22.9	15.6	361.2	0.0	[R] 431.6	[R] 88.2	[R] 0.9	[R] 10.2	[R] 1,070.1
1996	20.3	175.3	18.2	1.0	82.1	29.7	0.5	6.0	4.3	184.7	20.8	16.7	363.9	0.0	[R] 491.1	[R] 90.5	[R] 1.0	[R] -33.0	[R] 1,118.7
1997	16.4	179.5	19.7	0.9	89.9	32.4	0.4	6.1	4.6	176.5	22.1	15.5	368.0	0.0	486.3	89.3	1.0	-10.8	1,132.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 240. Residential Energy Consumption Estimates, Selected Years 1960-1997, Oregon

Year	Coal: Bituminous Coal and Lignite [a]	Coal: Anthracite [a]	Coal: Total	Natural Gas [b]	Petroleum: Distillate Fuel [a]	Petroleum: Kerosene [a]	Petroleum: LPG [a]	Petroleum: Total	Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	56	0	56	7	2,865	1	507	3,373	R 922	–	–	5,263	–	13,090	–
1965	45	0	45	11	3,382	5	785	4,172	R 661	–	–	7,169	–	17,118	–
1970	11	0	11	20	3,101	65	867	4,033	R 460	–	–	9,850	–	23,871	–
1975	5	0	5	29	2,390	48	362	2,800	R 489	–	–	12,096	–	29,178	–
1980	6	0	6	18	2,019	37	574	2,630	R 415	–	–	13,545	–	32,937	–
1985	1	0	1	21	2,374	41	517	2,932	R 473	–	–	14,526	–	34,128	–
1986	(s)	0	(s)	19	2,045	22	435	2,501	R 460	–	–	13,722	–	31,565	–
1987	1	0	1	19	1,747	10	419	2,176	R 611	–	–	13,711	–	31,328	–
1988	2	0	2	21	1,843	10	316	2,168	R 634	–	–	14,338	–	32,416	–
1989	2	(s)	2	23	1,889	38	359	2,286	R 658	–	–	15,085	–	R 33,893	–
1990	1	0	1	23	1,784	13	380	2,177	558	–	–	15,380	–	R 33,639	–
1991	(s)	0	(s)	26	1,487	13	488	1,989	R 587	–	–	15,949	–	R 34,719	–
1992	(s)	0	(s)	23	1,068	17	432	1,517	618	–	–	15,202	–	R 32,472	–
1993	(s)	1	1	30	1,036	18	483	1,537	522	–	–	16,696	–	35,276	–
1994	(s)	(s)	(s)	29	933	50	510	1,493	R 512	–	–	16,462	–	R 34,352	–
1995	(s)	0	(s)	28	942	26	488	1,456	R 568	–	–	16,315	–	R 33,989	–
1996	0	0	0	33	821	40	463	1,324	R 567	–	–	17,285	–	R 35,973	–
1997	(s)	0	(s)	33	842	34	463	1,339	413	–	–	17,185	–	35,688	–
	Trillion Btu														
1960	1.4	0.0	1.4	7.0	16.7	(s)	2.0	18.7	R 18.4	0.0	0.0	18.0	R 63.5	44.7	R 108.2
1965	1.1	0.0	1.1	11.6	19.7	(s)	3.2	22.9	R 13.2	0.0	0.0	24.5	R 73.3	58.4	R 131.7
1970	0.3	0.0	0.3	20.6	18.1	0.4	3.3	21.7	R 9.2	0.0	0.0	33.6	R 85.4	81.4	R 166.9
1975	0.1	0.0	0.1	29.9	13.9	0.3	1.3	15.5	R 9.8	0.0	0.0	41.3	R 96.6	99.6	R 196.1
1980	0.1	0.0	0.1	19.2	11.8	0.2	2.1	14.1	R 8.3	0.0	0.0	46.2	R 88.0	112.4	R 200.4
1985	(s)	0.0	(s)	22.1	13.8	0.2	1.9	15.9	R 9.5	0.0	0.0	49.6	R 97.1	116.4	R 213.5
1986	(s)	0.0	(s)	19.5	11.9	0.1	1.6	13.6	R 9.2	0.0	0.0	46.8	R 89.1	107.7	R 196.8
1987	(s)	0.0	(s)	19.3	10.2	0.1	1.5	11.8	R 12.2	0.0	0.0	46.8	R 90.1	106.9	R 197.0
1988	(s)	0.0	(s)	21.3	10.7	0.1	1.2	11.9	R 12.7	0.0	0.0	48.9	R 94.9	110.6	R 205.5
1989	(s)	(s)	0.1	23.3	11.0	0.2	1.3	12.5	R 13.2	e 0.1	R e 0.3	51.5	R e 100.8	115.6	R e 216.5
1990	(s)	0.0	(s)	23.9	10.4	0.1	1.4	11.8	11.2	0.1	0.3	52.5	R 99.8	114.8	214.5
1991	(s)	0.0	(s)	27.1	8.7	0.1	1.8	10.5	R 11.7	0.1	0.3	54.4	R 104.2	R 118.5	R 222.7
1992	(s)	0.0	(s)	24.0	6.2	0.1	1.6	7.9	12.4	0.1	0.3	51.9	R 96.5	110.8	R 207.3
1993	(s)	(s)	(s)	31.0	6.0	0.1	1.7	7.9	10.4	0.1	0.4	57.0	R 106.8	120.4	R 227.1
1994	(s)	(s)	(s)	30.2	5.4	0.3	1.9	7.6	10.2	0.1	0.4	56.2	R 104.7	117.2	R 221.9
1995	(s)	0.0	(s)	29.3	5.5	0.1	1.8	7.4	R 11.4	0.1	0.5	55.7	R 104.3	116.0	R 220.3
1996	0.0	0.0	0.0	34.7	4.8	0.2	1.7	6.7	11.3	0.1	0.5	59.0	R 112.3	122.7	R 235.0
1997	(s)	0.0	(s)	34.1	4.9	0.2	1.7	6.8	8.3	0.1	0.6	58.6	108.4	121.8	230.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 241. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Oregon

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	104	0	104	3	1,485	(s)	89	139	991	2,704	R 17	–	3,083	–	7,669	–
1965	84	0	84	6	1,752	4	139	206	1,046	3,147	R 13	–	4,557	–	10,881	–
1970	20	0	20	11	1,607	46	153	249	1,326	3,382	R 9	–	6,674	–	16,173	–
1975	9	0	9	16	1,238	34	64	218	962	2,517	R 9	–	8,804	–	21,235	–
1980	11	0	11	15	1,792	37	101	291	876	3,098	R 10	–	10,456	–	25,425	–
1985	2	0	2	19	1,384	26	91	231	191	1,922	NA	–	10,340	–	24,292	–
1986	1	0	1	17	1,341	7	77	234	328	1,987	NA	–	10,350	–	23,809	–
1987	2	0	2	17	1,622	5	74	243	220	2,164	NA	–	R 10,785	–	R 24,642	–
1988	3	0	3	18	1,520	9	56	237	331	2,153	NA	–	R 11,332	–	R 25,618	–
1989	4	(s)	4	20	1,075	7	63	220	264	1,630	NA	–	R 11,613	–	R 26,091	–
1990	1	0	1	20	1,336	8	67	272	287	1,971	NA	–	R 12,091	–	R 26,445	–
1991	1	0	1	22	995	4	86	174	256	1,514	NA	–	R 12,395	–	R 26,982	–
1992	1	0	1	20	767	5	76	165	243	1,256	NA	–	R 12,575	–	R 26,859	–
1993	1	(s)	1	24	548	11	85	32	175	851	R 42	–	R 12,859	–	R 27,169	–
1994	(s)	(s)	1	23	513	14	90	32	111	760	R 43	–	R 13,426	–	R 28,017	–
1995	1	0	1	22	783	14	86	33	88	1,004	R 43	–	R 13,558	–	R 28,245	–
1996	0	0	0	26	620	38	82	33	84	856	R 47	–	R 14,085	–	R 29,314	–
1997	1	0	1	25	748	22	82	30	49	931	40	–	14,476	–	30,064	–
	Trillion Btu															
1960	2.6	0.0	2.6	3.2	8.6	(s)	0.4	0.7	6.2	16.0	R 0.3	0.0	10.5	R 32.6	26.2	R 58.8
1965	2.1	0.0	2.1	6.0	10.2	(s)	0.6	1.1	6.6	18.4	R 0.3	0.0	15.5	R 42.3	37.1	R 79.4
1970	0.5	0.0	0.5	11.9	9.4	0.3	0.6	1.3	8.3	19.8	R 0.2	0.0	22.8	R 55.1	55.2	R 110.3
1975	0.2	0.0	0.2	16.5	7.2	0.2	0.2	1.1	6.0	14.8	R 0.2	0.0	30.0	R 61.8	72.5	R 134.2
1980	0.3	0.0	0.3	15.9	10.4	0.2	0.4	1.5	5.5	18.1	R 0.2	0.0	35.7	R 70.1	86.8	R 156.8
1985	(s)	0.0	(s)	19.6	8.1	0.1	0.3	1.2	1.2	10.9	NA	0.0	35.3	65.9	82.9	148.8
1986	(s)	0.0	(s)	17.2	7.8	(s)	0.3	1.2	2.1	11.4	NA	0.0	35.3	64.0	81.2	145.2
1987	(s)	0.0	(s)	17.2	9.4	(s)	0.3	1.3	1.4	12.4	NA	0.0	36.8	66.4	84.1	150.5
1988	0.1	0.0	0.1	18.8	8.9	0.1	0.2	1.2	2.1	12.4	NA	0.0	38.7	70.0	87.4	157.4
1989	0.1	(s)	0.1	21.0	6.3	(s)	0.2	1.2	1.7	9.4	NA	0.2	39.6	R 70.3	89.0	R 159.3
1990	(s)	0.0	(s)	20.9	7.8	(s)	0.2	1.4	1.8	11.3	NA	0.2	41.3	R 73.8	90.2	R 164.0
1991	(s)	0.0	(s)	23.0	5.8	(s)	0.3	0.9	1.6	8.6	NA	0.2	42.3	R 74.2	92.1	R 166.3
1992	(s)	0.0	(s)	20.3	4.5	(s)	0.3	0.9	1.5	7.2	NA	0.2	42.9	R 70.6	R 91.6	R 162.3
1993	(s)	(s)	(s)	25.0	3.2	0.1	0.3	0.2	1.1	4.8	R 0.8	0.2	43.9	R 74.8	92.7	R 167.5
1994	(s)	(s)	(s)	24.0	3.0	0.1	0.3	0.2	0.7	4.3	R 0.9	0.2	45.8	R 75.2	95.6	R 170.8
1995	(s)	0.0	(s)	23.4	4.6	0.1	0.3	0.2	0.6	5.7	R 0.9	0.2	46.3	R 76.5	96.4	R 172.8
1996	0.0	0.0	0.0	26.7	3.6	0.2	0.3	0.2	0.5	4.8	R 0.9	0.2	48.1	R 80.8	100.0	R 180.8
1997	(s)	0.0	(s)	26.7	4.4	0.1	0.3	0.2	0.3	5.2	0.8	0.3	49.4	82.4	102.6	185.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 242. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Oregon

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	217	20	1,820	3,723	44	558	175	1,080	3,411	434	11,244	77	–	–	5,247	–	13,051	–
1965	175	39	1,960	4,287	10	33	208	808	3,398	1,653	12,358	61	–	–	7,167	–	17,111	–
1970	109	58	2,167	3,413	107	212	281	722	4,217	1,613	12,733	77	–	–	9,123	–	22,109	–
1975	116	57	3,218	2,827	143	287	189	560	2,922	1,395	11,541	40	–	–	12,402	–	29,916	–
1980	213	39	2,483	3,992	38	614	221	417	2,528	1,043	11,337	28	–	–	13,847	–	33,671	–
1985	170	38	2,838	2,545	1	728	201	482	1,679	813	9,289	28	–	–	11,081	–	26,033	–
1986	162	32	2,225	2,476	2	850	197	500	2,153	1,210	9,613	28	–	–	10,994	–	25,289	–
1987	202	37	2,140	3,045	1	821	223	482	1,576	1,845	10,135	28	–	–	13,210	–	30,183	–
1988	172	40	2,423	2,914	2	1,008	215	417	1,606	1,818	10,403	28	–	–	13,633	–	30,821	–
1989	84	44	2,802	2,898	4	1,005	220	478	366	1,743	9,516	[f] NA	–	–	14,913	–	[R] 33,507	–
1990	82	49	3,026	2,843	4	755	227	425	453	2,150	9,884	NA	–	–	15,498	–	[R] 33,898	–
1991	108	55	2,657	2,291	4	826	203	489	349	2,167	8,986	NA	–	–	15,297	–	[R] 33,299	–
1992	129	59	3,297	2,270	9	776	207	254	503	2,904	10,220	NA	–	–	15,123	–	[R] 32,303	–
1993	117	61	3,329	2,433	12	849	211	452	677	2,389	10,352	NA	–	–	15,012	–	31,718	–
1994	145	63	3,422	2,091	10	603	220	498	420	2,578	9,843	NA	–	–	15,072	–	[R] 31,451	–
1995	147	69	2,758	2,624	23	850	216	513	330	2,631	9,945	NA	–	–	15,839	–	[R] 32,998	–
1996	90	88	2,745	1,738	11	1,020	210	565	136	2,816	9,241	NA	–	–	15,804	–	[R] 32,892	–
1997	95	90	2,965	2,211	6	1,046	222	584	169	2,614	9,817	NA	–	–	15,931	–	33,085	–
			Trillion Btu															
1960	4.9	20.9	12.1	21.7	0.3	2.2	1.1	5.7	21.4	2.6	67.0	0.8	[R] 37.3	0.0	17.9	[R] 148.9	44.5	[R] 193.4
1965	3.9	41.5	13.0	25.0	0.1	0.1	1.3	4.2	21.4	9.8	74.8	0.6	[R] 44.1	0.0	24.5	[R] 189.5	58.4	[R] 247.9
1970	2.3	60.3	14.4	19.9	0.6	0.8	1.7	3.8	26.5	9.5	77.1	0.8	[R] 47.6	0.0	31.1	[R] 219.2	75.4	[R] 294.7
1975	2.4	59.6	21.4	16.5	0.8	1.1	1.1	2.9	18.4	8.3	70.4	0.4	[R] 47.8	0.0	42.3	[R] 222.9	102.1	[R] 325.0
1980	3.8	41.0	16.5	23.3	0.2	2.3	1.3	2.2	15.9	6.1	67.8	0.3	[R] 75.1	0.0	47.2	[R] 235.2	114.9	[R] 350.0
1985	3.0	39.0	18.8	14.8	(s)	2.6	1.2	2.5	10.6	4.8	55.4	0.3	[R] 87.9	0.0	37.8	[R] 223.5	88.8	[R] 312.4
1986	2.9	32.3	14.8	14.4	(s)	3.1	1.2	2.6	13.5	7.1	56.8	0.3	[R] 94.6	0.0	37.5	[R] 224.3	86.3	[R] 310.6
1987	3.6	37.8	14.2	17.7	(s)	3.0	1.4	2.5	9.9	11.0	59.7	0.3	[R] 94.2	0.0	45.1	[R] 240.7	103.0	[R] 343.7
1988	3.0	40.8	16.1	17.0	(s)	3.7	1.3	2.2	10.1	10.8	61.2	0.3	[R] 98.0	0.0	46.5	[R] 249.7	105.2	[R] 354.9
1989	1.5	45.3	18.6	16.9	(s)	3.7	1.3	2.5	2.3	10.4	55.7	[R f] 1.3	[R f] 90.8	[R f] 0.1	50.9	[R f] 245.7	114.3	[R f] 360.0
1990	1.4	50.1	20.1	16.6	(s)	2.7	1.4	2.2	2.8	12.8	58.7	1.6	[R] 60.5	[R] 0.1	52.9	[R] 225.3	115.7	[R] 340.9
1991	1.9	56.8	17.6	13.3	(s)	3.0	1.2	2.6	2.2	12.8	52.8	[R] 1.6	[R] 60.5	[R] 0.1	52.2	[R] 225.8	113.6	[R] 339.4
1992	2.3	60.8	21.9	13.2	0.1	2.8	1.3	1.3	3.2	17.2	60.9	2.5	[R] 62.3	[R] 0.1	51.6	[R] 240.6	110.2	[R] 350.8
1993	2.2	63.2	22.1	14.2	0.1	3.1	1.3	2.4	4.3	14.1	61.4	3.5	[R] 62.4	[R] 0.1	51.2	[R] 244.0	108.2	[R] 352.2
1994	2.9	65.6	22.7	12.2	0.1	2.2	1.3	2.6	2.6	15.3	59.0	3.2	[R] 72.3	[R] 0.1	51.4	[R] 254.4	107.3	[R] 361.7
1995	2.8	72.0	18.3	15.3	0.1	3.1	1.3	2.7	2.1	15.6	58.5	3.7	[R] 76.0	[R] 0.1	54.0	[R] 267.1	112.6	[R] 379.7
1996	1.9	91.6	18.2	10.1	0.1	3.7	1.3	3.0	0.9	16.7	53.9	4.2	[R] 78.3	[R] 0.1	53.9	[R] 283.8	112.2	[R] 396.0
1997	1.9	94.8	19.7	12.9	(s)	3.8	1.3	3.1	1.1	15.5	57.3	4.4	80.2	0.1	54.4	293.1	112.9	406.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 243. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Oregon

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	4	(s)	655	2,893	384	10	301	15,142	1,157	20,542	0	0	–	0	–
1965	1	1	277	3,664	812	4	404	18,824	670	24,654	0	0	–	0	–
1970	(s)	6	305	4,782	2,086	18	487	23,987	1,070	32,736	0	0	–	0	–
1975	(s)	8	171	6,783	2,079	13	490	28,125	438	38,098	0	0	–	0	–
1980	0	6	260	8,851	2,465	65	530	29,803	1,107	43,080	0	0	–	0	–
1985	0	5	141	9,088	2,142	191	482	28,335	3,091	43,469	0	0	–	0	–
1986	0	3	193	9,028	2,618	156	471	29,213	3,010	44,688	0	0	–	0	–
1987	0	8	127	9,791	2,928	175	533	29,924	3,293	46,771	0	R 8	–	R 18	–
1988	0	8	98	10,195	3,189	201	514	31,438	4,218	49,853	0	R 9	–	R 21	–
1989	0	9	102	10,317	3,377	186	527	31,191	4,755	50,455	R e 29,651	R 9	–	R 19	–
1990	0	9	121	11,032	3,319	183	542	31,030	3,752	49,979	34,245	R 9	–	R 20	–
1991	0	9	126	11,356	3,744	158	485	31,462	5,729	53,060	27,145	R 10	–	R 22	–
1992	0	7	129	11,227	4,011	146	495	31,502	5,824	53,334	32,992	R 10	–	R 22	–
1993	0	5	110	10,054	4,310	144	504	33,044	3,804	51,970	36,818	R 10	–	R 22	–
1994	0	6	156	10,460	4,649	220	527	33,306	3,921	53,239	0	R 11	–	R 22	–
1995	0	7	143	10,340	5,114	110	518	33,476	3,227	52,928	0	R 14	–	R 28	–
1996	0	8	191	10,899	5,235	105	502	34,562	3,084	54,579	0	R 11	–	R 23	–
1997	0	13	176	11,609	5,720	96	531	32,980	3,302	54,414	0	11	–	23	–
			Trillion Btu												
1960	0.1	0.1	3.3	16.9	2.1	(s)	1.8	79.5	7.3	111.0	0.0	0.0	111.1	0.0	111.1
1965	(s)	0.7	1.4	21.3	4.5	(s)	2.4	98.9	4.2	132.8	0.0	0.0	133.6	0.0	133.6
1970	(s)	5.8	1.5	27.9	11.8	0.1	3.0	126.0	6.7	176.9	0.0	0.0	182.7	0.0	182.7
1975	(s)	8.2	0.9	39.5	11.7	(s)	3.0	147.7	2.8	205.6	0.0	0.0	213.8	0.0	213.8
1980	0.0	5.9	1.3	51.6	13.9	0.2	3.2	156.6	7.0	233.8	0.0	0.0	239.6	0.0	239.6
1985	0.0	4.7	0.7	52.9	12.1	0.7	2.9	148.8	19.4	237.6	0.0	0.0	242.3	0.0	242.3
1986	0.0	3.6	1.0	52.6	14.8	0.6	2.9	153.5	18.9	244.1	0.0	0.0	247.7	0.0	247.7
1987	0.0	8.2	0.6	57.0	16.5	0.6	3.2	157.2	20.7	255.9	0.0	(s)	264.2	0.1	264.2
1988	0.0	8.2	0.5	59.4	18.0	0.7	3.1	165.1	26.5	273.4	0.0	(s)	281.7	0.1	281.7
1989	0.0	8.8	0.5	60.1	19.1	0.7	3.2	163.8	29.9	277.3	R e 2.3	(s)	e 286.2	0.1	e 286.2
1990	0.0	9.2	0.6	64.3	18.8	0.7	3.3	163.0	23.6	274.2	2.6	(s)	283.4	0.1	283.5
1991	0.0	9.1	0.6	66.2	21.1	0.6	2.9	165.3	36.0	292.7	2.1	(s)	301.8	0.1	301.9
1992	0.0	7.1	0.7	65.4	22.7	0.5	3.0	165.5	36.6	294.3	2.5	(s)	R 301.5	0.1	301.5
1993	0.0	5.1	0.6	58.6	24.4	0.5	3.1	173.6	23.9	284.6	2.8	(s)	289.7	0.1	R 289.8
1994	0.0	6.1	0.8	60.9	26.4	0.8	3.2	175.0	24.7	291.7	0.0	(s)	297.8	0.1	R 297.9
1995	0.0	7.6	0.7	60.2	29.0	0.4	3.1	175.8	20.3	289.6	0.0	(s)	297.3	0.1	R 297.4
1996	0.0	8.3	1.0	63.5	29.7	0.4	3.0	181.6	19.4	298.5	0.0	(s)	306.8	0.1	306.9
1997	0.0	13.1	0.9	67.6	32.4	0.3	3.2	173.2	20.8	298.5	0.0	(s)	311.7	0.1	311.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 244. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Oregon

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	1	3	(s)	0	3	0	12,389	24	0	0	–
1965	0	0	0	(s)	1	(s)	0	1	0	16,447	26	0	0	–
1970	0	0	0	1	18	(s)	0	19	0	29,836	44	0	0	–
1975	0	0	0	(s)	0	29	0	29	2	34,522	(s)	0	0	–
1980	485	0	485	(s)	0	110	0	110	5,395	30,194	160	0	0	–
1985	418	0	418	0	0	3	0	3	6,911	45,848	0	0	0	–
1986	0	0	0	(s)	0	4	0	4	7,081	42,068	0	0	0	–
1987	0	0	0	0	0	2	0	2	4,348	40,689	0	0	0	–
1988	0	0	0	0	0	1	0	1	6,339	36,281	99	0	0	–
1989	306	0	306	13	0	76	0	76	5,299	R 39,503	28	0	0	–
1990	850	0	850	7	0	56	0	56	6,074	42,682	1	0	0	–
1991	1,831	0	1,831	11	0	23	0	23	1,465	43,643	(s)	0	0	–
1992	1,994	0	1,994	14	0	19	0	19	4,573	36,209	6	0	0	–
1993	1,981	0	1,981	16	0	56	0	56	-21	38,066	11	0	0	–
1994	2,333	0	2,333	26	0	11	0	11	0	33,327	0	0	0	–
1995	977	0	977	19	0	12	0	12	0	41,499	0	0	0	–
1996	1,044	0	1,044	14	0	10	0	10	0	47,117	0	0	0	–
1997	822	0	822	11	0	23	0	23	0	46,736	0	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	0.7	(s)	(s)	0.0	(s)	0.0	133.3	0.3	0.0	0.0	134.3
1965	0.0	0.0	0.0	0.1	(s)	(s)	0.0	(s)	0.0	171.9	0.3	0.0	0.0	172.3
1970	0.0	0.0	0.0	1.1	0.1	(s)	0.0	0.1	0.0	313.1	0.5	0.0	0.0	314.7
1975	0.0	0.0	0.0	(s)	0.0	0.2	0.0	0.2	(s)	359.2	(s)	0.0	0.0	359.4
1980	7.9	0.0	7.9	0.3	0.0	0.6	0.0	0.6	58.8	313.7	1.7	0.0	0.0	383.1
1985	6.9	0.0	6.9	0.0	0.0	(s)	0.0	(s)	74.7	479.0	0.0	0.0	0.0	560.7
1986	0.0	0.0	0.0	(s)	0.0	(s)	0.0	(s)	76.5	439.4	0.0	0.0	0.0	515.9
1987	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	46.9	423.9	0.0	0.0	0.0	470.8
1988	0.0	0.0	0.0	0.0	0.0	(s)	0.0	(s)	68.1	374.6	1.0	0.0	0.0	443.7
1989	5.2	0.0	5.2	13.4	0.0	0.4	0.0	0.4	56.8	R 412.1	0.3	0.0	0.0	492.9
1990	14.2	0.0	14.2	7.6	0.0	0.3	0.0	0.3	64.9	R 444.0	(s)	0.0	0.0	R 535.6
1991	30.9	0.0	30.9	11.0	0.0	0.1	0.0	0.1	15.7	R 455.5	(s)	0.0	0.0	R 521.5
1992	38.4	0.0	38.4	14.4	0.0	0.1	0.0	0.1	48.8	R 374.5	0.1	0.0	0.0	R 491.3
1993	34.9	0.0	34.9	16.3	0.0	0.3	0.0	0.3	-0.2	392.4	0.1	0.0	0.0	451.6
1994	41.7	0.0	41.7	26.4	0.0	0.1	0.0	0.1	0.0	R 343.8	0.0	0.0	0.0	R 428.1
1995	17.4	0.0	17.4	19.4	0.0	0.1	0.0	0.1	0.0	R 427.9	0.0	0.0	0.0	R 470.8
1996	18.3	0.0	18.3	14.1	0.0	0.1	0.0	0.1	0.0	R 487.0	0.0	0.0	0.0	R 529.1
1997	14.4	0.0	14.4	10.8	0.0	0.1	0.0	0.1	0.0	481.9	0.0	0.0	0.0	510.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 245. Energy Consumption Estimates by Source, Selected Years 1960-1997, Pennsylvania

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	60,624	522	4,731	1,994	46,257	1,036	3,508	2,334	2,775	80,104	42,958	11,573	197,271	230	1,826	–	–	-1,496	–
1965	68,907	629	6,201	1,922	54,459	3,406	3,851	3,030	3,540	85,723	43,238	14,972	220,342	313	1,329	–	–	4,970	–
1970	68,573	772	6,600	662	63,489	9,083	4,251	4,754	3,844	101,718	60,436	14,808	269,645	465	1,366	–	–	2,804	–
1975	67,043	654	5,663	426	68,017	8,548	3,398	6,077	3,349	108,765	41,631	15,678	261,552	15,869	1,576	–	–	-34,243	–
1980	65,911	776	5,148	337	68,602	10,148	2,763	7,255	4,069	107,925	35,099	19,451	260,795	12,091	734	–	–	-36,478	–
1985	56,703	626	4,913	208	53,862	10,126	3,557	7,577	3,703	101,979	17,799	16,397	220,121	26,232	972	–	–	-75,188	–
1986	53,103	610	5,956	251	54,276	9,915	3,813	8,430	3,620	104,103	23,616	15,605	229,586	39,820	1,453	–	–	-111,574	–
1987	55,413	636	6,572	147	57,723	10,530	2,918	8,398	4,093	106,628	23,878	17,245	238,132	34,982	1,132	–	–	-84,175	–
1988	58,799	669	5,473	189	58,748	11,705	3,693	6,105	3,947	110,729	22,033	19,078	241,699	37,862	705	–	–	-88,875	–
1989	58,687	682	6,718	177	61,381	9,661	3,071	6,967	4,048	108,915	21,871	19,147	241,955	39,166	[i] NA	–	–	[R] -94,573	–
1990	57,319	644	7,466	145	53,913	12,042	1,654	6,313	4,166	107,467	17,687	19,780	230,634	57,787	NA	–	–	[R] -131,495	–
1991	54,931	639	6,192	116	52,993	11,355	1,781	7,585	3,727	107,081	15,965	18,258	225,054	57,476	NA	–	–	[R] -117,405	–
1992	56,074	683	6,036	163	55,063	10,932	1,828	9,176	3,800	107,406	14,904	20,913	230,222	60,133	NA	–	–	[R] -128,880	–
1993	56,158	691	6,087	150	61,246	11,787	2,056	5,759	3,869	109,970	18,266	18,963	238,153	59,331	NA	–	–	-125,012	–
1994	54,094	697	7,610	136	62,323	11,748	2,078	5,634	4,044	109,532	18,981	19,877	241,964	67,207	NA	–	–	[R] -131,465	–
1995	55,326	721	7,808	125	61,821	12,313	2,760	5,509	3,975	112,282	12,787	20,221	239,603	66,462	NA	–	–	[R] -121,573	–
1996	57,226	728	7,472	121	62,598	11,831	3,116	5,952	3,857	113,639	12,039	19,346	239,971	68,672	NA	–	–	[R] -136,342	–
1997	58,591	694	6,962	107	61,271	14,813	3,015	6,012	4,075	114,779	10,573	22,228	243,835	67,655	NA	–	–	-137,451	–
			Trillion Btu																
1960	1,529.9	540.1	31.4	10.1	269.4	5.7	19.9	9.4	16.8	420.8	270.1	69.3	1,122.9	2.7	19.6	[R] 46.5	0.0	-5.1	[R] 3,256.6
1965	1,751.2	652.9	41.2	9.7	317.2	19.2	21.8	12.2	21.5	450.3	271.8	88.0	1,252.9	3.7	13.9	[R] 47.4	0.0	17.0	[R] 3,738.9
1970	1,699.0	797.9	43.8	3.3	369.8	51.4	24.1	18.0	23.3	534.3	380.0	87.0	1,535.0	5.1	14.3	[R] 53.2	0.0	9.6	[R] 4,114.1
1975	1,646.7	670.1	37.6	2.1	396.2	48.4	19.3	22.6	20.3	571.3	261.7	92.2	1,471.7	174.8	16.4	[R] 57.5	0.0	-116.8	[R] 3,920.3
1980	1,636.1	792.8	34.2	1.7	399.6	57.4	15.7	26.7	24.7	566.9	220.7	112.4	1,459.8	131.9	7.6	[R] 154.3	0.0	-124.5	[R] 4,058.0
1985	1,409.1	646.9	32.6	1.1	313.7	57.3	20.2	27.3	22.5	535.7	111.9	96.5	1,218.7	283.6	10.1	[R] 146.9	0.0	-256.5	[R] 3,458.9
1986	1,318.4	631.9	39.5	1.3	316.2	56.1	21.6	30.7	22.0	546.9	148.5	93.1	1,275.7	430.0	15.2	[R] 120.3	0.0	-380.7	[R] 3,410.8
1987	1,381.1	659.1	43.6	0.7	336.2	59.6	16.5	30.7	24.8	560.1	150.1	101.6	1,324.1	377.0	11.8	[R] 117.3	0.0	-287.2	[R] 3,583.1
1988	1,466.2	692.7	36.3	1.0	342.2	66.2	20.9	22.3	23.9	581.7	138.5	112.3	1,345.3	406.8	7.3	[R] 122.0	0.0	-303.2	[R] 3,737.1
1989	1,463.7	706.8	44.6	0.9	357.5	54.6	17.4	25.7	24.6	572.1	137.5	112.0	1,347.0	420.0	[R i] 15.2	[R i] 116.3	[R i] 0.6	[R] -322.7	[R i] 3,746.3
1990	1,427.3	667.6	49.5	0.7	314.0	68.2	9.4	22.9	25.3	564.5	111.2	115.6	1,281.4	617.2	[R] 20.7	[R] 91.1	[R] 0.6	-448.7	[R] 3,656.5
1991	1,364.8	661.7	41.1	0.6	308.7	64.3	10.1	27.4	22.6	562.5	100.4	107.0	1,244.6	617.3	9.9	[R] 90.8	[R] 0.6	[R] -400.6	[R] 3,588.7
1992	1,407.7	707.1	40.1	0.8	320.7	61.9	10.4	33.3	23.0	564.2	93.7	121.6	1,269.7	642.1	17.2	[R] 95.5	[R] 0.7	[R] -439.7	[R] 3,699.6
1993	1,409.7	716.6	40.4	0.8	356.8	66.7	11.7	20.8	23.5	577.7	114.8	110.5	1,323.5	633.8	15.4	[R] 100.4	[R] 0.7	-426.5	[R] 3,772.8
1994	1,357.8	722.3	50.5	0.7	363.0	66.5	11.8	20.5	24.5	575.4	119.3	115.8	1,348.0	717.5	19.7	[R] 103.1	[R] 0.7	-448.6	[R] 3,818.9
1995	1,387.4	746.7	51.8	0.6	360.1	69.8	15.7	20.0	24.1	589.8	80.4	118.2	1,330.5	708.3	8.2	[R] 112.8	[R] 0.8	[R] -414.8	[R] 3,874.5
1996	1,432.3	752.7	49.6	0.6	364.6	67.1	17.7	21.5	23.4	596.9	75.7	112.2	1,329.3	729.5	23.2	[R] 114.3	[R] 0.9	-465.2	[R] 3,913.5
1997	1,462.1	717.9	46.2	0.5	356.9	84.0	17.1	21.7	24.7	602.9	66.5	129.4	1,350.0	718.7	16.9	107.6	0.9	-469.0	3,900.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 246. Residential Energy Consumption Estimates, Selected Years 1960-1997, Pennsylvania

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	435	4,579	5,014	232	25,101	2,763	1,125	28,989	R 1,307	–	–	11,094	–	27,594	–
1965	277	2,878	3,155	256	28,391	2,753	1,349	32,493	R 1,060	–	–	14,807	–	35,352	–
1970	244	1,755	1,999	297	31,242	3,368	1,890	36,500	R 1,024	–	–	23,007	–	55,754	–
1975	115	924	1,039	273	31,587	2,023	2,109	35,719	R 1,039	–	–	27,678	–	66,762	–
1980	162	664	825	288	27,838	2,362	1,589	31,789	R 3,240	–	–	31,767	–	77,247	–
1985	171	472	642	245	21,658	2,853	2,299	26,810	R 2,197	–	–	32,686	–	76,794	–
1986	202	515	716	255	18,868	2,973	1,978	23,819	R 2,138	–	–	34,241	–	78,763	–
1987	246	513	759	251	19,067	2,150	2,245	23,462	R 2,007	–	–	35,761	–	81,711	–
1988	210	484	694	268	19,779	2,920	2,360	25,059	R 2,085	–	–	37,828	–	85,520	–
1989	214	492	706	271	22,046	2,534	2,526	27,105	R 2,163	–	–	38,141	–	R 85,695	–
1990	116	586	702	240	17,007	1,377	2,533	20,917	1,039	–	–	38,164	–	R 83,474	–
1991	192	515	708	243	17,482	1,508	2,940	21,930	1,094	–	–	39,598	–	R 86,199	–
1992	264	523	787	267	17,640	1,585	3,109	22,333	R 1,151	–	–	39,245	–	R 83,827	–
1993	144	507	651	269	20,914	1,655	2,840	25,409	R 1,235	–	–	41,455	–	87,587	–
1994	89	541	630	268	19,796	1,490	2,890	24,176	R 1,211	–	–	42,239	–	R 88,141	–
1995	113	520	632	262	19,661	2,064	3,089	24,814	R 1,344	–	–	42,802	–	R 89,170	–
1996	42	524	566	279	21,001	2,411	3,205	26,617	R 1,342	–	–	43,645	–	R 90,834	–
1997	83	604	687	262	19,780	2,541	3,205	25,526	976	–	–	42,715	–	88,710	–
	Trillion Btu														
1960	10.8	113.2	124.0	240.2	146.2	15.7	4.5	166.4	R 26.1	0.0	0.0	37.9	R 594.5	94.1	R 688.7
1965	6.8	70.0	76.8	265.3	165.4	15.6	5.4	186.4	R 21.2	0.0	0.0	50.5	R 600.2	120.6	R 720.9
1970	5.8	41.2	47.0	306.8	182.0	19.1	7.1	208.2	R 20.5	0.0	0.0	78.5	R 661.1	190.2	R 851.3
1975	2.7	20.6	23.3	279.5	184.0	11.5	7.8	203.3	R 20.8	0.0	0.0	94.4	R 621.3	227.8	R 849.1
1980	3.9	15.1	19.0	294.7	162.2	13.4	5.8	181.4	R 64.8	0.0	0.0	108.4	R 668.2	263.6	R 931.8
1985	4.2	10.9	15.1	253.2	126.2	16.2	8.3	150.6	R 43.9	0.0	0.0	111.5	R 574.4	262.0	R 836.4
1986	5.0	12.6	17.6	264.0	109.9	16.9	7.2	134.0	R 42.8	0.0	0.0	116.8	R 575.2	268.7	R 843.9
1987	6.1	13.5	19.6	260.2	111.1	12.2	8.2	131.5	R 40.1	0.0	0.0	122.0	R 573.5	278.8	R 852.3
1988	5.2	12.6	17.8	277.7	115.2	16.6	8.6	140.4	R 41.7	0.0	0.0	129.1	R 606.7	291.8	R 898.5
1989	5.4	13.4	18.7	280.8	128.4	14.4	9.3	152.1	R 43.3	e 0.2	R e 0.4	130.1	R e 625.5	R 292.4	R e 917.9
1990	2.9	14.8	17.7	248.9	99.1	7.8	9.2	116.1	20.8	0.2	0.4	130.2	R 534.2	284.8	R 819.0
1991	4.8	13.0	17.8	251.2	101.8	8.5	10.6	121.0	21.9	0.2	0.4	135.1	R 547.6	294.1	R 841.8
1992	6.7	12.9	19.5	276.1	102.8	9.0	11.3	123.0	23.0	0.2	0.4	133.9	R 576.2	286.0	R 862.2
1993	3.6	12.2	15.9	279.0	121.8	9.4	10.2	141.4	24.7	0.2	0.4	141.4	R 603.1	298.8	R 901.9
1994	2.2	13.6	15.8	278.1	115.3	8.4	10.5	134.3	24.2	0.2	0.4	144.1	R 597.1	300.7	R 897.9
1995	2.8	12.8	15.7	271.3	114.5	11.7	11.2	137.4	R 26.9	0.2	0.5	146.0	R 598.0	304.2	R 902.3
1996	1.1	12.9	14.0	288.1	122.3	13.7	11.6	147.6	26.8	0.2	0.5	148.9	R 626.1	309.9	R 936.1
1997	2.1	14.8	16.9	271.7	115.2	14.4	11.6	141.2	19.5	0.3	0.5	145.7	595.8	302.7	898.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 247. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Pennsylvania

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	808	3,053	3,861	56	4,363	241	198	2,084	5,514	12,401	R 25	–	R 7,125	–	R 17,723	–
1965	514	1,919	2,433	68	4,935	240	238	2,585	5,899	13,897	R 20	–	R 9,417	–	R 22,484	–
1970	453	1,170	1,623	99	5,431	294	334	2,455	5,254	13,767	R 19	–	R 13,435	–	R 32,557	–
1975	214	616	830	99	5,491	177	372	1,310	3,630	10,980	R 20	–	R 18,608	–	R 44,886	–
1980	300	442	743	118	5,858	193	280	313	1,521	8,165	R 78	–	R 21,746	–	R 52,880	–
1985	317	315	631	115	4,933	359	406	448	1,414	7,559	NA	–	R 24,580	–	R 57,749	–
1986	374	343	717	114	6,004	394	349	459	946	8,153	NA	–	R 25,875	–	R 59,519	–
1987	457	342	799	115	5,649	328	396	486	1,202	8,060	NA	–	R 26,997	–	R 61,685	–
1988	390	323	713	127	5,585	421	417	472	1,147	8,042	NA	–	R 28,369	–	R 64,136	–
1989	397	328	725	132	7,296	284	446	452	913	9,391	NA	–	R 29,430	–	R 66,124	–
1990	215	391	606	126	5,588	150	447	701	805	7,692	NA	–	R 30,198	–	R 66,051	–
1991	357	343	701	126	5,450	131	519	555	632	7,287	NA	–	R 31,612	–	R 68,816	–
1992	491	348	839	134	5,409	102	549	334	885	7,279	NA	–	R 31,813	–	R 67,953	–
1993	267	338	606	132	6,001	173	501	87	1,125	7,887	R 99	–	R 33,232	–	R 70,212	–
1994	165	361	526	138	6,916	334	510	87	1,385	9,232	R 101	–	R 34,361	–	R 71,702	–
1995	209	347	556	144	6,132	528	545	88	1,240	8,533	R 101	–	R 35,542	–	R 74,044	–
1996	79	349	428	155	6,240	556	566	87	1,326	8,774	R 110	–	R 36,373	–	R 75,701	–
1997	155	402	557	144	4,960	323	566	284	1,050	7,183	95	–	36,827	–	76,480	–
	Trillion Btu															
1960	20.0	75.5	95.5	58.1	25.4	1.4	0.8	10.9	34.7	73.2	R 0.5	0.0	24.3	R 251.6	R 60.5	R 312.1
1965	12.7	46.7	59.3	70.1	28.7	1.4	1.0	13.6	37.1	81.7	R 0.4	0.0	R 32.1	R 243.7	R 76.7	R 320.4
1970	10.8	27.5	38.3	102.6	31.6	1.7	1.3	12.9	33.0	80.5	R 0.4	0.0	R 45.8	R 267.6	R 111.1	378.7
1975	5.0	13.7	18.7	101.5	32.0	1.0	1.4	6.9	22.8	64.1	R 0.4	0.0	63.5	R 248.2	R 153.2	R 401.3
1980	7.3	10.1	17.3	121.1	34.1	1.1	1.0	1.6	9.6	47.5	R 1.6	0.0	74.2	R 261.6	R 180.4	R 442.0
1985	7.9	7.2	15.1	119.3	28.7	2.0	1.5	2.4	8.9	43.5	NA	0.0	R 83.9	R 261.7	R 197.0	R 458.8
1986	9.3	8.4	17.7	118.6	35.0	2.2	1.3	2.4	5.9	46.8	NA	0.0	R 88.3	R 271.4	R 203.1	R 474.5
1987	11.4	9.0	20.4	118.9	32.9	1.9	1.4	2.6	7.6	46.3	NA	0.0	R 92.1	R 277.7	R 210.5	R 488.2
1988	9.7	8.4	18.1	132.0	32.5	2.4	1.5	2.5	7.2	46.1	NA	0.0	R 96.8	R 293.0	R 218.8	R 511.9
1989	10.0	8.9	18.9	137.3	42.5	1.6	1.6	2.4	5.7	53.9	NA	[e] (s)	R 100.4	R 310.5	R 225.6	R 536.1
1990	5.4	9.8	15.2	130.3	32.6	0.9	1.6	3.7	5.1	43.8	NA	(s)	R 103.0	R 292.3	R 225.4	R 517.7
1991	8.9	8.7	17.6	129.9	31.7	0.7	1.9	2.9	4.0	41.3	NA	(s)	R 107.9	R 296.7	R 234.8	R 531.5
1992	12.4	8.6	20.9	139.1	31.5	0.6	2.0	1.8	5.6	41.4	NA	0.1	R 108.5	R 310.0	R 231.9	R 541.9
1993	6.7	8.2	14.9	136.7	35.0	1.0	1.8	0.5	7.1	45.3	R 2.0	0.1	R 113.4	R 312.3	R 239.6	R 551.8
1994	4.2	9.0	13.2	143.5	40.3	1.9	1.9	0.5	8.7	53.2	R 2.0	0.1	R 117.2	R 329.2	R 244.6	R 573.9
1995	5.3	8.6	13.8	148.8	35.7	3.0	2.0	0.5	7.8	48.9	R 2.0	0.1	R 121.3	R 335.0	R 252.6	R 587.6
1996	2.0	8.6	10.6	159.9	36.3	3.1	2.0	0.5	8.3	50.3	R 2.2	0.1	R 124.1	R 347.3	R 258.3	R 605.6
1997	3.9	9.9	13.8	149.1	28.9	1.8	2.0	1.5	6.6	40.9	1.9	0.2	125.7	331.5	261.0	592.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 248. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Pennsylvania

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	33,140	213	4,731	8,645	503	992	1,432	1,456	29,692	11,573	59,025	16	–	–	20,693	–	51,470	–
1965	40,010	285	6,201	11,641	858	1,383	2,419	1,480	29,434	14,972	68,387	15	–	–	29,075	–	69,421	–
1970	35,753	340	6,600	10,196	589	2,396	2,518	1,181	27,132	14,808	65,420	12	–	–	38,993	–	94,494	–
1975	28,510	263	5,663	11,033	1,198	3,439	2,255	1,098	21,941	15,678	62,305	1	–	–	41,256	–	99,516	–
1980	21,877	337	5,148	11,128	208	5,238	2,756	586	11,555	19,135	55,755	1	–	–	46,045	–	111,966	–
1985	13,716	231	4,913	5,762	345	4,624	2,508	1,276	2,624	15,615	37,668	1	–	–	42,520	–	99,898	–
1986	11,080	207	5,956	6,590	446	5,911	2,453	1,259	5,105	14,714	42,433	1	–	–	42,020	–	96,658	–
1987	12,591	232	6,572	7,709	441	5,604	2,773	1,314	5,547	16,160	46,120	1	–	–	43,989	–	100,512	–
1988	14,226	234	5,473	6,838	353	3,152	2,674	1,386	4,435	17,848	42,159	1	–	–	46,291	–	104,654	–
1989	14,016	247	6,718	6,332	253	3,825	2,743	1,343	5,612	18,012	44,837	[f] NA	–	–	45,916	–	[R] 103,166	–
1990	14,546	241	7,466	6,303	127	3,177	2,822	1,180	5,814	18,775	45,664	NA	–	–	45,992	–	[R] 100,595	–
1991	12,860	235	6,192	5,354	143	3,938	2,525	1,254	4,467	17,272	41,145	NA	–	–	44,728	–	[R] 97,368	–
1992	14,041	240	6,036	6,260	142	5,330	2,574	1,342	4,205	19,891	45,781	NA	–	–	44,869	–	[R] 95,841	–
1993	14,644	246	6,087	6,101	227	2,222	2,621	959	4,302	18,031	40,551	NA	–	–	44,949	–	94,969	–
1994	14,894	240	7,610	5,151	254	1,874	2,740	908	4,125	18,774	41,435	NA	–	–	46,076	–	[R] 96,147	–
1995	14,885	253	7,808	4,253	169	1,687	2,693	934	2,933	18,911	39,387	NA	–	–	47,528	–	[R] 99,015	–
1996	15,155	247	7,472	4,526	150	2,032	2,613	855	3,348	17,983	38,978	NA	–	–	47,208	–	[R] 98,249	–
1997	14,744	240	6,962	4,313	151	2,106	2,761	887	2,273	20,910	40,362	NA	–	–	47,957	–	99,595	–
			Trillion Btu															
1960	873.1	220.0	31.4	50.4	2.9	4.0	8.7	7.6	186.7	69.3	360.9	0.2	[R] 19.8	0.0	70.6	[R] 1,544.6	175.6	[R] 1,720.2
1965	1,053.3	296.1	41.2	67.8	4.9	5.5	14.7	7.8	185.0	88.0	414.9	0.2	[R] 25.8	0.0	99.2	[R] 1,889.4	236.9	[R] 2,126.3
1970	932.1	351.2	43.8	59.4	3.3	9.1	15.3	6.2	170.6	87.0	394.7	0.1	[R] 32.3	0.0	133.0	[R] 1,843.5	322.4	[R] 2,165.9
1975	743.1	269.8	37.6	64.3	6.8	12.8	13.7	5.8	137.9	92.2	371.0	(s)	[R] 36.3	0.0	140.8	[R] 1,561.0	339.5	[R] 1,900.5
1980	573.1	344.0	34.2	64.8	1.2	19.2	16.7	3.1	72.6	110.5	322.3	(s)	[R] 87.9	0.0	157.1	[R] 1,484.4	382.0	[R] 1,866.4
1985	359.2	238.7	32.6	33.6	2.0	16.7	15.2	6.7	16.5	91.8	215.0	(s)	[R] 103.0	0.0	145.1	[R] 1,061.0	340.9	[R] 1,401.9
1986	289.3	214.3	39.5	38.4	2.5	21.5	14.9	6.6	32.1	87.7	243.2	(s)	[R] 77.5	0.0	143.4	[R] 967.8	329.8	[R] 1,297.6
1987	330.1	240.5	43.6	44.9	2.5	20.5	16.8	6.9	34.9	95.1	265.2	(s)	[R] 77.2	0.0	150.1	[R] 1,063.1	342.9	[R] 1,406.0
1988	373.9	242.0	36.3	39.8	2.0	11.5	16.2	7.3	27.9	104.9	245.9	(s)	[R] 80.3	0.0	157.9	[R] 1,100.1	357.1	[R] 1,457.2
1989	368.2	256.2	44.6	36.9	1.4	14.1	16.6	7.1	35.3	105.2	261.2	[R f] 1.7	[R f] 72.5	[f] 0.0	156.7	[R f] 1,116.5	[R] 352.0	[R f] 1,468.5
1990	382.1	250.3	49.5	36.7	0.7	11.5	17.1	6.2	36.6	109.6	267.9	2.9	[R] 69.7	0.0	156.9	[R] 1,129.9	343.2	[R] 1,473.2
1991	337.6	243.1	41.1	31.2	0.8	14.2	15.3	6.6	28.1	101.0	238.4	3.1	[R] 68.4	0.0	152.6	[R] 1,043.2	332.2	[R] 1,375.4
1992	369.2	248.7	40.1	36.5	0.8	19.3	15.6	7.1	26.4	115.5	261.2	4.6	[R] 71.8	0.0	153.1	[R] 1,108.7	327.0	[R] 1,435.7
1993	385.0	254.8	40.4	35.5	1.3	8.0	15.9	5.0	27.0	104.8	238.1	3.8	[R] 73.0	0.0	153.4	[R] 1,108.1	324.0	[R] 1,432.1
1994	392.4	248.3	50.5	30.0	1.4	6.8	16.6	4.8	25.9	109.2	245.2	4.1	[R] 75.1	0.0	157.2	[R] 1,122.3	[R] 328.1	[R] 1,450.4
1995	392.2	261.9	51.8	24.8	1.0	6.1	16.3	4.9	18.4	110.3	233.6	3.6	[R] 78.5	0.0	162.2	[R] 1,132.0	337.8	[R] 1,469.8
1996	398.4	255.2	49.6	26.4	0.8	7.3	15.8	4.5	21.0	104.0	229.5	4.7	[R] 81.1	0.0	161.1	[R] 1,130.0	335.2	[R] 1,465.2
1997	387.9	248.9	46.2	25.1	0.9	7.6	16.7	4.7	14.3	121.5	237.0	4.9	81.5	0.0	163.6	1,123.9	339.8	1,463.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 249. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Pennsylvania

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	547	15	1,994	7,662	1,036	20	1,343	76,565	5,005	93,625	0	R 306	–	R 760	–
1965	127	19	1,922	8,900	3,406	60	1,121	81,658	4,554	101,622	0	R 232	–	R 553	–
1970	56	27	662	12,662	9,083	134	1,327	98,082	5,548	127,497	0	R 184	–	R 447	–
1975	5	18	426	16,566	8,469	157	1,094	106,357	5,788	138,857	0	R 194	–	R 467	–
1980	0	29	337	21,539	10,148	147	1,312	107,026	4,796	145,306	0	R 186	–	R 451	–
1985	0	33	208	20,087	10,126	249	1,194	100,255	2,139	134,258	0	R 365	–	R 859	–
1986	0	33	251	21,378	9,915	191	1,168	102,385	4,561	139,850	0	R 392	–	R 902	–
1987	0	36	147	23,731	10,530	152	1,320	104,829	5,898	146,608	0	R 394	–	R 899	–
1988	0	37	189	24,872	11,705	176	1,273	108,871	5,470	152,557	0	R 403	–	R 912	–
1989	0	27	177	23,728	9,661	171	1,306	107,119	4,119	146,280	R e 7,369	R 413	–	R 927	–
1990	0	34	145	23,830	12,042	157	1,344	105,586	5,662	148,765	8,510	R 396	–	R 867	–
1991	0	34	116	23,801	11,355	188	1,202	105,272	5,713	147,647	6,746	R 399	–	R 869	–
1992	0	39	163	25,036	10,932	189	1,226	105,729	6,994	150,269	8,199	R 360	–	R 769	–
1993	0	36	150	27,385	11,787	196	1,248	108,924	6,082	155,772	9,150	R 345	–	R 729	–
1994	0	38	136	29,058	11,748	360	1,304	108,538	5,994	157,139	23,202	R 370	–	R 772	–
1995	0	38	125	30,520	12,313	188	1,282	111,261	4,843	160,533	71,190	R 379	–	R 790	–
1996	0	41	121	29,413	11,831	149	1,244	112,697	3,383	158,838	53,520	R 397	–	R 827	–
1997	0	39	107	31,312	14,813	136	1,314	113,608	4,674	165,964	61,220	376	–	781	–
			Trillion Btu												
1960	14.0	15.6	10.1	44.6	5.7	0.1	8.1	402.2	31.5	502.3	0.0	R 1.0	533.0	R 2.6	R 535.6
1965	3.2	20.1	9.7	51.8	19.2	0.2	6.8	429.0	28.6	545.4	0.0	0.8	569.4	R 1.9	R 571.3
1970	1.3	27.5	3.3	73.8	51.4	0.5	8.0	515.2	34.9	687.1	0.0	R 0.6	R 716.7	R 1.5	R 718.2
1975	0.1	18.1	2.1	96.5	47.9	0.6	6.6	558.7	36.4	748.9	0.0	0.7	767.8	1.6	769.4
1980	0.0	30.1	1.7	125.5	57.4	0.5	8.0	562.2	30.2	785.4	0.0	0.6	816.2	1.5	817.7
1985	0.0	34.1	1.1	117.0	57.3	0.9	7.2	526.6	13.4	723.5	0.0	R 1.2	R 758.9	R 2.9	R 761.9
1986	0.0	34.2	1.3	124.5	56.1	0.7	7.1	537.8	28.7	756.2	0.0	R 1.3	R 791.7	R 3.1	R 794.8
1987	0.0	37.3	0.7	138.2	59.6	0.6	8.0	550.7	37.1	794.9	0.0	R 1.3	R 833.5	R 3.1	R 836.6
1988	0.0	38.3	1.0	144.9	66.2	0.6	7.7	571.9	34.4	826.7	0.0	R 1.4	R 866.4	R 3.1	R 869.5
1989	0.0	28.4	0.9	138.2	54.6	0.6	7.9	562.7	25.9	790.9	R e 0.6	R 1.4	R e 820.7	R 3.2	R e 823.8
1990	0.0	35.7	0.7	138.8	68.2	0.6	8.1	554.6	35.6	806.7	0.7	R 1.4	R 843.7	R 3.0	R 846.6
1991	0.0	35.3	0.6	138.6	64.3	0.7	7.3	553.0	35.9	800.4	0.5	R 1.4	R 837.1	R 3.0	R 840.0
1992	0.0	39.9	0.8	145.8	61.9	0.7	7.4	555.4	44.0	816.0	0.6	R 1.2	R 857.2	R 2.6	R 859.8
1993	0.0	37.6	0.8	159.5	66.7	0.7	7.6	572.2	38.2	845.6	0.7	R 1.2	R 884.5	R 2.5	R 887.0
1994	0.0	39.3	0.7	169.3	66.5	1.3	7.9	570.1	37.7	853.5	1.8	R 1.3	R 894.1	R 2.6	R 896.8
1995	0.0	39.2	0.6	177.8	69.8	0.7	7.8	584.5	30.5	871.6	5.4	R 1.3	R 912.1	R 2.7	R 914.8
1996	0.0	42.1	0.6	171.3	67.1	0.5	7.5	592.0	21.3	860.4	4.1	R 1.4	R 903.8	R 2.8	R 906.6
1997	0.0	40.6	0.5	182.4	84.0	0.5	8.0	596.8	29.4	901.5	4.7	1.3	943.4	2.7	946.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 250. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Pennsylvania

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	15,435	2,627	18,062	6	2,747	485	0	3,232	230	1,810	0	0	0	–
1965	21,024	2,158	23,182	1	3,351	591	0	3,943	313	1,313	0	0	0	–
1970	27,245	1,897	29,141	9	22,502	3,959	0	26,460	465	1,354	0	0	0	–
1975	35,180	1,480	36,659	1	10,273	3,419	0	13,691	15,869	1,575	0	0	0	–
1980	41,515	951	42,466	3	17,226	2,238	316	19,780	12,091	734	0	0	0	–
1985	40,681	1,033	41,713	2	11,622	1,423	782	13,827	26,232	971	0	0	0	–
1986	39,760	829	40,589	1	13,005	1,436	891	15,332	39,820	1,452	0	0	0	–
1987	40,291	972	41,263	2	11,231	1,567	1,085	13,882	34,982	1,131	0	0	0	–
1988	42,103	1,063	43,166	3	10,980	1,673	1,230	13,883	37,862	705	0	0	0	–
1989	42,191	1,049	43,241	4	11,228	1,979	1,135	14,342	39,166	1,290	0	0	0	–
1990	40,434	1,031	41,465	2	5,406	1,185	1,005	7,596	57,787	1,703	0	0	0	–
1991	39,667	994	40,662	2	5,153	907	986	7,046	57,476	656	0	0	0	–
1992	39,421	986	40,407	3	2,820	719	1,022	4,560	60,133	1,217	0	0	0	–
1993	39,306	951	40,257	8	6,758	845	932	8,535	59,331	1,124	0	0	0	–
1994	36,921	1,123	38,044	13	7,478	1,402	1,103	9,982	67,207	1,512	0	0	0	–
1995	38,274	978	39,252	25	3,770	1,256	1,310	6,336	66,462	444	0	0	0	–
1996	40,067	1,009	41,076	7	3,983	1,418	1,363	6,764	68,672	1,791	0	0	0	–
1997	41,589	1,014	42,602	7	2,576	907	1,318	4,801	67,655	1,168	0	0	0	–
	Trillion Btu													
1960	377.3	46.0	423.3	6.2	17.3	2.8	0.0	20.1	2.7	19.5	0.0	0.0	0.0	471.7
1965	520.8	37.8	558.6	1.3	21.1	3.4	0.0	24.5	3.7	13.7	0.0	0.0	0.0	601.8
1970	647.0	33.2	680.2	9.7	141.5	23.1	0.0	164.5	5.1	14.2	0.0	0.0	0.0	873.7
1975	836.2	25.2	861.4	1.2	64.6	19.9	0.0	84.5	174.8	16.4	0.0	0.0	0.0	1,138.3
1980	1,009.9	16.8	1,026.7	2.9	108.3	13.0	1.9	123.2	131.9	7.6	0.0	0.0	0.0	1,292.3
1985	1,002.3	17.3	1,019.7	1.6	73.1	8.3	4.7	86.1	283.6	10.1	0.0	0.0	0.0	1,401.1
1986	980.9	12.9	993.8	0.7	81.8	8.4	5.4	95.5	430.0	15.2	0.0	0.0	0.0	1,535.2
1987	995.5	15.5	1,011.0	2.1	70.6	9.1	6.5	86.3	377.0	11.8	0.0	0.0	0.0	1,488.1
1988	1,037.9	18.4	1,056.3	2.7	69.0	9.7	7.4	86.2	406.8	7.3	0.0	0.0	0.0	1,559.2
1989	1,040.8	17.1	1,057.9	4.1	70.6	11.5	6.8	89.0	420.0	13.5	0.0	0.0	0.0	1,584.5
1990	995.7	16.6	1,012.3	2.4	34.0	6.9	6.1	46.9	617.2	17.7	0.0	0.0	0.0	R 1,696.6
1991	976.0	15.8	991.8	2.1	32.4	5.3	5.9	43.6	617.3	6.8	0.0	0.0	0.0	1,661.6
1992	981.4	16.7	998.1	3.2	17.7	4.2	6.2	28.1	642.1	12.6	0.0	0.0	0.0	1,684.0
1993	978.2	15.7	993.9	8.6	42.5	4.9	5.6	53.0	633.8	11.6	0.0	0.0	0.0	1,700.8
1994	919.9	16.5	936.4	13.1	47.0	8.2	6.6	61.8	717.5	15.6	0.0	0.0	0.0	R 1,744.5
1995	951.5	14.3	965.7	25.4	23.7	7.3	7.9	38.9	708.3	4.6	0.0	0.0	0.0	1,743.0
1996	994.9	14.5	1,009.4	7.4	25.0	8.3	8.2	41.5	729.5	18.5	0.0	0.0	0.0	1,806.9
1997	1,028.2	15.2	1,043.5	7.6	16.2	5.3	7.9	29.4	718.7	12.0	0.0	0.0	0.0	1,811.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 251. Energy Consumption Estimates by Source, Selected Years 1960-1997, Rhode Island

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	598	12	735	19	8,106	38	886	207	155	5,975	9,827	221	26,170	0	9	–	–	467	–
1965	419	16	907	63	6,879	49	666	223	153	6,492	6,276	337	22,045	0	2	–	–	4,095	–
1970	10	25	937	148	8,631	137	432	375	125	8,009	9,727	313	28,833	0	3	–	–	7,135	–
1975	7	23	1,330	285	8,003	271	128	498	97	8,972	4,389	149	24,122	0	3	–	–	12,289	–
1980	7	28	1,041	269	5,032	348	84	293	132	8,416	2,525	539	18,680	0	1	–	–	14,042	–
1985	9	30	2,974	30	4,452	498	135	501	120	8,665	2,232	127	19,735	0	421	–	–	14,794	–
1986	28	26	1,479	35	5,302	387	168	585	117	8,938	3,771	71	20,853	0	6	–	–	15,916	–
1987	5	36	1,773	42	6,055	528	110	669	133	9,140	2,318	79	20,845	0	9	–	–	16,351	–
1988	175	31	1,741	46	5,935	636	115	564	128	9,277	3,042	62	21,547	0	678	–	–	15,346	–
1989	27	34	1,605	46	5,902	724	63	502	131	8,874	1,701	59	19,606	0	[i] NA	–	–	[R] 18,397	–
1990	5	36	1,634	42	4,636	776	54	501	135	8,765	1,439	58	18,040	0	NA	–	–	[R] 17,594	–
1991	4	54	461	30	5,065	656	52	466	121	8,681	1,099	13	16,642	0	NA	–	–	[R] 19,030	–
1992	5	78	1,502	30	5,307	556	51	456	123	8,756	1,204	14	17,999	0	NA	–	–	[R] 16,683	–
1993	3	76	819	8	5,470	527	50	513	125	8,883	1,320	15	17,730	0	NA	–	–	16,884	–
1994	3	71	1,256	10	5,930	529	50	501	131	8,630	1,180	15	18,233	0	NA	–	–	18,304	–
1995	3	70	990	22	5,732	500	64	461	129	8,927	949	15	17,789	0	NA	–	–	[R] 14,108	–
1996	3	83	337	37	6,051	540	35	524	125	9,006	1,001	18	17,674	0	NA	–	–	[R] 8,993	–
1997	3	83	274	11	6,878	828	93	529	132	9,195	923	16	18,879	0	NA	–	–	8,706	–
			Trillion Btu																
1960	16.8	12.3	4.9	0.1	47.2	0.2	5.0	0.8	0.9	31.4	61.8	1.3	153.7	0.0	0.1	[R] 2.9	0.0	1.6	[R] 187.2
1965	11.5	17.0	6.0	0.3	40.1	0.3	3.8	0.9	0.9	34.1	39.5	1.9	127.8	0.0	(s)	[R] 3.5	0.0	14.0	[R] 173.8
1970	0.2	25.6	6.2	0.7	50.3	0.8	2.4	1.4	0.8	42.1	61.2	1.8	167.6	0.0	(s)	[R] 5.2	0.0	24.3	[R] 223.1
1975	0.1	23.5	8.8	1.4	46.6	1.5	0.7	1.8	0.6	47.1	27.6	0.8	137.1	0.0	(s)	[R] 4.0	0.0	41.9	[R] 206.7
1980	0.2	28.2	6.9	1.4	29.3	2.0	0.5	1.1	0.8	44.2	15.9	3.0	104.9	0.0	(s)	[R] 5.5	0.0	47.9	[R] 186.7
1985	0.2	30.9	19.7	0.2	25.9	2.8	0.8	1.8	0.7	45.5	14.0	0.7	112.2	0.0	4.4	[R] 4.6	0.0	50.5	[R] 202.7
1986	0.7	27.1	9.8	0.2	30.9	2.2	1.0	2.1	0.7	47.0	23.7	0.4	117.9	0.0	0.1	[R] 4.8	0.0	54.3	[R] 204.8
1987	0.1	36.9	11.8	0.2	35.3	3.0	0.6	2.4	0.8	48.0	14.6	0.4	117.1	0.0	0.1	[R] 3.6	0.0	55.8	[R] 213.6
1988	4.4	31.6	11.6	0.2	34.6	3.6	0.7	2.1	0.8	48.7	19.1	0.3	121.6	0.0	7.0	[R] 3.7	0.0	52.4	[R] 220.7
1989	0.7	34.9	10.6	0.2	34.4	4.1	0.4	1.8	0.8	46.6	10.7	0.3	110.0	0.0	[R i] 0.8	[R i] 3.8	[R i] (s)	62.8	[R i] 213.1
1990	0.1	36.8	10.8	0.2	27.0	4.4	0.3	1.8	0.8	46.0	9.0	0.3	100.8	0.0	1.5	[R] 3.7	(s)	60.0	[R] 203.3
1991	0.1	55.8	3.1	0.2	29.5	3.7	0.3	1.7	0.7	45.6	6.9	0.1	91.7	0.0	1.5	[R] 3.5	(s)	64.9	[R] 218.0
1992	0.1	79.2	10.0	0.2	30.9	3.1	0.3	1.7	0.7	46.0	7.6	0.1	100.5	0.0	7.7	[R] 3.7	(s)	56.9	[R] 250.5
1993	0.1	77.8	5.4	(s)	31.9	3.0	0.3	1.9	0.8	46.7	8.3	0.1	98.2	0.0	8.6	[R] 4.1	(s)	57.6	[R] 249.0
1994	0.1	73.3	8.3	0.1	34.5	3.0	0.3	1.8	0.8	45.3	7.4	0.1	101.7	0.0	3.6	[R] 4.3	(s)	62.5	[R] 247.7
1995	0.1	72.0	6.6	0.1	33.4	2.8	0.4	1.7	0.8	46.9	6.0	0.1	98.7	0.0	10.5	[R] 4.7	(s)	48.1	[R] 239.7
1996	0.1	87.7	2.2	0.2	35.2	3.1	0.2	1.9	0.8	47.3	6.3	0.1	97.3	0.0	9.4	[R] 4.8	(s)	30.7	[R] 233.2
1997	0.1	84.9	1.8	0.1	40.1	4.7	0.5	1.9	0.8	48.3	5.8	0.1	104.1	0.0	7.4	3.7	(s)	29.7	235.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 252. Residential Energy Consumption Estimates, Selected Years 1960-1997, Rhode Island

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	12	12	7	5,507	770	149	6,426	R 52	–	–	620	–	1,542	–
1965	0	8	8	9	4,828	534	134	5,496	R 46	–	–	871	–	2,080	–
1970	0	5	5	12	5,835	335	158	6,328	R 58	–	–	1,390	–	3,368	–
1975	0	3	3	13	5,395	87	148	5,629	R 64	–	–	1,684	–	4,063	–
1980	0	2	2	14	3,297	54	115	3,466	R 264	–	–	1,840	–	4,474	–
1985	0	3	3	15	3,419	131	279	3,828	R 223	–	–	1,971	–	4,630	–
1986	0	3	3	16	2,998	162	256	3,416	R 217	–	–	2,064	–	4,747	–
1987	0	2	2	17	3,195	102	304	3,601	R 158	–	–	2,186	–	4,994	–
1988	0	2	2	18	3,602	96	264	3,961	R 164	–	–	2,319	–	5,243	–
1989	0	2	2	18	3,179	57	272	3,508	R 170	–	–	2,370	–	R 5,325	–
1990	0	3	3	18	2,554	38	277	2,869	152	–	–	2,376	–	R 5,198	–
1991	0	2	2	17	2,688	35	280	3,003	160	–	–	2,369	–	R 5,157	–
1992	0	3	3	20	3,270	37	267	3,574	168	–	–	2,363	–	5,048	–
1993	0	2	2	20	3,280	40	319	3,639	173	–	–	2,412	–	5,096	–
1994	0	2	2	17	3,517	38	313	3,868	R 169	–	–	2,457	–	R 5,127	–
1995	0	2	2	17	3,355	27	283	3,665	188	–	–	2,472	–	5,149	–
1996	0	2	2	19	3,529	30	338	3,897	188	–	–	2,481	–	5,163	–
1997	0	2	2	18	3,722	34	338	4,094	136	–	–	2,486	–	5,164	–
	Trillion Btu														
1960	0.0	0.3	0.3	6.9	32.1	4.4	0.6	37.0	R 1.0	0.0	0.0	2.1	R 47.5	5.3	R 52.7
1965	0.0	0.2	0.2	9.3	28.1	3.0	0.5	31.7	R 0.9	0.0	0.0	3.0	R 45.1	7.1	R 52.2
1970	0.0	0.1	0.1	12.2	34.0	1.9	0.6	36.5	R 1.2	0.0	0.0	4.7	R 54.7	11.5	R 66.2
1975	0.0	0.1	0.1	13.2	31.4	0.5	0.5	32.5	R 1.3	0.0	0.0	5.7	R 52.8	13.9	R 66.6
1980	0.0	(s)	(s)	14.3	19.2	0.3	0.4	19.9	R 5.3	0.0	0.0	6.3	R 45.8	15.3	R 61.0
1985	0.0	0.1	0.1	15.5	19.9	0.7	1.0	21.7	R 4.5	0.0	0.0	6.7	R 48.4	15.8	R 64.2
1986	0.0	0.1	0.1	16.6	17.5	0.9	0.9	19.3	R 4.3	0.0	0.0	7.0	R 47.3	16.2	R 63.5
1987	0.0	0.1	0.1	17.2	18.6	0.6	1.1	20.3	R 3.2	0.0	0.0	7.5	R 48.2	17.0	R 65.2
1988	0.0	(s)	(s)	18.2	21.0	0.5	1.0	22.5	R 3.3	0.0	0.0	7.9	R 51.9	17.9	R 69.8
1989	0.0	(s)	(s)	18.8	18.5	0.3	1.0	19.8	R 3.4	[e] 0.0	R [e] (s)	8.1	R [e] 50.2	18.2	R [e] 68.3
1990	0.0	0.1	0.1	18.2	14.9	0.2	1.0	16.1	3.0	0.0	(s)	8.1	R 45.5	17.7	63.3
1991	0.0	0.1	0.1	17.9	15.7	0.2	1.0	16.9	3.2	0.0	(s)	8.1	46.1	17.6	63.7
1992	0.0	0.1	0.1	20.4	19.1	0.2	1.0	20.2	3.4	0.0	(s)	8.1	52.1	17.2	69.3
1993	0.0	(s)	(s)	20.3	19.1	0.2	1.2	20.5	3.5	0.0	(s)	8.2	52.5	17.4	69.9
1994	0.0	(s)	(s)	17.9	20.5	0.2	1.1	21.8	3.4	0.0	(s)	8.4	51.6	17.5	69.1
1995	0.0	(s)	(s)	17.8	19.5	0.2	1.0	20.7	3.8	0.0	(s)	8.4	50.8	17.6	68.4
1996	0.0	(s)	(s)	20.2	20.6	0.2	1.2	22.0	3.8	0.0	(s)	8.5	54.5	17.6	72.1
1997	0.0	(s)	(s)	18.6	21.7	0.2	1.2	23.1	2.7	0.0	(s)	8.5	53.0	17.6	70.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 253. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Rhode Island

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	8	8	2	1,381	17	26	26	1,237	2,688	R 1	–	376	–	935	–
1965	0	5	5	3	1,211	12	24	32	634	1,913	R 1	–	546	–	1,304	–
1970	0	3	3	5	1,464	7	28	36	971	2,506	R 1	–	1,285	–	3,114	–
1975	0	2	2	4	1,353	2	26	41	602	2,024	R 1	–	1,576	–	3,801	–
1980	0	1	1	7	617	0	20	49	180	866	R 6	–	1,892	–	4,601	–
1985	0	2	2	8	441	4	49	32	552	1,078	NA	–	2,159	–	5,073	–
1986	0	2	2	7	806	4	45	35	1,141	2,031	NA	–	2,268	–	5,216	–
1987	0	2	2	9	891	5	54	36	509	1,495	NA	–	2,396	–	5,474	–
1988	0	1	1	8	808	3	47	35	620	1,512	NA	–	2,539	–	5,741	–
1989	0	1	1	9	779	5	48	38	457	1,327	NA	–	2,630	–	R 5,908	–
1990	0	2	2	8	673	2	49	39	605	1,367	NA	–	2,688	–	5,880	–
1991	0	2	2	8	775	1	49	36	588	1,451	NA	–	2,671	–	R 5,815	–
1992	0	2	2	9	603	3	47	32	523	1,208	NA	–	2,670	–	R 5,704	–
1993	0	1	1	9	640	2	56	10	642	1,350	R 14	–	2,718	–	5,742	–
1994	0	1	1	12	809	5	55	10	633	1,512	R 14	–	2,737	–	R 5,711	–
1995	0	1	1	12	717	30	50	10	506	1,314	R 14	–	2,790	–	R 5,813	–
1996	0	1	1	12	820	2	60	10	679	1,570	R 15	–	2,773	–	5,771	–
1997	0	1	1	12	766	55	60	11	621	1,513	13	–	2,826	–	5,870	–
	Trillion Btu															
1960	0.0	0.2	0.2	1.8	8.0	0.1	0.1	0.1	7.8	16.2	(s)	0.0	1.3	19.4	3.2	22.6
1965	0.0	0.1	0.1	2.7	7.1	0.1	0.1	0.2	4.0	11.4	(s)	0.0	1.9	R 16.1	4.4	20.5
1970	0.0	0.1	0.1	5.2	8.5	(s)	0.1	0.2	6.1	15.0	(s)	0.0	4.4	24.6	10.6	35.2
1975	0.0	(s)	(s)	4.3	7.9	(s)	0.1	0.2	3.8	12.0	(s)	0.0	5.4	21.7	13.0	34.7
1980	0.0	(s)	(s)	6.9	3.6	0.0	0.1	0.3	1.1	5.1	R 0.1	0.0	6.5	R 18.6	15.7	R 34.3
1985	0.0	(s)	(s)	7.8	2.6	(s)	0.2	0.2	3.5	6.4	NA	0.0	7.4	21.7	17.3	39.0
1986	0.0	(s)	(s)	6.9	4.7	(s)	0.2	0.2	7.2	12.2	NA	0.0	7.7	26.9	17.8	44.7
1987	0.0	(s)	(s)	9.7	5.2	(s)	0.2	0.2	3.2	8.8	NA	0.0	8.2	26.7	18.7	45.4
1988	0.0	(s)	(s)	8.6	4.7	(s)	0.2	0.2	3.9	9.0	NA	0.0	8.7	26.2	19.6	45.8
1989	0.0	(s)	(s)	9.0	4.5	(s)	0.2	0.2	2.9	7.8	NA	0.0	9.0	25.8	20.2	46.0
1990	0.0	0.1	0.1	8.3	3.9	(s)	0.2	0.2	3.8	8.1	NA	0.0	9.2	25.6	20.1	45.7
1991	0.0	(s)	(s)	8.5	4.5	(s)	0.2	0.2	3.7	8.6	NA	0.0	9.1	26.2	19.8	46.1
1992	0.0	(s)	(s)	9.2	3.5	(s)	0.2	0.2	3.3	7.2	NA	0.0	9.1	25.6	19.5	45.0
1993	0.0	(s)	(s)	9.5	3.7	(s)	0.2	0.1	4.0	8.0	R 0.3	0.0	9.3	R 27.1	19.6	R 46.7
1994	0.0	(s)	(s)	12.4	4.7	(s)	0.2	0.1	4.0	9.0	R 0.3	0.0	9.3	R 31.0	19.5	R 50.5
1995	0.0	(s)	(s)	12.4	4.2	0.2	0.2	0.1	3.2	7.8	R 0.3	0.0	9.5	R 30.0	19.8	R 49.8
1996	0.0	(s)	(s)	13.2	4.8	(s)	0.2	0.1	4.3	9.3	R 0.3	0.0	9.5	R 32.3	19.7	R 52.0
1997	0.0	(s)	(s)	12.6	4.5	0.3	0.2	0.1	3.9	9.0	0.3	0.0	9.6	31.5	20.0	51.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 254. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Rhode Island

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	4	3	735	367	99	31	52	6	4,051	221	5,561	1	–	–	916	–	2,277	–
1965	4	4	907	431	120	61	85	5	2,135	337	4,082	(s)	–	–	1,274	–	3,042	–
1970	2	6	937	672	89	162	49	3	3,246	313	5,470	0	–	–	1,253	–	3,036	–
1975	2	6	1,330	440	40	297	40	3	1,916	149	4,215	0	–	–	1,191	–	2,874	–
1980	4	5	1,041	415	30	149	62	2	654	539	2,892	0	–	–	1,399	–	3,402	–
1985	4	5	2,974	247	(s)	150	56	26	973	127	4,555	0	–	–	1,300	–	3,054	–
1986	23	3	1,479	287	2	266	55	31	1,165	71	3,356	0	–	–	1,326	–	3,051	–
1987	1	4	1,773	543	3	303	62	28	837	79	3,627	0	–	–	1,360	–	3,108	–
1988	172	4	1,741	271	17	234	60	33	633	62	3,051	0	–	–	1,361	–	3,077	–
1989	24	5	1,605	312	1	163	62	35	497	59	2,733	[f] NA	–	–	1,360	–	[R] 3,055	–
1990	(s)	4	1,634	235	14	156	63	35	459	58	2,654	NA	–	–	1,354	–	2,962	–
1991	0	27	461	229	15	122	57	26	379	13	1,302	NA	–	–	1,363	–	2,967	–
1992	0	48	1,502	282	11	128	58	26	460	14	2,480	NA	–	–	1,359	–	2,903	–
1993	0	46	819	289	8	129	59	49	601	15	1,968	NA	–	–	1,419	–	2,997	–
1994	0	41	1,256	306	7	118	61	49	471	15	2,283	NA	–	–	1,378	–	2,876	–
1995	0	35	990	271	7	119	60	54	378	15	1,895	NA	–	–	1,374	–	2,862	–
1996	0	26	337	298	3	119	59	47	320	18	1,201	NA	–	–	1,351	–	[R] 2,811	–
1997	0	24	274	353	3	125	62	51	301	16	1,185	NA	–	–	1,380	–	2,867	–
			Trillion Btu															
1960	0.1	3.0	4.9	2.1	0.6	0.1	0.3	(s)	25.5	1.3	34.8	(s)	[R] 1.8	0.0	3.1	[R] 42.8	7.8	[R] 50.6
1965	0.1	4.4	6.0	2.5	0.7	0.2	0.5	(s)	13.4	1.9	25.3	(s)	[R] 2.6	0.0	4.3	[R] 36.8	10.4	[R] 47.2
1970	(s)	5.9	6.2	3.9	0.5	0.6	0.3	(s)	20.4	1.8	33.7	0.0	[R] 4.0	0.0	4.3	[R] 47.9	10.4	[R] 58.3
1975	0.1	5.9	8.8	2.6	0.2	1.1	0.2	(s)	12.0	0.8	25.9	0.0	[R] 2.7	0.0	4.1	[R] 38.6	9.8	[R] 48.4
1980	0.1	5.2	6.9	2.4	0.2	0.5	0.4	(s)	4.1	3.0	17.5	0.0	[R] 0.1	0.0	4.8	[R] 27.7	11.6	[R] 39.3
1985	0.1	4.8	19.7	1.4	(s)	0.5	0.3	0.1	6.1	0.7	29.0	0.0	[R] 0.1	0.0	4.4	[R] 38.4	10.4	[R] 48.9
1986	0.6	3.6	9.8	1.7	(s)	1.0	0.3	0.2	7.3	0.4	20.7	0.0	[R] 0.4	0.0	4.5	[R] 29.7	10.4	[R] 40.2
1987	(s)	4.5	11.8	3.2	(s)	1.1	0.4	0.1	5.3	0.4	22.2	0.0	[R] 0.4	0.0	4.6	[R] 31.9	10.6	[R] 42.5
1988	4.3	4.6	11.6	1.6	0.1	0.9	0.4	0.2	4.0	0.3	18.9	0.0	[R] 0.4	0.0	4.6	[R] 32.9	10.5	[R] 43.4
1989	0.6	4.7	10.6	1.8	(s)	0.6	0.4	0.2	3.1	0.3	17.1	[f] 0.0	[R f] 0.4	[f] 0.0	4.6	[R f] 27.4	10.4	[R f] 37.8
1990	(s)	4.5	10.8	1.4	0.1	0.6	0.4	0.2	2.9	0.3	16.6	0.0	[R] 0.7	0.0	4.6	[R] 26.4	10.1	[R] 36.5
1991	0.0	27.6	3.1	1.3	0.1	0.4	0.3	0.1	2.4	0.1	7.9	0.0	[R] 0.3	0.0	4.7	[R] 40.5	10.1	[R] 50.6
1992	0.0	48.8	10.0	1.6	0.1	0.5	0.4	0.1	2.9	0.1	15.6	0.1	[R] 0.3	0.0	4.6	[R] 69.4	9.9	[R] 79.4
1993	0.0	47.4	5.4	1.7	(s)	0.5	0.4	0.3	3.8	0.1	12.1	0.1	[R] 0.3	0.0	4.8	[R] 64.7	10.2	[R] 75.0
1994	0.0	42.1	8.3	1.8	(s)	0.4	0.4	0.3	3.0	0.1	14.3	0.1	[R] 0.6	0.0	4.7	[R] 61.8	9.8	[R] 71.6
1995	0.0	36.0	6.6	1.6	(s)	0.4	0.4	0.3	2.4	0.1	11.7	0.1	[R] 0.7	0.0	4.7	[R] 53.2	9.8	[R] 63.0
1996	0.0	27.7	2.2	1.7	(s)	0.4	0.4	0.2	2.0	0.1	7.1	0.1	[R] 0.7	0.0	4.6	[R] 40.3	9.6	[R] 49.9
1997	0.0	25.0	1.8	2.1	(s)	0.5	0.4	0.3	1.9	0.1	7.0	0.1	0.7	0.0	4.7	37.5	9.8	47.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 255. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Rhode Island

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	0	(s)	19	838	38	1	103	5,943	3,826	10,768	0	0	–	0	–
1965	0	(s)	63	393	49	4	69	6,455	2,637	9,669	0	0	–	0	–
1970	0	(s)	148	604	137	28	77	7,970	2,519	11,482	0	0	–	0	–
1975	(s)	(s)	285	788	271	27	57	8,929	329	10,685	0	0	–	0	–
1980	0	(s)	269	675	348	9	70	8,365	58	9,794	0	0	–	0	–
1985	0	(s)	30	326	498	22	64	8,606	0	9,545	0	0	–	0	–
1986	0	(s)	35	1,182	387	18	62	8,872	6	10,563	0	0	–	0	–
1987	0	(s)	42	1,399	528	8	70	9,076	168	11,291	0	0	–	0	–
1988	0	(s)	46	1,213	636	21	68	9,208	293	11,484	0	0	–	0	–
1989	0	(s)	46	1,598	724	19	70	8,801	68	11,325	[e] 0	0	–	0	–
1990	0	(s)	42	1,156	776	19	72	8,692	35	10,791	0	0	–	0	–
1991	0	(s)	30	1,353	656	15	64	8,618	9	10,745	0	0	–	0	–
1992	0	(s)	30	1,136	556	14	65	8,697	59	10,558	0	0	–	0	–
1993	0	(s)	8	1,244	527	9	66	8,824	22	10,701	0	0	–	0	–
1994	0	(s)	10	1,282	529	16	69	8,572	10	10,489	0	0	–	0	–
1995	0	1	22	1,368	500	8	68	8,864	2	10,832	0	0	–	0	–
1996	0	1	37	1,329	540	7	66	8,950	2	10,932	0	0	–	0	–
1997	0	1	11	2,010	828	7	70	9,133	1	12,059	0	0	–	0	–
			Trillion Btu												
1960	0.0	0.2	0.1	4.9	0.2	(s)	0.6	31.2	24.1	61.1	0.0	0.0	61.3	0.0	61.3
1965	0.0	0.1	0.3	2.3	0.3	(s)	0.4	33.9	16.6	53.8	0.0	0.0	53.9	0.0	53.9
1970	0.0	(s)	0.7	3.5	0.8	0.1	0.5	41.9	15.8	63.3	0.0	0.0	63.3	0.0	63.3
1975	(s)	(s)	1.4	4.6	1.5	0.1	0.3	46.9	2.1	57.0	0.0	0.0	57.0	0.0	57.0
1980	0.0	0.2	1.4	3.9	2.0	(s)	0.4	43.9	0.4	52.0	0.0	0.0	52.2	0.0	52.2
1985	0.0	0.1	0.2	1.9	2.8	0.1	0.4	45.2	0.0	50.5	0.0	0.0	50.7	0.0	50.7
1986	0.0	0.1	0.2	6.9	2.2	0.1	0.4	46.6	(s)	56.3	0.0	0.0	56.4	0.0	56.4
1987	0.0	0.1	0.2	8.1	3.0	(s)	0.4	47.7	1.1	60.5	0.0	0.0	60.6	0.0	60.6
1988	0.0	0.1	0.2	7.1	3.6	0.1	0.4	48.4	1.8	61.6	0.0	0.0	61.7	0.0	61.7
1989	0.0	0.1	0.2	9.3	4.1	0.1	0.4	46.2	0.4	60.8	[e] 0.0	0.0	[e] 60.9	0.0	[e] 60.9
1990	0.0	0.1	0.2	6.7	4.4	0.1	0.4	45.7	0.2	57.7	0.0	0.0	57.8	0.0	57.8
1991	0.0	0.2	0.2	7.9	3.7	0.1	0.4	45.3	0.1	57.5	0.0	0.0	57.7	0.0	57.7
1992	0.0	0.4	0.2	6.6	3.1	0.1	0.4	45.7	0.4	56.4	0.0	0.0	56.8	0.0	56.8
1993	0.0	0.2	(s)	7.2	3.0	(s)	0.4	46.4	0.1	57.2	0.0	0.0	57.4	0.0	57.4
1994	0.0	0.4	0.1	7.5	3.0	0.1	0.4	45.0	0.1	56.1	0.0	0.0	56.5	0.0	56.5
1995	0.0	0.6	0.1	8.0	2.8	(s)	0.4	46.6	(s)	57.9	0.0	0.0	58.6	0.0	58.6
1996	0.0	0.7	0.2	7.7	3.1	(s)	0.4	47.0	(s)	58.4	0.0	0.0	59.2	0.0	59.2
1997	0.0	0.9	0.1	11.7	4.7	(s)	0.4	48.0	(s)	64.9	0.0	0.0	65.7	0.0	65.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 256. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Rhode Island

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	574	0	574	(s)	714	13	0	727	0	8	0	0	0	–
1965	403	0	403	(s)	870	16	0	886	0	1	0	0	0	–
1970	0	0	0	2	2,990	56	0	3,047	0	3	0	0	0	–
1975	0	0	0	(s)	1,542	26	0	1,568	0	3	0	0	0	–
1980	0	0	0	2	1,634	28	0	1,662	0	1	0	0	0	–
1985	0	0	0	3	708	20	0	728	0	421	0	0	0	–
1986	0	0	0	0	1,459	28	0	1,487	0	6	0	0	0	–
1987	0	0	0	5	805	27	0	832	0	9	0	0	0	–
1988	0	0	0	(s)	1,496	42	0	1,538	0	678	0	0	0	–
1989	0	0	0	2	679	35	0	713	0	R 76	0	0	0	–
1990	0	0	0	5	340	19	0	358	0	142	0	0	0	–
1991	0	0	0	2	123	19	0	142	0	142	0	0	0	–
1992	0	0	0	(s)	162	17	0	178	0	732	0	0	0	–
1993	0	0	0	(s)	55	18	0	72	0	828	0	0	0	–
1994	0	0	0	1	65	16	0	82	0	335	0	0	0	–
1995	0	0	0	5	63	20	0	83	0	1,006	0	0	0	–
1996	0	0	0	25	0	75	0	75	0	894	0	0	0	–
1997	0	0	0	27	0	27	0	27	0	710	0	0	0	–
	Trillion Btu													
1960	16.1	0.0	16.1	0.4	4.5	0.1	0.0	4.6	0.0	0.1	0.0	0.0	0.0	21.2
1965	11.1	0.0	11.1	0.5	5.5	0.1	0.0	5.6	0.0	(s)	0.0	0.0	0.0	17.1
1970	0.0	0.0	0.0	2.4	18.8	0.3	0.0	19.1	0.0	(s)	0.0	0.0	0.0	21.5
1975	0.0	0.0	0.0	(s)	9.7	0.2	0.0	9.8	0.0	(s)	0.0	0.0	0.0	9.9
1980	0.0	0.0	0.0	1.7	10.3	0.2	0.0	10.4	0.0	(s)	0.0	0.0	0.0	12.2
1985	0.0	0.0	0.0	2.6	4.4	0.1	0.0	4.6	0.0	4.4	0.0	0.0	0.0	11.6
1986	0.0	0.0	0.0	0.0	9.2	0.2	0.0	9.3	0.0	0.1	0.0	0.0	0.0	9.4
1987	0.0	0.0	0.0	5.5	5.1	0.2	0.0	5.2	0.0	0.1	0.0	0.0	0.0	10.8
1988	0.0	0.0	0.0	0.2	9.4	0.2	0.0	9.7	0.0	7.0	0.0	0.0	0.0	16.8
1989	0.0	0.0	0.0	2.2	4.3	0.2	0.0	4.5	0.0	R 0.8	0.0	0.0	0.0	7.7
1990	0.0	0.0	0.0	5.7	2.1	0.1	0.0	2.2	0.0	1.5	0.0	0.0	0.0	9.8
1991	0.0	0.0	0.0	1.7	0.8	0.1	0.0	0.9	0.0	1.5	0.0	0.0	0.0	4.5
1992	0.0	0.0	0.0	0.5	1.0	0.1	0.0	1.1	0.0	7.6	0.0	0.0	0.0	11.5
1993	0.0	0.0	0.0	0.4	0.3	0.1	0.0	0.4	0.0	8.5	0.0	0.0	0.0	11.9
1994	0.0	0.0	0.0	0.6	0.4	0.1	0.0	0.5	0.0	3.5	0.0	0.0	0.0	6.8
1995	0.0	0.0	0.0	5.1	0.4	0.1	0.0	0.5	0.0	10.4	0.0	0.0	0.0	21.7
1996	0.0	0.0	0.0	25.8	0.0	0.4	0.0	0.4	0.0	9.2	0.0	0.0	0.0	R 38.7
1997	0.0	0.0	0.0	27.9	0.0	0.2	0.0	0.2	0.0	7.3	0.0	0.0	0.0	40.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 257. Energy Consumption Estimates by Source, Selected Years 1960-1997, South Carolina

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	3,718	59	1,636	215	5,234	3,131	4,488	1,376	375	18,094	4,732	380	39,661	0	3,611	–	–	9,266	–
1965	4,760	87	1,721	354	4,849	2,958	3,297	2,097	351	21,430	3,916	372	41,344	75	3,517	–	–	11,622	–
1970	5,817	160	2,220	228	9,423	3,170	2,377	2,927	386	28,756	5,335	512	55,335	7	2,293	–	–	22,290	–
1975	5,842	123	2,440	142	8,376	2,692	1,024	3,204	461	35,429	7,666	982	62,415	19,458	4,413	–	–	-18,555	–
1980	9,929	142	1,535	149	10,660	3,062	1,352	3,178	543	35,517	7,205	3,883	67,083	17,404	3,025	–	–	-974	–
1985	10,479	97	1,367	136	11,731	3,184	1,484	3,161	494	37,719	2,921	3,553	65,750	31,826	1,835	–	–	-9,917	–
1986	10,461	99	2,068	156	11,696	3,168	1,181	2,880	483	39,283	2,401	4,055	67,371	35,625	1,266	–	–	-11,680	–
1987	11,701	106	2,425	119	11,850	3,193	1,359	3,620	546	38,522	2,458	4,622	68,715	39,290	2,209	–	–	-27,206	–
1988	11,937	112	3,297	127	12,606	3,229	1,484	3,536	527	42,828	3,274	4,720	75,627	40,746	680	–	–	-27,480	–
1989	11,981	117	2,313	120	12,499	3,117	1,426	3,672	541	42,171	2,743	4,593	73,194	40,780	[i] NA	–	–	[R] -30,828	–
1990	11,447	130	1,983	101	14,538	2,939	659	2,914	556	43,264	2,450	5,444	74,848	42,881	NA	–	–	[R] -35,203	–
1991	11,451	134	1,941	180	15,289	3,442	851	3,606	498	42,561	2,433	7,028	77,830	43,108	NA	–	–	[R] -33,975	–
1992	11,285	138	2,067	226	13,737	2,586	524	3,597	507	43,441	2,394	7,908	76,988	45,537	NA	–	–	[R] -36,588	–
1993	12,914	142	2,358	169	13,652	2,024	760	3,660	517	45,081	3,812	7,262	79,292	46,189	NA	–	–	-40,092	–
1994	12,993	145	1,993	114	15,516	1,451	474	3,871	540	45,249	2,607	7,551	79,368	44,466	NA	–	–	[R] -35,996	–
1995	12,279	152	2,641	123	14,902	1,027	574	3,826	531	46,973	2,689	7,355	80,641	49,173	NA	–	–	[R] -39,562	–
1996	13,852	150	2,407	59	15,600	1,292	673	3,586	515	47,427	3,033	7,702	82,295	43,571	NA	–	–	[R] -25,079	–
1997	14,111	154	3,729	64	16,354	1,328	694	3,623	544	49,468	2,643	8,009	86,456	44,916	NA	–	–	-27,918	–
	Trillion Btu																		
1960	96.4	60.6	10.9	1.1	30.5	16.8	25.4	5.5	2.3	95.0	29.7	2.2	219.5	0.0	38.8	[R] 43.1	0.0	31.6	[R] 490.0
1965	121.5	90.5	11.4	1.8	28.2	15.8	18.7	8.4	2.1	112.6	24.6	2.1	225.8	0.9	36.8	[R] 40.6	0.0	39.7	[R] 555.7
1970	140.1	164.3	14.7	1.2	54.9	17.1	13.5	11.1	2.3	151.1	33.5	2.8	302.2	0.1	24.1	[R] 41.0	0.0	76.1	[R] 747.8
1975	140.2	125.9	16.2	0.7	48.8	14.5	5.8	11.9	2.8	186.1	48.2	5.5	340.5	214.3	45.9	[R] 41.9	0.0	-63.3	[R] 845.4
1980	245.8	146.9	10.2	0.8	62.1	16.6	7.7	11.7	3.3	186.6	45.3	21.6	365.8	189.8	31.4	[R] 24.0	0.0	-3.3	[R] 1,000.4
1985	262.7	100.2	9.1	0.7	68.3	17.2	8.4	11.4	3.0	198.1	18.4	19.8	354.4	344.1	19.2	[R] 31.2	0.0	-33.8	[R] 1,078.0
1986	263.9	101.5	13.7	0.8	68.1	17.2	6.7	10.5	2.9	206.4	15.1	22.6	364.0	384.7	13.2	[R] 75.7	0.0	-39.9	[R] 1,163.3
1987	295.3	108.6	16.1	0.6	69.0	17.3	7.7	13.2	3.3	202.4	15.5	25.9	371.1	423.4	23.0	[R] 73.3	0.0	-92.8	[R] 1,201.9
1988	301.8	115.3	21.9	0.6	73.4	17.5	8.4	12.9	3.2	225.0	20.6	26.5	410.1	437.7	7.0	[R] 76.3	0.0	-93.8	[R] 1,254.5
1989	301.5	119.9	15.3	0.6	72.8	16.9	8.1	13.5	3.3	221.5	17.2	25.8	395.1	437.3	[R i] 21.4	[R i] 79.3	[R i] 0.1	[R] -105.2	[R i] 1,249.4
1990	289.3	134.1	13.2	0.5	84.7	16.0	3.7	10.6	3.4	227.3	15.4	30.7	405.5	458.0	28.8	[R] 67.6	[R] 0.1	-120.1	[R] 1,263.2
1991	290.9	137.4	12.9	0.9	89.1	18.7	4.8	13.0	3.0	223.6	15.3	39.1	420.5	463.0	26.5	[R] 70.5	[R] 0.1	[R] -115.9	[R] 1,293.0
1992	288.3	141.8	13.7	1.1	80.0	14.1	3.0	13.0	3.1	228.2	15.1	44.1	415.4	486.2	28.7	[R] 76.0	[R] 0.1	-124.8	[R] 1,311.7
1993	329.5	145.6	15.6	0.9	79.5	11.1	4.3	13.2	3.1	236.8	24.0	40.2	428.7	493.4	28.0	[R] 76.8	[R] 0.1	-136.8	[R] 1,365.3
1994	330.7	149.0	13.2	0.6	90.4	8.1	2.7	14.1	3.3	237.7	16.4	41.8	428.2	474.7	24.9	[R] 77.2	[R] 0.1	-122.8	[R] 1,362.1
1995	314.5	156.0	17.5	0.6	86.8	5.8	3.3	13.9	3.2	246.7	16.9	40.8	435.5	524.1	[R] 28.9	[R] 81.2	[R] 0.1	-135.0	[R] 1,405.3
1996	352.5	154.1	16.0	0.3	90.9	7.3	3.8	13.0	3.1	249.1	19.1	42.5	445.1	462.9	23.6	[R] 82.4	[R] 0.1	-85.6	[R] 1,435.1
1997	361.6	158.7	24.7	0.3	95.3	7.5	3.9	13.1	3.3	259.9	16.6	44.3	469.0	477.1	21.7	81.3	0.1	-95.3	1,474.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 258. Residential Energy Consumption Estimates, Selected Years 1960-1997, South Carolina

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	117	0	117	7	1,595	3,475	926	5,996	R 1,269	–	–	3,272	–	8,139	–
1965	80	0	80	12	1,178	2,606	1,419	5,203	R 852	–	–	4,371	–	10,437	–
1970	86	0	86	19	2,400	2,011	1,778	6,188	R 489	–	–	7,347	–	17,805	–
1975	84	0	84	18	1,695	858	1,750	4,304	R 492	–	–	9,837	–	23,728	–
1980	69	0	69	19	1,580	1,200	1,510	4,290	R 412	–	–	12,580	–	30,590	–
1985	23	1	23	16	1,153	1,211	1,859	4,223	R 647	–	–	14,661	–	34,445	–
1986	77	0	77	17	1,175	992	1,678	3,845	R 630	–	–	16,122	–	37,085	–
1987	42	0	42	20	1,400	1,154	1,969	4,523	R 525	–	–	16,913	–	38,644	–
1988	44	(s)	44	21	1,120	1,280	1,970	4,371	R 546	–	–	17,172	–	38,821	–
1989	6	(s)	6	20	1,282	1,186	2,089	4,556	R 566	–	–	17,464	–	R 39,238	–
1990	2	(s)	2	18	1,010	550	1,682	3,241	390	–	–	18,258	–	R 39,934	–
1991	8	(s)	8	20	998	731	1,970	3,698	411	–	–	18,707	–	R 40,722	–
1992	11	(s)	11	22	690	441	2,117	3,248	432	–	–	18,940	–	R 40,455	–
1993	34	7	41	24	833	645	2,141	3,619	R 471	–	–	20,687	–	43,707	–
1994	19	4	23	23	668	372	2,185	3,224	461	–	–	19,903	–	R 41,532	–
1995	5	2	7	25	670	470	2,106	3,246	512	–	–	21,392	–	R 44,567	–
1996	7	0	7	29	722	561	1,860	3,144	511	–	–	22,514	–	R 46,855	–
1997	(s)	0	(s)	26	552	610	1,860	3,023	372	–	–	21,611	–	44,882	–
	Trillion Btu														
1960	2.9	0.0	2.9	7.1	9.3	19.7	3.7	32.7	R 25.4	0.0	0.0	11.2	R 79.2	27.8	R 107.0
1965	2.0	0.0	2.0	12.4	6.9	14.8	5.7	27.3	R 17.0	0.0	0.0	14.9	R 73.7	35.6	R 109.3
1970	2.0	0.0	2.0	19.5	14.0	11.4	6.7	32.1	R 9.8	0.0	0.0	25.1	R 88.5	60.7	R 149.2
1975	2.0	0.0	2.0	18.6	9.9	4.9	6.5	21.2	R 9.8	0.0	0.0	33.6	R 85.3	81.0	R 166.2
1980	1.7	0.0	1.7	19.5	9.2	6.8	5.5	21.6	R 8.2	0.0	0.0	42.9	R 93.9	104.4	R 198.3
1985	0.6	(s)	0.6	16.9	6.7	6.9	6.7	20.3	R 12.9	0.0	0.0	50.0	R 100.7	117.5	R 218.2
1986	1.9	0.0	1.9	18.0	6.8	5.6	6.1	18.6	R 12.6	0.0	0.0	55.0	R 106.1	126.5	R 232.6
1987	1.1	0.0	1.1	20.8	8.2	6.5	7.2	21.9	R 10.5	0.0	0.0	57.7	R 111.9	131.9	R 243.8
1988	1.1	(s)	1.1	21.3	6.5	7.3	7.2	21.0	R 10.9	0.0	0.0	58.6	R 112.9	132.5	R 245.4
1989	0.1	(s)	0.2	21.0	7.5	6.7	7.7	21.9	R 11.3	e 0.1	R e (s)	59.6	R e 114.0	R 133.9	R e 247.9
1990	0.1	(s)	0.1	18.9	5.9	3.1	6.1	15.1	7.8	0.1	(s)	62.3	R 104.3	R 136.3	R 240.5
1991	0.2	(s)	0.2	20.1	5.8	4.1	7.1	17.1	8.2	0.1	(s)	63.8	R 109.6	138.9	R 248.5
1992	0.3	(s)	0.3	23.0	4.0	2.5	7.7	14.2	8.6	0.1	(s)	64.6	R 110.8	138.0	R 248.9
1993	0.8	0.2	1.0	25.1	4.9	3.7	7.7	16.2	9.4	0.1	(s)	70.6	R 122.4	149.1	R 271.5
1994	0.5	0.1	0.6	24.2	3.9	2.1	7.9	13.9	9.2	0.1	(s)	67.9	R 116.0	141.7	R 257.7
1995	0.1	(s)	0.2	25.8	3.9	2.7	7.6	14.2	10.2	0.1	(s)	73.0	R 123.6	R 152.1	R 275.6
1996	0.2	0.0	0.2	30.3	4.2	3.2	6.7	14.1	10.2	0.1	(s)	76.8	R 131.7	159.9	R 291.6
1997	(s)	0.0	(s)	26.5	3.2	3.5	6.7	13.4	7.4	0.1	(s)	73.7	121.3	153.1	274.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 259. Commercial Energy Consumption Estimates, Selected Years 1960-1997, South Carolina

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	217	0	217	5	474	93	163	275	176	1,182	R 24	–	1,957	–	4,867	–
1965	148	0	148	7	350	70	250	301	121	1,092	R 16	–	2,531	–	6,043	–
1970	160	0	160	14	714	54	314	204	80	1,366	R 9	–	4,237	–	10,267	–
1975	157	0	157	17	504	23	309	225	160	1,221	R 9	–	7,121	–	17,177	–
1980	128	0	128	23	481	25	266	240	35	1,047	R 10	–	8,705	–	21,168	–
1985	42	(s)	42	15	841	48	328	230	80	1,527	NA	–	9,778	–	22,973	–
1986	142	0	142	16	702	55	296	240	33	1,326	NA	–	10,506	–	24,166	–
1987	78	0	78	17	868	53	347	249	34	1,551	NA	–	11,018	–	25,174	–
1988	82	(s)	82	17	1,054	26	348	235	47	1,710	NA	–	11,524	–	26,054	–
1989	11	(s)	11	17	925	71	369	206	37	1,608	NA	–	12,092	–	R 27,169	–
1990	4	(s)	4	15	607	12	297	256	17	1,189	NA	–	12,693	–	R 27,762	–
1991	14	(s)	14	16	523	12	348	119	25	1,026	NA	–	13,002	–	R 28,303	–
1992	20	(s)	20	17	671	14	374	103	53	1,214	NA	–	13,156	–	R 28,102	–
1993	63	5	68	17	849	20	378	31	28	1,306	R 38	–	13,979	–	29,535	–
1994	35	3	38	18	651	26	386	31	66	1,161	R 39	–	14,195	–	R 29,620	–
1995	9	1	10	19	970	26	372	32	39	1,438	R 39	–	14,863	–	R 30,965	–
1996	12	0	12	20	978	23	328	32	38	1,399	R 42	–	15,388	–	R 32,026	–
1997	1	0	1	20	1,083	16	328	31	10	1,469	36	–	15,645	–	32,492	–
	Trillion Btu															
1960	5.4	0.0	5.4	4.8	2.8	0.5	0.7	1.4	1.1	6.5	R 0.5	0.0	6.7	R 23.9	16.6	R 40.5
1965	3.7	0.0	3.7	7.3	2.0	0.4	1.0	1.6	0.8	5.8	R 0.3	0.0	8.6	R 25.7	20.6	R 46.4
1970	3.8	0.0	3.8	14.2	4.2	0.3	1.2	1.1	0.5	7.2	R 0.2	0.0	14.5	R 39.9	35.0	R 74.9
1975	3.7	0.0	3.7	17.6	2.9	0.1	1.1	1.2	1.0	6.4	R 0.2	0.0	24.3	R 52.2	58.6	R 110.8
1980	3.1	0.0	3.1	23.6	2.8	0.1	1.0	1.3	0.2	5.4	R 0.2	0.0	29.7	R 62.1	72.2	R 134.3
1985	1.0	(s)	1.1	15.7	4.9	0.3	1.2	1.2	0.5	8.1	NA	0.0	33.4	58.2	78.4	136.6
1986	3.6	0.0	3.6	16.4	4.1	0.3	1.1	1.3	0.2	6.9	NA	0.0	35.8	62.7	82.5	145.2
1987	2.0	0.0	2.0	17.7	5.1	0.3	1.3	1.3	0.2	8.1	NA	0.0	37.6	65.4	85.9	151.3
1988	2.0	(s)	2.1	17.9	6.1	0.1	1.3	1.2	0.3	9.1	NA	0.0	39.3	68.4	88.9	157.3
1989	0.3	(s)	0.3	17.0	5.4	0.4	1.4	1.1	0.2	8.5	NA	0.0	41.3	67.0	92.7	R 159.7
1990	0.1	(s)	0.1	15.8	3.5	0.1	1.1	1.3	0.1	6.1	NA	0.0	43.3	65.4	94.7	160.1
1991	0.4	(s)	0.4	16.2	3.0	0.1	1.3	0.6	0.2	5.1	NA	0.0	44.4	66.1	96.6	162.7
1992	0.5	(s)	0.5	17.1	3.9	0.1	1.4	0.5	0.3	6.2	NA	0.0	44.9	68.7	95.9	164.6
1993	1.6	0.1	1.7	17.5	4.9	0.1	1.4	0.2	0.2	6.8	R 0.8	0.0	47.7	R 74.4	100.8	R 175.2
1994	0.9	0.1	0.9	18.4	3.8	0.1	1.4	0.2	0.4	5.9	R 0.8	0.0	48.4	R 74.5	101.1	R 175.6
1995	0.2	(s)	0.3	19.4	5.7	0.1	1.3	0.2	0.2	7.6	R 0.8	0.0	50.7	R 78.7	R 105.7	R 184.3
1996	0.3	0.0	0.3	20.9	5.7	0.1	1.2	0.2	0.2	7.4	R 0.8	0.0	52.5	R 82.0	109.3	R 191.3
1997	(s)	0.0	(s)	20.2	6.3	0.1	1.2	0.2	0.1	7.8	0.7	0.0	53.4	82.1	110.9	193.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 260. Industrial Energy Consumption Estimates, Selected Years 1960-1997, South Carolina

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	1,758	23	1,636	1,959	920	273	86	614	3,392	380	9,261	97	–	–	6,234	–	15,506	–
1965	1,835	47	1,721	1,748	621	415	108	517	2,438	372	7,941	79	–	–	7,450	–	17,789	–
1970	1,861	79	2,220	2,655	313	775	149	332	1,608	512	8,564	37	–	–	10,110	–	24,499	–
1975	1,200	70	2,440	2,040	143	1,066	248	209	2,687	982	9,813	48	–	–	12,766	–	30,793	–
1980	1,805	92	1,535	1,875	127	1,368	282	96	4,245	3,883	13,412	49	–	–	15,979	–	38,855	–
1985	2,525	63	1,367	1,699	225	834	257	702	2,233	3,553	10,870	49	–	–	21,829	–	51,286	–
1986	2,465	61	2,068	1,532	134	830	251	634	1,759	4,055	11,264	49	–	–	22,805	–	52,459	–
1987	2,562	65	2,425	1,395	152	1,234	284	666	1,835	4,622	12,613	49	–	–	24,036	–	54,921	–
1988	2,602	69	3,297	1,671	177	1,131	274	642	2,454	4,720	14,366	49	–	–	24,113	–	54,513	–
1989	2,491	75	2,313	1,907	170	1,126	281	733	2,000	4,593	13,123	[f] NA	–	–	24,301	–	R 54,600	–
1990	2,310	87	1,983	1,950	97	849	289	703	1,915	5,444	13,230	NA	–	–	24,701	–	R 54,027	–
1991	2,212	86	1,941	2,102	109	1,194	259	672	1,606	7,028	14,910	NA	–	–	25,361	–	R 55,207	–
1992	2,177	94	2,067	1,779	69	1,020	264	716	1,793	7,908	15,616	NA	–	–	26,305	–	R 56,187	–
1993	2,395	96	2,358	1,564	94	1,058	269	387	3,089	7,262	16,081	NA	–	–	26,867	–	56,764	–
1994	2,334	98	1,993	1,339	76	1,159	281	414	2,456	7,551	15,269	NA	–	–	27,760	–	R 57,928	–
1995	2,188	98	2,641	1,843	77	1,272	276	426	2,143	7,355	16,033	NA	–	–	28,819	–	R 60,038	–
1996	2,000	95	2,407	2,155	88	1,353	268	452	2,284	7,702	16,708	NA	–	–	29,185	–	R 60,739	–
1997	2,014	103	3,729	1,998	68	1,393	283	478	2,015	8,009	17,974	NA	–	–	31,278	–	64,956	–
			Trillion Btu															
1960	44.7	23.3	10.9	11.4	5.2	1.1	0.5	3.2	21.3	2.2	55.9	1.0	R 17.3	0.0	21.3	R 163.4	52.9	R 216.3
1965	46.2	48.7	11.4	10.2	3.5	1.7	0.7	2.7	15.3	2.1	47.6	0.8	R 23.2	0.0	25.4	R 192.0	60.7	R 252.7
1970	44.2	80.9	14.7	15.5	1.8	2.9	0.9	1.7	10.1	2.8	50.5	0.4	R 31.0	0.0	34.5	R 241.5	83.6	R 325.1
1975	28.2	72.0	16.2	11.9	0.8	4.0	1.5	1.1	16.9	5.5	57.8	0.5	R 31.9	0.0	43.6	R 233.8	105.1	R 338.9
1980	44.0	95.1	10.2	10.9	0.7	5.0	1.7	0.5	26.7	21.6	77.4	0.5	R 15.6	0.0	54.5	R 287.2	132.6	R 419.7
1985	62.8	64.8	9.1	9.9	1.3	3.0	1.6	3.7	14.0	19.8	62.3	0.5	R 18.3	0.0	74.5	R 283.2	175.0	R 458.2
1986	61.5	63.3	13.7	8.9	0.8	3.0	1.5	3.3	11.1	22.6	65.0	0.5	R 63.1	0.0	77.8	R 331.2	179.0	R 510.2
1987	64.2	67.2	16.1	8.1	0.9	4.5	1.7	3.5	11.5	25.9	72.3	0.5	R 62.8	0.0	82.0	R 349.0	187.4	R 536.4
1988	65.2	71.0	21.9	9.7	1.0	4.1	1.7	3.4	15.4	26.5	83.8	0.5	R 65.4	0.0	82.3	R 368.1	186.0	R 554.1
1989	62.0	76.5	15.3	11.1	1.0	4.1	1.7	3.9	12.6	25.8	75.5	R f 0.4	R f 68.0	f 0.0	82.9	R f 365.2	R 186.3	R f 551.5
1990	58.0	89.3	13.2	11.4	0.5	3.1	1.8	3.7	12.0	30.7	76.3	0.4	R 59.8	0.0	84.3	R 368.2	184.3	R 552.5
1991	55.8	88.1	12.9	12.2	0.6	4.3	1.6	3.5	10.1	39.1	84.4	0.4	R 62.3	0.0	86.5	R 377.6	R 188.4	R 565.9
1992	54.8	96.9	13.7	10.4	0.4	3.7	1.6	3.8	11.3	44.1	88.9	0.7	R 67.4	0.0	89.8	R 398.4	191.7	R 590.1
1993	60.3	98.3	15.6	9.1	0.5	3.8	1.6	2.0	19.4	40.2	92.4	0.6	R 66.7	0.0	91.7	R 410.0	193.7	R 603.6
1994	58.5	100.5	13.2	7.8	0.4	4.2	1.7	2.2	15.4	41.8	86.8	0.7	R 67.2	0.0	94.7	R 408.5	R 197.7	R 606.2
1995	55.1	101.0	17.5	10.7	0.4	4.6	1.7	2.2	13.5	40.8	91.5	0.7	R 70.2	0.0	98.3	R 416.8	R 204.9	R 621.6
1996	50.1	98.4	16.0	12.6	0.5	4.9	1.6	2.4	14.4	42.5	94.8	0.6	R 71.3	0.0	99.6	R 414.7	R 207.2	R 622.0
1997	50.5	106.1	24.7	11.6	0.4	5.0	1.7	2.5	12.7	44.3	103.0	0.6	73.2	0.0	106.7	440.2	221.6	661.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 261. Transportation Energy Consumption Estimates, Selected Years 1960-1997, South Carolina

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	30	1	215	1,196	3,131	13	289	17,205	1,139	23,188	0	0	–	0	–
1965	6	2	354	1,556	2,958	12	243	20,612	1,313	27,048	0	0	–	0	–
1970	3	3	228	2,899	3,170	60	237	28,220	1,605	36,420	0	0	–	0	–
1975	(s)	3	142	4,019	2,692	79	213	34,995	419	42,560	0	0	–	0	–
1980	0	3	149	6,156	3,062	33	261	35,181	844	45,686	0	0	–	0	–
1985	0	2	136	7,855	3,184	140	237	36,787	606	48,945	0	0	–	0	–
1986	0	2	156	8,171	3,168	76	232	38,409	607	50,819	0	0	–	0	–
1987	0	2	119	8,073	3,193	70	262	37,607	588	49,913	0	0	–	0	–
1988	0	2	127	8,567	3,229	86	253	41,952	772	54,985	0	0	–	0	–
1989	0	3	120	8,132	3,117	89	260	41,232	672	53,622	[e] 0	0	–	0	–
1990	0	3	101	10,855	2,939	87	267	42,305	509	57,063	0	0	–	0	–
1991	0	3	180	11,535	3,442	95	239	41,770	791	58,052	0	0	–	0	–
1992	0	3	226	10,454	2,586	87	244	42,622	534	56,751	0	0	–	0	–
1993	0	3	169	10,266	2,024	83	248	44,663	634	58,087	0	0	–	0	–
1994	0	3	114	12,590	1,451	142	259	44,804	76	59,437	0	0	–	0	–
1995	0	3	123	11,219	1,027	77	255	46,515	439	59,655	0	0	–	0	–
1996	0	3	59	11,478	1,292	45	247	46,944	673	60,738	0	0	–	0	–
1997	0	3	64	12,320	1,328	41	261	48,959	561	63,534	0	0	–	0	–
			Trillion Btu												
1960	0.8	1.3	1.1	7.0	16.8	0.1	1.8	90.4	7.2	124.2	0.0	0.0	126.2	0.0	126.2
1965	0.1	2.4	1.8	9.1	15.8	(s)	1.5	108.3	8.3	144.8	0.0	0.0	147.3	0.0	147.3
1970	0.1	3.4	1.2	16.9	17.1	0.2	1.4	148.2	10.1	195.2	0.0	0.0	198.6	0.0	198.6
1975	(s)	2.7	0.7	23.4	14.5	0.3	1.3	183.8	2.6	226.7	0.0	0.0	229.4	0.0	229.4
1980	0.0	3.1	0.8	35.9	16.6	0.1	1.6	184.8	5.3	245.0	0.0	0.0	248.1	0.0	248.1
1985	0.0	2.3	0.7	45.8	17.2	0.5	1.4	193.2	3.8	262.7	0.0	0.0	265.0	0.0	265.0
1986	0.0	2.4	0.8	47.6	17.2	0.3	1.4	201.8	3.8	272.8	0.0	0.0	275.3	0.0	275.3
1987	0.0	2.5	0.6	47.0	17.3	0.3	1.6	197.6	3.7	268.1	0.0	0.0	270.5	0.0	270.5
1988	0.0	2.6	0.6	49.9	17.5	0.3	1.5	220.4	4.9	295.1	0.0	0.0	297.7	0.0	297.7
1989	0.0	2.6	0.6	47.4	16.9	0.3	1.6	216.6	4.2	287.6	[e] 0.0	0.0	[e] 290.3	0.0	[e] 290.3
1990	0.0	2.9	0.5	63.2	16.0	0.3	1.6	222.2	3.2	307.2	0.0	0.0	310.1	0.0	310.1
1991	0.0	2.9	0.9	67.2	18.7	0.3	1.4	219.4	5.0	313.0	0.0	0.0	315.9	0.0	315.9
1992	0.0	3.0	1.1	60.9	14.1	0.3	1.5	223.9	3.4	305.2	0.0	0.0	308.2	0.0	308.2
1993	0.0	2.8	0.9	59.8	11.1	0.3	1.5	234.6	4.0	312.1	0.0	0.0	315.0	0.0	315.0
1994	0.0	2.7	0.6	73.3	8.1	0.5	1.6	235.4	0.5	319.9	0.0	0.0	322.7	0.0	322.7
1995	0.0	3.0	0.6	65.4	5.8	0.3	1.5	244.3	2.8	320.7	0.0	0.0	323.7	0.0	323.7
1996	0.0	3.2	0.3	66.9	7.3	0.2	1.5	246.6	4.2	327.0	0.0	0.0	330.2	0.0	330.2
1997	0.0	3.0	0.3	71.8	7.5	0.1	1.6	257.2	3.5	342.1	0.0	0.0	345.1	0.0	345.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 262. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, South Carolina

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	1,596	0	1,596	23	24	9	0	33	0	3,513	0	0	0	–
1965	2,690	0	2,690	19	44	16	0	60	75	3,438	0	0	0	–
1970	3,708	0	3,708	45	2,042	756	0	2,798	7	2,256	0	0	0	–
1975	4,401	0	4,401	15	4,400	118	0	4,517	19,458	4,366	0	0	0	–
1980	7,927	0	7,927	5	2,080	567	0	2,647	17,404	2,976	0	0	0	–
1985	7,888	0	7,888	(s)	1	183	0	184	31,826	1,786	0	0	0	–
1986	7,777	0	7,777	1	2	116	0	118	35,625	1,217	0	0	0	–
1987	9,019	0	9,019	1	2	114	0	116	39,290	2,160	0	0	0	–
1988	9,210	0	9,210	2	2	193	0	195	40,746	631	0	0	0	–
1989	9,472	0	9,472	3	33	252	0	285	40,780	2,016	0	0	0	–
1990	9,131	0	9,131	7	8	117	0	125	42,881	2,729	0	0	0	–
1991	9,218	0	9,218	10	11	132	0	144	43,108	2,497	0	0	0	–
1992	9,078	0	9,078	2	15	144	0	159	45,537	2,710	0	0	0	–
1993	10,410	0	10,410	2	60	139	0	199	46,189	2,651	0	0	0	–
1994	10,597	0	10,597	3	9	268	0	277	44,466	2,347	0	0	0	–
1995	10,074	0	10,074	7	68	200	0	268	49,173	2,734	0	0	0	–
1996	11,832	0	11,832	1	39	267	0	306	43,571	2,231	0	0	0	–
1997	12,096	0	12,096	3	56	401	0	457	44,916	2,047	0	0	0	–
	Trillion Btu													
1960	42.7	0.0	42.7	24.1	0.2	0.1	0.0	0.2	0.0	37.8	0.0	0.0	0.0	104.8
1965	69.5	0.0	69.5	19.6	0.3	0.1	0.0	0.4	0.9	35.9	0.0	0.0	0.0	126.2
1970	90.0	0.0	90.0	46.3	12.8	4.4	0.0	17.2	0.1	23.7	0.0	0.0	0.0	177.3
1975	106.3	0.0	106.3	15.0	27.7	0.7	0.0	28.3	214.3	45.4	0.0	0.0	0.0	409.4
1980	196.9	0.0	196.9	5.6	13.1	3.3	0.0	16.4	189.8	30.9	0.0	0.0	0.0	439.6
1985	198.2	0.0	198.2	0.5	(s)	1.1	0.0	1.1	344.1	18.7	0.0	0.0	0.0	562.6
1986	197.0	0.0	197.0	1.4	(s)	0.7	0.0	0.7	384.7	12.7	0.0	0.0	0.0	596.5
1987	228.2	0.0	228.2	0.6	(s)	0.7	0.0	0.7	423.4	22.5	0.0	0.0	0.0	675.3
1988	233.5	0.0	233.5	2.5	(s)	1.1	0.0	1.1	437.7	6.5	0.0	0.0	0.0	681.3
1989	239.0	0.0	239.0	2.8	0.2	1.5	0.0	1.7	437.3	21.0	0.0	0.0	0.0	701.8
1990	231.1	0.0	231.1	7.1	(s)	0.7	0.0	0.7	458.0	28.4	0.0	0.0	0.0	725.3
1991	234.6	0.0	234.6	10.1	0.1	0.8	0.0	0.8	463.0	R 26.1	0.0	0.0	0.0	734.5
1992	232.7	0.0	232.7	1.8	0.1	0.8	0.0	0.9	486.2	28.0	0.0	0.0	0.0	749.7
1993	266.5	0.0	266.5	1.9	0.4	0.8	0.0	1.2	493.4	27.3	0.0	0.0	0.0	790.3
1994	270.7	0.0	270.7	3.1	0.1	1.6	0.0	1.6	474.7	24.2	0.0	0.0	0.0	774.3
1995	258.9	0.0	258.9	6.8	0.4	1.2	0.0	1.6	524.1	28.2	0.0	0.0	0.0	819.6
1996	301.9	0.0	301.9	1.2	0.2	1.6	0.0	1.8	462.9	23.1	0.0	0.0	0.0	790.9
1997	311.0	0.0	311.0	2.8	0.4	2.3	0.0	2.7	477.1	21.1	0.0	0.0	0.0	814.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 263. Energy Consumption Estimates by Source, Selected Years 1960-1997, South Dakota

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Inter-state Flow of Electric-ity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kero-sene [a]	LPG [a]	Lubri-cants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	374	25	724	106	2,941	1,145	975	1,370	193	8,561	102	0	16,118	0	1,156	–	–	-979	–
1965	310	27	588	128	3,766	1,111	563	1,541	158	8,955	71	0	16,881	0	3,872	–	–	-7,049	–
1970	338	36	894	99	4,375	1,173	16	2,712	166	9,903	328	0	19,666	0	6,579	–	–	-13,856	–
1975	1,888	33	862	77	3,841	1,056	5	2,930	160	10,636	218	0	19,784	0	7,927	–	–	-18,221	–
1980	2,827	24	638	97	4,801	1,311	15	2,530	160	9,688	122	0	19,362	0	5,818	–	–	-10,269	–
1985	2,703	25	841	87	5,003	1,019	41	1,241	145	9,279	36	0	17,693	0	5,333	–	–	-5,993	–
1986	2,281	23	815	85	6,060	516	36	1,567	142	9,004	60	0	18,284	0	5,736	–	–	-6,017	–
1987	1,101	21	674	80	5,915	669	19	2,358	161	9,016	55	0	18,947	0	5,386	–	–	-728	–
1988	2,591	24	878	89	6,227	875	19	1,579	155	9,175	85	0	19,081	0	5,286	–	–	-4,607	–
1989	2,541	26	776	88	5,439	1,024	14	3,623	159	9,126	66	0	20,315	0	[i] NA	–	–	[R] -1,732	–
1990	2,571	25	790	93	5,525	1,097	8	3,691	163	8,986	61	0	20,414	0	NA	–	–	[R] -311	–
1991	2,863	26	768	61	5,860	367	7	1,794	146	9,119	67	18	18,209	0	NA	–	–	[R] -83	–
1992	2,670	27	887	62	5,595	1,272	8	1,930	149	9,345	144	19	19,412	0	NA	–	–	[R] -3	–
1993	2,696	31	644	53	6,222	1,190	7	2,591	152	9,565	117	21	20,562	0	NA	–	–	5,177	–
1994	3,036	31	629	48	6,994	1,305	5	2,298	159	9,839	89	21	21,386	0	NA	–	–	[R] -3,675	–
1995	2,537	34	821	46	6,662	1,463	6	2,294	156	10,007	14	21	21,490	0	NA	–	–	[R] -4,395	–
1996	1,852	37	1,136	53	6,694	1,014	9	2,645	151	10,148	41	25	21,916	0	NA	–	–	[R] -8,293	–
1997	2,442	35	1,354	48	6,416	697	9	2,672	160	10,165	65	23	21,608	0	NA	–	–	-14,085	–
			Trillion Btu																
1960	6.7	25.4	4.8	0.5	17.1	6.1	5.5	5.5	1.2	45.0	0.6	0.0	86.4	0.0	12.4	[R] 1.5	0.0	-3.3	[R] 129.1
1965	5.7	26.9	3.9	0.6	21.9	6.0	3.2	6.2	1.0	47.0	0.4	0.0	90.3	0.0	40.5	[R] 1.1	0.0	-24.1	[R] 140.3
1970	5.7	36.5	5.9	0.5	25.5	6.3	0.1	10.2	1.0	52.0	2.1	0.0	103.7	0.0	69.0	[R] 1.1	0.0	-47.3	[R] 168.7
1975	24.3	32.5	5.7	0.4	22.4	5.7	(s)	10.9	1.0	55.9	1.4	0.0	103.3	0.0	82.5	[R] 1.5	0.0	-62.2	[R] 181.9
1980	36.6	24.0	4.2	0.5	28.0	7.1	0.1	9.3	1.0	50.9	0.8	0.0	101.8	0.0	60.4	[R] 3.9	0.0	-35.0	[R] 191.6
1985	34.5	25.5	5.6	0.4	29.1	5.5	0.2	4.5	0.9	48.7	0.2	0.0	95.2	0.0	55.7	[R] 3.7	0.0	-20.4	[R] 194.2
1986	29.2	23.4	5.4	0.4	35.3	2.8	0.2	5.7	0.9	47.3	0.4	0.0	98.4	0.0	59.9	[R] 4.0	0.0	-20.5	[R] 194.4
1987	14.6	21.4	4.5	0.4	34.5	3.6	0.1	8.6	1.0	47.4	0.3	0.0	100.4	0.0	56.1	[R] 3.6	0.0	-2.5	[R] 193.6
1988	33.8	24.7	5.8	0.4	36.3	4.7	0.1	5.8	0.9	48.2	0.5	0.0	102.8	0.0	54.6	[R] 3.8	0.0	-15.7	[R] 204.0
1989	32.5	25.9	5.2	0.4	31.7	5.5	0.1	13.3	1.0	47.9	0.4	0.0	105.6	0.0	[R i] 47.8	[R i] 4.9	[R i] 0.1	-5.9	[R i] 209.7
1990	32.5	25.5	5.2	0.5	32.2	5.9	(s)	13.4	1.0	47.2	0.4	0.0	105.8	0.0	40.9	4.2	[R] 0.2	-1.1	[R] 206.6
1991	36.1	26.7	5.1	0.3	34.1	2.0	(s)	6.5	0.9	47.9	0.4	0.1	97.4	0.0	[R] 41.1	[R] 4.0	[R] 0.2	[R] -0.3	[R] 204.4
1992	33.6	27.0	5.9	0.3	32.6	6.9	(s)	7.0	0.9	49.1	0.9	0.1	103.7	0.0	39.6	[R] 4.4	[R] 0.2	(s)	[R] 208.0
1993	34.4	31.7	4.3	0.3	36.2	6.4	(s)	9.3	0.9	50.2	0.7	0.1	108.6	0.0	26.7	[R] 4.4	[R] 0.2	17.7	[R] 222.2
1994	39.2	31.3	4.2	0.2	40.7	7.1	(s)	8.4	1.0	51.7	0.6	0.1	113.9	0.0	55.1	[R] 4.9	[R] 0.2	-12.5	[R] 231.9
1995	36.7	34.8	5.4	0.2	38.8	7.9	(s)	8.3	0.9	52.6	0.1	0.1	114.5	0.0	[R] 62.0	[R] 5.1	[R] 0.2	-15.0	[R] 236.7
1996	33.2	37.4	7.5	0.3	39.0	5.7	(s)	9.6	0.9	53.3	0.3	0.1	116.7	0.0	[R] 82.4	[R] 4.7	[R] 0.3	-28.3	[R] 245.3
1997	42.4	36.1	9.0	0.2	37.4	4.0	(s)	9.7	1.0	53.4	0.4	0.1	115.2	0.0	92.9	4.4	0.3	-48.1	241.9

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 264. Residential Energy Consumption Estimates, Selected Years 1960-1997, South Dakota

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	43	0	43	8	567	903	1,067	2,537	R 61	–	–	847	–	2,107	–
1965	24	0	24	10	677	524	1,198	2,398	R 42	–	–	1,183	–	2,824	–
1970	11	0	11	14	763	14	2,010	2,787	R 33	–	–	1,586	–	3,843	–
1975	8	0	8	12	574	3	1,994	2,571	R 35	–	–	2,068	–	4,987	–
1980	6	0	6	11	762	10	1,165	1,937	R 153	–	–	2,623	–	6,378	–
1985	6	0	6	11	743	35	703	1,481	R 143	–	–	2,769	–	6,505	–
1986	8	0	8	11	1,040	23	841	1,905	R 140	–	–	2,754	–	6,336	–
1987	1	0	1	9	856	15	1,299	2,170	R 123	–	–	2,680	–	6,125	–
1988	1	0	1	11	920	14	945	1,878	R 128	–	–	2,913	–	6,586	–
1989	1	(s)	1	11	900	9	1,420	2,329	R 133	–	–	2,923	–	R 6,567	–
1990	1	0	1	10	805	4	1,731	2,540	89	–	–	2,866	–	6,269	–
1991	1	(s)	1	11	804	4	1,061	1,869	94	–	–	3,040	–	R 6,617	–
1992	(s)	(s)	(s)	11	474	4	1,006	1,484	R 99	–	–	2,843	–	R 6,072	–
1993	(s)	0	(s)	12	592	6	1,355	1,952	R 82	–	–	3,109	–	6,569	–
1994	5	(s)	5	12	536	4	1,278	1,818	81	–	–	3,147	–	R 6,567	–
1995	2	0	2	13	542	4	1,384	1,929	90	–	–	3,268	–	R 6,809	–
1996	1	0	1	14	632	5	1,646	2,283	90	–	–	3,426	–	7,131	–
1997	(s)	0	(s)	13	490	6	1,646	2,143	65	–	–	3,376	–	7,012	–
	Trillion Btu														
1960	0.8	0.0	0.8	7.9	3.3	5.1	4.3	12.7	R 1.2	0.0	0.0	2.9	R 25.6	7.2	R 32.8
1965	0.5	0.0	0.5	10.1	3.9	3.0	4.8	11.7	R 0.8	0.0	0.0	4.0	R 27.1	9.6	R 36.8
1970	0.2	0.0	0.2	13.8	4.4	0.1	7.6	12.1	R 0.7	0.0	0.0	5.4	R 32.2	13.1	R 45.3
1975	0.1	0.0	0.1	12.0	3.3	(s)	7.4	10.8	R 0.7	0.0	0.0	7.1	R 30.6	17.0	R 47.7
1980	0.1	0.0	0.1	10.5	4.4	0.1	4.3	8.8	R 3.1	0.0	0.0	8.9	R 31.4	21.8	R 53.2
1985	0.1	0.0	0.1	11.5	4.3	0.2	2.5	7.1	R 2.9	0.0	0.0	9.4	R 31.0	22.2	R 53.2
1986	0.2	0.0	0.2	10.6	6.1	0.1	3.1	9.3	R 2.8	0.0	0.0	9.4	R 32.2	21.6	R 53.8
1987	(s)	0.0	(s)	9.4	5.0	0.1	4.8	9.8	R 2.5	0.0	0.0	9.1	R 30.9	20.9	R 51.8
1988	(s)	0.0	(s)	10.9	5.4	0.1	3.4	8.9	R 2.6	0.0	0.0	9.9	R 32.3	22.5	R 54.8
1989	(s)	(s)	(s)	11.5	5.2	(s)	5.2	10.5	R 2.7	[e] (s)	R [e] (s)	10.0	R [e] 34.7	22.4	R [e] 57.1
1990	(s)	0.0	(s)	10.4	4.7	(s)	6.3	11.0	1.8	(s)	(s)	9.8	R 33.0	21.4	R 54.4
1991	(s)	(s)	(s)	11.4	4.7	(s)	3.8	8.5	1.9	(s)	(s)	10.4	R 32.3	22.6	R 54.9
1992	(s)	(s)	(s)	11.0	2.8	(s)	3.6	6.4	2.0	(s)	(s)	9.7	29.1	20.7	49.8
1993	(s)	0.0	(s)	12.6	3.4	(s)	4.9	8.4	R 1.6	(s)	(s)	10.6	R 33.3	22.4	R 55.7
1994	0.1	(s)	0.1	12.2	3.1	(s)	4.6	7.8	1.6	(s)	(s)	10.7	R 32.5	22.4	R 54.9
1995	(s)	0.0	(s)	12.8	3.2	(s)	5.0	8.2	1.8	(s)	(s)	11.2	34.0	23.2	57.2
1996	(s)	0.0	(s)	14.3	3.7	(s)	5.9	9.7	1.8	(s)	(s)	11.7	R 37.5	24.3	61.8
1997	(s)	0.0	(s)	13.4	2.9	(s)	6.0	8.8	1.3	0.1	(s)	11.5	35.2	23.9	59.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 265. Commercial Energy Consumption Estimates, Selected Years 1960-1997, South Dakota

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	79	0	79	7	226	0	188	37	16	466	R 1	–	409	–	1,016	–
1965	44	0	44	9	269	0	211	46	8	534	R 1	–	645	–	1,540	–
1970	20	0	20	11	303	0	355	50	16	724	R 1	–	937	–	2,270	–
1975	16	0	16	11	228	0	352	58	20	658	R 1	–	995	–	2,400	–
1980	11	0	11	9	365	0	206	65	19	655	R 4	–	1,139	–	2,770	–
1985	11	0	11	10	278	1	124	98	19	519	NA	–	1,863	–	4,377	–
1986	15	0	15	9	271	1	148	151	7	578	NA	–	1,603	–	3,687	–
1987	3	0	3	8	414	1	229	130	7	781	NA	–	1,629	–	3,721	–
1988	3	0	3	8	345	(s)	167	126	22	660	NA	–	1,760	–	3,978	–
1989	2	(s)	2	9	220	(s)	251	118	23	612	NA	–	1,803	–	R 4,051	–
1990	2	0	2	9	208	(s)	305	78	25	616	NA	–	1,811	–	R 3,961	–
1991	3	(s)	3	9	192	(s)	187	54	35	468	NA	–	1,919	–	R 4,178	–
1992	(s)	(s)	1	9	245	(s)	178	54	36	513	NA	–	1,874	–	4,003	–
1993	1	0	1	11	248	1	239	11	1	499	7	–	1,948	–	4,116	–
1994	10	(s)	10	10	266	(s)	226	11	6	509	R 7	–	2,265	–	4,726	–
1995	5	0	5	11	325	1	244	11	2	584	R 7	–	2,424	–	R 5,049	–
1996	1	0	1	12	254	1	291	11	0	556	R 7	–	2,525	–	5,256	–
1997	1	0	1	10	278	1	291	11	9	589	6	–	2,555	–	5,307	–
	Trillion Btu															
1960	1.5	0.0	1.5	7.5	1.3	0.0	0.8	0.2	0.1	2.4	(s)	0.0	1.4	12.8	3.5	R 16.3
1965	0.9	0.0	0.9	8.8	1.6	0.0	0.8	0.2	(s)	2.7	(s)	0.0	2.2	R 14.6	5.3	19.8
1970	0.4	0.0	0.4	11.4	1.8	0.0	1.3	0.3	0.1	3.5	(s)	0.0	3.2	18.5	7.7	26.2
1975	0.3	0.0	0.3	11.5	1.3	0.0	1.3	0.3	0.1	3.1	(s)	0.0	3.4	18.2	8.2	26.4
1980	0.2	0.0	0.2	8.5	2.1	0.0	0.8	0.3	0.1	3.3	R 0.1	0.0	3.9	R 16.0	9.5	25.4
1985	0.2	0.0	0.2	10.1	1.6	(s)	0.4	0.5	0.1	2.7	NA	0.0	6.4	19.4	14.9	34.3
1986	0.3	0.0	0.3	9.2	1.6	(s)	0.5	0.8	(s)	3.0	NA	0.0	5.5	18.0	12.6	30.5
1987	(s)	0.0	(s)	8.3	2.4	(s)	0.8	0.7	(s)	4.0	NA	0.0	5.6	17.9	12.7	30.6
1988	(s)	0.0	(s)	8.6	2.0	(s)	0.6	0.7	0.1	3.4	NA	0.0	6.0	18.0	13.6	31.6
1989	(s)	(s)	(s)	9.0	1.3	(s)	0.9	0.6	0.1	3.0	NA	0.1	6.2	R 18.2	13.8	R 32.0
1990	(s)	0.0	(s)	8.7	1.2	(s)	1.1	0.4	0.2	2.9	NA	0.1	6.2	R 17.9	13.5	R 31.4
1991	(s)	(s)	(s)	9.6	1.1	(s)	0.7	0.3	0.2	2.3	NA	0.1	6.5	R 18.7	14.3	R 32.9
1992	(s)	(s)	(s)	9.3	1.4	(s)	0.6	0.3	0.2	2.6	NA	0.1	6.4	R 18.4	13.7	R 32.0
1993	(s)	0.0	(s)	10.8	1.4	(s)	0.9	0.1	(s)	2.4	0.1	0.2	6.6	R 20.2	14.0	R 34.2
1994	0.2	(s)	0.2	10.4	1.5	(s)	0.8	0.1	(s)	2.5	R 0.1	0.2	7.7	R 21.1	16.1	R 37.2
1995	0.1	0.0	0.1	10.8	1.9	(s)	0.9	0.1	(s)	2.9	R 0.1	0.2	8.3	R 22.4	17.2	R 39.6
1996	(s)	0.0	(s)	11.8	1.5	(s)	1.0	0.1	0.0	2.6	R 0.1	0.2	8.6	R 23.4	17.9	R 41.3
1997	(s)	0.0	(s)	10.6	1.6	(s)	1.1	0.1	0.1	2.8	0.1	0.3	8.7	22.5	18.1	40.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 266. Industrial Energy Consumption Estimates, Selected Years 1960-1997, South Dakota

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	5	5	724	1,780	72	93	19	2,615	35	0	5,339	20	–	–	258	–	642	–
1965	4	5	588	2,177	39	108	15	2,455	15	0	5,397	38	–	–	246	–	588	–
1970	5	7	894	2,332	2	298	14	2,209	35	0	5,784	35	–	–	281	–	680	–
1975	59	6	862	1,635	2	527	20	1,626	52	0	4,725	36	–	–	994	–	2,397	–
1980	127	5	638	1,640	5	1,090	4	1,473	95	0	4,943	32	–	–	1,322	–	3,215	–
1985	279	4	841	1,670	5	389	3	694	16	0	3,619	32	–	–	1,019	–	2,393	–
1986	240	3	815	2,544	11	552	3	594	52	0	4,570	32	–	–	1,316	–	3,028	–
1987	232	3	674	2,394	4	783	4	631	46	0	4,535	32	–	–	1,402	–	3,203	–
1988	199	5	878	2,666	5	448	3	544	52	0	4,597	32	–	–	1,562	–	3,531	–
1989	257	5	776	2,044	6	1,932	4	541	44	0	5,346	[f] NA	–	–	1,612	–	[R] 3,623	–
1990	223	6	790	2,046	3	1,632	4	489	36	0	5,000	NA	–	–	1,657	–	3,624	–
1991	289	5	768	2,340	3	532	3	484	32	18	4,180	NA	–	–	1,726	–	[R] 3,758	–
1992	267	5	887	2,181	4	728	3	429	109	19	4,359	NA	–	–	1,777	–	3,796	–
1993	335	5	644	2,522	1	972	3	539	116	21	4,818	NA	–	–	1,847	–	3,903	–
1994	451	6	629	2,824	1	755	4	463	83	21	4,780	NA	–	–	1,762	–	3,677	–
1995	393	7	821	2,380	2	652	4	534	11	21	4,424	NA	–	–	1,722	–	3,587	–
1996	397	8	1,136	2,316	3	695	3	540	41	25	4,759	NA	–	–	1,785	–	[R] 3,714	–
1997	436	7	1,354	2,177	2	723	4	566	56	23	4,905	NA	–	–	1,841	–	3,823	–
			Trillion Btu															
1960	0.1	5.3	4.8	10.4	0.4	0.4	0.1	13.7	0.2	0.0	30.0	0.2	[R] 0.3	0.0	0.9	[R] 36.9	2.2	[R] 39.0
1965	0.1	4.7	3.9	12.7	0.2	0.4	0.1	12.9	0.1	0.0	30.3	0.4	[R] 0.3	0.0	0.8	[R] 36.6	2.0	[R] 38.6
1970	0.1	6.8	5.9	13.6	(s)	1.1	0.1	11.6	0.2	0.0	32.6	0.4	[R] 0.5	0.0	1.0	[R] 41.3	2.3	[R] 43.6
1975	1.1	5.8	5.7	9.5	(s)	2.0	0.1	8.5	0.3	0.0	26.2	0.4	[R] 0.8	0.0	3.4	[R] 37.7	8.2	[R] 45.8
1980	2.4	4.7	4.2	9.6	(s)	4.0	(s)	7.7	0.6	0.0	26.2	0.3	[R] 0.7	0.0	4.5	[R] 38.8	11.0	[R] 49.8
1985	4.8	3.6	5.6	9.7	(s)	1.4	(s)	3.6	0.1	0.0	20.5	0.3	[R] 0.9	0.0	3.5	[R] 33.6	8.2	[R] 41.8
1986	4.2	3.4	5.4	14.8	0.1	2.0	(s)	3.1	0.3	0.0	25.8	0.3	[R] 1.2	0.0	4.5	[R] 39.4	10.3	[R] 49.7
1987	4.0	3.4	4.5	13.9	(s)	2.9	(s)	3.3	0.3	0.0	24.9	0.3	[R] 1.2	0.0	4.8	[R] 38.7	10.9	[R] 49.6
1988	3.5	4.9	5.8	15.5	(s)	1.6	(s)	2.9	0.3	0.0	26.2	0.3	[R] 1.2	0.0	5.3	[R] 41.5	12.0	[R] 53.5
1989	4.5	5.2	5.2	11.9	(s)	7.1	(s)	2.8	0.3	0.0	27.3	[R f] 0.0	[R f] 1.0	[R f] (s)	5.5	[R f] 43.5	12.4	[R f] 55.9
1990	3.9	6.0	5.2	11.9	(s)	5.9	(s)	2.6	0.2	0.0	25.9	0.0	1.0	[R] (s)	5.7	42.5	12.4	54.8
1991	5.0	5.1	5.1	13.6	(s)	1.9	(s)	2.5	0.2	0.1	23.5	0.0	1.0	[R] (s)	5.9	40.6	12.8	[R] 53.5
1992	4.6	5.0	5.9	12.7	(s)	2.6	(s)	2.3	0.7	0.1	24.3	0.0	[R] 1.1	[R] (s)	6.1	[R] 41.1	13.0	[R] 54.1
1993	5.8	5.5	4.3	14.7	(s)	3.5	(s)	2.8	0.7	0.1	26.2	0.0	[R] 1.1	[R] (s)	6.3	[R] 44.9	13.3	[R] 58.2
1994	7.8	6.0	4.2	16.5	(s)	2.7	(s)	2.4	0.5	0.1	26.5	0.0	[R] 1.5	[R] (s)	6.0	[R] 47.8	12.5	[R] 60.3
1995	6.8	7.4	5.4	13.9	(s)	2.4	(s)	2.8	0.1	0.1	24.7	0.0	[R] 1.5	[R] (s)	5.9	[R] 46.3	12.2	[R] 58.6
1996	6.9	7.7	7.5	13.5	(s)	2.5	(s)	2.8	0.3	0.1	26.8	0.0	[R] 1.6	[R] (s)	6.1	[R] 49.1	12.7	[R] 61.8
1997	7.6	7.3	9.0	12.7	(s)	2.6	(s)	3.0	0.4	0.1	27.8	0.0	1.6	(s)	6.3	50.6	13.0	63.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 267. Transportation Energy Consumption Estimates, Selected Years 1960-1997, South Dakota

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	(s)	(s)	106	362	1,145	22	174	5,909	11	7,729	0	0	–	0	–
1965	(s)	(s)	128	635	1,111	24	143	6,454	1	8,496	0	0	–	0	–
1970	(s)	(s)	99	929	1,173	50	151	7,645	6	10,052	0	0	–	0	–
1975	(s)	(s)	77	1,337	1,056	57	140	8,952	1	11,618	0	0	–	0	–
1980	0	(s)	97	1,977	1,311	69	156	8,150	0	11,760	0	0	–	0	–
1985	0	(s)	87	2,274	1,019	24	142	8,487	0	12,033	0	0	–	0	–
1986	0	(s)	85	2,166	516	25	139	8,260	0	11,191	0	0	–	0	–
1987	0	(s)	80	2,230	669	46	157	8,256	0	11,438	0	0	–	0	–
1988	0	(s)	89	2,248	875	19	151	8,506	0	11,888	0	0	–	0	–
1989	0	(s)	88	2,241	1,024	20	155	8,467	(s)	11,996	R e 15,969	0	–	0	–
1990	0	(s)	93	2,434	1,097	23	160	8,419	(s)	12,226	18,443	0	–	0	–
1991	0	(s)	61	2,490	367	14	143	8,581	0	11,656	14,619	0	–	0	–
1992	0	2	62	2,676	1,272	18	146	8,863	0	13,036	17,768	0	–	0	–
1993	0	3	53	2,829	1,190	26	148	9,015	0	13,261	19,828	0	–	0	–
1994	0	3	48	3,317	1,305	39	155	9,365	0	14,229	22,527	0	–	0	–
1995	0	3	46	3,368	1,463	15	152	9,462	0	14,506	20,836	0	–	0	–
1996	0	3	53	3,459	1,014	13	148	9,596	0	14,284	14,723	0	–	0	–
1997	0	3	48	3,447	697	12	156	9,588	0	13,948	17,010	0	–	0	–
			Trillion Btu												
1960	(s)	(s)	0.5	2.1	6.1	0.1	1.1	31.0	0.1	41.0	0.0	0.0	41.1	0.0	41.1
1965	(s)	(s)	0.6	3.7	6.0	0.1	0.9	33.9	(s)	45.2	0.0	0.0	45.2	0.0	45.2
1970	(s)	(s)	0.5	5.4	6.3	0.2	0.9	40.2	(s)	53.5	0.0	0.0	53.6	0.0	53.6
1975	(s)	(s)	0.4	7.8	5.7	0.2	0.8	47.0	(s)	62.0	0.0	0.0	62.0	0.0	62.0
1980	0.0	0.1	0.5	11.5	7.1	0.3	0.9	42.8	0.0	63.1	0.0	0.0	63.2	0.0	63.2
1985	0.0	0.2	0.4	13.2	5.5	0.1	0.9	44.6	0.0	64.7	0.0	0.0	65.0	0.0	65.0
1986	0.0	0.1	0.4	12.6	2.8	0.1	0.8	43.4	0.0	60.2	0.0	0.0	60.3	0.0	60.3
1987	0.0	0.1	0.4	13.0	3.6	0.2	1.0	43.4	0.0	61.5	0.0	0.0	61.6	0.0	61.6
1988	0.0	0.1	0.4	13.1	4.7	0.1	0.9	44.7	0.0	63.9	0.0	0.0	64.1	0.0	64.1
1989	0.0	0.1	0.4	13.1	5.5	0.1	0.9	44.5	(s)	64.5	R e 1.2	0.0	e 64.7	0.0	e 64.7
1990	0.0	0.1	0.5	14.2	5.9	0.1	1.0	44.2	(s)	65.9	1.4	0.0	66.0	0.0	66.0
1991	0.0	0.3	0.3	14.5	2.0	(s)	0.9	45.1	0.0	62.8	1.1	0.0	63.2	0.0	63.2
1992	0.0	1.8	0.3	15.6	6.9	0.1	0.9	46.6	0.0	70.3	1.4	0.0	72.0	0.0	72.0
1993	0.0	2.6	0.3	16.5	6.4	0.1	0.9	47.4	0.0	71.5	1.5	0.0	74.1	0.0	74.1
1994	0.0	2.6	0.2	19.3	7.1	0.1	0.9	49.2	0.0	76.9	1.7	0.0	79.5	0.0	79.5
1995	0.0	2.8	0.2	19.6	7.9	0.1	0.9	49.7	0.0	78.5	1.6	0.0	81.2	0.0	81.2
1996	0.0	2.9	0.3	20.2	5.7	(s)	0.9	50.4	0.0	77.5	1.1	0.0	80.4	0.0	80.4
1997	0.0	3.0	0.2	20.1	4.0	(s)	0.9	50.4	0.0	75.6	1.3	0.0	78.6	0.0	78.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 268. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, South Dakota

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	246	0	246	4	40	7	0	47	0	1,136	0	0	0	–
1965	237	0	237	3	47	8	0	55	0	3,835	0	0	0	–
1970	301	0	301	4	270	48	0	318	0	6,544	0	0	0	–
1975	1,804	0	1,804	3	145	67	0	212	0	7,890	0	0	0	–
1980	2,683	0	2,683	(s)	9	58	0	67	0	5,786	0	0	0	–
1985	2,407	0	2,407	(s)	1	39	0	40	0	5,301	0	0	0	–
1986	2,018	0	2,018	(s)	1	38	0	39	0	5,704	0	0	0	–
1987	865	0	865	(s)	1	21	0	23	0	5,354	0	0	0	–
1988	2,388	0	2,388	(s)	10	48	0	58	0	5,254	0	0	0	–
1989	2,281	0	2,281	(s)	0	33	0	33	0	4,583	0	0	0	–
1990	2,345	0	2,345	(s)	0	32	0	32	0	3,934	0	0	0	–
1991	2,570	0	2,570	(s)	0	35	0	35	0	3,936	0	0	0	–
1992	2,402	0	2,402	(s)	0	19	0	19	0	3,833	0	0	0	–
1993	2,360	0	2,360	(s)	0	32	0	32	0	2,591	0	0	0	–
1994	2,570	0	2,570	(s)	0	50	0	50	0	5,343	0	0	0	–
1995	2,137	0	2,137	1	0	48	0	48	0	6,010	0	0	0	–
1996	1,453	0	1,453	1	0	33	0	33	0	7,978	0	0	0	–
1997	2,005	0	2,005	2	0	23	0	23	0	9,012	0	0	0	–
	Trillion Btu													
1960	4.2	0.0	4.2	4.6	0.3	(s)	0.0	0.3	0.0	12.2	0.0	0.0	0.0	21.4
1965	4.2	0.0	4.2	3.3	0.3	(s)	0.0	0.3	0.0	40.1	0.0	0.0	0.0	48.0
1970	5.0	0.0	5.0	4.4	1.7	0.3	0.0	2.0	0.0	68.7	0.0	0.0	0.0	80.0
1975	22.8	0.0	22.8	3.2	0.9	0.4	0.0	1.3	0.0	82.1	0.0	0.0	0.0	109.4
1980	33.8	0.0	33.8	0.3	0.1	0.3	0.0	0.4	0.0	60.1	0.0	0.0	0.0	94.6
1985	29.4	0.0	29.4	(s)	(s)	0.2	0.0	0.2	0.0	55.4	0.0	0.0	0.0	85.0
1986	24.6	0.0	24.6	(s)	(s)	0.2	0.0	0.2	0.0	59.6	0.0	0.0	0.0	84.4
1987	10.5	0.0	10.5	0.1	(s)	0.1	0.0	0.1	0.0	55.8	0.0	0.0	0.0	66.5
1988	30.3	0.0	30.3	0.2	0.1	0.3	0.0	0.3	0.0	54.2	0.0	0.0	0.0	85.1
1989	28.0	0.0	28.0	0.1	0.0	0.2	0.0	0.2	0.0	47.8	0.0	0.0	0.0	76.1
1990	28.6	0.0	28.6	0.2	0.0	0.2	0.0	0.2	0.0	40.9	0.0	0.0	0.0	69.9
1991	31.0	0.0	31.0	0.2	0.0	0.2	0.0	0.2	0.0	R 41.1	0.0	0.0	0.0	72.7
1992	29.0	0.0	29.0	(s)	0.0	0.1	0.0	0.1	0.0	39.6	0.0	0.0	0.0	69.5
1993	28.6	0.0	28.6	0.2	0.0	0.2	0.0	0.2	0.0	26.7	0.0	0.0	0.0	55.7
1994	31.1	0.0	31.1	0.2	0.0	0.3	0.0	0.3	0.0	55.1	0.0	0.0	0.0	88.1
1995	29.8	0.0	29.8	0.9	0.0	0.3	0.0	0.3	0.0	R 62.0	0.0	0.0	0.0	R 93.0
1996	26.3	0.0	26.3	0.7	0.0	0.2	0.0	0.2	0.0	R 82.4	0.0	0.0	0.0	109.6
1997	34.8	0.0	34.8	1.8	0.0	0.1	0.0	0.1	0.0	92.9	0.0	0.0	0.0	129.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 269. Energy Consumption Estimates by Source, Selected Years 1960-1997, Tennessee

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	15,436	147	1,785	1,040	5,291	570	2,624	1,311	760	27,268	188	1,458	42,295	0	8,676	–	–	20,917	–
1965	14,171	202	3,441	1,024	7,295	1,174	2,540	1,912	800	32,481	287	4,403	55,356	0	8,750	–	–	46,329	–
1970	17,726	256	3,628	116	10,952	3,335	4,135	3,182	825	41,869	597	6,324	74,964	0	8,067	–	–	50,754	–
1975	21,308	217	3,765	70	17,479	3,936	2,289	3,830	1,328	53,735	714	5,596	92,743	0	11,806	–	–	73,642	–
1980	24,687	230	3,378	290	19,176	4,154	1,534	2,787	1,241	54,948	1,499	8,336	97,342	519	8,764	–	–	74,740	–
1985	25,167	190	4,408	154	22,285	4,862	1,107	2,281	1,129	58,047	539	6,356	101,169	9,672	6,539	–	–	35,536	–
1986	25,272	188	4,158	201	22,649	5,925	478	2,678	1,104	60,296	581	8,925	106,994	-105	5,326	–	–	60,476	–
1987	24,750	201	4,565	186	22,590	5,686	674	2,613	1,248	57,490	320	9,164	104,534	-108	7,566	–	–	60,596	–
1988	25,219	214	4,048	183	23,584	4,231	999	3,108	1,203	59,302	445	9,597	106,700	3,940	4,591	–	–	62,295	–
1989	23,561	221	5,703	182	23,329	4,356	807	3,476	1,234	60,057	464	9,393	109,001	15,603	[i] NA	–	–	[R] 23,533	–
1990	24,878	220	5,798	174	23,872	4,181	438	2,906	1,270	58,001	311	10,744	107,695	14,003	NA	–	–	[R] 26,411	–
1991	23,107	227	5,349	145	22,618	3,413	342	3,208	1,136	56,162	406	11,359	104,140	16,587	NA	–	–	[R] 27,124	–
1992	24,106	242	5,281	343	24,044	4,479	442	4,787	1,159	58,587	397	12,607	112,127	15,654	NA	–	–	[R] 23,224	–
1993	27,854	254	4,922	395	23,976	6,569	410	3,566	1,180	61,213	528	12,080	114,839	3,305	NA	–	–	40,466	–
1994	25,440	246	5,448	392	24,805	7,762	544	3,482	1,233	62,897	461	12,824	119,848	11,932	NA	–	–	[R] 32,978	–
1995	27,399	257	5,434	397	27,388	8,096	490	3,416	1,212	64,822	368	12,461	124,083	15,708	NA	–	–	[R] 10,792	–
1996	26,744	280	5,171	231	27,554	9,317	585	3,915	1,176	64,868	214	13,505	126,535	22,924	NA	–	–	[R] 5,418	–
1997	28,203	282	4,917	312	28,108	9,433	580	3,954	1,242	66,148	160	14,061	128,916	24,648	NA	–	–	-8,867	–
			Trillion Btu																
1960	374.4	151.7	11.8	5.2	30.8	3.1	14.9	5.3	4.6	143.2	1.2	8.6	228.8	0.0	93.4	[R] 45.4	0.0	71.4	[R] 965.0
1965	338.8	211.1	22.8	5.2	42.5	6.5	14.4	7.7	4.8	170.6	1.8	25.2	301.6	0.0	91.5	[R] 46.5	0.0	158.1	[R] 1,147.6
1970	403.7	261.8	24.1	0.6	63.8	18.8	23.4	12.0	5.0	219.9	3.8	35.9	407.4	0.0	84.7	[R] 53.8	0.0	173.2	[R] 1,384.5
1975	471.9	224.1	25.0	0.4	101.8	22.2	13.0	14.2	8.1	282.3	4.5	32.4	503.8	0.0	122.9	[R] 54.4	0.0	251.3	[R] 1,628.3
1980	576.9	233.3	22.4	1.5	111.7	23.4	8.7	10.2	7.5	288.6	9.4	46.9	530.4	5.7	91.0	[R] 64.8	0.0	255.0	[R] 1,757.1
1985	599.7	196.7	29.3	0.8	129.8	27.5	6.3	8.2	6.8	304.9	3.4	35.9	552.9	104.6	68.3	[R] 91.9	0.0	121.3	[R] 1,735.3
1986	605.7	194.0	27.6	1.0	131.9	33.5	2.7	9.7	6.7	316.7	3.7	50.0	583.6	-1.1	55.6	[R] 86.2	0.0	206.3	[R] 1,730.4
1987	596.5	207.0	30.3	0.9	131.6	32.1	3.8	9.6	7.6	302.0	2.0	51.0	570.9	-1.2	78.8	[R] 81.8	0.0	206.8	[R] 1,740.7
1988	610.6	220.9	26.9	0.9	137.4	23.9	5.7	11.4	7.3	311.5	2.8	53.7	581.4	42.3	47.4	[R] 85.1	0.0	212.6	[R] 1,800.2
1989	564.4	228.6	37.8	0.9	135.9	24.6	4.6	12.8	7.5	315.5	2.9	52.4	594.9	167.3	[i] 123.6	[R i] 82.8	[R i] 0.1	[R] 80.3	[R i] 1,840.5
1990	600.3	227.5	38.5	0.9	139.1	23.6	2.5	10.5	7.7	304.7	2.0	60.2	589.5	149.5	99.2	[R] 67.9	0.1	90.1	[R] 1,822.4
1991	565.5	234.6	35.5	0.7	131.8	19.3	1.9	11.6	6.9	295.0	2.6	63.6	568.9	178.1	[R] 109.5	[R] 70.2	0.1	[R] 92.5	[R] 1,818.1
1992	590.6	249.2	35.0	1.7	140.1	25.3	2.5	17.3	7.0	307.8	2.5	70.6	609.8	167.1	99.2	[R] 73.8	0.1	79.2	[R] 1,867.4
1993	685.9	263.1	32.7	2.0	139.7	37.2	2.3	12.9	7.2	321.6	3.3	67.4	626.1	35.3	86.5	[R] 71.1	0.1	138.1	[R] 1,904.4
1994	622.9	254.0	36.2	2.0	144.5	44.0	3.1	12.7	7.5	330.4	2.9	71.7	654.8	127.4	[R] 118.1	[R] 78.1	0.1	112.5	[R] 1,965.1
1995	668.2	264.8	36.1	2.0	159.5	45.9	2.8	12.4	7.4	340.5	2.3	69.7	678.5	167.4	[R] 93.0	[R] 81.0	0.1	36.8	[R] 1,988.6
1996	648.6	289.3	34.3	1.2	160.5	52.8	3.3	14.1	7.1	340.7	1.3	75.4	690.9	243.5	111.6	[R] 81.6	0.1	18.5	[R] 2,084.0
1997	673.5	291.1	32.6	1.6	163.7	53.5	3.3	14.3	7.5	347.5	1.0	78.6	703.6	261.8	107.0	77.3	0.1	-30.3	2,084.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 270. Residential Energy Consumption Estimates, Selected Years 1960-1997, Tennessee

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	331	4	336	34	80	797	862	1,740	R 1,269	–	–	8,683	–	21,599	–
1965	231	3	233	37	100	881	1,136	2,117	R 949	–	–	12,134	–	28,971	–
1970	189	2	191	47	169	2,027	2,316	4,512	R 806	–	–	17,942	–	43,479	–
1975	113	1	114	44	237	1,316	2,767	4,320	R 840	–	–	23,034	–	55,561	–
1980	82	1	82	45	308	549	1,501	2,358	R 619	–	–	26,207	–	63,727	–
1985	59	0	59	39	259	737	1,209	2,205	R 1,543	–	–	25,546	–	60,018	–
1986	28	0	28	40	166	329	1,425	1,920	R 1,502	–	–	25,884	–	59,541	–
1987	34	0	34	43	228	451	1,405	2,084	R 1,292	–	–	27,460	–	62,743	–
1988	66	(s)	66	48	226	626	1,752	2,604	R 1,342	–	–	27,960	–	63,210	–
1989	75	3	78	49	245	616	1,980	2,840	R 1,393	–	–	28,355	–	R 63,709	–
1990	73	5	78	46	237	324	1,716	2,277	918	–	–	28,757	–	R 62,898	–
1991	57	6	63	49	268	268	1,936	2,472	967	–	–	29,605	–	R 64,447	–
1992	55	(s)	55	52	259	361	2,094	2,715	1,017	–	–	29,498	–	R 63,008	–
1993	39	(s)	39	59	205	311	2,201	2,716	R 776	–	–	30,199	–	63,805	–
1994	31	1	32	57	302	439	2,112	2,853	760	–	–	32,797	–	R 68,438	–
1995	50	1	51	60	281	372	2,129	2,782	844	–	–	30,967	–	R 64,513	–
1996	39	0	39	70	272	456	2,533	3,261	R 843	–	–	35,333	–	R 73,536	–
1997	46	(s)	46	64	251	437	2,533	3,221	613	–	–	33,367	–	69,295	–
	Trillion Btu														
1960	8.2	0.1	8.3	35.1	0.5	4.5	3.5	8.4	R 25.4	0.0	0.0	29.6	R 106.8	73.7	R 180.5
1965	5.7	0.1	5.7	38.9	0.6	5.0	4.6	10.1	R 19.0	0.0	0.0	41.4	R 115.1	98.8	R 214.0
1970	4.5	(s)	4.5	47.6	1.0	11.5	8.8	21.2	R 16.1	0.0	0.0	61.2	R 150.7	148.3	R 299.0
1975	2.7	(s)	2.7	45.4	1.4	7.5	10.3	19.1	R 16.8	0.0	0.0	78.6	R 162.6	189.6	R 352.2
1980	2.0	(s)	2.0	45.6	1.8	3.1	5.5	10.4	R 12.4	0.0	0.0	89.4	R 159.8	217.4	R 377.2
1985	1.4	0.0	1.4	40.8	1.5	4.2	4.4	10.0	R 30.9	0.0	0.0	87.2	R 170.3	204.8	R 375.1
1986	0.7	0.0	0.7	41.5	1.0	1.9	5.2	8.0	R 30.0	0.0	0.0	88.3	R 168.6	203.2	R 371.7
1987	0.8	0.0	0.8	44.9	1.3	2.6	5.1	9.0	R 25.8	0.0	0.0	93.7	R 174.3	214.1	R 388.4
1988	1.6	(s)	1.6	49.1	1.3	3.6	6.4	11.3	R 26.8	0.0	0.0	95.4	R 184.3	215.7	R 400.0
1989	1.8	0.1	1.9	50.8	1.4	3.5	7.3	12.2	R 27.9	[e] (s)	R [e] 0.1	96.7	R [e] 189.6	R 217.4	R [e] 406.9
1990	1.8	0.1	1.9	48.0	1.4	1.8	6.2	9.4	18.4	(s)	0.1	98.1	175.9	214.6	390.5
1991	1.4	0.1	1.6	51.0	1.6	1.5	7.0	10.1	19.3	(s)	0.1	101.0	R 183.1	219.9	R 403.0
1992	1.3	(s)	1.3	53.8	1.5	2.0	7.6	11.1	20.3	(s)	0.1	100.6	187.4	215.0	R 402.4
1993	1.0	(s)	1.0	61.0	1.2	1.8	7.9	10.9	15.5	(s)	0.1	103.0	191.5	217.7	409.2
1994	0.8	(s)	0.8	59.2	1.8	2.5	7.7	11.9	15.2	(s)	0.1	111.9	199.1	233.5	R 432.6
1995	1.3	(s)	1.3	61.9	1.6	2.1	7.7	11.5	16.9	(s)	0.1	105.7	197.2	220.1	R 417.4
1996	1.0	0.0	1.0	72.7	1.6	2.6	9.2	13.3	R 16.9	(s)	0.1	120.6	R 224.5	250.9	R 475.4
1997	1.1	(s)	1.1	66.1	1.5	2.5	9.2	13.1	12.3	(s)	0.1	113.8	206.6	236.4	443.0

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 271. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Tennessee

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	615	3	618	24	200	157	152	173	(s)	682	R 24	–	2,796	–	6,956	–
1965	428	2	430	28	248	173	200	277	(s)	899	R 18	–	4,274	–	10,204	–
1970	351	1	352	43	422	399	409	392	1	1,622	R 15	–	6,352	–	15,393	–
1975	211	1	211	42	589	259	488	419	1	1,757	R 16	–	7,440	–	17,947	–
1980	151	(s)	152	44	1,015	104	265	465	48	1,897	R 15	–	14,216	–	34,568	–
1985	110	0	110	43	3,086	167	213	337	98	3,901	NA	–	9,856	–	23,156	–
1986	51	0	51	43	1,412	91	251	401	129	2,283	NA	–	9,727	–	22,375	–
1987	64	0	64	44	1,161	127	248	374	66	1,976	NA	–	R 10,199	–	23,305	–
1988	123	(s)	123	46	1,103	242	309	517	76	2,247	NA	–	10,481	–	23,695	–
1989	140	2	142	48	664	155	349	516	53	1,737	NA	–	12,237	–	R 27,495	–
1990	136	3	140	44	636	69	303	464	33	1,504	NA	–	13,075	–	R 28,598	–
1991	106	4	109	46	602	32	342	418	17	1,410	NA	–	13,117	–	R 28,555	–
1992	102	(s)	102	47	1,042	69	370	346	57	1,883	NA	–	7,391	–	15,787	–
1993	72	(s)	72	51	937	61	388	203	34	1,622	R 62	–	6,102	–	12,893	–
1994	58	(s)	58	51	1,006	73	373	49	33	1,533	R 64	–	R 6,121	–	R 12,774	–
1995	94	(s)	94	51	798	80	376	50	14	1,318	R 64	–	R 6,234	–	R 12,988	–
1996	72	0	72	58	918	89	447	49	28	1,531	R 69	–	6,543	–	R 13,618	–
1997	85	(s)	85	55	876	99	447	49	45	1,516	59	–	25,839	–	53,661	–
	Trillion Btu															
1960	15.2	0.1	15.3	25.1	1.2	0.9	0.6	0.9	(s)	3.6	R 0.5	0.0	9.5	R 54.0	23.7	R 77.7
1965	10.5	(s)	10.6	29.6	1.4	1.0	0.8	1.5	(s)	4.7	R 0.4	0.0	14.6	R 59.8	34.8	R 94.6
1970	8.3	(s)	8.4	43.7	2.5	2.3	1.5	2.1	(s)	8.3	R 0.3	0.0	21.7	R 82.3	52.5	R 134.9
1975	5.0	(s)	5.0	43.8	3.4	1.5	1.8	2.2	(s)	8.9	R 0.3	0.0	25.4	R 83.4	61.2	R 144.6
1980	3.6	(s)	3.6	44.8	5.9	0.6	1.0	2.4	0.3	10.2	R 0.3	0.0	48.5	R 107.4	117.9	R 225.4
1985	2.7	0.0	2.7	44.9	18.0	0.9	0.8	1.8	0.6	22.1	NA	0.0	33.6	103.3	79.0	182.3
1986	1.2	0.0	1.2	44.0	8.2	0.5	0.9	2.1	0.8	12.6	NA	0.0	33.2	90.9	76.3	167.3
1987	1.6	0.0	1.6	45.6	6.8	0.7	0.9	2.0	0.4	10.8	NA	0.0	34.8	92.7	79.5	172.2
1988	3.0	(s)	3.0	47.3	6.4	1.4	1.1	2.7	0.5	12.1	NA	0.0	35.8	98.2	80.8	179.0
1989	3.4	0.1	3.5	49.0	3.9	0.9	1.3	2.7	0.3	9.1	NA	0.0	41.8	103.3	93.8	197.1
1990	3.4	0.1	3.5	45.1	3.7	0.4	1.1	2.4	0.2	7.8	NA	0.0	44.6	101.0	97.6	R 198.6
1991	2.6	0.1	2.7	47.5	3.5	0.2	1.2	2.2	0.1	7.2	NA	0.0	44.8	102.2	97.4	199.6
1992	2.5	(s)	2.5	48.0	6.1	0.4	1.3	1.8	0.4	10.0	NA	0.0	25.2	85.6	53.9	139.5
1993	1.8	(s)	1.8	52.5	5.5	0.3	1.4	1.1	0.2	8.5	R 1.2	0.0	20.8	R 84.9	44.0	R 128.9
1994	1.5	(s)	1.5	52.4	5.9	0.4	1.4	0.3	0.2	8.1	R 1.3	0.0	20.9	R 84.1	43.6	R 127.7
1995	2.4	(s)	2.4	52.8	4.6	0.5	1.4	0.3	0.1	6.8	R 1.3	0.0	21.3	R 84.6	44.3	R 128.9
1996	1.8	0.0	1.8	60.4	5.3	0.5	1.6	0.3	0.2	7.9	R 1.4	0.0	22.3	R 93.8	46.5	R 140.2
1997	2.1	(s)	2.1	56.8	5.1	0.6	1.6	0.3	0.3	7.8	1.2	0.0	88.2	156.1	183.1	339.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 272. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Tennessee

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,307	76	1,785	2,096	1,670	275	256	627	180	1,458	8,346	0	–	–	27,514	–	68,438	–
1965	2,862	97	3,441	2,601	1,486	522	321	484	264	4,403	13,521	0	–	–	28,362	–	67,716	–
1970	2,452	123	3,628	3,172	1,709	363	334	235	593	6,324	16,360	0	–	–	27,776	–	67,310	–
1975	2,134	112	3,765	4,712	714	455	522	117	523	5,596	16,405	0	–	–	37,904	–	91,429	–
1980	2,774	123	3,378	4,252	881	960	565	36	1,445	8,336	19,853	0	–	–	32,968	–	80,167	–
1985	4,145	97	4,408	3,482	203	693	514	642	441	6,356	16,740	0	–	–	33,624	–	78,997	–
1986	4,142	92	4,158	3,684	58	801	502	578	452	8,925	19,158	0	–	–	32,196	–	74,060	–
1987	3,954	98	4,565	3,479	96	839	568	610	253	9,164	19,574	0	–	–	32,071	–	73,279	–
1988	4,020	103	4,048	3,390	131	900	548	561	356	9,597	19,531	0	–	–	34,431	–	77,840	–
1989	4,058	107	5,703	2,360	36	992	562	605	400	9,393	20,051	[f] NA	–	–	34,520	–	[R] 77,560	–
1990	3,846	110	5,798	2,925	46	761	578	583	273	10,744	21,708	NA	–	–	35,313	–	[R] 77,237	–
1991	3,720	116	5,349	2,702	43	796	517	557	339	11,359	21,662	NA	–	–	35,667	–	[R] 77,643	–
1992	3,686	126	5,281	3,659	12	2,204	527	575	295	12,607	25,160	NA	–	–	41,695	–	[R] 89,060	–
1993	3,942	124	4,922	3,389	38	829	537	724	479	12,080	22,999	NA	–	–	43,530	–	91,971	–
1994	4,097	119	5,448	3,746	32	758	561	785	426	12,824	24,580	NA	–	–	43,614	–	[R] 91,011	–
1995	3,777	126	5,434	3,980	37	777	552	865	351	12,461	24,457	NA	–	–	44,828	–	[R] 93,390	–
1996	3,670	127	5,171	3,784	41	810	535	890	184	13,505	24,921	NA	–	–	45,781	–	[R] 95,280	–
1997	3,608	139	4,917	4,590	44	861	566	937	110	14,061	26,086	NA	–	–	27,710	–	57,548	–
			Trillion Btu															
1960	58.1	78.6	11.8	12.2	9.5	1.1	1.5	3.3	1.1	8.6	49.2	0.0	[R] 19.5	0.0	93.9	[R] 299.3	233.5	[R] 532.8
1965	71.4	101.9	22.8	15.2	8.4	2.1	1.9	2.5	1.7	25.2	79.9	0.0	[R] 27.2	0.0	96.8	[R] 377.2	231.0	[R] 608.2
1970	58.0	125.9	24.1	18.5	9.7	1.4	2.0	1.2	3.7	35.9	96.6	0.0	[R] 37.3	0.0	94.8	[R] 412.5	229.7	[R] 642.2
1975	49.9	115.1	25.0	27.4	4.1	1.7	3.2	0.6	3.3	32.4	97.6	0.0	[R] 37.3	0.0	129.3	[R] 429.3	312.0	[R] 741.3
1980	67.2	125.1	22.4	24.8	5.0	3.5	3.4	0.2	9.1	46.9	115.3	0.0	[R] 52.1	0.0	112.5	[R] 472.1	273.5	[R] 745.6
1985	102.2	100.6	29.3	20.3	1.1	2.5	3.1	3.4	2.8	35.9	98.4	0.0	[R] 61.0	0.0	114.7	[R] 476.9	269.5	[R] 746.4
1986	102.5	94.5	27.6	21.5	0.3	2.9	3.0	3.0	2.8	50.0	111.2	0.0	[R] 56.2	0.0	109.9	[R] 474.3	252.7	[R] 727.0
1987	98.3	100.8	30.3	20.3	0.5	3.1	3.4	3.2	1.6	51.0	113.5	0.0	[R] 56.0	0.0	109.4	[R] 477.9	250.0	[R] 727.9
1988	99.8	106.6	26.9	19.7	0.7	3.3	3.3	2.9	2.2	53.7	112.9	0.0	[R] 58.2	0.0	117.5	[R] 495.0	265.6	[R] 760.6
1989	100.3	110.4	37.8	13.7	0.2	3.7	3.4	3.2	2.5	52.4	117.0	[f] 0.0	[R f] 53.4	[f] 0.0	117.8	[R f] 498.8	264.6	[R f] 763.5
1990	96.8	113.6	38.5	17.0	0.3	2.8	3.5	3.1	1.7	60.2	127.0	0.0	[R] 47.8	0.0	120.5	[R] 505.6	263.5	[R] 769.2
1991	93.5	119.7	35.5	15.7	0.2	2.9	3.1	2.9	2.1	63.6	126.2	0.0	[R] 49.5	0.0	121.7	[R] 510.5	264.9	[R] 775.4
1992	93.1	130.2	35.0	21.3	0.1	8.0	3.2	3.0	1.9	70.6	143.0	0.0	[R] 51.8	0.0	142.3	[R] 560.3	303.9	[R] 864.2
1993	99.2	128.7	32.7	19.7	0.2	3.0	3.3	3.8	3.0	67.4	133.1	0.0	[R] 52.4	0.0	148.5	[R] 562.0	313.8	[R] 875.8
1994	102.7	122.7	36.2	21.8	0.2	2.8	3.4	4.1	2.7	71.7	142.8	10.8	[R] 58.9	0.0	148.8	[R] 586.7	310.5	[R] 897.2
1995	94.9	129.8	36.1	23.2	0.2	2.8	3.3	4.5	2.2	69.7	142.0	8.6	[R] 61.7	0.0	153.0	[R] 590.0	318.6	[R] 908.6
1996	91.8	130.6	34.3	22.0	0.2	2.9	3.2	4.7	1.2	75.4	144.0	[R] 9.3	[R] 63.3	0.0	156.2	[R] 595.2	325.1	[R] 920.3
1997	90.2	143.2	32.6	26.7	0.3	3.1	3.4	4.9	0.7	78.6	150.4	10.0	63.8	0.0	94.5	552.2	196.4	748.5

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 273. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Tennessee

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	38	5	1,040	2,914	570	22	505	26,468	8	31,527	0	(s)	–	(s)	–
1965	9	23	1,024	4,346	1,174	54	479	31,721	22	38,819	0	(s)	–	(s)	–
1970	4	26	116	7,189	3,335	94	491	41,241	3	52,469	0	(s)	–	(s)	–
1975	(s)	19	70	10,631	3,936	120	807	53,199	191	68,953	0	(s)	–	(s)	–
1980	0	16	290	13,196	4,154	61	676	54,446	6	72,828	0	(s)	–	(s)	–
1985	0	10	154	15,221	4,862	166	615	57,068	0	78,087	0	(s)	–	1	–
1986	0	14	201	17,156	5,925	201	601	59,317	0	83,400	0	(s)	–	1	–
1987	0	15	186	17,500	5,686	120	680	56,506	(s)	80,678	0	(s)	–	1	–
1988	0	17	183	18,500	4,231	147	656	58,224	13	81,953	0	(s)	–	1	–
1989	0	18	182	19,704	4,356	156	673	58,937	11	84,018	R e 20,117	(s)	–	1	–
1990	0	20	174	19,842	4,181	126	692	56,954	5	81,974	23,233	(s)	–	1	–
1991	0	16	145	18,774	3,413	135	619	55,187	50	78,324	18,417	(s)	–	1	–
1992	0	16	343	18,860	4,479	120	631	57,667	44	82,144	22,383	(s)	–	R 1	–
1993	0	19	395	19,033	6,569	147	643	60,286	15	87,089	24,979	(s)	–	R 1	–
1994	0	18	392	19,231	7,762	240	672	62,062	3	90,362	35,094	1	–	2	–
1995	0	18	397	21,874	8,096	135	660	63,907	2	95,070	14,750	1	–	R 3	–
1996	0	24	231	22,119	9,317	124	641	63,928	2	96,362	272	1	–	R 3	–
1997	0	23	312	22,017	9,433	113	677	65,162	4	97,718	297	1	–	2	–
			Trillion Btu												
1960	0.9	5.5	5.2	17.0	3.1	0.1	3.1	139.0	0.1	167.6	0.0	(s)	174.0	(s)	174.0
1965	0.2	23.7	5.2	25.3	6.5	0.2	2.9	166.6	0.1	206.9	0.0	(s)	230.9	(s)	230.9
1970	0.1	27.0	0.6	41.9	18.8	0.4	3.0	216.6	(s)	281.2	0.0	(s)	308.4	(s)	308.4
1975	(s)	19.7	0.4	61.9	22.2	0.4	4.9	279.5	1.2	370.5	0.0	(s)	390.2	(s)	390.2
1980	0.0	16.8	1.5	76.9	23.4	0.2	4.1	286.0	(s)	392.1	0.0	(s)	408.9	(s)	408.9
1985	0.0	10.5	0.8	88.7	27.5	0.6	3.7	299.8	0.0	421.0	0.0	(s)	431.5	(s)	431.5
1986	0.0	14.0	1.0	99.9	33.5	0.7	3.6	311.6	0.0	450.4	0.0	(s)	464.4	(s)	464.4
1987	0.0	15.8	0.9	101.9	32.1	0.4	4.1	296.8	(s)	436.4	0.0	(s)	452.2	(s)	452.2
1988	0.0	17.6	0.9	107.8	23.9	0.5	4.0	305.9	0.1	443.0	0.0	(s)	460.6	(s)	460.6
1989	0.0	18.4	0.9	114.8	24.6	0.6	4.1	309.6	0.1	454.6	R e 1.5	(s)	e 473.0	(s)	e 473.0
1990	0.0	20.3	0.9	115.6	23.6	0.5	4.2	299.2	(s)	443.9	1.8	(s)	464.2	(s)	464.2
1991	0.0	16.3	0.7	109.4	19.3	0.5	3.8	289.9	0.3	423.8	1.4	(s)	440.1	(s)	440.1
1992	0.0	16.9	1.7	109.9	25.3	0.4	3.8	302.9	0.3	444.4	1.7	(s)	461.3	(s)	461.3
1993	0.0	19.3	2.0	110.9	37.2	0.5	3.9	316.7	0.1	471.2	1.9	(s)	490.5	(s)	490.6
1994	0.0	18.7	2.0	112.0	44.0	0.9	4.1	326.0	(s)	488.9	2.7	(s)	507.6	(s)	507.6
1995	0.0	18.2	2.0	127.4	45.9	0.5	4.0	335.7	(s)	515.5	1.1	(s)	533.8	(s)	533.8
1996	0.0	25.0	1.2	128.8	52.8	0.4	3.9	335.8	(s)	523.0	(s)	(s)	548.0	(s)	548.0
1997	0.0	23.3	1.6	128.2	53.5	0.4	4.1	342.3	(s)	530.1	(s)	(s)	553.4	(s)	553.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 274. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Tennessee

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	12,138	0	12,138	7	0	(s)	0	(s)	0	8,676	0	0	0	–
1965	10,637	0	10,637	16	0	0	0	0	0	8,750	0	0	0	–
1970	14,727	0	14,727	17	0	0	0	0	0	8,067	0	0	0	–
1975	18,848	0	18,848	0	0	1,310	0	1,310	0	11,806	0	0	0	–
1980	21,679	0	21,679	1	0	406	0	406	519	8,764	0	0	0	–
1985	20,853	0	20,853	0	0	237	0	237	9,672	6,539	0	0	0	–
1986	21,051	0	21,051	0	0	232	0	232	-105	5,326	0	0	0	–
1987	20,697	0	20,697	0	0	222	0	222	-108	7,566	0	0	0	–
1988	21,010	0	21,010	(s)	0	365	0	365	3,940	4,591	0	0	0	–
1989	19,283	0	19,283	(s)	0	356	0	356	15,603	11,853	0	0	0	–
1990	20,814	0	20,814	1	0	232	0	232	14,003	9,537	0	0	0	–
1991	19,216	0	19,216	(s)	0	272	0	272	16,587	10,497	0	0	0	–
1992	20,263	0	20,263	(s)	0	225	0	225	15,654	9,590	0	0	0	–
1993	23,801	0	23,801	2	0	413	0	413	3,305	8,394	0	0	0	–
1994	21,253	0	21,253	1	0	519	0	519	11,932	10,399	0	0	0	–
1995	23,477	0	23,477	2	0	455	0	455	15,708	8,186	0	0	0	–
1996	22,963	0	22,963	1	0	460	0	460	22,924	9,900	0	0	0	–
1997	24,464	0	24,464	2	0	375	0	375	24,648	9,401	0	0	0	–
	Trillion Btu													
1960	291.8	0.0	291.8	7.5	0.0	(s)	0.0	(s)	0.0	93.4	0.0	0.0	0.0	392.6
1965	250.9	0.0	250.9	17.0	0.0	0.0	0.0	0.0	0.0	91.5	0.0	0.0	0.0	359.4
1970	332.7	0.0	332.7	17.6	0.0	0.0	0.0	0.0	0.0	84.7	0.0	0.0	0.0	435.0
1975	414.3	0.0	414.3	0.0	0.0	7.6	0.0	7.6	0.0	122.9	0.0	0.0	0.0	544.8
1980	504.1	0.0	504.1	1.1	0.0	2.4	0.0	2.4	5.7	91.0	0.0	0.0	0.0	604.3
1985	493.3	0.0	493.3	0.0	0.0	1.4	0.0	1.4	104.6	68.3	0.0	0.0	0.0	667.6
1986	501.4	0.0	501.4	0.0	0.0	1.3	0.0	1.3	-1.1	55.6	0.0	0.0	0.0	557.2
1987	495.8	0.0	495.8	0.0	0.0	1.3	0.0	1.3	-1.2	78.8	0.0	0.0	0.0	574.8
1988	506.1	0.0	506.1	0.2	0.0	2.1	0.0	2.1	42.3	47.4	0.0	0.0	0.0	598.2
1989	458.7	0.0	458.7	(s)	0.0	2.1	0.0	2.1	167.3	123.6	0.0	0.0	0.0	751.8
1990	498.1	0.0	498.1	0.6	0.0	1.4	0.0	1.4	149.5	99.2	0.0	0.0	0.0	748.8
1991	467.7	0.0	467.7	0.2	0.0	1.6	0.0	1.6	178.1	R 109.5	0.0	0.0	0.0	R 757.2
1992	493.7	0.0	493.7	0.3	0.0	1.3	0.0	1.3	167.1	99.2	0.0	0.0	0.0	761.6
1993	584.0	0.0	584.0	1.6	0.0	2.4	0.0	2.4	35.3	86.5	0.0	0.0	0.0	709.8
1994	518.0	0.0	518.0	1.1	0.0	3.0	0.0	3.0	127.4	R 107.3	0.0	0.0	0.0	R 756.7
1995	569.5	0.0	569.5	2.1	0.0	2.7	0.0	2.7	167.4	84.4	0.0	0.0	0.0	R 826.2
1996	554.0	0.0	554.0	0.6	0.0	2.7	0.0	2.7	243.5	102.3	0.0	0.0	0.0	903.1
1997	580.1	0.0	580.1	1.7	0.0	2.2	0.0	2.2	261.8	96.9	0.0	0.0	0.0	942.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 275. Energy Consumption Estimates by Source, Selected Years 1960-1997, Texas

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	1,067	2,720	6,284	3,261	24,400	10,842	3,391	73,297	3,493	91,841	22,584	55,526	294,919	0	927	–	–	-1,996	–
1965	1,146	3,068	7,811	3,457	24,854	15,365	3,459	109,109	3,788	107,851	14,322	80,151	370,167	0	661	–	–	-2,853	–
1970	1,154	4,093	11,885	2,007	32,410	24,430	7,500	151,223	4,204	141,393	14,146	100,047	489,244	0	883	–	–	4,903	–
1975	12,765	3,944	8,150	1,312	54,706	27,308	7,196	157,246	4,321	175,538	38,536	123,687	598,001	0	1,584	–	–	-5,489	–
1980	48,602	4,091	10,906	1,264	72,513	30,934	15,355	189,802	5,340	180,997	65,070	218,150	790,331	0	398	–	–	-20,069	–
1985	77,017	3,386	11,808	1,317	94,121	74,500	776	256,932	4,859	205,419	28,713	142,516	820,961	0	1,397	–	–	30,397	–
1986	79,259	3,186	13,645	1,539	86,354	80,214	678	250,171	4,751	209,513	27,842	145,157	819,865	0	1,962	–	–	40,151	–
1987	82,915	3,303	12,601	1,150	88,345	84,562	585	272,281	5,372	205,338	21,971	151,875	844,079	0	2,118	–	–	47,710	–
1988	86,644	3,531	14,434	1,013	86,408	94,793	233	292,960	5,180	208,680	24,328	165,356	893,384	3,792	1,203	–	–	42,573	–
1989	90,989	3,624	9,682	820	87,946	93,265	703	306,174	5,313	203,520	28,801	164,701	900,925	9,990	[i] NA	–	–	[R] 21,357	–
1990	91,415	3,602	14,013	838	82,338	95,903	200	293,043	5,468	205,402	27,843	178,929	903,977	15,859	NA	–	–	[R] 20,826	–
1991	92,064	3,560	9,371	655	84,708	90,674	93	320,936	4,891	198,780	28,600	179,338	918,048	19,800	NA	–	–	[R] 18,678	–
1992	91,568	3,476	11,800	783	90,279	90,029	173	333,233	4,987	200,686	30,937	193,254	956,161	24,496	NA	–	–	[R] 5,974	–
1993	96,809	3,741	12,734	693	91,759	86,961	152	322,305	5,078	207,441	22,859	188,032	938,015	12,407	NA	–	–	18,287	–
1994	93,829	3,666	10,947	773	89,545	83,397	148	358,599	5,308	218,772	21,946	197,614	987,048	28,745	NA	–	–	[R] 7,789	–
1995	92,612	3,802	11,794	645	82,610	83,002	196	370,395	5,216	213,428	22,894	190,030	980,210	36,151	NA	–	–	[R] 1,374	–
1996	98,997	3,991	11,962	625	92,763	99,870	237	405,354	5,062	226,381	20,630	206,201	1,069,086	35,767	NA	–	–	[R] 22,692	–
1997	101,296	3,951	10,509	657	86,741	105,610	364	409,462	5,348	224,997	22,550	218,074	1,084,312	37,358	NA	–	–	26,335	–
			Trillion Btu																
1960	25.0	2,815.5	41.7	16.5	142.1	58.6	19.2	294.0	21.2	482.4	142.0	331.6	1,549.3	0.0	10.0	[R] 38.3	0.0	-6.8	[R] 4,431.2
1965	29.2	3,181.5	51.8	17.5	144.8	84.3	19.6	437.6	23.0	566.5	90.0	471.5	1,906.7	0.0	6.9	[R] 41.2	0.0	-9.7	[R] 5,155.7
1970	30.8	4,203.9	78.9	10.1	188.8	135.9	42.5	571.5	25.5	742.7	88.9	582.8	2,467.7	0.0	9.3	[R] 52.2	0.0	16.7	[R] 6,780.5
1975	196.2	4,046.9	54.1	6.6	318.7	152.7	40.8	584.2	26.2	922.1	242.3	719.4	3,067.0	0.0	16.5	[R] 55.8	0.0	-18.7	[R] 7,363.7
1980	734.1	4,226.1	72.4	6.4	422.4	173.3	87.1	697.3	32.4	950.8	409.1	1,240.4	4,091.5	0.0	4.1	[R] 77.9	0.0	-68.5	[R] 9,065.3
1985	1,149.0	3,514.4	78.4	6.6	548.3	420.5	4.4	925.7	29.5	1,079.1	180.5	816.4	4,089.4	0.0	14.6	[R] 69.1	0.0	103.7	[R] 8,940.2
1986	1,162.7	3,312.9	90.5	7.8	503.0	453.0	3.8	910.6	28.8	1,100.6	175.0	835.8	4,109.1	0.0	20.5	[R] 40.3	0.0	137.0	[R] 8,782.5
1987	1,203.9	3,435.4	83.6	5.8	514.6	477.6	3.3	996.3	32.6	1,078.6	138.1	866.3	4,196.9	0.0	22.1	[R] 46.4	0.0	162.8	[R] 9,067.5
1988	1,264.1	3,665.2	95.8	5.1	503.3	535.5	1.3	1,069.9	31.4	1,096.2	153.0	945.8	4,437.3	40.7	12.4	[R] 45.7	0.0	145.3	[R] 9,610.7
1989	1,326.1	3,761.3	64.2	4.1	512.3	526.9	4.0	1,127.6	32.2	1,069.1	181.1	937.7	4,459.3	107.1	[i] 14.4	[R i] 58.7	[R i] 0.5	[R] 72.9	[R i] 9,799.9
1990	1,333.9	3,745.9	93.0	4.2	479.6	542.1	1.1	1,062.3	33.2	1,079.0	175.1	1,018.1	4,487.7	169.4	18.7	[R] 72.9	[R] 0.6	[R] 71.1	[R] 9,899.0
1991	1,333.1	3,691.8	62.2	3.3	493.4	512.8	0.5	1,159.9	29.7	1,044.2	179.8	1,019.2	4,505.0	212.7	23.2	[R] 75.5	[R] 0.6	[R] 63.7	[R] 9,900.6
1992	1,324.2	3,625.8	78.3	4.0	525.9	509.1	1.0	1,207.6	30.2	1,054.2	194.5	1,091.4	4,696.2	261.6	27.3	[R] 78.7	[R] 0.7	[R] 20.4	[R] 10,024.4
1993	1,413.2	3,846.0	84.5	3.5	534.5	492.0	0.9	1,162.2	30.8	1,089.7	143.7	1,063.2	4,605.1	132.5	18.4	[R] 78.8	[R] 0.7	62.4	[R] 10,148.4
1994	1,382.8	3,802.0	72.6	3.9	521.6	472.5	0.8	1,303.5	32.2	1,149.2	138.0	1,116.3	4,810.6	306.9	15.8	[R] 82.8	[R] 0.8	[R] 26.6	[R] 10,417.0
1995	1,361.7	3,943.2	78.3	3.3	481.2	470.5	1.1	1,341.9	31.6	1,121.1	143.9	1,073.3	4,746.3	385.3	17.6	[R] 84.8	[R] 0.8	[R] 4.7	[R] 10,531.0
1996	1,475.4	4,123.0	79.4	3.2	540.3	566.2	1.3	1,464.5	30.7	1,189.2	129.7	1,161.8	5,166.4	379.9	9.9	[R] 81.8	[R] 1.7	[R] 77.4	[R] 11,303.6
1997	1,507.1	4,061.2	69.7	3.3	505.3	598.8	2.1	1,480.6	32.4	1,181.9	141.8	1,231.1	5,247.0	396.9	24.8	82.4	1.8	89.9	11,396.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 276. Residential Energy Consumption Estimates, Selected Years 1960-1997, Texas

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	6	0	6	172	96	6	10,083	10,185	R 705	–	–	11,316	–	28,146	–
1965	2	0	2	183	71	7	13,052	13,131	R 469	–	–	18,745	–	44,755	–
1970	1	0	1	232	134	33	15,397	15,565	R 322	–	–	32,591	–	78,980	–
1975	0	0	0	232	270	39	11,419	11,728	R 378	–	–	40,892	–	98,636	–
1980	(s)	0	(s)	225	8	198	6,131	6,337	R 2,006	–	–	57,178	–	139,037	–
1985	2	0	2	213	39	112	7,262	7,414	R 1,188	–	–	71,740	–	168,547	–
1986	5	0	5	195	21	46	6,611	6,677	R 1,156	–	–	72,392	–	166,523	–
1987	10	0	10	211	82	59	7,046	7,187	R 1,506	–	–	74,369	–	169,928	–
1988	16	1	17	210	32	58	6,208	6,298	R 1,564	–	–	77,255	–	174,656	–
1989	4	1	5	230	13	49	6,534	6,596	R 1,623	–	–	79,620	–	R 178,891	–
1990	4	0	4	211	3	26	6,133	6,162	746	–	–	82,548	–	R 180,551	–
1991	4	(s)	4	222	3	34	4,040	4,078	786	–	–	84,088	–	R 183,050	–
1992	3	(s)	4	215	2	23	3,448	3,473	827	–	–	81,934	–	R 175,010	–
1993	2	(s)	2	232	3	30	3,674	3,707	725	–	–	87,686	–	185,262	–
1994	(s)	(s)	(s)	213	6	20	3,627	3,653	711	–	–	89,793	–	R 187,373	–
1995	0	0	0	206	5	22	3,319	3,346	789	–	–	92,831	–	R 193,396	–
1996	0	0	0	229	(s)	38	2,312	2,351	787	–	–	99,656	–	R 207,405	–
1997	(s)	0	(s)	235	(s)	45	2,312	2,357	573	–	–	101,094	–	209,948	–
	Trillion Btu														
1960	0.1	0.0	0.1	177.7	0.6	(s)	40.4	41.0	R 14.1	0.0	0.0	38.6	R 271.5	96.0	R 367.6
1965	(s)	0.0	(s)	189.3	0.4	(s)	52.4	52.8	R 9.4	0.0	0.0	64.0	R 315.5	152.7	R 468.2
1970	(s)	0.0	(s)	238.5	0.8	0.2	58.2	59.2	R 6.4	0.0	0.0	111.2	R 415.3	269.5	R 684.7
1975	0.0	0.0	0.0	239.2	1.6	0.2	42.4	44.2	R 7.6	0.0	0.0	139.5	R 430.5	336.5	R 767.1
1980	(s)	0.0	(s)	231.7	(s)	1.1	22.5	23.7	R 40.1	0.0	0.0	195.1	R 490.6	474.4	R 965.0
1985	0.1	0.0	0.1	221.0	0.2	0.6	26.2	27.0	R 23.8	0.0	0.0	244.8	R 516.6	575.1	R 1,091.7
1986	0.1	0.0	0.1	202.9	0.1	0.3	24.1	24.4	R 23.1	0.0	0.0	247.0	R 497.6	568.2	R 1,065.8
1987	0.2	0.0	0.2	219.6	0.5	0.3	25.8	26.6	R 30.1	0.0	0.0	253.7	R 530.3	579.8	R 1,110.1
1988	0.4	(s)	0.4	218.4	0.2	0.3	22.7	23.2	R 31.3	0.0	0.0	263.6	R 536.8	595.9	R 1,132.8
1989	0.1	(s)	0.1	239.2	0.1	0.3	24.1	24.4	R 32.5	e 0.2	R e 0.3	271.7	R e 568.4	R 610.4	R e 1,178.7
1990	0.1	0.0	0.1	219.5	(s)	0.1	22.2	22.4	14.9	0.2	0.3	281.7	R 539.1	616.0	R 1,155.1
1991	0.1	(s)	0.1	231.0	(s)	0.2	14.6	14.8	15.7	0.2	0.4	286.9	R 549.1	R 624.6	R 1,173.7
1992	0.1	(s)	0.1	225.3	(s)	0.1	12.5	12.6	16.5	0.2	0.4	279.6	R 534.7	597.1	R 1,131.9
1993	(s)	(s)	(s)	238.5	(s)	0.2	13.2	13.4	14.5	0.2	0.4	299.2	R 566.3	632.1	R 1,198.4
1994	(s)	(s)	(s)	222.5	(s)	0.1	13.2	13.3	14.2	0.2	0.4	306.4	R 557.1	639.3	R 1,196.4
1995	0.0	0.0	0.0	215.2	(s)	0.1	12.0	12.2	15.8	0.2	0.4	316.7	R 560.5	R 659.9	R 1,220.4
1996	0.0	0.0	0.0	237.7	(s)	0.2	8.4	8.6	15.7	0.3	0.5	340.0	R 602.8	707.7	R 1,310.4
1997	(s)	0.0	(s)	242.0	(s)	0.3	8.4	8.6	11.5	0.3	0.5	344.9	607.8	716.3	1,324.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 277. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Texas

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	11	0	11	60	595	656	1,779	663	191	3,884	R 13	–	R 9,801	–	R 24,378	–
1965	4	0	4	81	440	788	2,303	711	64	4,307	R 9	–	14,804	–	R 35,346	–
1970	1	0	1	146	830	3,603	2,717	692	78	7,920	R 6	–	22,869	–	55,420	–
1975	0	0	0	117	1,669	4,192	2,015	687	677	9,240	R 7	–	33,884	–	81,733	–
1980	1	0	1	169	2,842	3,251	1,082	3,299	2,569	13,043	R 48	–	44,062	–	107,144	–
1985	5	0	5	152	9,582	250	1,282	1,954	252	13,320	NA	–	60,150	–	141,317	–
1986	9	0	9	147	5,412	177	1,167	2,087	247	9,090	NA	–	61,350	–	141,122	–
1987	19	0	19	157	8,188	82	1,243	2,296	536	12,345	NA	–	62,459	–	142,715	–
1988	30	(s)	30	175	5,586	41	1,095	2,440	543	9,706	NA	–	65,511	–	148,106	–
1989	8	(s)	8	183	3,894	405	1,153	2,334	298	8,084	NA	–	67,426	–	R 151,493	–
1990	7	0	7	172	3,274	25	1,082	2,294	72	6,746	NA	–	70,781	–	R 154,813	–
1991	7	(s)	7	181	2,950	12	713	1,623	217	5,516	NA	–	72,141	–	R 157,043	–
1992	6	(s)	6	185	3,104	68	609	1,446	16	5,242	NA	–	72,076	–	R 153,955	–
1993	4	(s)	4	176	2,343	25	648	159	0	3,174	R 58	–	75,466	–	159,444	–
1994	(s)	(s)	(s)	180	2,524	29	640	160	1	3,355	R 60	–	78,058	–	R 162,885	–
1995	0	0	0	210	2,207	46	586	164	(s)	3,003	R 60	–	80,354	–	R 167,403	–
1996	0	0	0	179	2,352	38	408	163	0	2,961	R 65	–	R 83,477	–	R 173,734	–
1997	(s)	0	(s)	216	1,720	38	408	163	0	2,329	56	–	85,162	–	176,862	–
	Trillion Btu															
1960	0.2	0.0	0.2	61.8	3.5	3.7	7.1	3.5	1.2	19.0	R 0.3	0.0	33.4	R 114.7	83.2	R 197.9
1965	0.1	0.0	0.1	83.6	2.6	4.5	9.2	3.7	0.4	20.4	R 0.2	0.0	50.5	R 154.8	120.6	R 275.4
1970	(s)	0.0	(s)	150.0	4.8	20.4	10.3	3.6	0.5	39.7	R 0.1	0.0	78.0	R 267.9	189.1	R 456.9
1975	0.0	0.0	0.0	120.2	9.7	23.8	7.5	3.6	4.3	48.8	R 0.1	0.0	115.6	R 284.8	278.9	R 563.7
1980	(s)	0.0	(s)	173.7	16.6	18.4	4.0	17.3	16.2	72.4	R 1.0	0.0	150.3	R 397.5	365.6	R 763.0
1985	0.1	0.0	0.1	157.7	55.8	1.4	4.6	10.3	1.6	73.7	NA	0.0	205.2	436.7	482.2	918.9
1986	0.2	0.0	0.2	153.2	31.5	1.0	4.2	11.0	1.6	49.3	NA	0.0	209.3	412.1	481.5	893.6
1987	0.4	0.0	0.4	163.1	47.7	0.5	4.5	12.1	3.4	68.1	NA	0.0	213.1	444.8	486.9	931.8
1988	0.7	(s)	0.7	182.4	32.5	0.2	4.0	12.8	3.4	53.0	NA	0.0	223.5	459.6	505.3	965.0
1989	0.2	(s)	0.2	189.9	22.7	2.3	4.2	12.3	1.9	43.4	NA	[e] (s)	230.1	463.5	R 516.9	R 980.4
1990	0.2	0.0	0.2	179.6	19.1	0.1	3.9	12.0	0.5	35.6	NA	(s)	241.5	456.9	528.2	985.1
1991	0.2	(s)	0.2	188.2	17.2	0.1	2.6	8.5	1.4	29.7	NA	0.1	246.1	R 464.3	R 535.8	1000.1
1992	0.1	(s)	0.1	193.8	18.1	0.4	2.2	7.6	0.1	28.4	NA	0.1	245.9	468.3	525.3	R 993.6
1993	0.1	(s)	0.1	181.1	13.6	0.1	2.3	0.8	0.0	17.0	R 1.2	0.1	257.5	R 456.8	544.0	1,000.9
1994	(s)	(s)	(s)	187.9	14.7	0.2	2.3	0.8	(s)	18.0	R 1.2	0.1	266.3	R 473.6	R 555.8	1,029.4
1995	0.0	0.0	0.0	218.5	12.9	0.3	2.1	0.9	(s)	16.1	R 1.2	0.1	274.2	510.0	R 571.2	1081.2
1996	0.0	0.0	0.0	185.1	13.7	0.2	1.5	0.9	0.0	16.2	R 1.3	0.2	284.8	487.6	592.8	1,080.4
1997	(s)	0.0	(s)	222.8	10.0	0.2	1.5	0.9	0.0	12.6	1.1	0.2	290.6	527.2	603.5	1,130.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 278. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Texas

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	1,031	2,029	6,284	10,118	2,729	59,411	1,712	3,798	4,615	55,526	144,194	0	–	–	14,602	–	36,320	–
1965	1,136	2,098	7,811	8,519	2,663	89,166	1,974	2,563	1,879	80,151	194,725	0	–	–	23,685	–	56,550	–
1970	1,150	2,557	11,885	8,947	3,863	127,521	2,581	1,410	2,297	100,047	258,551	0	–	–	40,274	–	97,598	–
1975	3,720	2,160	8,150	15,301	2,965	138,844	2,583	997	11,070	123,687	303,596	5	–	–	54,712	–	131,973	–
1980	3,250	2,163	10,906	20,250	11,906	181,940	3,431	470	16,029	218,150	463,082	0	–	–	78,190	–	190,131	–
1985	5,192	1,732	11,808	27,327	414	247,779	3,122	4,704	5,969	142,516	443,638	0	–	–	81,235	–	190,854	–
1986	4,488	1,655	13,645	27,484	455	241,630	3,052	4,542	1,680	145,157	437,646	0	–	–	79,527	–	182,935	–
1987	4,083	1,805	12,601	26,272	444	263,540	3,451	4,224	1,344	151,875	463,750	0	–	–	79,238	–	181,052	–
1988	3,708	1,994	14,434	27,628	134	285,193	3,328	4,123	1,040	165,356	501,236	0	–	–	81,579	–	184,432	–
1989	4,275	2,080	9,682	25,161	248	298,034	3,413	4,517	507	164,701	506,264	[f] NA	–	–	82,615	–	[R] 185,621	–
1990	4,157	2,105	14,013	25,890	149	285,349	3,513	4,336	1,291	178,929	513,468	NA	–	–	84,087	–	[R] 183,917	–
1991	4,198	2,070	9,371	23,134	47	315,838	3,142	4,618	1,101	179,338	536,588	NA	–	–	84,122	–	[R] 183,124	–
1992	4,225	2,028	11,800	23,048	82	328,866	3,204	4,338	822	193,254	565,415	NA	–	–	85,421	–	[R] 182,460	–
1993	4,667	2,179	12,734	22,326	97	317,635	3,262	3,438	2,444	187,713	549,650	NA	–	–	86,933	–	183,672	–
1994	5,350	2,128	10,947	18,918	99	353,718	3,410	3,750	2,424	197,612	590,878	NA	–	–	90,329	–	[R] 188,493	–
1995	4,255	2,257	11,794	16,503	128	366,168	3,351	3,944	2,497	190,030	594,416	NA	–	–	90,093	–	[R] 187,692	–
1996	4,808	2,469	11,962	20,353	161	402,344	3,252	4,040	2,127	206,201	650,441	NA	–	–	95,308	–	[R] 198,357	–
1997	4,759	2,361	10,509	15,620	282	406,477	3,436	4,236	1,886	218,074	660,520	NA	–	–	100,429	–	208,566	–
			Trillion Btu															
1960	24.4	2,100.3	41.7	58.9	15.5	238.3	10.4	19.9	29.0	331.6	745.4	0.0	[R] 23.9	0.0	49.8	[R] 2,943.8	123.9	[R] 3,067.8
1965	29.0	2,175.3	51.8	49.6	15.1	357.6	12.0	13.5	11.8	471.5	982.9	0.0	[R] 30.7	0.0	80.8	[R] 3,298.8	192.9	[R] 3,491.7
1970	30.7	2,626.3	78.9	52.1	21.9	481.9	15.7	7.4	14.4	582.8	1,255.1	0.0	[R] 44.6	0.0	137.4	[R] 4,094.1	333.0	[R] 4,427.1
1975	77.7	2,224.0	54.1	89.1	16.8	515.8	15.7	5.2	69.6	719.4	1,485.8	0.1	[R] 47.2	0.0	186.7	[R] 4,021.3	450.3	[R] 4,471.6
1980	63.3	2,229.7	72.4	118.0	67.5	668.4	20.8	2.5	100.8	1,240.4	2,290.7	0.0	[R] 36.0	0.0	266.8	[R] 4,886.6	648.7	[R] 5,535.3
1985	85.4	1,799.3	78.4	159.2	2.3	892.7	18.9	24.7	37.5	816.4	2,030.2	0.0	[R] 42.2	0.0	277.2	[R] 4,234.3	651.2	[R] 4,885.5
1986	72.2	1,726.0	90.5	160.1	2.6	879.5	18.5	23.9	10.6	835.8	2,021.5	0.0	[R] 13.9	0.0	271.3	[R] 4,105.0	624.2	[R] 4,729.2
1987	61.9	1,881.7	83.6	153.0	2.5	964.3	20.9	22.2	8.4	866.3	2,121.4	0.0	[R] 13.9	0.0	270.4	[R] 4,349.2	617.7	[R] 4,966.9
1988	52.2	2,074.2	95.8	160.9	0.8	1,041.5	20.2	21.7	6.5	945.8	2,293.1	0.0	[R] 14.4	0.0	278.3	[R] 4,712.3	629.3	[R] 5,341.6
1989	62.3	2,162.2	64.2	146.6	1.4	1,097.7	20.7	23.7	3.2	937.7	2,295.1	[f] 0.0	[R f] 23.9	[f] 0.0	281.9	[R f] 4,825.3	[R] 633.3	[R f] 5,458.7
1990	61.5	2,193.7	93.0	150.8	0.8	1,034.4	21.3	22.8	8.1	1,018.1	2,349.4	0.0	[R] 54.6	0.0	286.9	[R] 4,946.1	627.5	[R] 5,573.6
1991	63.2	2,152.2	62.2	134.8	0.3	1,141.4	19.1	24.3	6.9	1,019.2	2,408.1	0.0	[R] 56.6	0.0	287.0	[R] 4,967.1	[R] 624.8	[R] 5,591.9
1992	60.5	2,128.3	78.3	134.3	0.5	1,191.8	19.4	22.8	5.2	1,091.4	2,543.7	0.0	[R] 58.8	0.0	291.5	[R] 5,082.7	[R] 622.6	[R] 5,705.3
1993	70.9	2,241.5	84.5	130.1	0.6	1,145.4	19.8	18.1	15.4	1,061.3	2,475.0	0.0	[R] 59.6	0.0	296.6	[R] 5,143.6	626.7	[R] 5,770.3
1994	82.8	2,218.4	72.6	110.2	0.6	1,285.8	20.7	19.7	15.2	1,116.3	2,641.1	0.0	[R] 63.1	0.0	308.2	[R] 5,313.6	643.1	[R] 5,956.7
1995	63.7	2,352.8	78.3	96.1	0.7	1,326.6	20.3	20.7	15.7	1,073.3	2,631.8	0.0	[R] 64.0	0.0	307.4	[R] 5,419.7	[R] 640.4	[R] 6,060.1
1996	73.8	2,558.9	79.4	118.6	0.9	1,453.7	19.7	21.2	13.4	1,161.8	2,868.6	0.1	[R] 63.3	0.9	325.2	[R] 5,890.7	676.8	[R] 6,567.5
1997	74.0	2,431.0	69.7	91.0	1.6	1,469.8	20.8	22.3	11.9	1,231.1	2,918.2	6.4	66.3	0.8	342.7	5,839.4	711.6	6,551.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 279. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Texas

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1965	4	68	3,457	15,810	15,365	4,588	1,814	104,577	12,346	157,957	0	4	–	R 10	–
1966	3	68	3,012	14,122	17,646	4,851	1,884	110,564	11,902	163,981	0	0	–	0	–
1967	2	72	2,671	15,017	21,162	4,815	1,659	115,177	12,062	172,564	0	0	–	0	–
1968	2	85	2,223	17,658	24,253	5,450	1,822	124,375	11,869	187,650	0	0	–	0	–
1969	2	86	2,187	20,721	25,101	5,678	1,593	131,667	12,058	199,005	0	0	–	0	–
1970	2	96	2,007	22,454	24,430	5,587	1,623	139,292	11,667	207,059	0	0	–	0	–
1971	1	99	1,998	24,245	25,067	6,366	1,627	146,499	9,832	215,634	0	0	–	0	–
1975	1	82	1,312	37,391	27,308	4,969	1,738	173,854	25,049	271,622	0	0	–	0	–
1980	0	105	1,264	48,286	30,934	649	1,909	177,228	45,812	306,082	0	0	–	0	–
1985	0	92	1,317	56,398	74,500	609	1,738	198,761	21,610	354,933	0	0	–	0	–
1986	0	82	1,539	52,964	80,214	764	1,699	202,884	25,541	365,605	0	0	–	0	–
1987	0	81	1,150	53,300	84,562	452	1,921	198,817	19,522	359,724	0	0	–	0	–
1988	0	108	1,013	52,508	94,793	464	1,852	202,116	22,015	374,760	0	0	–	0	–
1989	0	107	820	56,560	93,265	452	1,900	196,670	26,059	375,726	R e 5,079	0	–	0	–
1990	0	106	838	52,471	95,903	479	1,955	198,773	26,227	376,646	5,865	0	–	0	–
1991	0	82	655	58,273	90,674	345	1,749	192,539	27,179	371,414	4,649	0	–	0	–
1992	0	81	783	63,829	90,029	310	1,783	194,901	29,922	381,557	5,651	0	–	0	–
1993	0	82	693	66,848	86,961	348	1,816	203,844	20,088	380,598	6,306	(s)	–	(s)	–
1994	0	96	773	67,876	83,397	614	1,898	214,861	19,178	388,597	15,489	0	0	0	0
1995	0	82	645	63,563	83,002	322	1,865	209,319	20,335	379,053	50,013	0	0	0	0
1996	0	76	625	69,386	99,870	290	1,810	222,177	18,169	412,327	18,654	R 8	0	R 16	0
1997	0	82	657	69,076	105,610	264	1,912	220,599	20,640	418,758	45,545	19	0	39	0
			Trillion Btu												
1965	0.1	70.0	17.5	92.1	84.3	18.4	11.0	549.3	77.6	850.3	0.0	(s)	920.4	(s)	920.4
1966	0.1	70.5	15.2	82.3	97.2	19.5	11.4	580.8	74.8	881.1	0.0	0.0	951.7	0.0	951.7
1967	(s)	75.5	13.5	87.5	116.8	18.5	10.1	605.0	75.8	927.2	0.0	0.0	1,002.8	0.0	1,002.8
1968	(s)	88.3	11.2	102.9	133.9	20.8	11.1	653.3	74.6	1,007.8	0.0	0.0	1,096.2	0.0	1,096.2
1969	(s)	89.6	11.0	120.7	139.2	21.6	9.7	691.6	75.8	1,069.7	0.0	0.0	1,159.3	0.0	1,159.3
1970	(s)	98.8	10.1	130.8	135.9	21.1	9.8	731.7	73.3	1,112.9	0.0	0.0	1,211.7	0.0	1,211.7
1971	(s)	101.8	10.1	141.2	139.4	24.0	9.9	769.6	61.8	1,156.0	0.0	0.0	1,257.8	0.0	1,257.8
1975	(s)	84.6	6.6	217.8	152.7	18.5	10.5	913.3	157.5	1,476.8	0.0	0.0	1,561.4	0.0	1,561.4
1980	0.0	108.1	6.4	281.3	173.3	2.4	11.6	931.0	288.0	1,693.9	0.0	0.0	1,801.9	0.0	1,801.9
1985	0.0	95.6	6.6	328.5	420.5	2.2	10.5	1,044.1	135.9	1,948.4	0.0	0.0	2,044.0	0.0	2,044.0
1986	0.0	85.2	7.8	308.5	453.0	2.8	10.3	1,065.8	160.6	2,008.7	0.0	0.0	2,093.9	0.0	2,093.9
1987	0.0	84.4	5.8	310.5	477.6	1.7	11.6	1,044.4	122.7	1,974.3	0.0	0.0	2,058.7	0.0	2,058.7
1988	0.0	111.8	5.1	305.9	535.5	1.7	11.2	1,061.7	138.4	2,059.5	0.0	0.0	2,171.4	0.0	2,171.4
1989	0.0	111.4	4.1	329.5	526.9	1.7	11.5	1,033.1	163.8	2,070.7	R e 0.4	0.0	e 2,182.1	0.0	e 2,182.1
1990	0.0	110.5	4.2	305.6	542.1	1.7	11.9	1,044.2	164.9	2,074.6	0.4	0.0	2,185.2	0.0	2,185.2
1991	0.0	85.2	3.3	339.4	512.8	1.2	10.6	1,011.4	170.9	2,049.7	0.4	0.0	2,134.9	0.0	2,134.9
1992	0.0	84.9	4.0	371.8	509.1	1.1	10.8	1,023.8	188.1	2,108.7	0.4	0.0	2,193.6	0.0	2,193.6
1993	0.0	84.6	3.5	389.4	492.0	1.3	11.0	1,070.8	126.3	2,094.3	0.5	(s)	2,178.9	(s)	2,178.9
1994	0.0	99.8	3.9	395.4	472.5	2.2	11.5	1,128.7	120.6	2,134.7	1.2	0.0	2,234.5	0.0	2,234.5
1995	0.0	85.4	3.3	370.3	470.5	1.2	11.3	1,099.6	127.8	2,083.9	3.8	0.0	2,169.2	0.0	2,169.2
1996	0.0	78.4	3.2	404.2	566.2	1.0	11.0	1,167.1	114.2	2,266.9	1.4	(s)	2,345.3	R 0.1	2,345.3
1997	0.0	84.6	3.3	402.4	598.8	1.0	11.6	1,158.8	129.8	2,305.6	3.5	0.1	2,390.2	0.1	2,390.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

Table 280. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Texas

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	407	43	18	0	61	0	927	0	0	0	–
1965	0	0	0	640	33	14	0	47	0	661	87	0	0	–
1970	0	0	0	1,062	104	45	0	149	0	883	97	0	0	–
1975	9,044	0	9,044	1,353	1,740	75	0	1,815	0	1,579	89	0	0	–
1980	45,351	0	45,351	1,430	660	1,126	0	1,786	0	398	79	0	0	–
1985	71,818	0	71,818	1,198	881	775	0	1,657	0	1,397	300	0	0	–
1986	74,757	0	74,757	1,107	373	473	0	847	0	1,962	308	0	0	–
1987	78,802	0	78,802	1,050	570	503	0	1,073	0	2,118	233	0	0	–
1988	82,889	0	82,889	1,044	730	654	0	1,384	3,792	1,203	0	0	0	–
1989	86,701	0	86,701	1,024	1,937	2,318	0	4,255	9,990	R 1,381	189	0	(s)	–
1990	87,248	0	87,248	1,007	254	701	0	954	15,859	1,794	279	0	(s)	–
1991	87,856	0	87,856	1,005	104	348	0	452	19,800	2,225	276	0	(s)	–
1992	87,333	0	87,333	968	177	296	0	473	24,496	2,638	281	0	(s)	–
1993	92,135	0	92,135	1,073	328	239	319	885	12,407	1,786	295	0	(s)	–
1994	88,479	0	88,479	1,049	343	220	2	565	28,745	1,530	303	0	(s)	–
1995	88,358	0	88,358	1,047	62	331	0	393	36,151	1,703	0	0	(s)	–
1996	94,190	0	94,190	1,039	335	672	0	1,006	35,767	954	0	0	(s)	–
1997	96,537	0	96,537	1,057	24	325	0	349	37,358	1,785	0	0	(s)	–
	Trillion Btu													
1960	0.0	0.0	0.0	421.6	0.3	0.1	0.0	0.4	0.0	10.0	0.0	0.0	0.0	431.9
1965	0.0	0.0	0.0	663.2	0.2	0.1	0.0	0.3	0.0	6.9	0.9	0.0	0.0	671.3
1970	0.0	0.0	0.0	1,090.3	0.7	0.3	0.0	0.9	0.0	9.3	1.0	0.0	0.0	1,101.5
1975	118.5	0.0	118.5	1,379.0	10.9	0.4	0.0	11.4	0.0	16.4	0.9	0.0	0.0	1,526.3
1980	670.8	0.0	670.8	1,482.9	4.2	6.6	0.0	10.7	0.0	4.1	0.8	0.0	0.0	2,169.4
1985	1,063.4	0.0	1,063.4	1,240.7	5.5	4.5	0.0	10.1	0.0	14.6	3.1	0.0	0.0	2,331.9
1986	1,090.2	0.0	1,090.2	1,145.6	2.3	2.8	0.0	5.1	0.0	20.5	3.2	0.0	0.0	2,264.5
1987	1,141.4	0.0	1,141.4	1,086.5	3.6	2.9	0.0	6.5	0.0	22.1	2.4	0.0	0.0	2,258.9
1988	1,210.8	0.0	1,210.8	1,078.4	4.6	3.8	0.0	8.4	40.7	12.4	0.0	0.0	0.0	2,350.8
1989	1,263.5	0.0	1,263.5	1,058.6	12.2	13.5	0.0	25.7	107.1	14.4	2.0	0.0	(s)	2,471.3
1990	1,272.2	0.0	1,272.2	1,042.6	1.6	4.1	0.0	5.7	169.4	18.7	2.9	0.0	(s)	2,510.8
1991	1,269.6	0.0	1,269.6	1,035.2	0.7	2.0	0.0	2.7	212.7	23.2	2.9	0.0	(s)	R 2,541.6
1992	1,263.5	0.0	1,263.5	993.3	1.1	1.7	0.0	2.8	261.6	27.3	2.9	0.0	(s)	2,541.5
1993	1,342.2	0.0	1,342.2	1,100.4	2.1	1.4	1.9	5.4	132.5	18.4	3.0	0.0	(s)	2,593.7
1994	1,299.9	0.0	1,299.9	1,073.3	2.2	1.3	(s)	3.5	306.9	15.8	3.1	0.0	(s)	R 2,692.6
1995	1,298.1	0.0	1,298.1	1,071.4	0.4	1.9	0.0	2.3	385.3	17.6	0.0	0.0	(s)	2,765.1
1996	1,401.6	0.0	1,401.6	1,063.1	2.1	3.9	0.0	6.0	379.9	9.9	0.0	0.0	(s)	2,849.9
1997	1,433.1	0.0	1,433.1	1,080.9	0.2	1.9	0.0	2.0	396.9	18.4	0.0	0.0	(s)	2,919.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 281. Energy Consumption Estimates by Source, Selected Years 1960-1997, Utah

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	3,451	70	813	595	3,775	1,003	36	452	214	7,813	5,715	1,820	22,235	0	304	–	–	2,036	–
1965	2,857	108	838	383	4,193	1,244	474	677	251	9,001	5,662	2,046	24,769	0	913	–	–	3,082	–
1970	3,025	122	1,576	178	5,107	1,808	250	939	256	12,308	4,656	2,163	29,241	0	741	–	–	8,216	–
1975	4,636	124	1,219	161	9,165	1,903	146	1,169	232	15,063	4,603	2,702	36,362	0	1,074	–	–	8,635	–
1980	7,106	115	1,477	139	8,401	2,637	102	1,301	299	15,534	3,495	2,729	36,113	0	821	–	–	-278	–
1985	8,303	115	1,576	94	5,941	3,808	31	1,486	272	16,240	431	2,231	32,111	0	1,019	–	–	-4,107	–
1986	8,112	105	1,295	110	7,312	4,335	24	1,542	266	17,541	360	2,123	34,907	0	1,413	–	–	-8,321	–
1987	11,807	99	1,429	99	6,768	4,969	30	1,652	301	17,623	357	2,379	35,607	0	893	–	–	-36,251	–
1988	14,513	109	1,069	112	7,328	4,977	25	1,432	290	18,148	288	2,747	36,418	0	593	–	–	-40,295	–
1989	15,044	114	1,671	106	6,179	5,095	11	1,386	298	17,311	252	2,879	35,188	0	[i] NA	–	–	[R] -40,485	–
1990	15,738	117	1,378	106	7,339	5,281	13	1,074	307	16,724	372	2,883	35,476	0	NA	–	–	[R] -45,031	–
1991	14,834	133	2,870	118	7,789	5,917	17	747	274	17,395	201	2,508	37,836	0	NA	–	–	[R] -40,469	–
1992	15,719	123	1,633	133	8,062	5,607	4	696	280	17,905	248	2,999	37,566	0	NA	–	–	-45,594	–
1993	15,848	138	1,730	114	8,000	5,518	9	779	285	18,837	288	2,691	38,250	0	NA	–	–	-47,181	–
1994	16,216	137	1,819	88	8,401	5,270	9	784	298	19,433	349	2,724	39,173	0	NA	–	–	[R] -47,199	–
1995	15,307	157	2,179	64	9,164	5,658	6	1,531	292	20,771	299	2,619	42,582	0	NA	–	–	[R] -39,743	–
1996	15,237	161	2,361	52	9,921	6,303	9	2,689	284	21,170	88	3,142	46,020	0	NA	–	–	[R] -36,075	–
1997	15,923	165	1,992	60	11,260	6,277	12	2,716	300	22,024	152	3,120	47,914	0	NA	–	–	-38,430	–
			Trillion Btu																
1960	91.0	72.4	5.4	3.0	22.0	5.4	0.2	1.8	1.3	41.0	35.9	10.9	127.0	0.0	3.3	[R] 2.2	0.0	6.9	[R] 302.9
1965	75.5	99.8	5.6	1.9	24.4	6.8	2.7	2.7	1.5	47.3	35.6	12.3	140.8	0.0	9.5	[R] 2.0	0.0	10.5	[R] 338.1
1970	78.8	114.4	10.5	0.9	29.8	10.0	1.4	3.5	1.6	64.7	29.3	13.0	164.5	0.0	7.8	[R] 2.3	0.0	28.0	[R] 395.8
1975	115.7	118.0	8.1	0.8	53.4	10.6	0.8	4.3	1.4	79.1	28.9	16.2	203.7	0.0	11.2	[R] 2.9	0.0	29.5	[R] 480.9
1980	168.3	125.0	9.8	0.7	48.9	14.6	0.6	4.8	1.8	81.6	22.0	16.4	201.2	0.0	8.5	[R] 4.6	0.0	-0.9	[R] 506.6
1985	199.4	123.8	10.5	0.5	34.6	21.3	0.2	5.4	1.7	85.3	2.7	13.7	175.8	0.0	10.6	[R] 6.2	2.3	-14.0	[R] 504.1
1986	189.0	99.7	8.6	0.6	42.6	24.3	0.1	5.6	1.6	92.1	2.3	13.3	191.1	0.0	14.8	[R] 6.4	3.6	-28.4	[R] 476.2
1987	273.8	106.9	9.5	0.5	39.4	27.9	0.2	6.0	1.8	92.6	2.2	14.6	194.8	0.0	9.3	[R] 3.9	3.5	-123.7	[R] 468.5
1988	338.0	117.8	7.1	0.6	42.7	28.0	0.1	5.2	1.8	95.3	1.8	16.7	199.3	0.0	6.1	[R] 4.0	3.7	-137.5	[R] 531.4
1989	345.5	123.4	11.1	0.5	36.0	28.6	0.1	5.1	1.8	90.9	1.6	17.3	193.1	0.0	[i] 5.9	[R i] 4.0	[R i] 4.1	[R] -138.1	[R i] 537.9
1990	366.3	126.9	9.1	0.5	42.7	29.7	0.1	3.9	1.9	87.9	2.3	17.4	195.5	0.0	5.1	[R] 4.0	[R] 3.7	-153.6	[R] 547.9
1991	345.0	142.5	19.0	0.6	45.4	33.2	0.1	2.7	1.7	91.4	1.3	15.2	210.6	0.0	6.4	[R] 4.2	[R] 4.4	-138.1	[R] 574.9
1992	362.6	132.2	10.8	0.7	47.0	31.5	(s)	2.5	1.7	94.1	1.6	18.0	207.8	0.0	6.2	[R] 4.4	[R] 4.3	-155.6	[R] 562.0
1993	368.4	149.1	11.5	0.6	46.6	31.1	0.1	2.8	1.7	98.9	1.8	16.3	211.3	0.0	8.9	[R] 4.5	[R] 3.6	-161.0	[R] 584.7
1994	376.5	146.3	12.1	0.4	48.9	29.7	(s)	2.8	1.8	102.1	2.2	16.4	216.5	0.0	7.7	[R] 5.0	[R] 4.6	[R] -161.0	[R] 595.6
1995	357.2	166.7	14.5	0.3	53.4	31.8	(s)	5.5	1.8	109.1	1.9	15.8	234.2	0.0	10.0	[R] 5.5	[R] 3.5	-135.6	[R] 641.3
1996	355.0	167.8	15.7	0.3	57.8	35.7	0.1	9.7	1.7	111.2	0.6	18.9	251.6	0.0	10.8	[R] 5.6	[R] 4.6	-123.1	[R] 672.2
1997	365.5	172.1	13.2	0.3	65.6	35.6	0.1	9.8	1.8	115.7	1.0	18.7	261.8	0.0	14.0	4.6	4.1	-131.1	691.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 282. Residential Energy Consumption Estimates, Selected Years 1960-1997, Utah

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	87	0	87	23	100	1	249	349	R 92	–	–	1,012	–	2,518	–
1965	63	0	63	31	98	20	505	624	R 79	–	–	1,243	–	2,969	–
1970	38	0	38	45	143	6	694	844	R 87	–	–	1,688	–	4,091	–
1975	46	0	46	60	357	4	564	925	R 101	–	–	2,493	–	6,013	–
1980	83	0	83	58	112	0	349	460	R 189	–	–	3,116	–	7,577	–
1985	88	0	88	59	74	10	631	715	R 269	–	–	3,985	–	9,362	–
1986	67	0	67	58	75	4	624	703	R 262	–	–	3,989	–	9,175	–
1987	43	0	43	42	101	9	648	758	R 135	–	–	3,980	–	9,094	–
1988	68	(s)	69	42	131	6	634	772	R 141	–	–	4,151	–	9,385	–
1989	81	0	81	45	183	5	467	655	R 146	–	–	4,163	–	R 9,352	–
1990	93	0	93	43	137	5	424	566	148	–	–	4,246	–	9,287	–
1991	107	(s)	107	51	161	5	415	581	156	–	–	4,460	–	R 9,709	–
1992	78	0	78	45	115	2	334	452	164	–	–	4,505	–	R 9,624	–
1993	42	0	42	52	148	3	202	354	156	–	–	4,726	–	9,985	–
1994	37	(s)	37	49	113	5	162	280	153	–	–	5,009	–	R 10,452	–
1995	27	0	27	49	84	3	210	296	R 170	–	–	5,041	–	R 10,501	–
1996	33	0	33	54	100	4	251	355	R 170	–	–	5,481	–	11,408	–
1997	43	0	43	58	117	5	251	372	124	–	–	5,661	–	11,756	–
	Trillion Btu														
1960	2.3	0.0	2.3	23.4	0.6	(s)	1.0	1.6	R 1.8	0.0	0.0	3.5	R 32.5	8.6	R 41.1
1965	1.6	0.0	1.6	28.4	0.6	0.1	2.0	2.7	R 1.6	0.0	0.0	4.2	R 38.5	10.1	R 48.7
1970	1.0	0.0	1.0	41.9	0.8	(s)	2.6	3.5	R 1.7	0.0	0.0	5.8	R 53.8	14.0	R 67.8
1975	1.1	0.0	1.1	56.8	2.1	(s)	2.1	4.2	R 2.0	0.0	0.0	8.5	R 72.6	20.5	R 93.1
1980	1.9	0.0	1.9	62.9	0.6	0.0	1.3	1.9	R 3.8	0.0	0.0	10.6	R 81.2	25.9	R 107.1
1985	2.1	0.0	2.1	63.1	0.4	0.1	2.3	2.8	R 5.4	0.0	0.0	13.6	R 86.9	31.9	R 118.9
1986	1.6	0.0	1.6	54.6	0.4	(s)	2.3	2.7	R 5.2	0.0	0.0	13.6	R 77.8	31.3	R 109.1
1987	1.0	0.0	1.0	44.9	0.6	0.1	2.4	3.0	R 2.7	0.0	0.0	13.6	R 65.2	31.0	R 96.2
1988	1.6	(s)	1.6	45.7	0.8	(s)	2.3	3.1	R 2.8	0.0	0.0	14.2	R 67.3	32.0	R 99.4
1989	1.8	0.0	1.8	49.1	1.1	(s)	1.7	2.8	R 2.9	[e] 0.1	R [e] (s)	14.2	R [e] 71.0	31.9	R [e] 102.9
1990	2.2	0.0	2.2	47.3	0.8	(s)	1.5	2.4	3.0	0.1	(s)	14.5	69.3	31.7	101.0
1991	2.5	(s)	2.5	54.3	0.9	(s)	1.5	2.5	3.1	0.1	(s)	15.2	77.6	33.1	R 110.8
1992	1.8	0.0	1.8	48.2	0.7	(s)	1.2	1.9	3.3	0.1	(s)	15.4	70.6	32.8	R 103.5
1993	1.0	0.0	1.0	56.0	0.9	(s)	0.7	1.6	3.1	0.1	(s)	16.1	R 77.9	34.1	R 112.0
1994	0.9	(s)	0.9	52.3	0.7	(s)	0.6	1.3	3.1	0.1	(s)	17.1	R 74.7	35.7	110.3
1995	0.6	0.0	0.6	52.1	0.5	(s)	0.8	1.3	3.4	0.1	(s)	17.2	R 74.7	35.8	R 110.5
1996	0.8	0.0	0.8	56.7	0.6	(s)	0.9	1.5	3.4	0.1	(s)	18.7	81.1	38.9	R 120.1
1997	1.0	0.0	1.0	60.6	0.7	(s)	0.9	1.6	2.5	0.1	(s)	19.3	85.1	40.1	125.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 283. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Utah

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	162	0	162	10	362	6	44	281	656	1,349	R 2	–	640	–	1,592	–
1965	118	0	118	16	356	148	89	234	1,072	1,899	R 1	–	1,128	–	2,693	–
1970	71	0	71	10	521	46	122	202	795	1,687	R 2	–	1,890	–	4,579	–
1975	85	0	85	6	1,300	28	99	210	1,098	2,736	R 2	–	2,479	–	5,981	–
1980	154	0	154	(s)	1,028	34	62	81	1,051	2,255	R 5	–	3,141	–	7,638	–
1985	164	0	164	9	541	19	111	88	45	804	NA	–	4,596	–	10,797	–
1986	124	0	124	5	910	6	110	90	42	1,158	NA	–	4,682	–	10,770	–
1987	81	0	81	15	736	18	114	93	113	1,075	NA	–	4,863	–	11,111	–
1988	127	(s)	127	18	697	5	112	89	47	951	NA	–	5,035	–	11,382	–
1989	150	0	150	17	459	4	82	89	14	648	NA	–	5,173	–	R 11,623	–
1990	174	0	174	16	360	5	75	96	74	610	NA	–	5,389	–	R 11,788	–
1991	198	(s)	198	19	469	8	73	82	23	656	NA	–	5,571	–	R 12,128	–
1992	145	0	145	17	470	1	59	73	21	623	NA	–	5,850	–	12,495	–
1993	79	0	79	23	366	3	36	20	55	480	R 13	–	5,920	–	12,508	–
1994	68	(s)	68	27	484	2	29	20	20	554	R 13	–	6,340	–	R 13,230	–
1995	50	0	50	27	443	1	37	21	13	515	13	–	6,462	–	R 13,463	–
1996	61	0	61	30	504	3	44	21	14	586	R 14	–	6,717	–	R 13,979	–
1997	80	0	80	31	539	4	44	21	11	619	12	–	7,285	–	15,129	–
	Trillion Btu															
1960	4.2	0.0	4.2	10.5	2.1	(s)	0.2	1.5	4.1	7.9	(s)	0.0	2.2	24.8	5.4	30.2
1965	3.0	0.0	3.0	14.4	2.1	0.8	0.4	1.2	6.7	11.2	(s)	0.0	3.8	32.5	9.2	41.7
1970	1.8	0.0	1.8	9.5	3.0	0.3	0.5	1.1	5.0	9.8	(s)	0.0	6.4	27.6	15.6	43.2
1975	2.0	0.0	2.0	5.8	7.6	0.2	0.4	1.1	6.9	16.1	(s)	0.0	8.5	R 32.4	20.4	52.8
1980	3.6	0.0	3.6	0.4	6.0	0.2	0.2	0.4	6.6	13.4	R 0.1	0.0	10.7	R 28.2	26.1	R 54.2
1985	3.9	0.0	3.9	9.1	3.1	0.1	0.4	0.5	0.3	4.4	NA	0.0	15.7	33.1	36.8	69.9
1986	2.9	0.0	2.9	4.4	5.3	(s)	0.4	0.5	0.3	6.5	NA	0.0	16.0	29.7	36.7	66.5
1987	1.9	0.0	1.9	16.0	4.3	0.1	0.4	0.5	0.7	6.0	NA	0.0	16.6	40.5	37.9	78.4
1988	2.9	(s)	2.9	19.4	4.1	(s)	0.4	0.5	0.3	5.3	NA	0.0	17.2	44.7	38.8	83.6
1989	3.4	0.0	3.4	18.0	2.7	(s)	0.3	0.5	0.1	3.6	NA	0.1	17.7	R 42.7	R 39.7	R 82.4
1990	4.0	0.0	4.0	17.7	2.1	(s)	0.3	0.5	0.5	3.4	NA	0.1	18.4	R 43.6	40.2	R 83.8
1991	4.6	(s)	4.6	20.7	2.7	(s)	0.3	0.4	0.1	3.6	NA	0.1	19.0	R 48.0	41.4	R 89.4
1992	3.3	0.0	3.3	17.9	2.7	(s)	0.2	0.4	0.1	3.5	NA	0.1	20.0	R 44.8	42.6	R 87.4
1993	1.8	0.0	1.8	24.4	2.1	(s)	0.1	0.1	0.3	2.7	R 0.3	0.1	20.2	R 49.6	42.7	R 92.2
1994	1.6	(s)	1.6	28.3	2.8	(s)	0.1	0.1	0.1	3.2	0.3	0.1	21.6	R 55.1	45.1	R 100.2
1995	1.2	0.0	1.2	28.5	2.6	(s)	0.1	0.1	0.1	2.9	0.3	0.1	22.0	R 55.0	45.9	R 101.0
1996	1.4	0.0	1.4	30.8	2.9	(s)	0.2	0.1	0.1	3.3	0.3	0.1	22.9	R 58.9	47.7	R 106.6
1997	1.8	0.0	1.8	32.4	3.1	(s)	0.2	0.1	0.1	3.5	0.2	0.2	24.9	63.0	51.6	114.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 284. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Utah

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	2,640	33	813	990	29	124	62	299	2,399	1,820	6,536	(s)	–	–	1,822	–	4,531	–
1965	2,306	57	838	1,163	305	70	101	233	2,895	2,046	7,651	3	–	–	1,404	–	3,353	–
1970	2,477	63	1,576	1,564	197	116	95	261	2,068	2,163	8,040	3	–	–	1,648	–	3,993	–
1975	2,478	55	1,219	3,356	114	495	73	266	3,285	2,702	11,511	0	–	–	2,968	–	7,159	–
1980	1,974	51	1,477	2,220	68	876	106	165	2,386	2,729	10,027	0	–	–	4,448	–	10,816	–
1985	1,726	46	1,576	1,104	3	668	96	220	360	2,231	6,259	0	–	–	4,458	–	10,473	–
1986	1,165	42	1,295	1,942	14	730	94	211	311	2,123	6,720	0	–	–	4,318	–	9,934	–
1987	507	42	1,429	1,535	3	831	106	204	244	2,379	6,731	0	–	–	4,555	–	10,407	–
1988	1,773	47	1,069	1,917	14	621	103	209	241	2,747	6,922	0	–	–	5,321	–	12,029	–
1989	1,865	50	1,671	1,543	2	780	105	195	239	2,879	7,414	[f] NA	–	–	5,629	–	[R] 12,647	–
1990	1,907	55	1,378	1,504	4	524	108	198	249	2,883	6,848	NA	–	–	5,766	–	12,612	–
1991	1,700	57	2,870	1,892	3	215	97	211	179	2,508	7,974	NA	–	–	5,876	–	[R] 12,791	–
1992	1,639	53	1,633	1,947	1	263	99	206	227	2,999	7,375	NA	–	–	6,212	–	13,268	–
1993	1,732	55	1,730	1,828	2	498	101	247	233	2,691	7,330	NA	–	–	6,221	–	13,144	–
1994	1,842	50	1,819	1,787	2	536	105	316	329	2,724	7,618	NA	–	–	6,498	–	[R] 13,559	–
1995	1,905	69	2,179	1,601	2	1,252	103	323	286	2,619	8,365	NA	–	–	6,957	–	[R] 14,494	–
1996	1,558	69	2,361	1,833	2	2,367	100	331	74	3,142	10,211	NA	–	–	7,660	–	[R] 15,942	–
1997	1,547	69	1,992	2,398	3	2,397	106	334	141	3,120	10,490	NA	–	–	7,430	–	15,430	–
			Trillion Btu															
1960	70.5	34.7	5.4	5.8	0.2	0.5	0.4	1.6	15.1	10.9	39.8	(s)	[R] 0.3	0.0	6.2	[R] 151.5	15.5	[R] 167.0
1965	61.5	52.3	5.6	6.8	1.7	0.3	0.6	1.2	18.2	12.3	46.7	(s)	[R] 0.3	0.0	4.8	[R] 165.6	11.4	[R] 177.1
1970	65.2	59.2	10.5	9.1	1.1	0.4	0.6	1.4	13.0	13.0	49.1	(s)	[R] 0.5	0.0	5.6	[R] 179.6	13.6	[R] 193.2
1975	64.7	52.3	8.1	19.6	0.6	1.8	0.4	1.4	20.7	16.2	68.8	0.0	[R] 0.8	0.0	10.1	[R] 196.8	24.4	[R] 221.2
1980	50.7	55.8	9.8	12.9	0.4	3.2	0.6	0.9	15.0	16.4	59.2	0.0	[R] 0.7	0.0	15.2	[R] 181.6	36.9	[R] 218.5
1985	44.1	49.9	10.5	6.4	(s)	2.4	0.6	1.2	2.3	13.7	37.1	0.0	[R] 0.8	0.0	15.2	[R] 147.2	35.7	[R] 182.9
1986	29.3	39.4	8.6	11.3	0.1	2.7	0.6	1.1	2.0	13.3	39.6	0.0	[R] 1.2	0.0	14.7	[R] 124.2	33.9	[R] 158.1
1987	11.2	44.9	9.5	8.9	(s)	3.0	0.6	1.1	1.5	14.6	39.3	0.0	[R] 1.2	0.0	15.5	[R] 112.1	35.5	[R] 147.6
1988	45.2	51.1	7.1	11.2	0.1	2.3	0.6	1.1	1.5	16.7	40.5	0.0	[R] 1.2	0.0	18.2	[R] 156.2	41.0	[R] 197.2
1989	47.0	54.5	11.1	9.0	(s)	2.9	0.6	1.0	1.5	17.3	43.5	[R f] 0.1	[R f] 1.0	[R f] 0.2	19.2	[R f] 165.6	[R] 43.2	[R f] 208.7
1990	48.7	60.1	9.1	8.8	(s)	1.9	0.7	1.0	1.6	17.4	40.4	0.1	[R] 1.0	[R] 0.2	19.7	[R] 170.2	43.0	[R] 213.2
1991	43.7	61.0	19.0	11.0	(s)	0.8	0.6	1.1	1.1	15.2	48.9	0.1	[R] 1.0	[R] 0.2	20.0	[R] 175.0	43.6	[R] 218.6
1992	42.0	57.7	10.8	11.3	(s)	1.0	0.6	1.1	1.4	18.0	44.3	0.2	[R] 1.1	[R] 0.2	21.2	[R] 166.6	45.3	[R] 211.9
1993	44.0	59.3	11.5	10.6	(s)	1.8	0.6	1.3	1.5	16.3	43.6	0.4	[R] 1.1	[R] 0.2	21.2	[R] 169.8	44.8	[R] 214.7
1994	46.1	53.3	12.1	10.4	(s)	1.9	0.6	1.7	2.1	16.4	45.2	0.4	[R] 1.7	[R] 0.3	22.2	[R] 169.2	46.3	[R] 215.4
1995	47.6	73.8	14.5	9.3	(s)	4.5	0.6	1.7	1.8	15.8	48.3	0.4	[R] 1.8	[R] 0.3	23.7	[R] 195.9	[R] 49.5	[R] 245.3
1996	40.0	72.3	15.7	10.7	(s)	8.6	0.6	1.7	0.5	18.9	56.6	0.3	[R] 1.9	[R] 0.3	26.1	[R] 197.4	54.4	[R] 251.8
1997	39.7	71.7	13.2	14.0	(s)	8.7	0.6	1.8	0.9	18.7	57.9	0.1	1.9	0.3	25.4	197.0	52.6	249.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 285. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Utah

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	46	(s)	595	2,312	1,003	35	152	7,232	370	11,698	0	0	–	0	–
1965	8	(s)	383	2,569	1,244	12	151	8,534	98	12,991	0	0	–	0	–
1970	4	(s)	178	2,870	1,808	6	161	11,845	25	16,893	0	0	–	0	–
1975	(s)	(s)	161	4,141	1,903	11	158	14,586	68	21,028	0	0	–	0	–
1980	0	1	139	4,974	2,637	14	194	15,288	0	23,245	0	0	–	0	–
1985	0	1	94	4,168	3,808	76	176	15,932	0	24,254	0	0	–	0	–
1986	0	1	110	4,256	4,335	78	172	17,240	0	26,191	0	0	–	0	–
1987	0	1	99	4,208	4,969	58	195	17,326	0	26,855	0	0	–	0	–
1988	0	1	112	4,480	4,977	65	188	17,849	0	27,671	0	0	–	0	–
1989	0	1	106	3,909	5,095	56	193	17,027	(s)	26,386	R e 658	0	–	0	–
1990	0	1	106	5,254	5,281	51	198	16,430	48	27,368	760	0	–	0	–
1991	0	1	118	5,184	5,917	44	177	17,102	0	28,543	602	0	–	0	–
1992	0	1	133	5,468	5,607	39	181	17,626	0	29,054	732	0	–	0	–
1993	0	3	114	5,603	5,518	43	184	18,569	0	30,031	817	0	–	0	–
1994	0	3	88	5,964	5,270	57	192	19,097	0	30,667	0	0	–	0	–
1995	0	3	64	6,975	5,658	32	189	20,428	0	33,345	0	0	–	0	–
1996	0	4	52	7,429	6,303	27	184	20,818	0	34,813	892	0	–	0	–
1997	0	3	60	8,154	6,277	24	194	21,670	0	36,379	0	0	–	0	–
			Trillion Btu												
1960	1.2	0.1	3.0	13.5	5.4	0.1	0.9	38.0	2.3	63.2	0.0	0.0	64.5	0.0	64.5
1965	0.2	0.4	1.9	15.0	6.8	(s)	0.9	44.8	0.6	70.1	0.0	0.0	70.6	0.0	70.6
1970	0.1	0.5	0.9	16.7	10.0	(s)	1.0	62.2	0.2	91.0	0.0	0.0	91.5	0.0	91.5
1975	(s)	0.3	0.8	24.1	10.6	(s)	1.0	76.6	0.4	113.6	0.0	0.0	113.8	0.0	113.8
1980	0.0	0.9	0.7	29.0	14.6	0.1	1.2	80.3	0.0	125.8	0.0	0.0	126.8	0.0	126.8
1985	0.0	1.3	0.5	24.3	21.3	0.3	1.1	83.7	0.0	131.1	0.0	0.0	132.3	0.0	132.3
1986	0.0	1.0	0.6	24.8	24.3	0.3	1.0	90.6	0.0	141.5	0.0	0.0	142.6	0.0	142.6
1987	0.0	0.9	0.5	24.5	27.9	0.2	1.2	91.0	0.0	145.3	0.0	0.0	146.2	0.0	146.2
1988	0.0	1.5	0.6	26.1	28.0	0.2	1.1	93.8	0.0	149.7	0.0	0.0	151.2	0.0	151.2
1989	0.0	1.1	0.5	22.8	28.6	0.2	1.2	89.4	(s)	142.8	R e 0.1	0.0	e 143.9	0.0	e 143.9
1990	0.0	1.0	0.5	30.6	29.7	0.2	1.2	86.3	0.3	148.9	0.1	0.0	149.8	0.0	149.8
1991	0.0	0.9	0.6	30.2	33.2	0.2	1.1	89.8	0.0	155.1	(s)	0.0	156.0	0.0	156.0
1992	0.0	1.4	0.7	31.8	31.5	0.1	1.1	92.6	0.0	157.8	0.1	0.0	159.2	0.0	159.2
1993	0.0	2.8	0.6	32.6	31.1	0.2	1.1	97.5	0.0	163.1	0.1	0.0	165.8	0.0	165.8
1994	0.0	3.1	0.4	34.7	29.7	0.2	1.2	100.3	0.0	166.6	0.0	0.0	169.6	0.0	169.6
1995	0.0	3.1	0.3	40.6	31.8	0.1	1.1	107.3	0.0	181.4	0.0	0.0	184.5	0.0	184.5
1996	0.0	3.9	0.3	43.3	35.7	0.1	1.1	109.4	0.0	189.8	0.1	0.0	193.7	0.0	193.7
1997	0.0	3.2	0.3	47.5	35.6	0.1	1.2	113.8	0.0	198.5	0.0	0.0	201.7	0.0	201.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 286. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Utah

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	515	0	515	4	2,291	12	0	2,302	0	304	0	0	0	–
1965	363	0	363	5	1,597	8	0	1,605	0	910	0	0	0	–
1970	435	0	435	4	1,768	9	0	1,777	0	738	0	0	0	–
1975	2,026	0	2,026	3	152	10	0	162	0	1,074	0	0	0	–
1980	4,895	0	4,895	5	58	67	0	126	0	821	0	0	0	–
1985	6,325	0	6,325	(s)	25	55	0	80	0	1,019	0	110	0	–
1986	6,756	0	6,756	(s)	6	129	0	135	0	1,413	0	172	0	–
1987	11,175	0	11,175	(s)	0	187	0	187	0	893	0	164	0	–
1988	12,544	0	12,544	(s)	0	103	0	103	0	593	0	174	0	–
1989	12,949	0	12,949	1	0	86	0	86	0	562	0	173	0	–
1990	13,563	0	13,563	1	0	84	0	84	0	486	0	152	0	–
1991	12,829	0	12,829	5	0	82	0	82	0	604	0	186	0	–
1992	13,857	0	13,857	7	0	62	0	62	0	580	0	186	0	–
1993	13,995	0	13,995	6	0	55	0	55	0	818	0	148	0	–
1994	14,269	0	14,269	9	0	53	0	53	0	716	0	195	0	–
1995	13,325	0	13,325	9	0	61	0	61	0	926	0	140	0	–
1996	13,585	0	13,585	4	0	55	0	55	0	1,019	0	192	0	–
1997	14,252	0	14,252	4	0	52	0	52	0	1,347	0	169	0	–
	Trillion Btu													
1960	12.8	0.0	12.8	3.8	14.4	0.1	0.0	14.5	0.0	3.3	0.0	0.0	0.0	34.4
1965	9.1	0.0	9.1	4.4	10.0	(s)	0.0	10.1	0.0	9.5	0.0	0.0	0.0	33.1
1970	10.8	0.0	10.8	3.3	11.1	0.1	0.0	11.2	0.0	7.7	0.0	0.0	0.0	33.0
1975	47.9	0.0	47.9	2.9	1.0	0.1	0.0	1.0	0.0	11.2	0.0	0.0	0.0	63.0
1980	112.1	0.0	112.1	4.9	0.4	0.4	0.0	0.8	0.0	8.5	0.0	0.0	0.0	126.3
1985	149.3	0.0	149.3	0.3	0.2	0.3	0.0	0.5	0.0	10.6	0.0	2.3	0.0	163.0
1986	155.2	0.0	155.2	0.2	(s)	0.8	0.0	0.8	0.0	14.8	0.0	3.6	0.0	174.7
1987	259.7	0.0	259.7	0.3	0.0	1.1	0.0	1.1	0.0	9.3	0.0	3.5	0.0	273.8
1988	288.3	0.0	288.3	0.2	0.0	0.6	0.0	0.6	0.0	6.1	0.0	3.7	0.0	298.9
1989	293.2	0.0	293.2	0.7	0.0	0.5	0.0	0.5	0.0	5.9	0.0	3.7	0.0	303.9
1990	311.5	0.0	311.5	0.9	0.0	0.5	0.0	0.5	0.0	5.1	0.0	3.2	0.0	321.1
1991	294.3	0.0	294.3	5.5	0.0	0.5	0.0	0.5	0.0	6.3	0.0	3.9	0.0	310.5
1992	315.5	0.0	315.5	7.1	0.0	0.4	0.0	0.4	0.0	6.0	0.0	3.9	0.0	332.8
1993	321.6	0.0	321.6	6.7	0.0	0.3	0.0	0.3	0.0	8.4	0.0	3.1	0.0	340.1
1994	327.9	0.0	327.9	9.3	0.0	0.3	0.0	0.3	0.0	7.4	0.0	4.1	0.0	349.0
1995	307.8	0.0	307.8	9.2	0.0	0.4	0.0	0.4	0.0	[R] 9.6	0.0	2.9	0.0	329.8
1996	312.8	0.0	312.8	4.2	0.0	0.3	0.0	0.3	0.0	10.5	0.0	4.0	0.0	331.9
1997	323.0	0.0	323.0	4.2	0.0	0.3	0.0	0.3	0.0	13.9	0.0	3.5	0.0	345.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 287. Energy Consumption Estimates by Source, Selected Years 1960-1997, Vermont

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	137	0	224	19	2,958	82	819	404	70	3,332	478	46	8,431	0	938	–	–	128	–
1965	105	0	171	25	4,285	79	760	450	63	3,789	910	39	10,572	0	755	–	–	1,950	–
1970	87	3	271	14	5,741	121	502	542	66	5,077	905	45	13,285	0	835	–	–	5,662	–
1975	31	4	28	11	4,642	177	317	833	56	5,698	796	90	12,647	3,561	1,013	–	–	-4,571	–
1980	22	4	43	25	4,095	155	283	666	67	5,437	471	89	11,331	2,979	1,000	–	–	807	–
1985	80	5	330	22	4,193	201	577	791	61	5,813	122	75	12,183	2,999	1,243	–	–	-801	–
1986	26	5	419	27	3,974	133	380	867	60	5,966	471	81	12,377	2,058	2,715	–	–	-2,742	–
1987	12	5	491	21	4,369	181	316	1,101	68	6,530	338	87	13,502	3,536	3,272	–	–	-8,087	–
1988	11	6	396	17	4,670	143	455	1,157	65	6,797	238	88	14,026	4,114	3,700	–	–	-9,968	–
1989	9	6	453	17	4,628	220	362	1,504	67	6,554	192	87	14,085	3,607	[i] NA	–	–	[R] -6,022	–
1990	8	7	27	15	4,045	180	223	1,401	69	6,696	241	86	12,982	3,616	NA	–	–	[R] -4,039	–
1991	12	7	527	15	4,258	162	274	1,634	62	6,772	265	0	13,970	4,108	NA	–	–	[R] -8,284	–
1992	20	8	335	15	4,993	116	230	1,912	63	6,879	280	0	14,823	3,735	NA	–	–	[R] -3,605	–
1993	6	7	31	12	5,357	124	277	1,641	64	7,096	480	0	15,082	3,372	NA	–	–	-5,939	–
1994	5	7	230	11	5,064	138	213	1,663	67	7,154	286	0	14,827	4,316	NA	–	–	[R] -4,603	–
1995	3	7	253	12	5,352	127	204	1,673	66	7,211	218	0	15,116	3,859	NA	–	–	[R] -5,918	–
1996	2	7	290	10	5,859	99	239	1,794	64	7,331	287	0	15,973	3,799	NA	–	–	[R] -9,795	–
1997	2	8	792	12	5,521	106	282	1,812	67	7,606	330	0	16,529	4,267	NA	–	–	-10,229	–
			Trillion Btu																
1960	3.5	0.0	1.5	0.1	17.2	0.4	4.6	1.6	0.4	17.5	3.0	0.3	46.7	0.0	10.1	[R] 7.9	0.0	0.4	[R] 68.7
1965	2.7	0.0	1.1	0.1	25.0	0.4	4.3	1.8	0.4	19.9	5.7	0.2	59.0	0.0	7.9	[R] 6.9	0.0	6.7	[R] 83.2
1970	2.1	2.7	1.8	0.1	33.4	0.7	2.8	2.0	0.4	26.7	5.7	0.3	73.9	0.0	8.8	[R] 6.5	0.0	19.3	[R] 113.2
1975	0.7	4.0	0.2	0.1	27.0	1.0	1.8	3.1	0.3	29.9	5.0	0.5	68.9	39.2	10.5	[R] 6.6	0.0	-15.6	[R] 114.4
1980	0.5	4.0	0.3	0.1	23.9	0.9	1.6	2.4	0.4	28.6	3.0	0.5	61.6	32.5	10.4	[R] 13.5	0.0	2.8	[R] 125.2
1985	2.0	5.0	2.2	0.1	24.4	1.1	3.3	2.8	0.4	30.5	0.8	0.4	66.0	32.4	13.0	[R] 17.1	0.0	-2.7	[R] 132.7
1986	0.7	5.0	2.8	0.1	23.1	0.7	2.2	3.2	0.4	31.3	3.0	0.4	67.2	22.2	28.4	[R] 22.3	0.0	-9.4	[R] 136.3
1987	0.3	5.1	3.3	0.1	25.5	1.0	1.8	4.0	0.4	34.3	2.1	0.5	73.0	38.1	34.1	[R] 22.2	0.0	-27.6	[R] 145.2
1988	0.3	5.5	2.6	0.1	27.2	0.8	2.6	4.2	0.4	35.7	1.5	0.5	75.6	44.2	38.2	[R] 22.5	0.0	-34.0	[R] 152.2
1989	0.2	6.1	3.0	0.1	27.0	1.2	2.1	5.5	0.4	34.4	1.2	0.5	75.4	38.7	[R i] 26.5	[R i] 20.7	[R i] (s)	[R] -20.5	[R i] 151.9
1990	0.2	6.7	0.2	0.1	23.6	1.0	1.3	5.1	0.4	35.2	1.5	0.5	68.7	38.6	24.9	[R] 9.9	(s)	-13.8	[R] 136.7
1991	0.3	7.0	3.5	0.1	24.8	0.9	1.6	5.9	0.4	35.6	1.7	0.0	74.3	44.1	30.6	[R] 10.4	(s)	[R] -28.3	[R] 142.0
1992	0.5	7.6	2.2	0.1	29.1	0.6	1.3	6.9	0.4	36.1	1.8	0.0	78.5	39.9	28.5	[R] 11.1	(s)	-12.3	[R] 150.0
1993	0.1	7.2	0.2	0.1	31.2	0.7	1.6	5.9	0.4	37.3	3.0	0.0	80.3	36.0	34.8	[R] 12.7	(s)	-20.3	[R] 154.1
1994	0.1	7.3	1.5	0.1	29.5	0.8	1.2	6.0	0.4	37.6	1.8	0.0	78.9	46.1	20.5	13.1	(s)	-15.7	153.2
1995	0.1	7.2	1.7	0.1	31.2	0.7	1.2	6.1	0.4	37.9	1.4	0.0	80.5	41.1	27.6	[R] 14.2	(s)	-20.2	[R] 155.5
1996	(s)	7.4	1.9	0.1	34.1	0.6	1.4	6.5	0.4	38.5	1.8	0.0	85.2	40.4	41.0	[R] 14.7	(s)	-33.4	[R] 162.8
1997	0.1	8.2	5.3	0.1	32.2	0.6	1.6	6.6	0.4	40.0	2.1	0.0	88.7	45.3	32.1	14.3	(s)	-34.9	167.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 288. Residential Energy Consumption Estimates, Selected Years 1960-1997, Vermont

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	0	46	46	0	2,044	701	258	3,003	R 173	–	–	451	–	1,121	–
1965	0	29	29	0	3,110	649	316	4,075	R 137	–	–	678	–	1,619	–
1970	0	17	17	1	3,873	436	356	4,665	R 105	–	–	1,216	–	2,947	–
1975	0	9	9	1	3,101	235	555	3,891	R 123	–	–	1,427	–	3,443	–
1980	0	7	7	1	2,171	230	356	2,757	R 160	–	–	1,781	–	4,331	–
1985	12	7	19	1	2,222	514	601	3,338	R 139	–	–	1,538	–	3,613	–
1986	(s)	6	6	2	1,848	291	607	2,746	R 136	–	–	1,156	–	2,659	–
1987	0	6	6	2	1,877	251	764	2,892	R 101	–	–	1,409	–	3,220	–
1988	0	5	5	2	1,941	308	906	3,155	R 105	–	–	1,572	–	3,554	–
1989	(s)	2	2	2	2,163	278	1,160	3,601	R 109	–	–	1,664	–	R 3,738	–
1990	0	4	4	2	1,930	193	1,109	3,232	99	–	–	1,809	–	3,956	–
1991	0	3	3	2	2,036	248	1,188	3,472	104	–	–	1,783	–	3,882	–
1992	0	4	4	3	2,191	210	1,424	3,825	110	–	–	1,927	–	4,116	–
1993	0	4	4	3	2,372	235	1,204	3,810	R 115	–	–	1,971	–	4,165	–
1994	2	0	2	2	2,168	183	1,227	3,578	R 113	–	–	2,009	–	4,193	–
1995	0	2	2	2	2,247	180	1,223	3,650	R 125	–	–	1,973	–	R 4,111	–
1996	0	1	1	3	2,402	203	1,314	3,919	R 125	–	–	2,006	–	R 4,175	–
1997	(s)	1	1	3	2,382	238	1,314	3,935	91	–	–	1,992	–	4,137	–
	Trillion Btu														
1960	0.0	1.1	1.1	0.0	11.9	4.0	1.0	16.9	R 3.5	0.0	0.0	1.5	R 23.0	3.8	R 26.9
1965	0.0	0.7	0.7	0.0	18.1	3.7	1.3	23.1	R 2.7	0.0	0.0	2.3	R 28.8	5.5	R 34.3
1970	0.0	0.4	0.4	1.1	22.6	2.5	1.3	26.4	R 2.1	0.0	0.0	4.1	R 34.1	10.1	R 44.1
1975	0.0	0.2	0.2	1.1	18.1	1.3	2.1	21.5	R 2.5	0.0	0.0	4.9	R 30.1	11.7	R 41.9
1980	0.0	0.1	0.1	1.3	12.6	1.3	1.3	15.3	R 3.2	0.0	0.0	6.1	R 26.0	14.8	R 40.7
1985	0.3	0.2	0.5	1.4	12.9	2.9	2.2	18.0	R 2.8	0.0	0.0	5.2	R 28.0	12.3	R 40.3
1986	(s)	0.1	0.2	1.6	10.8	1.6	2.2	14.6	R 2.7	0.0	0.0	3.9	R 23.0	9.1	R 32.1
1987	0.0	0.2	0.2	1.6	10.9	1.4	2.8	15.1	R 2.0	0.0	0.0	4.8	R 23.8	11.0	R 34.8
1988	0.0	0.1	0.1	1.8	11.3	1.7	3.3	16.4	R 2.1	0.0	0.0	5.4	R 25.8	12.1	R 37.9
1989	(s)	0.1	0.1	2.1	12.6	1.6	4.3	18.4	R 2.2	e 0.0	R e (s)	5.7	R e 28.5	R 12.8	R e 41.2
1990	0.0	0.1	0.1	2.1	11.2	1.1	4.0	16.4	2.0	0.0	(s)	6.2	26.7	13.5	40.2
1991	0.0	0.1	0.1	2.2	11.9	1.4	4.3	17.6	2.1	0.0	(s)	6.1	28.0	13.2	41.2
1992	0.0	0.1	0.1	2.5	12.8	1.2	5.2	19.1	2.2	0.0	(s)	6.6	30.5	14.0	44.5
1993	0.0	0.1	0.1	2.5	13.8	1.3	4.3	19.5	2.3	0.0	(s)	6.7	31.1	14.2	45.3
1994	(s)	0.0	(s)	2.4	12.6	1.0	4.5	18.1	R 2.3	0.0	(s)	6.9	29.7	14.3	44.0
1995	0.0	(s)	(s)	2.3	13.1	1.0	4.4	18.5	2.5	0.0	(s)	6.7	30.1	14.0	R 44.2
1996	0.0	(s)	(s)	2.6	14.0	1.2	4.7	19.9	2.5	0.0	(s)	6.8	31.8	14.2	46.1
1997	(s)	(s)	(s)	2.7	13.9	1.4	4.8	20.0	1.8	0.0	(s)	6.8	31.3	14.1	45.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 289. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Vermont

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	0	30	30	0	418	43	46	127	225	859	R 3	–	233	–	580	–
1965	0	19	19	0	636	40	56	24	422	1,177	R 3	–	303	–	723	–
1970	0	12	12	1	792	27	63	25	414	1,320	R 2	–	609	–	1,475	–
1975	0	6	6	1	634	15	98	30	373	1,149	R 2	–	709	–	1,710	–
1980	0	4	4	1	620	44	63	33	237	996	R 4	–	923	–	2,244	–
1985	22	5	27	2	530	36	106	40	24	735	NA	–	959	–	2,253	–
1986	1	4	5	2	537	60	107	40	135	880	NA	–	995	–	2,290	–
1987	0	4	4	2	652	33	135	41	92	952	NA	–	1,424	–	3,253	–
1988	0	3	3	2	691	63	160	38	61	1,013	NA	–	1,499	–	3,389	–
1989	(s)	2	2	2	722	58	205	36	84	1,105	NA	–	1,537	–	R 3,453	–
1990	0	3	3	2	563	12	196	41	121	933	NA	–	1,526	–	3,339	–
1991	0	2	2	2	700	15	210	27	131	1,084	NA	–	1,531	–	R 3,334	–
1992	0	2	2	2	816	14	251	33	106	1,221	NA	–	1,574	–	3,361	–
1993	0	2	2	2	746	34	212	6	174	1,173	R 9	–	1,614	–	3,409	–
1994	3	0	3	3	770	19	217	7	87	1,099	R 9	–	1,622	–	3,385	–
1995	0	1	1	3	670	14	216	7	72	978	R 9	–	1,647	–	R 3,431	–
1996	0	1	1	3	807	13	232	7	74	1,133	R 10	–	1,696	–	3,530	–
1997	(s)	1	1	3	877	21	232	7	113	1,249	9	–	1,759	–	3,654	–
	Trillion Btu															
1960	0.0	0.8	0.8	0.0	2.4	0.2	0.2	0.7	1.4	4.9	R 0.1	0.0	0.8	R 6.6	2.0	8.5
1965	0.0	0.5	0.5	0.0	3.7	0.2	0.2	0.1	2.7	6.9	R 0.1	0.0	1.0	R 8.5	2.5	10.9
1970	0.0	0.3	0.3	0.6	4.6	0.2	0.2	0.1	2.6	7.7	(s)	0.0	2.1	R 10.7	5.0	15.7
1975	0.0	0.1	0.1	0.8	3.7	0.1	0.4	0.2	2.3	6.6	(s)	0.0	2.4	10.0	5.8	R 15.9
1980	0.0	0.1	0.1	0.8	3.6	0.2	0.2	0.2	1.5	5.7	R 0.1	0.0	3.1	R 9.9	7.7	R 17.6
1985	0.5	0.1	0.7	1.6	3.1	0.2	0.4	0.2	0.1	4.0	NA	0.0	3.3	9.5	7.7	17.2
1986	(s)	0.1	0.1	1.7	3.1	0.3	0.4	0.2	0.8	4.9	NA	0.0	3.4	10.1	7.8	17.9
1987	0.0	0.1	0.1	1.8	3.8	0.2	0.5	0.2	0.6	5.3	NA	0.0	4.9	12.0	11.1	23.1
1988	0.0	0.1	0.1	1.9	4.0	0.4	0.6	0.2	0.4	5.5	NA	0.0	5.1	12.7	11.6	24.2
1989	(s)	(s)	(s)	2.1	4.2	0.3	0.8	0.2	0.5	6.0	NA	0.0	5.2	13.3	11.8	25.1
1990	0.0	0.1	0.1	2.0	3.3	0.1	0.7	0.2	0.8	5.0	NA	0.0	5.2	12.3	11.4	23.7
1991	0.0	0.1	0.1	2.0	4.1	0.1	0.8	0.1	0.8	5.9	NA	0.0	5.2	13.2	11.4	24.6
1992	0.0	0.1	0.1	2.3	4.8	0.1	0.9	0.2	0.7	6.6	NA	0.0	5.4	14.3	11.5	25.8
1993	0.0	0.1	0.1	2.4	4.3	0.2	0.8	(s)	1.1	6.4	R 0.2	0.0	5.5	R 14.6	11.6	R 26.2
1994	0.1	0.0	0.1	2.7	4.5	0.1	0.8	(s)	0.5	6.0	R 0.2	0.0	5.5	R 14.4	R 11.6	R 26.0
1995	0.0	(s)	(s)	2.7	3.9	0.1	0.8	(s)	0.5	5.2	R 0.2	0.0	5.6	R 13.7	11.7	R 25.5
1996	0.0	(s)	(s)	2.9	4.7	0.1	0.8	(s)	0.5	6.1	R 0.2	0.0	5.8	R 15.0	12.0	R 27.0
1997	(s)	(s)	(s)	3.1	5.1	0.1	0.8	(s)	0.7	6.8	0.2	0.0	6.0	16.1	12.5	28.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 290. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Vermont

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	41	0	224	234	75	99	2	0	252	46	931	64	–	–	191	–	474	–
1965	14	0	171	316	71	77	19	100	484	39	1,278	53	–	–	352	–	841	–
1970	3	1	271	463	39	121	17	68	466	45	1,489	62	–	–	787	–	1,907	–
1975	2	2	28	364	68	179	10	77	421	90	1,237	67	–	–	858	–	2,071	–
1980	2	2	43	501	9	245	15	19	235	89	1,155	70	–	–	1,247	–	3,032	–
1985	6	2	330	448	26	70	14	117	98	75	1,178	70	–	–	1,518	–	3,567	–
1986	3	2	419	504	30	143	14	120	336	81	1,645	70	–	–	1,576	–	3,625	–
1987	2	2	491	475	33	191	15	120	244	87	1,656	70	–	–	1,264	–	2,888	–
1988	3	2	396	578	84	79	15	123	177	88	1,541	70	–	–	1,345	–	3,040	–
1989	5	2	453	502	27	128	15	127	102	87	1,441	[f] NA	–	–	1,373	–	[R] 3,085	–
1990	1	2	27	466	17	85	16	81	116	86	895	NA	–	–	1,381	–	3,021	–
1991	7	2	527	447	11	226	14	88	131	0	1,444	NA	–	–	1,390	–	3,025	–
1992	14	2	335	508	6	226	14	90	169	0	1,349	NA	–	–	1,440	–	3,076	–
1993	0	2	31	511	8	217	14	76	306	0	1,163	NA	–	–	1,431	–	3,023	–
1994	0	2	230	347	12	199	15	84	199	0	1,085	NA	–	–	1,435	–	2,994	–
1995	0	2	253	317	10	220	15	89	146	0	1,050	NA	–	–	1,484	–	[R] 3,092	–
1996	0	2	290	331	22	231	14	90	213	0	1,193	NA	–	–	1,537	–	3,199	–
1997	0	2	792	356	23	251	15	95	217	0	1,750	NA	–	–	1,561	–	3,241	–
			Trillion Btu															
1960	1.1	0.0	1.5	1.4	0.4	0.4	(s)	0.0	1.6	0.3	5.5	0.7	[R] 4.4	0.0	0.7	[R] 12.4	1.6	[R] 14.0
1965	0.4	0.0	1.1	1.8	0.4	0.3	0.1	0.5	3.0	0.2	7.6	0.6	[R] 4.1	0.0	1.2	[R] 13.9	2.9	[R] 16.7
1970	0.1	1.1	1.8	2.7	0.2	0.5	0.1	0.4	2.9	0.3	8.8	0.6	[R] 4.3	0.0	2.7	[R] 17.6	6.5	[R] 24.1
1975	0.1	1.5	0.2	2.1	0.4	0.7	0.1	0.4	2.6	0.5	7.0	0.7	[R] 4.1	0.0	2.9	[R] 16.3	7.1	[R] 23.4
1980	(s)	1.6	0.3	2.9	0.1	0.9	0.1	0.1	1.5	0.5	6.3	0.7	[R] 9.7	0.0	4.3	[R] 22.7	10.3	[R] 33.0
1985	0.1	1.9	2.2	2.6	0.1	0.3	0.1	0.6	0.6	0.4	6.9	0.7	[R] 11.4	0.0	5.2	[R] 26.2	12.2	[R] 38.4
1986	0.1	1.7	2.8	2.9	0.2	0.5	0.1	0.6	2.1	0.4	9.7	0.7	[R] 18.7	0.0	5.4	[R] 36.2	12.4	[R] 48.6
1987	0.1	1.7	3.3	2.8	0.2	0.7	0.1	0.6	1.5	0.5	9.6	0.7	[R] 18.6	0.0	4.3	[R] 35.0	9.9	[R] 44.8
1988	0.1	1.7	2.6	3.4	0.5	0.3	0.1	0.6	1.1	0.5	9.1	0.7	[R] 19.3	0.0	4.6	[R] 35.5	10.4	[R] 45.9
1989	0.1	1.9	3.0	2.9	0.2	0.5	0.1	0.7	0.6	0.5	8.4	[R f] 1.2	[R f] 16.6	[f] 0.0	4.7	[R f] 32.8	10.5	[R f] 43.4
1990	(s)	1.9	0.2	2.7	0.1	0.3	0.1	0.4	0.7	0.5	5.0	1.5	[R] 7.0	0.0	4.7	[R] 20.1	10.3	[R] 30.4
1991	0.2	1.7	3.5	2.6	0.1	0.8	0.1	0.5	0.8	0.0	8.4	1.2	[R] 7.2	0.0	4.7	[R] 23.4	10.3	[R] 33.7
1992	0.4	1.9	2.2	3.0	(s)	0.8	0.1	0.5	1.1	0.0	7.7	1.2	[R] 7.9	0.0	4.9	[R] 24.0	10.5	[R] 34.5
1993	0.0	2.0	0.2	3.0	(s)	0.8	0.1	0.4	1.9	0.0	6.4	1.5	[R] 9.6	0.0	4.9	[R] 24.4	10.3	[R] 34.7
1994	0.0	2.0	1.5	2.0	0.1	0.7	0.1	0.4	1.2	0.0	6.1	1.5	[R] 9.9	0.0	4.9	[R] 24.4	10.2	[R] 34.7
1995	0.0	2.2	1.7	1.8	0.1	0.8	0.1	0.5	0.9	0.0	5.9	1.4	[R] 10.2	0.0	5.1	[R] 24.7	10.5	[R] 35.3
1996	0.0	2.0	1.9	1.9	0.1	0.8	0.1	0.5	1.3	0.0	6.7	[R] 1.9	[R] 10.6	0.0	5.2	[R] 26.4	10.9	[R] 37.3
1997	0.0	2.4	5.3	2.1	0.1	0.9	0.1	0.5	1.4	0.0	10.3	1.9	10.7	0.0	5.3	30.6	11.1	41.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 291. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Vermont

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	1	0	19	254	82	(s)	68	3,205	0	3,629	0	0	–	0	–
1965	(s)	0	25	185	79	1	44	3,665	0	4,000	0	0	–	0	–
1970	(s)	0	14	346	121	3	49	4,985	2	5,519	0	0	–	0	–
1975	(s)	0	11	504	129	1	45	5,591	2	6,284	0	0	–	0	–
1980	0	0	25	757	137	2	52	5,386	0	6,359	0	0	–	0	–
1985	0	(s)	22	959	201	13	47	5,656	0	6,898	0	0	–	0	–
1986	0	(s)	27	1,038	133	10	46	5,806	0	7,060	0	0	–	0	–
1987	0	0	21	1,295	181	11	52	6,369	2	7,931	0	0	–	0	–
1988	0	0	17	1,385	143	11	50	6,635	0	8,242	0	0	–	0	–
1989	0	(s)	17	1,191	220	11	52	6,391	7	7,888	[e] 0	0	–	0	–
1990	0	(s)	15	1,079	180	11	53	6,574	3	7,915	0	0	–	0	–
1991	0	(s)	15	1,060	162	11	48	6,656	3	7,955	0	0	–	0	–
1992	0	(s)	15	1,470	116	11	49	6,756	4	8,420	0	0	–	0	–
1993	0	(s)	12	1,711	124	8	49	7,014	0	8,919	0	0	–	0	–
1994	0	(s)	11	1,756	138	21	52	7,064	0	9,042	0	0	–	0	–
1995	0	(s)	12	2,079	127	15	51	7,116	0	9,399	0	0	–	0	–
1996	0	(s)	10	2,303	99	16	49	7,234	0	9,712	0	0	–	0	–
1997	0	(s)	12	1,874	106	15	52	7,504	0	9,564	0	0	–	0	–
			Trillion Btu												
1960	(s)	0.0	0.1	1.5	0.4	(s)	0.4	16.8	0.0	19.3	0.0	0.0	19.3	0.0	19.3
1965	(s)	0.0	0.1	1.1	0.4	(s)	0.3	19.3	0.0	21.2	0.0	0.0	21.2	0.0	21.2
1970	(s)	0.0	0.1	2.0	0.7	(s)	0.3	26.2	(s)	29.3	0.0	0.0	29.3	0.0	29.3
1975	(s)	0.0	0.1	2.9	0.7	(s)	0.3	29.4	(s)	33.4	0.0	0.0	33.4	0.0	33.4
1980	0.0	0.0	0.1	4.4	0.8	(s)	0.3	28.3	0.0	33.9	0.0	0.0	33.9	0.0	33.9
1985	0.0	(s)	0.1	5.6	1.1	(s)	0.3	29.7	0.0	36.9	0.0	0.0	36.9	0.0	36.9
1986	0.0	(s)	0.1	6.0	0.7	(s)	0.3	30.5	0.0	37.7	0.0	0.0	37.7	0.0	37.7
1987	0.0	0.0	0.1	7.5	1.0	(s)	0.3	33.5	(s)	42.5	0.0	0.0	42.5	0.0	42.5
1988	0.0	0.0	0.1	8.1	0.8	(s)	0.3	34.9	0.0	44.1	0.0	0.0	44.1	0.0	44.1
1989	0.0	(s)	0.1	6.9	1.2	(s)	0.3	33.6	(s)	42.2	[e] 0.0	0.0	[e] 42.2	0.0	[e] 42.2
1990	0.0	(s)	0.1	6.3	1.0	(s)	0.3	34.5	(s)	42.3	0.0	0.0	42.3	0.0	42.3
1991	0.0	(s)	0.1	6.2	0.9	(s)	0.3	35.0	(s)	42.5	0.0	0.0	42.5	0.0	42.5
1992	0.0	(s)	0.1	8.6	0.6	(s)	0.3	35.5	(s)	45.1	0.0	0.0	45.1	0.0	45.1
1993	0.0	(s)	0.1	10.0	0.7	(s)	0.3	36.8	0.0	47.9	0.0	0.0	47.9	0.0	47.9
1994	0.0	(s)	0.1	10.2	0.8	0.1	0.3	37.1	0.0	48.6	0.0	0.0	48.6	0.0	48.6
1995	0.0	(s)	0.1	12.1	0.7	0.1	0.3	37.4	0.0	50.6	0.0	0.0	50.6	0.0	50.6
1996	0.0	(s)	0.1	13.4	0.6	0.1	0.3	38.0	0.0	52.4	0.0	0.0	52.4	0.0	52.4
1997	0.0	(s)	0.1	10.9	0.6	0.1	0.3	39.4	0.0	51.4	0.0	0.0	51.4	0.0	51.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 292. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Vermont

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	19	0	19	0	1	8	0	9	0	873	0	0	0	–
1965	43	0	43	0	3	38	0	42	0	702	0	0	0	–
1970	55	0	55	0	23	268	0	291	0	773	0	0	0	–
1975	13	0	13	1	(s)	86	0	87	3,561	946	0	0	0	–
1980	9	0	9	(s)	0	63	0	63	2,979	930	49	0	0	–
1985	28	0	28	(s)	0	34	0	34	2,999	1,173	280	0	0	–
1986	12	0	12	(s)	0	46	0	46	2,058	2,645	85	0	0	–
1987	0	0	0	0	0	71	0	71	3,536	3,202	156	0	0	–
1988	0	0	0	0	0	75	0	75	4,114	3,630	100	0	0	–
1989	0	0	0	(s)	0	50	0	50	3,607	R 2,426	184	0	0	–
1990	0	0	0	1	0	8	0	8	3,616	2,249	94	0	0	–
1991	0	0	0	1	0	15	0	15	4,108	2,813	109	0	0	–
1992	0	0	0	1	0	8	0	8	3,735	2,643	92	0	0	–
1993	0	0	0	(s)	0	17	0	17	3,372	3,232	64	0	0	–
1994	0	0	0	(s)	0	23	0	23	4,316	1,839	72	0	0	–
1995	0	0	0	(s)	0	39	0	39	3,859	2,540	127	0	0	–
1996	0	0	0	(s)	0	16	0	16	3,799	3,787	135	0	0	–
1997	0	0	0	(s)	0	31	0	31	4,267	2,936	150	0	0	–
	Trillion Btu													
1960	0.5	0.0	0.5	0.0	(s)	(s)	0.0	0.1	0.0	9.4	0.0	0.0	0.0	10.0
1965	1.2	0.0	1.2	0.0	(s)	0.2	0.0	0.2	0.0	7.3	0.0	0.0	0.0	8.8
1970	1.4	0.0	1.4	0.0	0.1	1.6	0.0	1.7	0.0	8.1	0.0	0.0	0.0	11.2
1975	0.3	0.0	0.3	0.6	(s)	0.5	0.0	0.5	39.2	9.8	0.0	0.0	0.0	50.5
1980	0.2	0.0	0.2	0.2	0.0	0.4	0.0	0.4	32.5	9.7	0.5	0.0	0.0	43.5
1985	0.7	0.0	0.7	0.1	0.0	0.2	0.0	0.2	32.4	12.3	2.9	0.0	0.0	48.6
1986	0.3	0.0	0.3	(s)	0.0	0.3	0.0	0.3	22.2	27.6	0.9	0.0	0.0	51.3
1987	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	38.1	33.4	1.6	0.0	0.0	73.5
1988	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	44.2	37.5	1.0	0.0	0.0	83.1
1989	0.0	0.0	0.0	(s)	0.0	0.3	0.0	0.3	38.7	R 25.3	1.9	0.0	0.0	71.2
1990	0.0	0.0	0.0	0.7	0.0	(s)	0.0	(s)	38.6	23.4	1.0	0.0	0.0	65.1
1991	0.0	0.0	0.0	1.1	0.0	0.1	0.0	0.1	44.1	R 29.4	1.1	0.0	0.0	R 79.3
1992	0.0	0.0	0.0	0.8	0.0	(s)	0.0	(s)	39.9	27.3	1.0	0.0	0.0	65.2
1993	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.1	36.0	33.3	0.7	0.0	0.0	73.5
1994	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.1	46.1	19.0	0.7	0.0	0.0	69.1
1995	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.2	41.1	26.2	1.3	0.0	0.0	73.9
1996	0.0	0.0	0.0	(s)	0.0	0.1	0.0	0.1	40.4	R 39.1	1.4	0.0	0.0	88.5
1997	0.0	0.0	0.0	(s)	0.0	0.2	0.0	0.2	45.3	30.3	1.6	0.0	0.0	90.7

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 293. Energy Consumption Estimates by Source, Selected Years 1960-1997, Virginia

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	12,142	66	1,753	382	14,146	4,441	5,038	1,146	633	31,077	17,825	1,308	77,751	0	1,267	–	–	-13,165	–
1965	14,904	96	2,681	721	18,609	6,504	5,544	1,658	664	36,104	16,780	2,053	91,318	0	883	–	–	-4,629	–
1970	11,294	137	2,250	356	24,640	11,093	5,029	2,412	720	48,684	33,373	3,472	132,030	0	691	–	–	16,309	–
1975	7,130	121	2,328	251	22,996	11,602	2,264	3,077	734	59,293	40,953	2,320	145,818	8,970	1,311	–	–	22,851	–
1980	9,291	158	2,618	218	24,599	12,279	1,716	3,131	952	59,035	24,651	10,015	139,213	11,466	892	–	–	56,966	–
1985	11,656	139	4,033	131	25,252	11,038	4,032	3,932	866	62,979	8,571	4,895	125,729	22,303	845	–	–	62,743	–
1986	11,857	141	4,444	155	28,423	13,228	2,808	3,380	847	65,184	12,403	3,398	134,270	21,215	75	–	–	76,894	–
1987	13,227	159	4,406	74	29,301	14,432	2,504	4,126	958	69,895	10,845	3,563	140,103	18,145	834	–	–	88,537	–
1988	13,430	164	3,604	74	32,591	15,700	3,049	4,251	923	71,098	10,077	3,631	144,999	21,037	-191	–	–	91,187	–
1989	14,279	174	4,203	75	29,079	15,768	2,692	4,472	947	70,930	11,925	3,614	143,705	14,264	[i] NA	–	–	[R] 107,650	–
1990	13,105	181	4,701	70	27,940	15,806	1,374	4,088	975	70,333	7,896	3,896	137,077	23,820	NA	–	–	[R] 89,084	–
1991	13,980	175	3,734	116	26,819	11,824	1,562	4,643	872	70,526	9,195	4,909	134,200	23,886	NA	–	–	[R] 90,799	–
1992	13,418	200	3,759	101	26,447	11,670	1,466	4,727	889	71,533	8,083	5,196	133,872	23,334	NA	–	–	[R] 92,923	–
1993	13,584	218	3,697	105	28,181	11,915	1,735	4,829	905	73,827	8,503	5,158	138,855	22,689	NA	–	–	97,617	–
1994	12,792	231	3,935	101	29,230	12,003	1,459	4,928	946	75,047	7,982	5,275	140,906	25,429	NA	–	–	[R] 95,417	–
1995	13,378	247	3,639	85	30,552	10,589	1,618	4,783	930	78,828	5,543	5,106	141,673	25,135	NA	–	–	[R] 103,914	–
1996	14,983	239	3,512	79	36,148	9,204	1,935	5,043	903	79,164	4,138	5,420	145,546	26,286	NA	–	–	[R] 100,055	–
1997	15,276	241	3,474	50	36,869	9,402	2,046	5,094	953	81,440	5,285	5,737	150,351	27,084	NA	–	–	92,898	–
			Trillion Btu																
1960	316.4	68.4	11.6	1.9	82.4	24.0	28.6	4.6	3.8	163.2	112.1	7.8	440.1	0.0	13.6	[R] 56.1	0.0	-44.9	[R] 849.7
1965	386.3	98.6	17.8	3.6	108.4	35.8	31.4	6.6	4.0	189.7	105.5	11.8	514.7	0.0	9.2	[R] 54.2	0.0	-15.8	[R] 1,047.2
1970	275.3	140.1	14.9	1.8	143.5	61.9	28.5	9.1	4.4	255.7	209.8	20.0	749.7	0.0	7.3	[R] 55.5	0.0	55.6	[R] 1,283.5
1975	169.2	123.6	15.4	1.3	133.9	64.9	12.8	11.4	4.5	311.5	257.5	13.3	826.6	98.8	13.6	[R] 53.2	0.0	78.0	[R] 1,363.0
1980	231.8	161.0	17.4	1.1	143.3	68.8	9.7	11.5	5.8	310.1	155.0	55.5	778.1	125.1	9.3	[R] 41.7	0.0	194.4	[R] 1,541.4
1985	297.1	144.9	26.8	0.7	147.1	61.7	22.9	14.2	5.3	330.8	53.9	27.0	690.2	241.2	8.8	[R] 53.9	0.0	214.1	[R] 1,650.2
1986	303.3	146.7	29.5	0.8	165.6	74.1	15.9	12.3	5.1	342.4	78.0	19.0	742.7	229.1	0.8	[R] 72.5	0.0	262.4	[R] 1,757.3
1987	337.9	165.3	29.2	0.4	170.7	80.9	14.2	15.1	5.8	367.2	68.2	19.8	771.4	195.5	8.7	[R] 68.6	0.0	302.1	[R] 1,849.5
1988	342.9	170.2	23.9	0.4	189.8	87.9	17.3	15.5	5.6	373.5	63.4	20.3	797.6	226.0	-2.0	[R] 71.3	(s)	311.1	[R] 1,917.3
1989	362.3	180.8	27.9	0.4	169.4	88.3	15.3	16.5	5.7	372.6	75.0	20.2	791.1	153.0	[R i] 4.4	[R i] 76.4	[R i] 0.2	[R] 367.3	[R i] 1,935.4
1990	333.0	188.7	31.2	0.4	162.7	88.5	7.8	14.8	5.9	369.5	49.6	21.7	752.2	254.4	4.7	[R] 56.6	[R] 0.2	[R] 304.0	[R] 1,893.7
1991	356.6	182.0	24.8	0.6	156.2	66.7	8.9	16.8	5.3	370.5	57.8	27.3	734.8	256.5	0.2	[R] 52.6	[R] 0.3	[R] 309.8	[R] 1,892.6
1992	343.6	207.8	24.9	0.5	154.1	65.9	8.3	17.1	5.4	375.8	50.8	28.7	731.6	249.2	4.4	[R] 55.4	[R] 0.3	[R] 317.1	[R] 1,909.2
1993	347.6	227.5	24.5	0.5	164.2	67.3	9.8	17.4	5.5	387.8	53.5	28.5	759.1	242.4	5.6	[R] 58.6	[R] 0.3	333.1	[R] 1,973.8
1994	326.5	239.3	26.1	0.5	170.3	68.0	8.3	17.9	5.7	394.2	50.2	29.2	770.3	271.5	4.2	[R] 62.1	[R] 0.3	[R] 325.6	[R] 1,999.0
1995	341.1	254.9	24.1	0.4	178.0	60.0	9.2	17.3	5.6	414.1	34.8	28.2	771.9	267.9	2.3	[R] 65.1	[R] 0.4	[R] 354.6	[R] 2,058.1
1996	378.8	248.4	23.3	0.4	210.6	52.2	11.0	18.2	5.5	415.8	26.0	29.9	792.9	279.2	6.2	[R] 68.9	[R] 0.4	341.4	[R] 2,113.2
1997	384.8	252.0	23.1	0.3	214.8	53.3	11.6	18.4	5.8	427.8	33.2	31.7	819.9	287.7	2.1	64.8	0.4	317.0	2,126.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 294. Residential Energy Consumption Estimates, Selected Years 1960-1997, Virginia

Year	Coal: Bituminous Coal and Lignite [a]	Coal: Anthracite [a]	Coal: Total	Natural Gas [b]	Petroleum: Distillate Fuel [a]	Petroleum: Kerosene [a]	Petroleum: LPG [a]	Petroleum: Total	Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	450	8	458	27	6,520	4,655	734	11,909	R 1,499	–	–	4,099	–	10,196	–
1965	276	5	281	36	7,471	4,847	1,133	13,452	R 1,110	–	–	6,557	–	15,655	–
1970	163	3	166	50	9,734	4,544	1,430	15,708	R 882	–	–	11,546	–	27,979	–
1975	112	2	114	49	9,091	2,056	1,561	12,708	R 925	–	–	15,871	–	38,283	–
1980	67	1	68	55	7,380	1,403	1,506	10,289	R 721	–	–	19,731	–	47,979	–
1985	94	1	95	49	5,139	3,611	1,805	10,554	R 1,117	–	–	22,568	–	53,021	–
1986	85	1	86	52	6,494	2,474	1,531	10,499	R 1,087	–	–	25,235	–	58,048	–
1987	113	1	114	55	6,639	2,181	1,870	10,690	R 904	–	–	26,875	–	61,408	–
1988	101	1	102	59	6,971	2,629	1,785	11,386	R 939	–	–	28,192	–	63,736	–
1989	68	1	68	62	6,286	2,271	2,083	10,640	R 974	–	–	29,223	–	R 65,660	–
1990	82	1	83	51	5,108	1,160	2,124	8,392	684	–	–	28,130	–	R 61,526	–
1991	48	1	49	54	4,593	1,322	2,320	8,235	721	–	–	29,607	–	R 64,452	–
1992	66	2	68	62	4,781	1,283	2,429	8,494	758	–	–	29,780	–	R 63,611	–
1993	108	1	109	65	4,958	1,489	2,391	8,839	820	–	–	32,472	–	68,607	–
1994	110	1	111	65	4,914	1,256	2,440	8,610	804	–	–	32,343	–	R 67,491	–
1995	99	1	100	69	4,997	1,220	2,874	9,091	892	–	–	33,472	–	R 69,732	–
1996	138	1	139	76	5,853	1,544	3,039	10,436	R 891	–	–	34,651	–	R 72,115	–
1997	63	1	64	74	5,380	1,583	3,039	10,002	648	–	–	33,923	–	70,451	–
									Trillion Btu						
1960	11.1	0.2	11.4	27.9	38.0	26.4	2.9	67.3	R 30.0	0.0	0.0	14.0	R 150.5	34.8	R 185.3
1965	6.8	0.1	6.9	37.4	43.5	27.5	4.5	75.5	R 22.2	0.0	0.0	22.4	R 164.5	53.4	R 217.9
1970	3.9	0.1	4.0	50.8	56.7	25.8	5.4	87.9	R 17.6	0.0	0.0	39.4	R 199.7	95.5	R 295.2
1975	2.6	(s)	2.7	49.7	53.0	11.7	5.8	70.4	R 18.5	0.0	0.0	54.2	R 195.4	130.6	R 326.1
1980	1.6	(s)	1.7	55.6	43.0	8.0	5.5	56.5	R 14.4	0.0	0.0	67.3	R 195.5	163.7	R 359.2
1985	2.3	(s)	2.4	50.7	29.9	20.5	6.5	56.9	R 22.3	0.0	0.0	77.0	R 209.3	180.9	R 390.2
1986	2.1	(s)	2.2	53.6	37.8	14.0	5.6	57.4	R 21.7	0.0	0.0	86.1	R 221.0	198.1	R 419.1
1987	2.8	(s)	2.9	57.6	38.7	12.4	6.8	57.9	R 18.1	0.0	0.0	91.7	R 228.2	209.5	R 437.7
1988	2.5	(s)	2.6	60.9	40.6	14.9	6.5	62.0	R 18.8	0.0	0.0	96.2	R 240.5	217.5	R 458.0
1989	1.7	(s)	1.7	64.2	36.6	12.9	7.7	57.2	R 19.5	e 0.1	R e 0.1	99.7	R e 242.5	224.0	R e 466.5
1990	2.1	(s)	2.1	53.6	29.8	6.6	7.7	44.0	13.7	0.1	0.1	96.0	R 209.6	209.9	R 419.5
1991	1.2	(s)	1.2	56.5	26.8	7.5	8.4	42.6	14.4	0.1	0.1	101.0	R 216.0	219.9	R 435.9
1992	1.7	0.1	1.7	64.8	27.9	7.3	8.8	43.9	15.2	0.1	0.1	101.6	R 227.5	217.0	R 444.5
1993	2.7	(s)	2.7	68.4	28.9	8.4	8.6	45.9	16.4	0.1	0.1	110.8	R 244.5	234.1	R 478.6
1994	2.7	(s)	2.8	67.7	28.6	7.1	8.9	44.6	16.1	0.1	0.1	110.4	R 241.7	230.3	R 472.0
1995	2.5	(s)	2.5	70.8	29.1	6.9	10.4	46.4	17.8	0.1	0.1	114.2	R 252.1	237.9	R 490.0
1996	3.5	(s)	3.5	79.1	34.1	8.8	11.0	53.8	17.8	0.1	0.1	118.2	R 272.7	246.1	R 518.8
1997	1.6	(s)	1.6	77.1	31.3	9.0	11.0	51.3	13.0	0.1	0.1	115.7	259.0	240.4	499.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 295. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Virginia

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	835	6	841	11	1,388	93	130	223	175	2,009	R 28	–	3,676	–	9,143	–
1965	512	3	515	15	1,591	97	200	275	211	2,373	R 21	–	6,192	–	14,784	–
1970	303	2	305	30	2,072	91	252	210	118	2,744	R 17	–	10,804	–	26,181	–
1975	208	1	209	32	1,935	41	275	310	245	2,807	R 18	–	14,014	–	33,802	–
1980	124	1	125	38	1,634	46	266	371	443	2,759	R 17	–	R 16,969	–	R 41,262	–
1985	175	1	176	34	2,460	214	319	456	443	3,892	NA	–	R 21,491	–	R 50,492	–
1986	159	(s)	159	35	2,830	144	270	397	975	4,616	NA	–	R 23,504	–	R 54,066	–
1987	211	(s)	211	39	2,600	197	330	509	991	4,628	NA	–	R 24,983	–	R 57,085	–
1988	188	1	189	42	2,599	270	315	502	404	4,090	NA	–	R 26,143	–	R 59,104	–
1989	125	(s)	126	44	2,352	280	368	504	211	3,714	NA	–	R 27,754	–	R 62,358	–
1990	153	(s)	153	41	2,370	139	375	478	221	3,582	NA	–	R 28,082	–	R 61,421	–
1991	90	(s)	90	44	2,132	148	409	341	115	3,146	NA	–	R 29,387	–	R 63,971	–
1992	122	2	124	51	1,955	127	429	345	224	3,079	NA	–	R 29,863	–	R 63,787	–
1993	201	(s)	201	53	2,422	159	422	121	182	3,307	R 66	–	R 31,419	–	R 66,381	–
1994	204	(s)	205	53	2,464	101	431	137	157	3,290	R 67	–	R 31,624	–	R 65,992	–
1995	185	(s)	185	57	2,572	275	507	132	208	3,694	R 67	–	R 33,051	–	R 68,855	–
1996	256	1	256	59	3,447	277	536	130	258	4,648	R 73	–	R 33,839	–	R 70,426	–
1997	118	(s)	118	62	3,068	372	536	137	130	4,244	63	–	34,165	–	70,952	–
	Trillion Btu															
1960	20.7	0.1	20.8	11.7	8.1	0.5	0.5	1.2	1.1	11.4	R 0.6	0.0	12.5	R 57.1	31.2	R 88.3
1965	12.6	0.1	12.7	15.3	9.3	0.5	0.8	1.4	1.3	13.4	R 0.4	0.0	21.1	R 62.9	50.4	R 113.3
1970	7.2	(s)	7.3	30.9	12.1	0.5	1.0	1.1	0.7	15.4	R 0.3	0.0	36.9	R 90.7	89.3	R 180.0
1975	4.9	(s)	4.9	33.0	11.3	0.2	1.0	1.6	1.5	15.7	R 0.4	0.0	47.8	R 101.7	115.3	R 217.1
1980	3.0	(s)	3.1	39.0	9.5	0.3	1.0	1.9	2.8	15.5	R 0.3	0.0	57.9	R 115.8	140.8	R 256.6
1985	4.3	(s)	4.4	35.3	14.3	1.2	1.1	2.4	2.8	21.9	NA	0.0	73.3	134.9	172.3	R 307.1
1986	4.0	(s)	4.0	36.9	16.5	0.8	1.0	2.1	6.1	26.5	NA	0.0	80.2	R 147.5	184.5	R 332.0
1987	5.3	(s)	5.3	41.0	15.1	1.1	1.2	2.7	6.2	26.4	NA	0.0	R 85.2	157.9	R 194.8	R 352.7
1988	4.7	(s)	4.7	43.7	15.1	1.5	1.2	2.6	2.5	23.0	NA	0.0	89.2	160.7	R 201.7	R 362.3
1989	3.1	(s)	3.1	46.0	13.7	1.6	1.4	2.6	1.3	20.6	NA	[e] (s)	94.7	164.5	212.8	R 377.2
1990	3.8	(s)	3.8	42.8	13.8	0.8	1.4	2.5	1.4	19.8	NA	(s)	R 95.8	162.3	209.6	R 371.9
1991	2.3	(s)	2.3	45.9	12.4	0.8	1.5	1.8	0.7	17.3	NA	(s)	100.3	165.7	218.3	R 384.0
1992	3.1	(s)	3.1	52.7	11.4	0.7	1.6	1.8	1.4	16.9	NA	0.1	101.9	174.6	R 217.6	R 392.3
1993	5.0	(s)	5.0	55.2	14.1	0.9	1.5	0.6	1.1	18.3	1.3	0.1	R 107.2	187.2	R 226.5	R 413.7
1994	5.1	(s)	5.1	55.0	14.4	0.6	1.6	0.7	1.0	18.2	R 1.3	0.1	R 107.9	187.6	R 225.2	R 412.8
1995	4.6	(s)	4.6	58.7	15.0	1.6	1.8	0.7	1.3	20.4	R 1.3	0.1	112.8	R 197.9	R 234.9	R 432.9
1996	6.4	(s)	6.4	61.5	20.1	1.6	1.9	0.7	1.6	25.9	R 1.5	0.1	115.5	R 210.9	R 240.3	R 451.2
1997	2.9	(s)	2.9	64.6	17.9	2.1	1.9	0.7	0.8	23.5	1.3	0.2	116.6	209.0	242.1	451.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 296. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Virginia

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	4,503	22	1,753	2,133	291	275	182	882	5,739	1,308	12,564	79	–	–	3,786	–	9,418	–
1965	5,824	36	2,681	2,977	600	301	236	838	6,754	2,053	16,440	87	–	–	5,834	–	13,929	–
1970	4,172	45	2,250	4,415	395	682	289	653	4,170	2,616	15,470	41	–	–	7,467	–	18,095	–
1975	2,816	37	2,328	3,128	167	1,184	307	460	7,611	2,320	17,504	38	–	–	9,437	–	22,764	–
1980	3,538	55	2,618	3,573	267	1,312	422	278	5,203	10,015	23,688	27	–	–	11,637	–	28,297	–
1985	4,219	51	4,033	3,035	207	1,707	384	686	3,408	4,895	18,355	27	–	–	13,561	–	31,861	–
1986	4,268	48	4,444	3,348	190	1,522	376	689	3,790	3,398	17,756	27	–	–	14,449	–	33,236	–
1987	4,605	56	4,406	3,497	125	1,844	425	740	2,822	3,563	17,422	27	–	–	14,899	–	34,042	–
1988	4,670	54	3,604	3,888	149	2,053	410	689	2,859	3,631	17,282	27	–	–	15,690	–	35,472	–
1989	4,512	58	4,203	3,465	140	1,929	420	768	2,911	3,614	17,451	[f] NA	–	–	16,395	–	[R] 36,837	–
1990	4,641	75	4,701	3,051	75	1,526	432	705	2,893	3,896	17,279	NA	–	–	16,399	–	[R] 35,867	–
1991	5,273	60	3,734	2,936	92	1,812	387	671	2,491	4,909	17,032	NA	–	–	16,029	–	[R] 34,893	–
1992	4,564	69	3,759	2,527	56	1,767	394	668	2,945	5,196	17,313	NA	–	–	16,714	–	[R] 35,701	–
1993	3,826	74	3,697	2,962	87	1,906	402	635	2,745	5,158	17,592	NA	–	–	17,390	–	36,742	–
1994	3,807	87	3,935	2,476	101	1,876	420	666	2,499	5,275	17,249	NA	–	–	18,154	–	[R] 37,881	–
1995	3,551	99	3,639	3,545	122	1,338	412	718	1,804	5,106	16,684	NA	–	–	18,554	–	[R] 38,654	–
1996	3,594	86	3,512	4,429	114	1,411	400	766	1,820	5,420	17,872	NA	–	–	19,021	–	[R] 39,586	–
1997	3,489	87	3,474	5,156	91	1,467	423	801	2,463	5,737	19,612	NA	–	–	19,249	–	39,976	–
			Trillion Btu															
1960	114.9	23.3	11.6	12.4	1.6	1.1	1.1	4.6	36.1	7.8	76.4	0.8	[R] 25.5	0.0	12.9	[R] 253.8	32.1	[R] 286.0
1965	147.4	36.6	17.8	17.3	3.4	1.2	1.4	4.4	42.5	11.8	99.8	0.9	[R] 31.6	0.0	19.9	[R] 336.2	47.5	[R] 383.8
1970	99.3	46.0	14.9	25.7	2.2	2.6	1.8	3.4	26.2	14.9	91.7	0.4	[R] 37.5	0.0	25.5	[R] 300.4	61.7	[R] 362.2
1975	66.1	37.3	15.4	18.2	0.9	4.4	1.9	2.4	47.9	13.3	104.5	0.4	[R] 34.4	0.0	32.2	[R] 274.8	77.7	[R] 352.5
1980	88.1	55.4	17.4	20.8	1.5	4.8	2.6	1.5	32.7	55.5	136.7	0.3	[R] 26.9	0.0	39.7	[R] 347.2	96.6	[R] 443.7
1985	106.7	52.8	26.8	17.7	1.2	6.1	2.3	3.6	21.4	27.0	106.1	0.3	[R] 31.6	0.0	46.3	[R] 343.7	108.7	[R] 452.5
1986	108.3	50.3	29.5	19.5	1.1	5.5	2.3	3.6	23.8	19.0	104.3	0.3	[R] 50.7	0.0	49.3	[R] 363.3	113.4	[R] 476.7
1987	117.1	58.2	29.2	20.4	0.7	6.7	2.6	3.9	17.7	19.8	101.1	0.3	[R] 50.5	0.0	50.8	[R] 378.0	116.2	[R] 494.2
1988	118.8	55.8	23.9	22.6	0.8	7.5	2.5	3.6	18.0	20.3	99.3	0.3	[R] 52.6	0.0	53.5	[R] 380.3	121.0	[R] 501.3
1989	114.4	60.6	27.9	20.2	0.8	7.1	2.5	4.0	18.3	20.2	101.0	[R f] 0.2	[R f] 56.8	[f] 0.0	55.9	[R f] 389.0	125.7	[R f] 514.7
1990	117.9	78.3	31.2	17.8	0.4	5.5	2.6	3.7	18.2	21.7	101.2	0.2	[R] 42.8	0.0	56.0	[R] 396.3	122.4	[R] 518.7
1991	134.3	62.8	24.8	17.1	0.5	6.5	2.3	3.5	15.7	27.3	97.8	0.4	[R] 38.0	0.0	54.7	[R] 388.1	[R] 119.1	[R] 507.1
1992	116.6	72.1	24.9	14.7	0.3	6.4	2.4	3.5	18.5	28.7	99.5	[R] 0.8	[R] 40.1	0.0	57.0	[R] 386.1	121.8	[R] 507.9
1993	97.7	77.4	24.5	17.3	0.5	6.9	2.4	3.3	17.3	28.5	100.7	0.7	[R] 40.7	0.0	59.3	[R] 376.5	125.4	[R] 501.8
1994	97.1	90.2	26.1	14.4	0.6	6.8	2.5	3.5	15.7	29.2	98.9	0.8	[R] 43.8	0.0	61.9	[R] 392.6	[R] 129.3	[R] 521.9
1995	90.7	101.9	24.1	20.6	0.7	4.8	2.5	3.8	11.3	28.2	96.2	0.8	[R] 45.9	0.0	63.3	[R] 398.8	131.9	[R] 530.7
1996	91.9	88.8	23.3	25.8	0.6	5.1	2.4	4.0	11.4	29.9	102.6	[R] 1.0	[R] 46.6	0.0	64.9	[R] 395.7	135.1	[R] 530.8
1997	88.9	90.4	23.1	30.0	0.5	5.3	2.6	4.2	15.5	31.7	112.9	1.3	48.2	0.0	65.7	407.4	136.4	543.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 297. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Virginia

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	79	4	382	4,099	4,441	7	451	29,972	11,780	51,134	0	0	–	0	–
1965	19	7	721	6,564	6,504	24	428	34,992	9,645	58,877	0	0	–	0	–
1970	7	8	356	7,698	11,093	47	430	47,821	12,000	79,446	0	0	–	0	–
1975	(s)	3	251	8,217	11,602	57	427	58,524	6,356	85,436	0	0	–	0	–
1980	0	8	218	11,219	12,279	47	530	58,386	4,419	87,098	0	R 32	–	R 78	–
1985	0	4	131	14,278	11,038	102	482	61,837	3,419	91,287	0	R 60	–	R 141	–
1986	0	5	155	15,477	13,228	56	471	64,098	3,003	96,489	0	R 77	–	R 178	–
1987	0	6	74	16,242	14,432	82	533	68,645	2,756	102,764	0	R 90	–	R 206	–
1988	0	8	74	18,798	15,700	98	514	69,907	2,793	107,885	0	R 90	–	R 202	–
1989	0	6	75	16,382	15,768	92	527	69,658	2,611	105,114	R e 1,746	R 89	–	R 199	–
1990	0	7	70	16,930	15,806	63	542	69,150	3,362	105,922	2,017	R 86	–	R 189	–
1991	0	7	116	16,856	11,824	101	485	69,513	3,780	102,675	1,598	R 88	–	R 192	–
1992	0	6	101	16,915	11,670	102	495	70,521	2,872	102,676	1,943	R 91	–	R 195	–
1993	0	6	105	17,616	11,915	109	504	73,071	2,396	105,715	2,168	R 91	–	R 192	–
1994	0	6	101	18,887	12,003	182	527	74,244	1,977	107,920	11,551	R 89	–	R 186	–
1995	0	6	85	19,113	10,589	64	518	77,978	1,953	110,299	35	R 86	–	R 179	–
1996	0	8	79	22,079	9,204	57	502	78,268	1,238	111,427	39,352	R 85	–	R 177	–
1997	0	7	50	23,065	9,402	52	531	80,503	1,483	115,085	31,409	83	–	172	–
			Trillion Btu												
1960	2.0	4.1	1.9	23.9	24.0	(s)	2.7	157.4	74.1	284.1	0.0	0.0	290.2	0.0	290.2
1965	0.5	7.0	3.6	38.2	35.8	0.1	2.6	183.8	60.6	324.8	0.0	0.0	332.2	0.0	332.2
1970	0.2	8.0	1.8	44.8	61.9	0.2	2.6	251.2	75.4	438.0	0.0	0.0	446.1	0.0	446.1
1975	(s)	3.1	1.3	47.9	64.9	0.2	2.6	307.4	40.0	464.3	0.0	0.0	467.4	0.0	467.4
1980	0.0	8.4	1.1	65.3	68.8	0.2	3.2	306.7	27.8	473.1	0.0	0.1	481.6	0.3	481.8
1985	0.0	4.6	0.7	83.2	61.7	0.4	2.9	324.8	21.5	495.1	0.0	0.2	499.9	R 0.5	R 500.4
1986	0.0	5.1	0.8	90.2	74.1	0.2	2.9	336.7	18.9	523.6	0.0	R 0.3	R 529.0	R 0.6	R 529.6
1987	0.0	6.6	0.4	94.6	80.9	0.3	3.2	360.6	17.3	557.3	0.0	0.3	564.2	R 0.7	R 564.9
1988	0.0	8.6	0.4	109.5	87.9	0.4	3.1	367.2	17.6	586.1	0.0	0.3	594.9	R 0.7	R 595.6
1989	0.0	6.1	0.4	95.4	88.3	0.3	3.2	365.9	16.4	569.9	R e 0.1	0.3	e 576.3	R 0.7	R e 577.0
1990	0.0	7.2	0.4	98.6	88.5	0.2	3.3	363.2	21.1	575.4	0.2	0.3	582.9	0.6	R 583.6
1991	0.0	6.9	0.6	98.2	66.7	0.4	2.9	365.2	23.8	557.7	0.1	0.3	564.9	R 0.7	R 565.6
1992	0.0	6.7	0.5	98.5	65.9	0.4	3.0	370.4	18.1	556.8	0.1	0.3	563.8	R 0.7	R 564.5
1993	0.0	6.0	0.5	102.6	67.3	0.4	3.1	383.8	15.1	572.8	0.2	0.3	R 579.1	R 0.7	R 579.7
1994	0.0	6.6	0.5	110.0	68.0	0.7	3.2	390.0	12.4	584.8	0.9	R 0.3	R 591.7	R 0.6	R 592.3
1995	0.0	6.5	0.4	111.3	60.0	0.2	3.1	409.6	12.3	597.1	(s)	R 0.3	R 603.9	R 0.6	R 604.5
1996	0.0	8.1	0.4	128.6	52.2	0.2	3.0	411.1	7.8	603.4	3.0	R 0.3	R 611.8	R 0.6	R 612.4
1997	0.0	7.7	0.3	134.4	53.3	0.2	3.2	422.9	9.3	623.5	2.4	0.3	631.6	0.6	632.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 298. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Virginia

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	6,262	0	6,262	1	130	6	0	136	0	1,189	0	0	0	–
1965	8,265	0	8,265	2	170	7	0	178	0	797	0	0	0	–
1970	6,644	0	6,644	4	17,085	721	856	18,662	0	650	0	0	0	–
1975	3,991	0	3,991	(s)	26,741	624	0	27,364	8,970	1,273	0	0	0	–
1980	5,560	0	5,560	2	14,586	793	0	15,379	11,466	864	0	0	0	–
1985	7,166	0	7,166	2	1,301	340	0	1,641	22,303	818	0	0	0	–
1986	7,345	0	7,345	1	4,635	275	0	4,909	21,215	47	0	0	0	–
1987	8,297	0	8,297	2	4,276	323	0	4,599	18,145	807	0	0	0	–
1988	8,469	0	8,469	1	4,021	336	0	4,357	21,037	-218	0	0	(s)	–
1989	9,573	0	9,573	4	6,192	594	0	6,786	14,264	401	0	0	(s)	–
1990	8,228	0	8,228	7	1,421	482	0	1,902	23,820	428	0	0	(s)	–
1991	8,568	0	8,568	9	2,810	302	0	3,112	23,886	-26	0	0	(s)	–
1992	8,661	0	8,661	11	2,041	269	0	2,310	23,334	353	0	0	(s)	–
1993	9,447	0	9,447	20	3,180	222	0	3,402	22,689	473	0	0	(s)	–
1994	8,670	0	8,670	19	3,348	489	0	3,837	25,429	329	0	0	(s)	–
1995	9,543	0	9,543	16	1,577	326	0	1,903	25,135	149	0	0	(s)	–
1996	10,994	0	10,994	10	822	341	0	1,163	26,286	510	0	0	0	–
1997	11,605	0	11,605	12	1,209	199	0	1,408	27,084	76	0	0	0	–
	Trillion Btu													
1960	167.4	0.0	167.4	1.5	0.8	(s)	0.0	0.9	0.0	12.8	0.0	0.0	0.0	182.5
1965	218.8	0.0	218.8	2.3	1.1	(s)	0.0	1.1	0.0	8.3	0.0	0.0	0.0	230.6
1970	164.6	0.0	164.6	4.4	107.4	4.2	5.2	116.8	0.0	6.8	0.0	0.0	0.0	292.6
1975	95.5	0.0	95.5	0.5	168.1	3.6	0.0	171.8	98.8	13.2	0.0	0.0	0.0	379.8
1980	139.1	0.0	139.1	2.5	91.7	4.6	0.0	96.3	125.1	9.0	0.0	0.0	0.0	372.0
1985	183.6	0.0	183.6	1.6	8.2	2.0	0.0	10.2	241.2	8.5	0.0	0.0	0.0	445.1
1986	188.8	0.0	188.8	0.9	29.1	1.6	0.0	30.7	229.1	0.5	0.0	0.0	0.0	450.0
1987	212.7	0.0	212.7	1.8	26.9	1.9	0.0	28.8	195.5	8.4	0.0	0.0	0.0	447.1
1988	216.8	0.0	216.8	1.2	25.3	2.0	0.0	27.2	226.0	-2.3	0.0	0.0	(s)	469.0
1989	243.0	0.0	243.0	4.0	38.9	3.5	0.0	42.4	153.0	4.2	0.0	0.0	(s)	446.5
1990	209.2	0.0	209.2	6.8	8.9	2.8	0.0	11.7	254.4	4.4	0.0	0.0	(s)	486.6
1991	218.8	0.0	218.8	9.9	17.7	1.8	0.0	19.4	256.5	-0.3	0.0	0.0	(s)	504.4
1992	222.3	0.0	222.3	11.5	12.8	1.6	0.0	14.4	249.2	3.6	0.0	0.0	(s)	500.9
1993	242.2	0.0	242.2	20.5	20.0	1.3	0.0	21.3	242.4	4.9	0.0	0.0	(s)	531.2
1994	221.6	0.0	221.6	19.9	21.1	2.8	0.0	23.9	271.5	3.4	0.0	0.0	(s)	540.3
1995	243.2	0.0	243.2	16.9	9.9	1.9	0.0	11.8	267.9	1.5	0.0	0.0	(s)	541.4
1996	277.0	0.0	277.0	10.9	5.2	2.0	0.0	7.2	279.2	5.3	0.0	0.0	0.0	579.5
1997	291.4	0.0	291.4	12.1	7.6	1.2	0.0	8.8	287.7	0.8	0.0	0.0	0.0	600.8

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 299. Energy Consumption Estimates by Source, Selected Years 1960-1997, Washington

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	608	65	1,309	2,161	18,123	4,502	105	548	571	23,076	9,300	3,679	63,374	0	34,299	–	–	-17,081	–
1965	488	108	1,683	434	17,116	6,919	34	1,227	597	26,906	9,140	8,048	72,104	0	48,814	–	–	-33,455	–
1970	245	150	2,335	351	18,201	10,637	239	1,659	666	36,068	10,384	9,762	90,303	2,614	70,142	–	–	-60,750	–
1975	4,492	164	2,910	274	16,970	14,037	346	763	620	41,007	8,459	11,962	97,349	3,308	85,438	–	–	-95,362	–
1980	5,443	129	2,050	356	18,471	12,036	120	1,487	703	42,653	17,277	9,905	105,057	2,041	83,971	–	–	-46,955	–
1985	5,616	135	2,039	202	20,360	15,417	1,212	2,466	640	44,020	11,406	10,574	108,337	8,038	77,956	–	–	-33,631	–
1986	3,790	118	2,404	228	23,283	17,073	751	2,525	625	46,950	15,553	10,301	119,692	8,439	76,638	–	–	-28,660	–
1987	5,819	132	2,268	275	21,226	18,596	860	3,345	707	51,252	13,771	14,531	126,830	5,528	70,964	–	–	-7,650	–
1988	5,929	147	1,921	214	21,091	20,647	945	2,828	682	50,699	16,339	15,957	131,323	6,000	69,053	–	–	20,711	–
1989	5,843	163	2,612	188	21,037	20,592	712	3,399	699	53,814	15,820	17,595	136,468	6,118	[i] NA	–	–	[R] 16,222	–
1990	5,147	163	2,481	313	21,787	22,343	75	2,292	720	53,464	16,500	20,217	140,191	5,742	NA	–	–	[R] -13,350	–
1991	5,461	173	2,967	268	19,958	21,306	70	2,596	644	54,238	17,398	19,591	139,036	4,230	NA	–	–	[R] -11,885	–
1992	6,402	169	3,023	289	18,453	24,066	47	2,549	656	55,196	23,438	25,701	153,419	5,692	NA	–	–	[R] 25,348	–
1993	5,934	198	2,941	198	15,469	22,226	63	2,582	668	57,385	15,928	22,248	139,707	7,135	NA	–	–	37,020	–
1994	6,303	213	3,526	318	18,810	21,492	89	2,594	699	57,446	15,766	24,424	145,164	6,740	NA	–	–	[R] 25,887	–
1995	4,158	220	3,558	229	18,846	23,039	121	2,913	687	58,836	17,575	24,573	150,377	6,942	NA	–	–	[R] -6,094	–
1996	5,682	239	3,696	292	18,978	22,323	142	3,278	666	61,611	12,984	26,298	150,268	5,588	NA	–	–	[R] -78,130	–
1997	4,949	231	4,048	202	21,630	22,454	167	3,311	704	61,213	13,193	25,066	151,987	6,244	NA	–	–	-81,477	–
			Trillion Btu																
1960	15.2	67.2	8.7	10.9	105.6	24.4	0.6	2.2	3.5	121.2	58.5	22.1	357.6	0.0	369.1	[R] 58.5	0.0	-58.3	[R] 809.4
1965	12.1	116.2	11.2	2.2	99.7	38.2	0.2	4.9	3.6	141.3	57.5	48.3	407.0	0.0	510.3	[R] 66.2	0.0	-114.1	[R] 997.7
1970	5.9	158.2	15.5	1.8	106.0	59.3	1.4	6.3	4.0	189.5	65.3	58.5	507.5	28.7	736.1	[R] 66.5	0.0	-207.3	[R] 1,295.6
1975	76.2	171.2	19.3	1.4	98.8	78.8	2.0	2.8	3.8	215.4	53.2	71.8	547.2	36.4	889.1	[R] 64.3	0.0	-325.4	[R] 1,459.1
1980	91.0	135.5	13.6	1.8	107.6	67.5	0.7	5.5	4.3	224.1	108.6	59.3	592.8	22.3	872.3	[R] 100.0	0.0	-160.2	[R] 1,653.6
1985	93.7	140.0	13.5	1.0	118.6	86.6	6.9	8.9	3.9	231.2	71.7	64.5	606.8	86.9	814.4	[R] 119.6	0.0	-114.8	[R] 1,746.7
1986	63.3	121.8	16.0	1.2	135.6	96.1	4.3	9.2	3.8	246.6	97.8	63.3	673.7	91.1	800.6	[R] 144.0	0.0	-97.8	[R] 1,796.7
1987	95.7	136.1	15.1	1.4	123.6	104.7	4.9	12.2	4.3	269.2	86.6	88.1	710.1	59.6	739.4	[R] 150.6	0.0	-26.1	[R] 1,865.3
1988	99.1	150.6	12.7	1.1	122.9	116.3	5.4	10.3	4.1	266.3	102.7	96.4	738.2	64.5	712.9	[R] 156.8	0.0	70.7	[R] 1,992.7
1989	96.9	168.0	17.3	1.0	122.5	116.0	4.0	12.5	4.2	282.7	99.5	105.8	765.6	65.6	[R i] 731.4	[R i] 147.4	[R i] 0.4	[R] 55.4	[R i] 2,032.3
1990	85.6	167.6	16.5	1.6	126.9	126.0	0.4	8.3	4.4	280.8	103.7	121.6	790.3	61.3	[R] 889.8	[R] 121.7	[R] 0.4	[R] -45.5	[R] 2,070.9
1991	89.2	178.4	19.7	1.4	116.3	120.2	0.4	9.4	3.9	284.9	109.4	117.5	783.0	45.4	[R] 920.1	[R] 124.1	[R] 0.4	[R] -40.6	[R] 2,093.3
1992	106.1	174.7	20.1	1.5	107.5	136.0	0.3	9.2	4.0	289.9	147.4	153.5	869.3	60.8	[R] 695.2	[R] 134.0	[R] 0.4	[R] 86.5	[R] 2,128.2
1993	97.8	205.7	19.5	1.0	90.1	125.6	0.4	9.3	4.1	301.4	100.1	133.1	784.7	76.2	665.9	[R] 134.2	[R] 0.5	126.3	[R] 2,079.6
1994	106.9	221.5	23.4	1.6	109.6	121.7	0.5	9.4	4.2	301.8	99.1	146.0	817.4	72.0	[R] 660.0	[R] 140.2	[R] 0.5	[R] 88.3	[R] 2,093.1
1995	69.8	229.2	23.6	1.2	109.8	130.4	0.7	10.6	4.2	309.1	110.5	147.0	846.9	74.0	[R] 834.1	[R] 140.6	[R] 0.5	[R] -20.8	[R] 2,145.9
1996	90.9	247.5	24.5	1.5	110.5	126.5	0.8	11.8	4.0	323.6	81.6	157.0	842.1	59.4	1045.2	[R] 146.8	[R] 0.6	[R] -266.6	[R] 2,152.3
1997	80.5	241.9	26.9	1.0	126.0	127.3	0.9	12.0	4.3	321.6	82.9	149.6	852.5	66.3	1,058.7	141.5	0.6	-278.0	2,164.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] Through 1989, includes all net imports electricity, and, from 1990, includes only the portion of net imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 300. Residential Energy Consumption Estimates, Selected Years 1960-1997, Washington

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	63	0	63	8	7,303	0	347	7,650	R 888	–	–	8,755	–	21,776	–
1965	51	0	51	17	6,495	9	894	7,399	R 624	–	–	11,015	–	26,298	–
1970	12	0	12	32	7,035	115	1,145	8,296	R 479	–	–	15,355	–	37,209	–
1975	7	0	7	34	4,806	203	404	5,413	R 513	–	–	19,209	–	46,334	–
1980	56	0	56	30	3,422	65	626	4,113	R 652	–	–	24,445	–	59,442	–
1985	76	0	76	33	3,095	86	553	3,734	R 757	–	–	27,933	–	65,625	–
1986	31	0	31	30	3,071	50	428	3,548	R 737	–	–	26,503	–	60,965	–
1987	18	0	18	30	3,029	41	666	3,736	R 1,013	–	–	25,773	–	58,890	–
1988	41	(s)	41	35	3,025	59	532	3,616	R 1,052	–	–	27,203	–	61,500	–
1989	32	0	32	38	2,744	54	608	3,406	R 1,091	–	–	28,653	–	R 64,378	–
1990	23	0	23	40	2,998	49	657	3,704	949	–	–	28,809	–	R 63,012	–
1991	28	(s)	28	46	2,482	46	891	3,419	1,000	–	–	29,889	–	R 65,065	–
1992	32	(s)	32	43	1,827	29	880	2,737	1,052	–	–	28,436	–	R 60,739	–
1993	40	0	40	53	1,517	44	921	2,482	R 899	–	–	30,932	–	65,353	–
1994	30	0	30	53	1,523	66	944	2,532	R 881	–	–	29,673	–	R 61,919	–
1995	27	0	27	53	1,478	86	1,237	2,801	R 978	–	–	30,147	–	R 62,806	–
1996	8	0	8	63	1,499	110	1,258	2,867	R 976	–	–	32,012	–	R 66,625	–
1997	8	0	8	62	1,455	133	1,258	2,846	710	–	–	31,749	–	65,936	–
	Trillion Btu														
1960	1.4	0.0	1.4	8.3	42.5	0.0	1.4	43.9	R 17.8	0.0	0.0	29.9	R 101.3	74.3	R 175.6
1965	1.2	0.0	1.2	18.7	37.8	0.1	3.6	41.5	R 12.5	0.0	0.0	37.6	R 111.4	89.7	R 201.1
1970	0.3	0.0	0.3	33.7	41.0	0.7	4.3	46.0	R 9.6	0.0	0.0	52.4	R 141.9	127.0	R 268.8
1975	0.1	0.0	0.1	35.8	28.0	1.1	1.5	30.6	R 10.3	0.0	0.0	65.5	R 142.4	158.1	R 300.5
1980	1.3	0.0	1.3	31.3	19.9	0.4	2.3	22.6	R 13.0	0.0	0.0	83.4	R 151.6	202.8	R 354.4
1985	1.8	0.0	1.8	34.3	18.0	0.5	2.0	20.5	R 15.1	0.0	0.0	95.3	R 167.1	223.9	R 391.0
1986	0.7	0.0	0.7	31.1	17.9	0.3	1.6	19.7	R 14.7	0.0	0.0	90.4	R 156.7	208.0	R 364.7
1987	0.4	0.0	0.4	30.8	17.6	0.2	2.4	20.3	R 20.3	0.0	0.0	87.9	R 159.7	200.9	R 360.6
1988	0.9	(s)	0.9	35.9	17.6	0.3	1.9	19.9	R 21.0	0.0	0.0	92.8	R 170.5	209.8	R 380.4
1989	0.7	0.0	0.7	39.6	16.0	0.3	2.2	18.5	R 21.8	[e] (s)	R [e] 0.3	97.8	R [e] 178.7	R 219.7	R [e] 398.4
1990	0.5	0.0	0.5	41.6	17.5	0.3	2.4	20.1	19.0	(s)	0.3	98.3	179.8	215.0	394.8
1991	0.6	(s)	0.6	47.7	14.5	0.3	3.2	17.9	20.0	(s)	0.3	102.0	188.5	222.0	410.5
1992	0.7	(s)	0.7	44.4	10.6	0.2	3.2	14.0	21.0	(s)	0.3	97.0	R 177.6	207.2	384.8
1993	0.9	0.0	0.9	55.2	8.8	0.2	3.3	12.4	R 18.0	(s)	0.3	105.5	R 192.4	223.0	R 415.4
1994	0.7	0.0	0.7	55.3	8.9	0.4	3.4	12.7	17.6	(s)	0.3	101.2	R 187.9	R 211.3	399.1
1995	0.6	0.0	0.6	54.9	8.6	0.5	4.5	13.6	R 19.6	(s)	0.3	102.9	191.8	214.3	R 406.1
1996	0.2	0.0	0.2	65.0	8.7	0.6	4.5	13.9	19.5	(s)	0.3	109.2	R 208.2	227.3	435.5
1997	0.2	0.0	0.2	64.7	8.5	0.8	4.5	13.8	14.2	(s)	0.4	108.3	201.5	225.0	426.5

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 301. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Washington

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	117	0	117	6	2,308	0	61	222	441	3,032	R 17	–	3,220	–	8,010	–
1965	95	0	95	11	2,053	1	158	255	412	2,880	R 12	–	4,380	–	10,457	–
1970	23	0	23	18	2,224	15	202	304	481	3,226	R 9	–	R 6,723	–	R 16,293	–
1975	13	0	13	32	1,519	26	71	374	355	2,345	R 10	–	10,377	–	25,030	–
1980	105	0	105	31	1,073	18	111	478	426	2,105	R 16	–	13,845	–	33,667	–
1985	140	0	140	35	4,272	206	98	357	748	5,681	NA	–	R 18,965	–	R 44,557	–
1986	57	0	57	32	2,419	52	75	309	140	2,995	NA	–	R 18,816	–	R 43,281	–
1987	34	0	34	32	2,331	806	118	314	55	3,623	NA	–	R 19,698	–	R 45,008	–
1988	75	(s)	75	37	2,644	869	94	278	220	4,105	NA	–	R 20,706	–	R 46,812	–
1989	59	0	59	39	1,708	651	107	260	71	2,796	NA	–	R 20,637	–	R 46,367	–
1990	43	0	43	39	2,090	14	116	281	53	2,555	NA	–	R 21,510	–	R 47,047	–
1991	52	(s)	52	42	1,611	17	157	189	101	2,075	NA	–	R 21,967	–	R 47,819	–
1992	59	(s)	59	38	816	12	155	131	56	1,171	NA	–	R 22,532	–	R 48,129	–
1993	74	0	74	44	675	13	163	48	60	959	R 72	–	R 22,959	–	R 48,508	–
1994	56	0	56	43	721	16	167	48	48	1,000	R 74	–	R 23,377	–	R 48,781	–
1995	51	0	51	43	932	14	218	59	111	1,335	R 74	–	R 23,912	–	R 49,815	–
1996	15	0	15	48	673	8	222	60	170	1,134	R 80	–	R 25,142	–	R 52,326	–
1997	14	0	14	47	854	13	222	60	46	1,196	69	–	25,191	–	52,316	–
	Trillion Btu															
1960	2.7	0.0	2.7	6.7	13.4	0.0	0.2	1.2	2.8	17.6	R 0.3	0.0	11.0	R 38.3	27.3	R 65.7
1965	2.2	0.0	2.2	11.5	12.0	(s)	0.6	1.3	2.6	16.5	R 0.2	0.0	14.9	R 45.3	35.7	R 81.0
1970	0.5	0.0	0.5	19.5	13.0	0.1	0.8	1.6	3.0	18.4	R 0.2	0.0	22.9	R 61.5	55.6	R 117.1
1975	0.3	0.0	0.3	33.3	8.8	0.1	0.3	2.0	2.2	13.5	R 0.2	0.0	35.4	R 82.6	85.4	R 168.0
1980	2.4	0.0	2.4	32.4	6.2	0.1	0.4	2.5	2.7	11.9	R 0.3	0.0	47.2	R 94.2	114.9	R 209.1
1985	3.3	0.0	3.3	36.9	24.9	1.2	0.4	1.9	4.7	33.0	NA	0.0	64.7	137.9	152.0	289.9
1986	1.3	0.0	1.3	33.0	14.1	0.3	0.3	1.6	0.9	17.2	NA	0.0	64.2	115.6	147.7	263.3
1987	0.8	0.0	0.8	33.4	13.6	4.6	0.4	1.7	0.3	20.6	NA	0.0	67.2	122.0	153.6	R 275.5
1988	1.7	(s)	1.7	37.6	15.4	4.9	0.3	1.5	1.4	23.5	NA	0.0	70.7	R 133.4	159.7	293.2
1989	1.3	0.0	1.3	39.7	9.9	3.7	0.4	1.4	0.4	15.8	NA	[e] (s)	70.4	127.3	158.2	285.5
1990	0.9	0.0	0.9	39.8	12.2	0.1	0.4	1.5	0.3	14.5	NA	0.1	73.4	R 128.7	160.5	289.2
1991	1.2	(s)	1.2	43.0	9.4	0.1	0.6	1.0	0.6	11.7	NA	0.1	75.0	R 130.9	163.2	R 294.1
1992	1.3	(s)	1.3	39.0	4.8	0.1	0.6	0.7	0.4	6.4	NA	0.1	76.9	123.7	164.2	R 288.0
1993	1.7	0.0	1.7	45.2	3.9	0.1	0.6	0.3	0.4	5.2	R 1.4	0.1	78.3	R 132.0	165.5	R 297.5
1994	1.3	0.0	1.3	44.7	4.2	0.1	0.6	0.3	0.3	5.5	R 1.5	0.1	79.8	R 132.8	R 166.4	R 299.3
1995	1.1	0.0	1.1	44.3	5.4	0.1	0.8	0.3	0.7	7.3	R 1.5	0.2	81.6	R 135.9	170.0	R 305.9
1996	0.4	0.0	0.4	49.9	3.9	(s)	0.8	0.3	1.1	6.2	R 1.6	0.2	85.8	R 144.0	R 178.5	R 322.5
1997	0.3	0.0	0.3	48.8	5.0	0.1	0.8	0.3	0.3	6.5	1.4	0.2	86.0	143.2	178.5	321.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 302. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Washington

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	420	50	1,309	5,937	105	134	158	802	7,137	3,679	19,260	195	–	–	13,975	–	34,761	–
1965	341	79	1,683	5,546	23	155	216	765	7,281	8,048	23,718	190	–	–	18,703	–	44,656	–
1970	210	93	2,335	4,986	109	274	267	551	7,874	9,762	26,157	135	–	–	25,530	–	61,867	–
1975	463	92	2,910	4,025	118	250	192	438	5,924	11,962	25,820	181	–	–	27,416	–	66,132	–
1980	332	64	2,050	4,350	37	658	202	278	6,538	9,905	24,018	129	–	–	31,366	–	76,271	–
1985	208	63	2,039	2,766	920	1,487	184	692	5,167	10,574	23,829	129	–	–	29,431	–	69,146	–
1986	372	54	2,404	3,580	649	1,738	179	740	6,480	10,301	26,073	129	–	–	30,040	–	69,100	–
1987	298	66	2,268	3,736	14	2,315	203	736	5,584	14,531	29,387	129	–	–	31,597	–	72,196	–
1988	252	69	1,921	2,889	17	1,926	196	676	6,431	15,957	30,012	129	–	–	36,909	–	83,443	–
1989	238	73	2,612	3,681	7	2,436	201	697	2,044	17,595	29,273	[f] NA	–	–	37,369	–	[R] 83,962	–
1990	229	78	2,481	4,456	11	1,228	207	658	2,017	20,217	31,275	NA	–	–	40,712	–	[R] 89,046	–
1991	197	80	2,967	3,985	7	1,302	185	794	1,340	19,591	30,170	NA	–	–	40,839	–	[R] 88,902	–
1992	163	80	3,023	3,404	6	1,307	188	806	996	25,701	35,432	NA	–	–	38,332	–	[R] 81,876	–
1993	174	92	2,941	2,670	6	1,284	192	526	859	22,248	30,727	NA	–	–	36,563	–	77,250	–
1994	201	108	3,526	2,870	8	1,172	200	532	907	24,424	33,640	NA	–	–	34,065	–	[R] 71,085	–
1995	223	110	3,558	2,748	21	1,278	197	555	654	24,573	33,584	NA	–	–	34,276	–	[R] 71,408	–
1996	152	114	3,696	2,519	24	1,642	191	565	328	26,298	35,263	NA	–	–	30,241	–	[R] 62,939	–
1997	156	111	4,048	2,711	21	1,689	202	593	309	25,066	34,640	NA	–	–	31,348	–	65,102	–
			Trillion Btu															
1960	10.9	51.8	8.7	34.6	0.6	0.5	1.0	4.2	44.9	22.1	116.5	2.1	[R] 40.4	0.0	47.7	[R] 269.4	118.6	[R] 388.1
1965	8.8	85.3	11.2	32.3	0.1	0.6	1.3	4.0	45.8	48.3	143.6	2.0	[R] 53.5	0.0	63.8	[R] 357.0	152.4	[R] 509.4
1970	5.1	98.3	15.5	29.0	0.6	1.0	1.6	2.9	49.5	58.5	158.7	1.4	[R] 56.8	0.0	87.1	[R] 407.3	211.1	[R] 618.4
1975	10.9	96.0	19.3	23.4	0.7	0.9	1.2	2.3	37.2	71.8	156.8	1.9	[R] 53.9	0.0	93.5	[R] 413.0	225.6	[R] 638.7
1980	7.1	67.0	13.6	25.3	0.2	2.4	1.2	1.5	41.1	59.3	144.6	1.3	[R] 86.7	0.0	107.0	[R] 413.8	260.2	[R] 674.0
1985	4.5	65.7	13.5	16.1	5.2	5.4	1.1	3.6	32.5	64.5	141.9	1.4	[R] 101.5	0.0	100.4	[R] 415.4	235.9	[R] 651.4
1986	7.4	55.6	16.0	20.9	3.7	6.3	1.1	3.9	40.7	63.3	155.8	1.4	[R] 127.2	0.0	102.5	[R] 449.8	235.8	[R] 685.6
1987	5.9	67.9	15.1	21.8	0.1	8.5	1.2	3.9	35.1	88.1	173.7	1.3	[R] 126.7	0.0	107.8	[R] 483.3	246.3	[R] 729.6
1988	5.3	71.2	12.7	16.8	0.1	7.0	1.2	3.6	40.4	96.4	178.2	1.3	[R] 131.8	0.0	125.9	[R] 513.8	284.7	[R] 798.5
1989	4.9	75.6	17.3	21.4	(s)	9.0	1.2	3.7	12.9	105.8	171.3	[R f] 2.6	[R f] 116.6	[f] 0.0	127.5	[R f] 498.6	[R] 286.5	[R f] 785.0
1990	5.2	80.8	16.5	26.0	0.1	4.5	1.3	3.5	12.7	121.6	185.9	[R] 3.9	[R] 93.4	0.0	138.9	[R] 508.1	303.8	[R] 811.9
1991	4.3	82.2	19.7	23.2	(s)	4.7	1.1	4.2	8.4	117.5	178.8	4.1	[R] 96.6	0.0	139.3	[R] 505.4	303.3	[R] 808.7
1992	3.4	82.4	20.1	19.8	(s)	4.7	1.1	4.2	6.3	153.5	209.8	3.7	[R] 103.6	0.0	130.8	[R] 533.7	279.4	[R] 813.0
1993	3.5	95.7	19.5	15.6	(s)	4.6	1.2	2.8	5.4	133.1	182.2	3.4	[R] 104.4	0.0	124.8	[R] 514.0	263.6	[R] 777.6
1994	3.9	112.0	23.4	16.7	(s)	4.3	1.2	2.8	5.7	146.0	200.2	3.9	[R] 109.9	0.0	116.2	[R] 546.1	242.5	[R] 788.7
1995	4.2	114.4	23.6	16.0	0.1	4.6	1.2	2.9	4.1	147.0	199.6	4.9	[R] 114.6	0.0	117.0	[R] 554.7	243.6	[R] 798.3
1996	3.0	118.4	24.5	14.7	0.1	5.9	1.2	3.0	2.1	157.0	208.5	4.6	[R] 121.0	0.0	103.2	[R] 558.6	[R] 214.7	[R] 773.4
1997	3.2	116.3	26.9	15.8	0.1	6.1	1.2	3.1	1.9	149.6	204.7	5.7	120.3	0.0	107.0	557.1	222.1	779.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 303. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Washington

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	7	(s)	2,161	2,574	4,502	6	413	22,052	1,707	33,415	0	1	–	3	–
1965	1	1	434	3,022	6,919	21	381	25,886	1,443	38,104	0	R 2	–	4	–
1970	(s)	6	351	3,956	10,637	38	400	35,213	2,025	52,620	0	R 2	–	R 4	–
1975	(s)	6	274	6,616	14,036	37	428	40,196	2,109	63,696	0	2	–	4	–
1980	0	4	356	9,595	12,036	92	501	41,897	10,112	74,589	0	2	–	R 5	–
1985	0	3	202	10,210	15,417	329	456	42,971	5,492	75,076	0	R 14	–	R 32	–
1986	0	2	228	14,194	17,073	284	446	45,900	8,931	87,056	0	R 13	–	R 31	–
1987	0	4	275	12,113	18,596	246	504	50,202	8,131	90,066	0	R 14	–	R 33	–
1988	0	4	214	12,518	20,647	277	486	49,744	9,688	93,574	0	R 14	–	R 31	–
1989	0	4	188	12,862	20,592	249	499	52,856	13,556	100,801	R e 65,945	R 15	–	R 35	–
1990	0	5	313	12,213	22,343	291	513	52,525	14,428	102,626	76,162	R 16	–	R 34	–
1991	0	5	268	11,866	21,306	246	459	53,256	15,957	103,357	60,372	R 19	–	R 40	–
1992	0	3	289	12,394	24,066	207	468	54,259	22,385	114,067	73,375	R 20	–	R 42	–
1993	0	4	198	10,545	22,226	214	477	56,811	15,008	105,478	81,885	R 19	–	R 39	–
1994	0	7	318	13,685	21,492	312	498	56,866	14,810	107,981	93,651	R 19	–	R 39	–
1995	0	9	229	13,669	23,039	179	490	58,222	16,809	112,638	30,395	R 18	–	R 38	–
1996	0	7	292	14,269	22,323	157	475	60,986	12,485	110,988	13,512	R 17	–	R 36	–
1997	0	9	202	16,570	22,454	143	502	60,559	12,837	113,268	26,466	18	–	38	–
			Trillion Btu												
1960	0.2	0.4	10.9	15.0	24.4	(s)	2.5	115.8	10.7	179.4	0.0	(s)	180.0	(s)	180.0
1965	(s)	0.7	2.2	17.6	38.2	0.1	2.3	136.0	9.1	205.4	0.0	(s)	206.2	(s)	206.2
1970	(s)	6.8	1.8	23.0	59.3	0.1	2.4	185.0	12.7	284.4	0.0	(s)	291.2	(s)	291.2
1975	(s)	6.1	1.4	38.5	78.7	0.1	2.6	211.1	13.3	345.8	0.0	(s)	351.9	(s)	351.9
1980	0.0	3.9	1.8	55.9	67.5	0.3	3.0	220.1	63.6	412.2	0.0	(s)	416.1	(s)	416.1
1985	0.0	3.0	1.0	59.5	86.6	1.2	2.8	225.7	34.5	411.3	0.0	(s)	414.4	0.1	R 414.5
1986	0.0	2.0	1.2	82.7	96.1	1.0	2.7	241.1	56.2	480.9	0.0	(s)	483.0	0.1	483.1
1987	0.0	3.9	1.4	70.6	104.7	0.9	3.1	263.7	51.1	495.4	0.0	(s)	499.4	0.1	499.5
1988	0.0	4.1	1.1	72.9	116.3	1.0	2.9	261.3	60.9	516.5	0.0	(s)	520.6	0.1	520.7
1989	0.0	4.5	1.0	74.9	116.0	0.9	3.0	277.7	85.2	558.7	R e 5.0	R 0.1	e 563.3	0.1	e 563.4
1990	0.0	5.3	1.6	71.1	126.0	1.1	3.1	275.9	90.7	569.5	5.8	R 0.1	574.8	0.1	R 575.0
1991	0.0	5.3	1.4	69.1	120.2	0.9	2.8	279.8	100.3	574.5	4.6	0.1	579.8	0.1	580.0
1992	0.0	3.3	1.5	72.2	136.0	0.7	2.8	285.0	140.7	639.0	5.6	0.1	642.3	0.1	642.4
1993	0.0	4.5	1.0	61.4	125.6	0.8	2.9	298.4	94.4	584.5	6.3	0.1	589.0	0.1	589.1
1994	0.0	6.9	1.6	79.7	121.7	1.1	3.0	298.7	93.1	599.0	7.2	0.1	605.9	0.1	606.0
1995	0.0	9.1	1.2	79.6	130.4	0.6	3.0	305.8	105.7	626.3	2.3	R 0.1	635.4	0.1	R 635.6
1996	0.0	7.2	1.5	83.1	126.5	0.6	2.9	320.4	78.5	613.4	1.0	R 0.1	620.7	0.1	R 620.9
1997	0.0	9.4	1.0	96.5	127.3	0.5	3.0	318.1	80.7	627.2	2.0	0.1	636.7	0.1	636.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 304. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Washington

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	0	0	0	0	14	2	0	16	0	34,104	1	0	0	–
1965	0	0	0	0	3	(s)	0	3	0	48,624	0	0	0	–
1970	0	0	0	0	3	(s)	0	4	2,614	70,008	(s)	0	0	–
1975	4,009	0	4,009	0	71	4	0	75	3,308	85,257	0	0	0	–
1980	4,950	0	4,950	1	201	31	0	232	2,041	83,841	0	0	0	–
1985	5,192	0	5,192	(s)	0	17	0	17	8,038	77,827	282	0	0	–
1986	3,329	0	3,329	(s)	1	19	0	20	8,439	76,509	191	0	0	–
1987	5,468	0	5,468	(s)	1	17	0	18	5,528	70,834	348	0	0	–
1988	5,561	0	5,561	2	1	16	0	16	6,000	68,924	383	0	0	–
1989	5,514	0	5,514	8	150	42	0	192	6,118	R 69,864	376	0	0	–
1990	4,852	0	4,852	(s)	1	30	0	31	5,742	85,167	333	0	0	–
1991	5,184	0	5,184	(s)	1	15	0	16	4,230	87,771	274	0	0	–
1992	6,148	0	6,148	5	1	12	0	13	5,692	66,864	361	0	0	–
1993	5,646	0	5,646	5	1	62	0	62	7,135	64,263	395	0	0	–
1994	6,016	0	6,016	2	0	12	0	12	6,740	63,602	396	0	0	–
1995	3,857	0	3,857	6	0	18	0	18	6,942	80,406	261	0	0	–
1996	5,507	0	5,507	7	0	16	0	16	5,588	100,688	360	0	0	–
1997	4,771	0	4,771	3	0	39	0	39	6,244	102,129	353	0	0	–
	Trillion Btu													
1960	0.0	0.0	0.0	0.0	0.1	(s)	0.0	0.1	0.0	367.0	(s)	0.0	0.0	367.1
1965	0.0	0.0	0.0	0.0	(s)	(s)	0.0	(s)	0.0	508.3	0.0	0.0	0.0	508.3
1970	0.0	0.0	0.0	0.0	(s)	(s)	0.0	(s)	28.7	734.7	(s)	0.0	0.0	763.4
1975	64.9	0.0	64.9	0.0	0.4	(s)	0.0	0.5	36.4	887.2	0.0	0.0	0.0	989.0
1980	80.2	0.0	80.2	1.0	1.3	0.2	0.0	1.4	22.3	870.9	0.0	0.0	0.0	975.8
1985	84.1	0.0	84.1	0.1	0.0	0.1	0.0	0.1	86.9	813.1	2.9	0.0	0.0	987.2
1986	53.9	0.0	53.9	0.1	(s)	0.1	0.0	0.1	91.1	799.2	2.0	0.0	0.0	946.5
1987	88.6	0.0	88.6	0.1	(s)	0.1	0.0	0.1	59.6	738.0	3.6	0.0	0.0	890.1
1988	91.3	0.0	91.3	1.8	(s)	0.1	0.0	0.1	64.5	711.6	4.0	0.0	0.0	873.2
1989	90.0	0.0	90.0	8.6	0.9	0.2	0.0	1.2	65.6	R 728.8	3.9	0.0	0.0	904.8
1990	78.9	0.0	78.9	0.2	(s)	0.2	0.0	0.2	61.3	R 885.9	3.5	0.0	0.0	R 1,035.7
1991	83.1	0.0	83.1	0.1	(s)	0.1	0.0	0.1	45.4	R 916.0	2.9	0.0	0.0	R 1,045.5
1992	100.7	0.0	100.7	5.7	(s)	0.1	0.0	0.1	60.8	R 691.5	3.7	0.0	0.0	R 869.2
1993	91.7	0.0	91.7	5.1	(s)	0.4	0.0	0.4	76.2	662.5	4.1	0.0	0.0	834.6
1994	101.1	0.0	101.1	2.6	0.0	0.1	0.0	0.1	72.0	R 656.1	4.1	0.0	0.0	R 829.4
1995	63.8	0.0	63.8	6.7	0.0	0.1	0.0	0.1	74.0	R 829.1	2.7	0.0	0.0	R 950.3
1996	87.4	0.0	87.4	6.9	0.0	0.1	0.0	0.1	59.4	R 1,040.6	3.7	0.0	0.0	R 1,185.6
1997	76.7	0.0	76.7	2.7	0.0	0.2	0.0	0.2	66.3	1,053.1	3.6	0.0	0.0	1,205.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] Through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of net imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 305. Energy Consumption Estimates by Source, Selected Years 1960-1997, West Virginia

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh				Million kWh	
1960	14,060	150	918	119	2,473	169	276	558	570	11,609	1,481	4,704	22,876	0	938	–	–	-12,238	–
1965	19,049	164	907	201	2,837	130	253	961	636	12,762	2,153	11,875	32,714	0	828	–	–	-16,716	–
1970	25,376	181	863	78	3,917	290	320	1,230	684	15,831	2,065	14,523	39,801	0	996	–	–	-52,336	–
1975	34,469	158	944	58	5,922	249	325	1,498	686	19,314	2,504	16,544	48,043	0	1,063	–	–	-120,635	–
1980	34,939	143	717	65	10,541	357	496	3,435	671	19,390	1,463	20,395	57,530	0	1,114	–	–	-133,702	–
1985	34,999	117	430	39	9,718	235	696	1,157	610	18,513	970	13,876	46,243	0	1,058	–	–	-160,204	–
1986	35,097	113	565	50	7,673	219	587	1,148	597	18,652	1,182	16,193	46,865	0	1,051	–	–	-158,356	–
1987	34,890	115	537	35	8,999	211	520	1,202	674	19,338	541	16,357	48,413	0	1,005	–	–	-155,566	–
1988	36,527	122	879	38	9,067	248	582	1,231	650	19,744	631	16,819	49,891	0	988	–	–	-160,315	–
1989	37,289	129	812	38	10,084	380	509	1,535	667	19,484	1,056	17,079	51,646	0	[i] NA	–	–	[R] -163,339	–
1990	34,896	120	728	36	9,760	273	295	1,612	687	19,643	1,285	19,421	53,740	0	NA	–	–	[R] -146,299	–
1991	31,843	111	528	33	9,626	237	300	1,821	614	19,342	1,070	13,299	46,871	0	NA	–	–	[R] -128,660	–
1992	32,019	129	550	0	9,455	271	337	1,692	626	19,860	581	14,304	47,676	0	NA	–	–	[R] -133,049	–
1993	32,046	135	427	26	10,758	257	424	1,821	638	19,638	516	13,864	48,367	0	NA	–	–	-129,050	–
1994	34,767	145	692	26	11,075	225	412	1,972	666	19,960	501	14,508	50,037	0	NA	–	–	[R] -146,990	–
1995	34,489	148	639	27	11,346	174	394	1,944	655	20,891	200	14,036	50,308	0	NA	–	–	[R] -144,948	–
1996	36,139	155	944	32	9,385	170	490	2,160	636	18,899	358	14,614	47,687	0	NA	–	–	[R] -159,470	–
1997	37,121	159	1,157	22	10,871	172	513	2,181	672	19,752	236	15,631	51,208	0	NA	–	–	-171,567	–
			Trillion Btu																
1960	354.5	155.6	6.1	0.6	14.4	0.9	1.6	2.2	3.5	61.0	9.3	27.3	126.9	0.0	10.1	[R] 13.4	0.0	-41.8	[R] 618.7
1965	477.4	176.1	6.0	1.0	16.5	0.7	1.4	3.9	3.9	67.0	13.5	67.0	181.0	0.0	8.7	[R] 11.9	0.0	-57.0	[R] 798.0
1970	612.4	186.5	5.7	0.4	22.8	1.6	1.8	4.6	4.2	83.2	13.0	80.4	217.7	0.0	10.4	[R] 10.7	0.0	-178.6	[R] 859.2
1975	817.4	164.3	6.3	0.3	34.5	1.4	1.8	5.6	4.2	101.5	15.7	92.8	264.0	0.0	11.1	[R] 11.7	0.0	-411.6	[R] 856.9
1980	857.8	147.6	4.8	0.3	61.4	2.0	2.8	12.6	4.1	101.9	9.2	112.5	311.5	0.0	11.6	[R] 8.4	0.0	-456.2	[R] 880.7
1985	871.7	125.0	2.9	0.2	56.6	1.3	3.9	4.2	3.7	97.2	6.1	75.8	251.9	0.0	11.1	[R] 11.5	0.0	-546.6	[R] 724.6
1986	877.2	121.1	3.8	0.3	44.7	1.2	3.3	4.2	3.6	98.0	7.4	88.8	255.2	0.0	11.0	[R] 19.4	0.0	-540.3	[R] 743.7
1987	871.7	123.7	3.6	0.2	52.4	1.2	3.0	4.4	4.1	101.6	3.4	89.1	262.8	0.0	10.5	[R] 17.7	0.0	-530.8	[R] 755.6
1988	915.4	131.5	5.8	0.2	52.8	1.4	3.3	4.5	3.9	103.7	4.0	92.1	271.7	0.0	10.2	[R] 18.4	0.0	-547.0	[R] 800.3
1989	929.0	139.4	5.4	0.2	58.7	2.1	2.9	5.7	4.0	102.4	6.6	93.5	281.5	0.0	[R i] 13.7	[R i] 16.9	[R i] (s)	[R] -557.3	[R i] 823.1
1990	872.7	129.0	4.8	0.2	56.9	1.5	1.7	5.8	4.2	103.2	8.1	106.7	293.0	0.0	[R] 13.3	9.5	(s)	-499.2	[R] 818.2
1991	799.7	118.8	3.5	0.2	56.1	1.3	1.7	6.6	3.7	101.6	6.7	73.3	254.7	0.0	10.9	[R] 9.9	(s)	-439.0	[R] 755.0
1992	804.6	137.2	3.6	0.0	55.1	1.5	1.9	6.1	3.8	104.3	3.7	78.6	258.7	0.0	13.2	[R] 10.4	(s)	-454.0	[R] 770.1
1993	803.5	144.0	2.8	0.1	62.7	1.4	2.4	6.6	3.9	103.2	3.2	76.0	262.3	0.0	[R] 11.6	[R] 11.1	(s)	-440.3	[R] 791.9
1994	870.3	154.7	4.6	0.1	64.5	1.3	2.3	7.2	4.0	104.8	3.1	79.5	271.5	0.0	11.9	[R] 12.9	(s)	-501.5	[R] 819.7
1995	860.4	157.4	4.2	0.1	66.1	1.0	2.2	7.0	4.0	109.7	1.3	76.9	272.6	0.0	12.4	[R] 13.7	(s)	-494.6	[R] 821.8
1996	898.3	164.5	6.3	0.2	54.7	1.0	2.8	7.8	3.9	99.3	2.2	79.6	257.6	0.0	14.8	[R] 13.9	(s)	-544.1	[R] 805.1
1997	922.5	169.9	7.7	0.1	63.3	1.0	2.9	7.9	4.1	103.8	1.5	85.5	277.7	0.0	11.8	12.6	(s)	-585.4	809.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 306. Residential Energy Consumption Estimates, Selected Years 1960-1997, West Virginia

Year	Coal: Bituminous Coal and Lignite [a]	Coal: Anthracite [a]	Coal: Total	Natural Gas [b]	Petroleum: Distillate Fuel [a]	Petroleum: Kerosene [a]	Petroleum: LPG [a]	Petroleum: Total	Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	85	0	85	50	204	148	226	578	R 416	–	–	1,714	–	4,263	–
1965	84	0	84	50	304	184	280	768	R 320	–	–	2,365	–	5,647	–
1970	67	0	67	58	250	267	266	783	R 287	–	–	3,459	–	8,383	–
1975	83	0	83	51	581	172	331	1,084	R 298	–	–	4,979	–	12,010	–
1980	55	0	55	48	1,169	408	395	1,973	R 264	–	–	6,606	–	16,064	–
1985	27	2	29	37	462	390	225	1,078	R 395	–	–	6,712	–	15,770	–
1986	39	0	39	36	558	455	228	1,241	R 385	–	–	6,983	–	16,062	–
1987	49	0	49	36	634	343	270	1,246	R 299	–	–	7,250	–	16,567	–
1988	39	(s)	39	38	573	398	335	1,306	R 311	–	–	7,549	–	17,066	–
1989	51	1	52	37	644	345	396	1,386	R 323	–	–	7,634	–	R 17,153	–
1990	62	(s)	63	33	574	210	416	1,200	214	–	–	7,578	–	R 16,575	–
1991	33	1	34	33	537	197	394	1,128	R 226	–	–	8,106	–	R 17,646	–
1992	27	5	33	35	462	245	454	1,162	237	–	–	8,138	–	17,383	–
1993	32	6	38	35	568	323	483	1,374	R 245	–	–	8,682	–	18,344	–
1994	30	(s)	30	35	584	304	487	1,375	R 240	–	–	8,663	–	R 18,077	–
1995	21	3	24	35	480	287	416	1,183	R 267	–	–	9,166	–	R 19,095	–
1996	38	0	38	37	608	377	457	1,442	R 266	–	–	9,277	–	R 19,306	–
1997	37	(s)	37	36	623	399	457	1,479	194	–	–	9,027	–	18,746	–
	Trillion Btu														
1960	2.1	0.0	2.1	51.4	1.2	0.8	0.9	2.9	R 8.3	0.0	0.0	5.8	R 70.7	14.5	R 85.2
1965	2.1	0.0	2.1	53.2	1.8	1.0	1.1	3.9	R 6.4	0.0	0.0	8.1	R 73.7	19.3	R 92.9
1970	1.6	0.0	1.6	59.7	1.5	1.5	1.0	4.0	R 5.7	0.0	0.0	11.8	R 82.8	28.6	R 111.4
1975	2.0	0.0	2.0	53.2	3.4	1.0	1.2	5.6	R 6.0	0.0	0.0	17.0	R 83.8	41.0	R 124.7
1980	1.3	0.0	1.3	49.8	6.8	2.3	1.5	10.6	R 5.3	0.0	0.0	22.5	R 89.5	54.8	R 144.3
1985	0.7	(s)	0.7	39.2	2.7	2.2	0.8	5.7	R 7.9	0.0	0.0	22.9	R 76.5	53.8	R 130.3
1986	1.0	0.0	1.0	39.0	3.3	2.6	0.8	6.7	R 7.7	0.0	0.0	23.8	R 78.2	54.8	R 133.0
1987	1.2	0.0	1.2	38.3	3.7	1.9	1.0	6.6	R 6.0	0.0	0.0	24.7	R 76.9	56.5	R 133.4
1988	1.0	(s)	1.0	40.6	3.3	2.3	1.2	6.8	R 6.2	0.0	0.0	25.8	R 80.4	58.2	R 138.6
1989	1.3	(s)	1.3	40.0	3.8	2.0	1.5	7.2	R 6.5	[e] 0.0	R [e] (s)	26.0	R [e] 81.0	58.5	R [e] 139.5
1990	1.6	(s)	1.6	34.9	3.3	1.2	1.5	6.0	4.3	0.0	(s)	25.9	72.7	R 56.6	129.2
1991	0.8	(s)	0.8	35.0	3.1	1.1	1.4	5.7	4.5	0.0	(s)	27.7	73.7	60.2	133.9
1992	0.7	0.1	0.8	37.6	2.7	1.4	1.6	5.7	4.7	0.0	(s)	27.8	76.7	59.3	136.0
1993	0.8	0.1	0.9	37.5	3.3	1.8	1.7	6.9	4.9	0.0	(s)	29.6	79.9	62.6	142.5
1994	0.8	(s)	0.8	37.5	3.4	1.7	1.8	6.9	4.8	0.0	(s)	29.6	79.5	61.7	141.2
1995	0.5	0.1	0.6	37.5	2.8	1.6	1.5	5.9	R 5.3	0.0	(s)	31.3	80.7	R 65.2	145.9
1996	0.9	0.0	0.9	39.7	3.5	2.1	1.7	7.3	R 5.3	0.0	(s)	31.7	85.0	65.9	R 150.8
1997	0.9	(s)	0.9	38.4	3.6	2.3	1.7	7.5	3.9	0.0	(s)	30.8	81.6	64.0	145.6

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 307. Commercial Energy Consumption Estimates, Selected Years 1960-1997, West Virginia

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	158	0	158	15	75	8	40	65	8	195	R 8	–	1,134	–	2,821	–
1965	157	0	157	15	111	9	49	66	12	248	R 6	–	1,620	–	3,869	–
1970	124	0	124	22	92	14	47	56	9	218	R 5	–	2,238	–	5,423	–
1975	155	0	155	25	213	9	58	59	9	349	R 6	–	2,858	–	6,893	–
1980	101	0	101	22	262	37	70	110	5	484	R 6	–	3,658	–	8,895	–
1985	51	1	52	17	603	129	40	307	5	1,084	NA	–	4,462	–	10,483	–
1986	73	0	73	16	750	55	40	325	9	1,180	NA	–	4,617	–	10,620	–
1987	91	0	91	17	451	60	48	324	4	885	NA	–	4,757	–	10,870	–
1988	72	(s)	72	22	357	79	59	308	173	977	NA	–	4,914	–	11,109	–
1989	96	(s)	96	23	495	76	70	309	88	1,038	NA	–	5,019	–	R 11,276	–
1990	116	(s)	116	21	443	46	73	330	66	958	NA	–	5,085	–	11,122	–
1991	62	(s)	62	21	517	64	70	262	51	964	NA	–	5,313	–	R 11,565	–
1992	51	4	54	24	322	32	80	219	56	708	NA	–	5,323	–	11,370	–
1993	60	4	64	24	437	36	85	20	20	597	R 20	–	5,572	–	11,773	–
1994	56	(s)	56	25	408	38	86	20	5	557	R 20	–	5,631	–	R 11,751	–
1995	39	2	41	26	345	37	73	20	0	475	R 20	–	5,944	–	R 12,383	–
1996	71	0	71	28	267	37	81	20	0	404	R 22	–	6,030	–	12,550	–
1997	68	(s)	68	26	326	51	81	19	0	477	19	–	6,040	–	12,544	–
	Trillion Btu															
1960	4.0	0.0	4.0	16.0	0.4	(s)	0.2	0.3	(s)	1.0	R 0.2	0.0	3.9	R 25.0	9.6	R 34.7
1965	3.9	0.0	3.9	15.6	0.6	0.1	0.2	0.3	0.1	1.3	R 0.1	0.0	5.5	R 26.4	13.2	R 39.6
1970	3.0	0.0	3.0	22.3	0.5	0.1	0.2	0.3	0.1	1.1	R 0.1	0.0	7.6	R 34.2	18.5	R 52.7
1975	3.7	0.0	3.7	25.7	1.2	0.1	0.2	0.3	0.1	1.9	R 0.1	0.0	9.8	R 41.1	23.5	R 64.7
1980	2.4	0.0	2.4	22.7	1.5	0.2	0.3	0.6	(s)	2.6	R 0.1	0.0	12.5	R 40.3	30.3	R 70.7
1985	1.3	(s)	1.3	18.4	3.5	0.7	0.1	1.6	(s)	6.0	NA	0.0	15.2	40.9	35.8	76.7
1986	1.8	0.0	1.8	17.2	4.4	0.3	0.1	1.7	0.1	6.6	NA	0.0	15.8	41.4	36.2	77.6
1987	2.3	0.0	2.3	18.0	2.6	0.3	0.2	1.7	(s)	4.9	NA	0.0	16.2	41.4	37.1	78.5
1988	1.8	(s)	1.8	24.1	2.1	0.4	0.2	1.6	1.1	5.5	NA	0.0	16.8	48.2	37.9	86.1
1989	2.4	(s)	2.4	25.1	2.9	0.4	0.3	1.6	0.6	5.7	NA	0.0	17.1	50.3	38.5	88.8
1990	2.9	(s)	2.9	22.9	2.6	0.3	0.3	1.7	0.4	5.3	NA	0.0	17.4	48.4	37.9	86.4
1991	1.5	(s)	1.6	22.6	3.0	0.4	0.3	1.4	0.3	5.3	NA	0.0	18.1	47.6	39.5	87.0
1992	1.3	0.1	1.4	26.0	1.9	0.2	0.3	1.2	0.3	3.8	NA	0.0	18.2	49.4	38.8	88.2
1993	1.5	0.1	1.6	26.0	2.5	0.2	0.3	0.1	0.1	3.3	R 0.4	0.0	19.0	R 50.2	40.2	R 90.4
1994	1.4	(s)	1.4	26.6	2.4	0.2	0.3	0.1	(s)	3.0	R 0.4	0.0	19.2	R 50.6	40.1	R 90.7
1995	1.0	(s)	1.0	27.5	2.0	0.2	0.3	0.1	0.0	2.6	R 0.4	0.0	20.3	R 51.7	R 42.3	R 94.0
1996	1.7	0.0	1.7	29.7	1.6	0.2	0.3	0.1	0.0	2.2	R 0.4	0.0	20.6	R 54.7	42.8	R 97.5
1997	1.7	(s)	1.7	27.7	1.9	0.3	0.3	0.1	0.0	2.6	0.4	0.0	20.6	52.9	42.8	95.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 308. Industrial Energy Consumption Estimates, Selected Years 1960-1997, West Virginia

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	7,802	76	918	452	120	290	372	204	1,437	4,704	8,497	540	–	–	5,915	–	14,713	–
1965	10,747	81	907	890	60	627	438	155	2,080	11,875	17,033	493	–	–	7,984	–	19,063	–
1970	10,279	93	863	1,087	39	907	500	114	1,621	14,523	19,655	558	–	–	9,426	–	22,842	–
1975	8,424	68	944	1,533	144	1,095	447	78	1,787	16,544	22,571	595	–	–	9,102	–	21,955	–
1980	6,284	59	717	3,585	51	2,955	420	81	1,458	20,395	29,663	690	–	–	10,567	–	25,695	–
1985	3,551	45	430	1,897	177	871	383	229	964	13,876	18,827	690	–	–	9,673	–	22,726	–
1986	4,195	44	565	1,879	77	860	374	229	1,173	16,193	21,349	690	–	–	9,003	–	20,710	–
1987	4,145	50	537	2,531	118	870	423	237	537	16,357	21,609	690	–	–	9,067	–	20,718	–
1988	4,713	49	879	2,586	105	814	408	235	459	16,819	22,305	690	–	–	9,925	–	22,439	–
1989	4,750	58	812	2,590	88	1,049	418	248	968	17,079	23,254	[f] NA	–	–	10,195	–	[R] 22,905	–
1990	4,845	58	728	2,670	39	1,103	430	249	1,219	19,421	25,860	NA	–	–	10,469	–	[R] 22,899	–
1991	4,189	49	528	2,580	39	1,340	385	259	1,019	13,299	19,449	NA	–	–	10,206	–	[R] 22,217	–
1992	3,882	52	550	2,192	60	1,136	393	250	526	14,304	19,409	NA	–	–	10,370	–	[R] 22,150	–
1993	4,162	54	427	2,729	65	1,232	400	161	496	13,864	19,373	NA	–	–	10,187	–	21,523	–
1994	4,363	55	692	2,962	70	1,373	418	181	496	14,508	20,701	NA	–	–	10,482	–	[R] 21,872	–
1995	3,768	60	639	3,209	71	1,443	411	194	200	14,036	20,203	NA	–	–	10,867	–	[R] 22,640	–
1996	3,256	57	944	3,187	77	1,612	399	189	354	14,614	21,374	NA	–	–	10,820	–	[R] 22,519	–
1997	2,530	65	1,157	2,933	63	1,635	421	199	236	15,631	22,275	NA	–	–	11,180	–	23,219	–
			Trillion Btu															
1960	204.4	78.4	6.1	2.6	0.7	1.2	2.3	1.1	9.0	27.3	50.3	5.8	[R] 4.9	0.0	20.2	[R] 363.9	50.2	[R] 414.1
1965	280.0	87.1	6.0	5.2	0.3	2.5	2.7	0.8	13.1	67.0	97.6	5.1	[R] 5.4	0.0	27.2	[R] 502.5	65.0	[R] 567.5
1970	260.2	95.7	5.7	6.3	0.2	3.4	3.0	0.6	10.2	80.4	109.9	5.9	[R] 4.9	0.0	32.2	[R] 508.8	77.9	[R] 586.7
1975	212.5	70.5	6.3	8.9	0.8	4.1	2.7	0.4	11.2	92.8	127.2	6.2	[R] 5.7	0.0	31.1	[R] 453.2	74.9	[R] 528.1
1980	162.4	61.4	4.8	20.9	0.3	10.9	2.5	0.4	9.2	112.5	161.4	7.2	[R] 3.0	0.0	36.1	[R] 431.4	87.7	[R] 519.1
1985	91.0	48.4	2.9	11.1	1.0	3.1	2.3	1.2	6.1	75.8	103.4	7.2	[R] 3.5	0.0	33.0	[R] 286.5	77.5	[R] 364.1
1986	108.4	47.0	3.8	10.9	0.4	3.1	2.3	1.2	7.4	88.8	117.9	7.2	[R] 11.7	0.0	30.7	[R] 322.9	70.7	[R] 393.6
1987	106.9	54.0	3.6	14.7	0.7	3.2	2.6	1.2	3.4	89.1	118.4	7.2	[R] 11.7	0.0	30.9	[R] 329.1	70.7	[R] 399.8
1988	121.8	52.5	5.8	15.1	0.6	3.0	2.5	1.2	2.9	92.1	123.1	7.1	[R] 12.1	0.0	33.9	[R] 350.5	76.6	[R] 427.1
1989	122.2	62.1	5.4	15.1	0.5	3.9	2.5	1.3	6.1	93.5	128.3	[R f] 8.8	[R f] 10.2	[f] 0.0	34.8	[R f] 366.5	[R] 78.2	[R f] 444.6
1990	124.3	61.7	4.8	15.6	0.2	4.0	2.6	1.3	7.7	106.7	142.9	[R] 8.8	5.1	0.0	35.7	378.4	78.1	456.5
1991	108.1	52.2	3.5	15.0	0.2	4.8	2.3	1.4	6.4	73.3	107.0	[R] 7.2	[R] 5.2	0.0	34.8	[R] 314.6	75.8	[R] 390.4
1992	99.8	55.7	3.6	12.8	0.3	4.1	2.4	1.3	3.3	78.6	106.5	[R] 8.9	[R] 5.5	0.0	35.4	[R] 311.8	75.6	[R] 387.3
1993	107.0	57.8	2.8	15.9	0.4	4.4	2.4	0.8	3.1	76.0	105.9	7.8	[R] 5.6	0.0	34.8	[R] 318.9	73.4	[R] 392.3
1994	112.1	58.4	4.6	17.3	0.4	5.0	2.5	1.0	3.1	79.5	113.3	[R] 8.2	[R] 7.5	0.0	35.8	[R] 335.3	74.6	[R] 409.9
1995	97.4	64.0	4.2	18.7	0.4	5.2	2.5	1.0	1.3	76.9	110.2	8.3	[R] 7.9	0.0	37.1	[R] 324.8	77.2	[R] 402.1
1996	84.2	60.4	6.3	18.6	0.4	5.8	2.4	1.0	2.2	79.6	116.3	[R] 9.7	[R] 8.1	0.0	36.9	[R] 315.7	76.8	[R] 392.6
1997	64.8	69.0	7.7	17.1	0.4	5.9	2.6	1.0	1.5	85.5	121.7	7.9	8.4	0.0	38.1	309.9	79.2	389.1

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 309. Transportation Energy Consumption Estimates, Selected Years 1960-1997, West Virginia

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	137	8	119	1,742	169	2	199	11,340	3	13,573	0	0	–	0	–
1965	36	18	201	1,530	130	4	198	12,541	0	14,603	0	0	–	0	–
1970	17	8	78	2,485	290	10	185	15,660	5	18,713	0	0	–	0	–
1975	1	14	58	3,589	242	14	239	19,176	0	23,318	0	0	–	0	–
1980	0	13	65	4,846	353	14	250	19,199	0	24,728	0	0	–	0	–
1985	0	18	39	6,386	235	22	228	17,977	(s)	24,886	0	0	–	0	–
1986	0	16	50	4,105	219	20	223	18,098	0	22,714	0	0	–	0	–
1987	0	12	35	5,000	211	14	252	18,778	0	24,290	0	0	–	0	–
1988	0	13	38	5,194	248	22	243	19,200	0	24,946	0	0	–	0	–
1989	0	11	38	5,952	380	20	249	18,927	0	25,566	R[e] 2,194	0	–	0	–
1990	0	9	36	5,706	273	19	256	19,063	0	25,354	2,534	0	–	0	–
1991	0	8	33	5,653	237	17	229	18,821	0	24,990	2,009	0	–	0	–
1992	0	17	0	6,172	271	21	234	19,392	0	26,090	2,441	0	–	0	–
1993	0	21	26	6,667	257	21	238	19,457	0	26,666	2,724	0	–	0	–
1994	0	30	26	6,697	225	26	249	19,759	0	26,982	2,002	0	–	0	–
1995	0	26	27	6,973	174	12	244	20,678	0	28,108	1,341	0	–	0	–
1996	0	32	32	4,970	170	10	237	18,691	4	24,114	212	0	–	0	–
1997	0	32	22	6,698	172	9	250	19,533	0	26,685	195	0	–	0	–
			Trillion Btu												
1960	3.5	8.7	0.6	10.1	0.9	(s)	1.2	59.6	(s)	72.5	0.0	0.0	84.7	0.0	84.7
1965	0.9	19.3	1.0	8.9	0.7	(s)	1.2	65.9	0.0	77.7	0.0	0.0	97.9	0.0	97.9
1970	0.4	8.1	0.4	14.5	1.6	(s)	1.1	82.3	(s)	99.9	0.0	0.0	108.5	0.0	108.5
1975	(s)	14.6	0.3	20.9	1.3	0.1	1.5	100.7	0.0	124.8	0.0	0.0	139.4	0.0	139.4
1980	0.0	13.6	0.3	28.2	2.0	0.1	1.5	100.9	0.0	133.0	0.0	0.0	146.6	0.0	146.6
1985	0.0	19.0	0.2	37.2	1.3	0.1	1.4	94.4	(s)	134.6	0.0	0.0	153.5	0.0	153.5
1986	0.0	17.6	0.3	23.9	1.2	0.1	1.3	95.1	0.0	121.9	0.0	0.0	139.5	0.0	139.5
1987	0.0	13.2	0.2	29.1	1.2	0.1	1.5	98.6	0.0	130.7	0.0	0.0	143.9	0.0	143.9
1988	0.0	14.2	0.2	30.3	1.4	0.1	1.5	100.9	0.0	134.3	0.0	0.0	148.5	0.0	148.5
1989	0.0	12.1	0.2	34.7	2.1	0.1	1.5	99.4	0.0	138.0	R[e] 0.2	0.0	[e] 150.1	0.0	[e] 150.1
1990	0.0	9.3	0.2	33.2	1.5	0.1	1.6	100.1	0.0	136.7	0.2	0.0	146.0	0.0	146.0
1991	0.0	8.9	0.2	32.9	1.3	0.1	1.4	98.9	0.0	134.7	0.2	0.0	143.6	0.0	143.6
1992	0.0	17.8	0.0	36.0	1.5	0.1	1.4	101.9	0.0	140.8	0.2	0.0	158.6	0.0	158.6
1993	0.0	22.6	0.1	38.8	1.4	0.1	1.4	102.2	0.0	144.1	0.2	0.0	166.7	0.0	166.7
1994	0.0	32.1	0.1	39.0	1.3	0.1	1.5	103.8	0.0	145.8	0.2	0.0	177.9	0.0	177.9
1995	0.0	28.0	0.1	40.6	1.0	(s)	1.5	108.6	0.0	151.9	0.1	0.0	179.9	0.0	179.9
1996	0.0	34.5	0.2	28.9	1.0	(s)	1.4	98.2	(s)	129.8	(s)	0.0	164.2	0.0	164.2
1997	0.0	34.5	0.1	39.0	1.0	(s)	1.5	102.6	0.0	144.3	(s)	0.0	178.8	0.0	178.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 310. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, West Virginia

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	5,879	0	5,879	1	33	(s)	0	33	0	398	0	0	0	–
1965	8,025	0	8,025	1	61	(s)	0	62	0	336	0	0	0	–
1970	14,889	0	14,889	1	430	3	0	433	0	437	(s)	0	0	–
1975	25,805	0	25,805	(s)	708	14	0	722	0	467	0	0	0	–
1980	28,499	0	28,499	(s)	0	683	0	683	0	424	0	0	0	–
1985	31,367	0	31,367	(s)	0	369	0	369	0	368	0	0	0	–
1986	30,790	0	30,790	(s)	0	381	0	381	0	361	0	0	0	–
1987	30,605	0	30,605	(s)	0	383	0	383	0	315	0	0	0	–
1988	31,704	0	31,704	(s)	0	356	0	356	0	297	0	0	0	–
1989	32,391	0	32,391	(s)	0	402	0	402	0	476	0	0	0	–
1990	29,873	0	29,873	(s)	0	368	0	368	0	435	0	0	0	–
1991	27,557	0	27,557	(s)	0	340	0	340	0	356	0	0	0	–
1992	28,050	0	28,050	(s)	0	307	0	307	0	423	0	0	0	–
1993	27,782	0	27,782	(s)	0	357	0	357	0	362	0	0	0	–
1994	30,318	0	30,318	(s)	0	423	0	423	0	363	0	0	0	–
1995	30,657	0	30,657	(s)	0	338	0	338	0	394	0	0	0	–
1996	32,774	0	32,774	(s)	0	353	0	353	0	497	0	0	0	–
1997	34,487	0	34,487	(s)	0	292	0	292	0	377	0	0	0	–
	Trillion Btu													
1960	140.6	0.0	140.6	1.0	0.2	(s)	0.0	0.2	0.0	4.3	0.0	0.0	0.0	146.0
1965	190.5	0.0	190.5	1.0	0.4	(s)	0.0	0.4	0.0	3.5	0.0	0.0	0.0	195.4
1970	347.2	0.0	347.2	0.7	2.7	(s)	0.0	2.7	0.0	4.6	(s)	0.0	0.0	355.2
1975	599.2	0.0	599.2	0.2	4.4	0.1	0.0	4.5	0.0	4.9	0.0	0.0	0.0	608.8
1980	691.7	0.0	691.7	0.1	0.0	4.0	0.0	4.0	0.0	4.4	0.0	0.0	0.0	700.1
1985	778.7	0.0	778.7	0.1	0.0	2.1	0.0	2.1	0.0	3.8	0.0	0.0	0.0	784.9
1986	766.0	0.0	766.0	0.3	0.0	2.2	0.0	2.2	0.0	3.8	0.0	0.0	0.0	772.3
1987	761.2	0.0	761.2	0.2	0.0	2.2	0.0	2.2	0.0	3.3	0.0	0.0	0.0	767.0
1988	790.9	0.0	790.9	0.1	0.0	2.1	0.0	2.1	0.0	3.1	0.0	0.0	0.0	796.1
1989	803.0	0.0	803.0	0.1	0.0	2.3	0.0	2.3	0.0	5.0	0.0	0.0	0.0	810.4
1990	743.9	0.0	743.9	0.1	0.0	2.1	0.0	2.1	0.0	4.5	0.0	0.0	0.0	750.7
1991	689.2	0.0	689.2	0.1	0.0	2.0	0.0	2.0	0.0	3.7	0.0	0.0	0.0	695.1
1992	702.6	0.0	702.6	0.2	0.0	1.8	0.0	1.8	0.0	4.4	0.0	0.0	0.0	709.0
1993	694.0	0.0	694.0	0.1	0.0	2.1	0.0	2.1	0.0	3.7	0.0	0.0	0.0	699.9
1994	756.0	0.0	756.0	0.2	0.0	2.5	0.0	2.5	0.0	3.7	0.0	0.0	0.0	762.5
1995	761.4	0.0	761.4	0.4	0.0	2.0	0.0	2.0	0.0	4.1	0.0	0.0	0.0	767.8
1996	811.4	0.0	811.4	0.2	0.0	2.1	0.0	2.1	0.0	5.1	0.0	0.0	0.0	818.8
1997	855.1	0.0	855.1	0.2	0.0	1.7	0.0	1.7	0.0	3.9	0.0	0.0	0.0	860.9

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 311. Energy Consumption Estimates by Source, Selected Years 1960-1997, Wisconsin

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	12,737	91	2,847	427	21,750	245	2,964	4,258	872	33,125	4,394	530	71,413	0	2,399	–	–	-185	–
1965	14,528	200	2,806	636	23,508	629	1,249	5,246	898	36,295	3,209	1,254	75,730	0	2,131	–	–	1,343	–
1970	16,899	338	4,671	332	25,841	1,603	3,002	7,679	992	45,483	2,936	1,545	94,084	157	1,904	–	–	-1,922	–
1975	12,733	365	3,019	173	26,561	2,206	974	8,448	923	51,548	2,106	1,968	97,926	10,293	2,037	–	–	-1,338	–
1980	15,644	352	3,016	124	22,495	2,397	222	6,036	1,019	49,606	1,772	2,078	88,764	9,911	2,115	–	–	4,498	–
1985	18,034	308	1,690	102	22,605	1,663	234	5,377	927	46,557	402	2,387	81,945	10,979	2,546	–	–	18,817	–
1986	18,743	279	2,055	108	21,953	1,562	95	5,361	907	47,421	1,044	1,878	82,385	11,199	2,419	–	–	16,688	–
1987	19,652	279	2,396	83	21,150	1,448	116	5,632	1,025	47,490	1,180	2,012	82,531	11,311	1,576	–	–	7,366	–
1988	20,038	317	3,416	93	24,182	1,344	69	6,029	989	49,522	1,095	2,034	88,773	11,464	1,488	–	–	13,089	–
1989	19,922	331	3,805	129	24,281	1,343	63	6,929	1,014	49,130	1,032	2,012	89,737	10,848	[i] NA	–	–	[R] 15,938	–
1990	20,097	309	3,685	122	23,051	1,424	48	6,664	1,044	48,989	1,125	2,105	88,255	11,226	NA	–	–	[R] 12,301	–
1991	20,659	332	3,332	105	23,013	1,352	49	8,471	934	49,898	851	2,837	90,841	10,991	NA	–	–	[R] 11,259	–
1992	20,071	332	3,105	121	22,753	1,721	51	7,780	952	50,285	854	3,148	90,769	11,207	NA	–	–	[R] 9,912	–
1993	20,897	348	3,253	119	24,475	1,912	76	8,626	969	51,634	1,264	3,183	95,512	11,465	NA	–	–	15,013	–
1994	21,731	356	3,521	285	26,029	1,975	58	8,957	1,013	53,048	1,287	3,196	99,369	11,516	NA	–	–	[R] 12,632	–
1995	23,066	380	4,154	374	24,949	2,044	59	8,753	996	55,053	842	3,028	100,251	10,970	NA	–	–	[R] 4,806	–
1996	24,020	403	4,126	367	25,534	1,530	73	10,133	966	56,313	1,037	3,286	103,365	10,121	NA	–	–	[R] 17,799	–
1997	25,491	401	5,155	486	26,131	1,949	67	10,235	1,021	55,696	1,087	3,432	105,259	3,916	NA	–	–	30,050	–
			Trillion Btu																
1960	304.7	93.8	18.9	2.2	126.7	1.3	16.8	17.1	5.3	174.0	27.6	3.1	393.0	0.0	25.8	[R] 39.2	0.0	-0.6	[R] 855.8
1965	347.9	204.1	18.6	3.2	136.9	3.5	7.1	21.0	5.4	190.7	20.2	6.9	413.6	0.0	22.3	[R] 39.4	0.0	4.6	[R] 1,031.9
1970	381.6	344.2	31.0	1.7	150.5	9.0	17.0	29.0	6.0	238.9	18.5	8.8	510.5	1.7	20.0	[R] 38.3	0.0	-6.6	[R] 1,289.8
1975	272.0	372.1	20.0	0.9	154.7	12.5	5.5	31.4	5.6	270.8	13.2	11.1	525.8	113.4	21.2	[R] 44.9	0.0	-4.6	[R] 1,344.8
1980	327.3	354.7	20.0	0.6	131.0	13.5	1.3	22.2	6.2	260.6	11.1	11.6	478.1	108.1	22.0	[R] 207.6	0.0	15.3	[R] 1,513.2
1985	360.7	311.4	11.2	0.5	131.7	9.3	1.3	19.4	5.6	244.6	2.5	13.2	439.3	118.7	26.6	[R] 239.4	(s)	64.2	[R] 1,560.4
1986	371.4	281.6	13.6	0.5	127.9	8.8	0.5	19.5	5.5	249.1	6.6	10.5	442.5	120.9	25.3	[R] 181.8	(s)	56.9	[R] 1,480.4
1987	386.6	281.6	15.9	0.4	123.2	8.1	0.7	20.6	6.2	249.5	7.4	11.1	443.1	121.9	16.4	[R] 183.9	(s)	25.1	[R] 1,458.7
1988	394.1	319.7	22.7	0.5	140.9	7.5	0.4	22.0	6.0	260.1	6.9	11.3	478.3	123.2	15.4	[R] 191.3	(s)	44.7	[R] 1,566.6
1989	393.3	332.5	25.2	0.6	141.4	7.5	0.4	25.5	6.2	258.1	6.5	11.2	482.7	116.3	[R i] 15.6	[R i] 174.0	[R i] 0.2	[R] 54.4	[R i] 1,568.1
1990	397.1	310.9	24.5	0.6	134.3	8.0	0.3	24.2	6.3	257.3	7.1	11.7	474.2	119.9	20.7	[R] 187.4	[R] 0.3	42.0	[R] 1,551.4
1991	407.9	333.8	22.1	0.5	134.1	7.6	0.3	30.6	5.7	262.1	5.3	15.7	484.0	118.0	[R] 30.6	[R] 192.6	[R] 0.3	38.4	[R] 1,606.0
1992	399.2	334.6	20.6	0.6	132.5	9.7	0.3	28.2	5.8	264.1	5.4	17.3	484.6	119.7	32.3	[R] 202.4	[R] 0.3	33.8	[R] 1,608.1
1993	405.9	351.8	21.6	0.6	142.6	10.8	0.4	31.1	5.9	271.2	7.9	17.6	509.7	122.5	25.5	[R] 198.8	[R] 0.3	51.2	[R] 1,664.6
1994	426.0	359.9	23.4	1.4	151.6	11.1	0.3	32.6	6.1	278.7	8.1	17.7	531.0	122.9	30.3	[R] 192.6	[R] 0.3	43.1	[R] 1,709.6
1995	443.0	384.7	27.6	1.9	145.3	11.6	0.3	31.7	6.0	289.2	5.3	16.8	535.7	116.9	55.6	[R] 202.7	[R] 0.3	16.4	[R] 1,769.5
1996	452.8	408.0	27.4	1.9	148.7	8.7	0.4	36.6	5.9	295.8	6.5	18.2	550.0	107.5	29.3	[R] 211.4	[R] 0.3	60.7	[R] 1,816.4
1997	488.4	405.0	34.2	2.5	152.2	11.1	0.4	37.0	6.2	292.6	6.8	19.0	562.0	41.6	25.6	215.2	0.3	102.5	1,835.4

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 312. Residential Energy Consumption Estimates, Selected Years 1960-1997, Wisconsin

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	960	4	964	47	11,206	1,227	2,675	15,107	R 974	–	–	5,298	–	13,178	–
1965	706	3	709	79	11,790	660	3,692	16,142	R 744	–	–	6,963	–	16,624	–
1970	452	2	453	105	11,721	1,608	5,606	18,935	R 595	–	–	9,825	–	23,810	–
1975	202	1	202	120	11,019	530	5,405	16,953	R 587	–	–	11,782	–	28,420	–
1980	18	1	18	123	8,155	124	2,983	11,261	R 1,027	–	–	13,597	–	33,063	–
1985	9	1	9	116	6,423	195	3,045	9,663	R 1,033	–	–	16,307	–	38,312	–
1986	11	1	12	111	6,426	71	3,058	9,554	R 1,005	–	–	16,557	–	38,085	–
1987	32	1	33	103	5,782	101	3,392	9,275	R 1,126	–	–	15,429	–	35,254	–
1988	27	1	28	121	6,517	54	3,488	10,058	R 1,170	–	–	16,383	–	37,038	–
1989	6	1	7	127	5,395	40	4,445	9,880	R 1,213	–	–	16,259	–	R 36,531	–
1990	1	1	2	114	4,634	29	4,187	8,851	734	–	–	16,385	–	R 35,838	–
1991	3	(s)	4	124	5,128	30	5,241	10,399	773	–	–	17,349	–	R 37,768	–
1992	1	(s)	2	123	4,753	29	4,950	9,732	813	–	–	16,615	–	R 35,489	–
1993	13	(s)	13	130	5,132	47	5,575	10,754	R 420	–	–	17,373	–	36,707	–
1994	18	(s)	18	128	4,799	34	5,479	10,311	R 412	–	–	17,660	–	R 36,852	–
1995	45	0	45	136	3,955	34	5,560	9,549	R 457	–	–	18,635	–	R 38,822	–
1996	37	0	37	148	3,922	41	6,616	10,579	R 456	–	–	18,685	–	R 38,887	–
1997	57	(s)	57	136	3,431	44	6,616	10,092	332	–	–	18,510	–	38,442	–
	Trillion Btu														
1960	21.0	0.1	21.1	49.1	65.3	7.0	10.7	83.0	R 19.5	0.0	0.0	18.1	R 190.7	45.0	R 235.7
1965	15.4	0.1	15.5	80.9	68.7	3.7	14.8	87.2	R 14.9	0.0	0.0	23.8	R 222.2	56.7	R 278.9
1970	9.5	(s)	9.5	107.2	68.3	9.1	21.2	98.6	R 11.9	0.0	0.0	33.5	R 260.8	81.2	R 342.0
1975	3.8	(s)	3.8	122.4	64.2	3.0	20.1	87.3	R 11.7	0.0	0.0	40.2	R 265.5	97.0	R 362.4
1980	0.4	(s)	0.4	124.2	47.5	0.7	11.0	59.2	R 20.5	0.0	0.0	46.4	R 250.8	112.8	R 363.6
1985	0.2	(s)	0.2	117.4	37.4	1.1	11.0	49.5	R 20.7	0.0	0.0	55.6	R 243.4	130.7	R 374.1
1986	0.3	(s)	0.3	111.9	37.4	0.4	11.1	49.0	R 20.1	0.0	0.0	56.5	R 237.7	129.9	R 367.7
1987	0.8	(s)	0.8	104.0	33.7	0.6	12.4	46.7	R 22.5	0.0	0.0	52.6	R 226.6	120.3	R 346.9
1988	0.7	(s)	0.7	122.3	38.0	0.3	12.7	51.0	R 23.4	0.0	0.0	55.9	R 253.3	126.4	R 379.7
1989	0.1	(s)	0.2	127.6	31.4	0.2	16.4	48.0	R 24.3	e 0.1	R e 0.2	55.5	R e 255.8	124.6	R e 380.5
1990	(s)	(s)	0.1	114.7	27.0	0.2	15.2	42.3	14.7	0.1	0.2	55.9	R 228.0	122.3	350.2
1991	0.1	(s)	0.1	124.9	29.9	0.2	18.9	49.0	15.5	0.1	0.2	59.2	248.9	R 128.9	R 377.8
1992	(s)	(s)	(s)	124.5	27.7	0.2	17.9	45.8	16.3	0.1	0.2	56.7	R 243.6	121.1	R 364.7
1993	0.3	(s)	0.3	131.6	29.9	0.3	20.1	50.3	8.4	0.1	0.2	59.3	250.1	125.2	R 375.4
1994	0.4	(s)	0.5	129.7	28.0	0.2	19.9	48.1	R 8.2	0.1	0.2	60.3	R 247.0	125.7	372.7
1995	1.1	0.0	1.1	137.5	23.0	0.2	20.1	43.4	R 9.1	0.1	0.2	63.6	R 255.1	R 132.5	R 387.5
1996	0.9	0.0	0.9	149.8	22.8	0.2	23.9	47.0	R 9.1	0.1	0.2	63.8	270.9	132.7	403.6
1997	1.4	(s)	1.4	137.3	20.0	0.3	23.9	44.2	6.6	0.1	0.2	63.2	253.0	131.2	384.2

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 313. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Wisconsin

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	1,782	3	1,785	11	1,817	101	472	295	556	3,239	R 18	–	3,059	–	7,608	–
1965	1,312	2	1,314	24	1,911	54	652	309	407	3,332	R 14	–	4,160	–	9,933	–
1970	839	1	840	55	1,900	132	989	56	244	3,321	R 11	–	6,180	–	14,975	–
1975	375	1	375	67	1,786	43	954	52	168	3,004	R 11	–	8,342	–	20,121	–
1980	33	(s)	33	77	1,682	57	526	76	30	2,371	R 25	–	10,019	–	24,363	–
1985	16	(s)	17	73	3,172	18	537	283	106	4,117	NA	–	12,087	–	28,398	–
1986	21	(s)	21	55	1,727	4	540	280	252	2,804	NA	–	12,329	–	28,361	–
1987	60	(s)	60	58	1,796	5	599	284	116	2,799	NA	–	12,174	–	27,816	–
1988	50	(s)	50	67	1,804	7	615	286	248	2,960	NA	–	12,931	–	29,233	–
1989	11	(s)	11	70	2,016	6	784	279	299	3,384	NA	–	13,122	–	R 29,483	–
1990	2	(s)	3	66	1,832	9	739	320	220	3,118	NA	–	13,408	–	R 29,326	–
1991	6	(s)	6	72	1,960	9	925	247	179	3,319	NA	–	13,997	–	R 30,470	–
1992	3	(s)	3	71	1,551	10	873	212	231	2,878	NA	–	13,929	–	R 29,752	–
1993	24	(s)	24	77	1,547	11	984	50	197	2,789	R 34	–	14,373	–	30,366	–
1994	33	(s)	33	79	1,306	8	967	89	167	2,536	R 35	–	15,037	–	R 31,379	–
1995	84	0	84	85	1,062	10	981	51	110	2,214	R 35	–	15,642	–	R 32,587	–
1996	68	0	68	94	991	12	1,168	80	133	2,384	R 38	–	16,188	–	R 33,690	–
1997	105	(s)	105	89	1,332	7	1,168	51	135	2,692	32	–	16,480	–	34,225	–
	Trillion Btu															
1960	39.1	0.1	39.1	11.3	10.6	0.6	1.9	1.5	3.5	18.1	R 0.4	0.0	10.4	R 79.3	26.0	R 105.2
1965	28.6	(s)	28.6	24.0	11.1	0.3	2.6	1.6	2.6	18.2	R 0.3	0.0	14.2	R 85.3	33.9	R 119.2
1970	17.7	(s)	17.7	55.6	11.1	0.7	3.7	0.3	1.5	17.4	R 0.2	0.0	21.1	R 112.0	51.1	R 163.1
1975	7.1	(s)	7.1	68.9	10.4	0.2	3.5	0.3	1.1	15.5	R 0.2	0.0	28.5	R 120.2	68.7	R 188.8
1980	0.8	(s)	0.8	77.7	9.8	0.3	1.9	0.4	0.2	12.6	R 0.5	0.0	34.2	R 125.8	83.1	R 209.0
1985	0.4	(s)	0.4	73.5	18.5	0.1	1.9	1.5	0.7	22.7	NA	0.0	41.2	137.9	96.9	234.8
1986	0.5	(s)	0.5	55.8	10.1	(s)	2.0	1.5	1.6	15.1	NA	0.0	42.1	113.5	96.8	210.3
1987	1.4	(s)	1.4	58.2	10.5	(s)	2.2	1.5	0.7	14.9	NA	0.0	41.5	116.1	94.9	211.0
1988	1.2	(s)	1.2	67.5	10.5	(s)	2.2	1.5	1.6	15.9	NA	0.0	44.1	128.7	99.7	228.4
1989	0.3	(s)	0.3	70.4	11.7	(s)	2.9	1.5	1.9	18.0	NA	0.0	44.8	133.5	100.6	234.1
1990	0.1	(s)	0.1	66.7	10.7	(s)	2.7	1.7	1.4	16.5	NA	0.0	45.7	129.0	100.1	229.1
1991	0.2	(s)	0.2	72.0	11.4	(s)	3.3	1.3	1.1	17.2	NA	0.0	47.8	137.2	R 104.0	241.1
1992	0.1	(s)	0.1	72.0	9.0	0.1	3.2	1.1	1.5	14.8	NA	0.0	47.5	134.4	101.5	235.9
1993	0.6	(s)	0.6	77.9	9.0	0.1	3.5	0.3	1.2	14.1	R 0.7	0.0	49.0	R 142.4	103.6	R 246.0
1994	0.8	(s)	0.8	79.6	7.6	(s)	3.5	0.5	1.0	12.7	0.7	0.0	51.3	145.1	107.1	R 252.1
1995	2.1	0.0	2.1	85.8	6.2	0.1	3.6	0.3	0.7	10.8	R 0.7	0.0	53.4	152.7	111.2	R 263.9
1996	1.7	0.0	1.7	95.0	5.8	0.1	4.2	0.4	0.8	11.3	R 0.8	0.0	55.2	R 164.1	115.0	R 279.0
1997	2.6	(s)	2.6	89.7	7.8	(s)	4.2	0.3	0.8	13.1	0.6	0.0	56.2	162.4	116.8	279.1

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 314. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Wisconsin

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	4,710	30	2,847	6,950	1,636	1,088	345	2,774	3,416	530	19,586	338	–	–	4,230	–	10,520	–
1965	5,789	82	2,806	7,654	535	866	405	2,541	2,371	1,254	18,433	306	–	–	6,153	–	14,691	–
1970	5,147	141	4,671	7,917	1,262	1,009	440	2,471	1,554	1,305	20,629	306	–	–	8,570	–	20,767	–
1975	2,439	152	3,019	7,150	401	1,996	426	2,027	1,105	1,932	18,055	318	–	–	10,823	–	26,106	–
1980	2,364	130	3,016	3,589	41	2,444	497	1,633	1,439	2,069	14,727	258	–	–	13,290	–	32,317	–
1985	2,132	115	1,690	3,074	21	1,611	452	1,137	158	2,364	10,508	258	–	–	17,195	–	40,398	–
1986	2,109	107	2,055	3,446	20	1,625	442	1,067	697	1,878	11,231	258	–	–	17,799	–	40,942	–
1987	1,980	113	2,396	3,098	10	1,516	500	1,001	1,064	2,012	11,597	258	–	–	17,374	–	39,697	–
1988	2,099	122	3,416	3,478	9	1,791	482	869	843	2,034	12,922	258	–	–	18,552	–	41,942	–
1989	2,053	127	3,805	3,362	17	1,577	494	868	729	2,012	12,865	[f] NA	–	–	18,995	–	[R] 42,678	–
1990	1,960	122	3,685	3,596	11	1,619	508	780	903	2,105	13,207	NA	–	–	19,405	–	[R] 42,443	–
1991	1,878	129	3,332	4,103	10	2,166	455	997	672	2,837	14,571	NA	–	–	19,686	–	[R] 42,853	–
1992	1,835	130	3,105	4,181	12	1,836	464	816	614	3,105	14,134	NA	–	–	20,382	–	[R] 43,535	–
1993	1,811	134	3,253	4,779	19	1,916	472	825	1,056	3,073	15,393	NA	–	–	21,410	–	45,236	–
1994	1,984	135	3,521	5,040	16	2,217	494	914	1,109	3,036	16,346	NA	–	–	22,714	–	[R] 47,398	–
1995	1,949	146	4,154	4,443	15	2,089	485	934	710	2,884	15,713	NA	–	–	23,690	–	[R] 49,354	–
1996	1,678	150	4,126	4,787	20	2,249	471	921	872	3,154	16,599	NA	–	–	23,871	–	[R] 49,680	–
1997	1,761	156	5,155	4,888	15	2,361	497	914	940	3,254	18,025	NA	–	–	25,103	–	52,134	–
			Trillion Btu															
1960	116.6	30.8	18.9	40.5	9.3	4.4	2.1	14.6	21.5	3.1	114.2	3.6	[R] 19.3	0.0	14.4	[R] 299.0	35.9	[R] 334.9
1965	142.4	83.0	18.6	44.6	3.0	3.5	2.5	13.3	14.9	6.9	107.4	3.2	[R] 24.2	0.0	21.0	[R] 381.2	50.1	[R] 431.3
1970	119.6	143.6	31.0	46.1	7.2	3.8	2.7	13.0	9.8	7.4	120.9	3.2	[R] 26.1	0.0	29.2	[R] 442.6	70.9	[R] 513.5
1975	54.7	155.5	20.0	41.6	2.3	7.4	2.6	10.6	6.9	10.9	102.5	3.3	[R] 32.9	0.0	36.9	[R] 385.9	89.1	[R] 475.0
1980	54.6	130.6	20.0	20.9	0.2	9.0	3.0	8.6	9.0	11.6	82.3	2.7	[R] 185.9	0.0	45.3	[R] 501.4	110.3	[R] 611.7
1985	49.7	116.4	11.2	17.9	0.1	5.8	2.7	6.0	1.0	13.0	57.8	2.7	[R] 217.8	0.0	58.7	[R] 503.1	137.8	[R] 640.9
1986	49.8	108.4	13.6	20.1	0.1	5.9	2.7	5.6	4.4	10.5	62.9	2.7	[R] 160.5	0.0	60.7	[R] 444.9	139.7	[R] 584.6
1987	45.8	113.8	15.9	18.0	0.1	5.5	3.0	5.3	6.7	11.1	65.7	2.7	[R] 159.8	0.0	59.3	[R] 447.0	135.4	[R] 582.4
1988	45.9	122.8	22.7	20.3	0.1	6.5	2.9	4.6	5.3	11.3	73.7	2.7	[R] 166.2	0.0	63.3	[R] 474.6	143.1	[R] 617.7
1989	46.4	128.1	25.2	19.6	0.1	5.8	3.0	4.6	4.6	11.2	74.1	[R f] 1.8	[R f] 146.9	[f] 0.0	64.8	[R f] 462.1	145.6	[R f] 607.7
1990	47.3	122.6	24.5	20.9	0.1	5.9	3.1	4.1	5.7	11.7	75.9	2.1	[R] 169.8	0.0	66.2	[R] 484.0	144.8	[R] 628.8
1991	45.6	129.7	22.1	23.9	0.1	7.8	2.8	5.2	4.2	15.7	81.8	2.4	[R] 174.6	0.0	67.2	[R] 501.3	146.2	[R] 647.5
1992	44.5	131.4	20.6	24.4	0.1	6.7	2.8	4.3	3.9	17.1	79.7	2.7	[R] 183.5	0.0	69.5	[R] 511.5	148.5	[R] 660.1
1993	43.4	135.5	21.6	27.8	0.1	6.9	2.9	4.3	6.6	16.9	87.2	2.9	[R] 186.3	0.0	73.1	[R] 528.4	154.3	[R] 682.8
1994	47.9	136.7	23.4	29.4	0.1	8.1	3.0	4.8	7.0	16.7	92.4	3.2	[R] 179.6	0.0	77.5	[R] 537.4	161.7	[R] 699.1
1995	47.2	147.7	27.6	25.9	0.1	7.6	2.9	4.9	4.5	15.9	89.3	[R] 2.9	[R] 187.2	0.0	80.8	[R] 555.1	168.4	[R] 723.5
1996	40.1	151.5	27.4	27.9	0.1	8.1	2.9	4.8	5.5	17.4	94.0	3.0	[R] 194.0	0.0	81.4	[R] 564.0	169.5	[R] 733.5
1997	42.5	157.4	34.2	28.5	0.1	8.5	3.0	4.8	5.9	18.0	103.0	3.1	198.9	0.0	85.7	590.5	177.9	768.4

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 315. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Wisconsin

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	83	1	427	1,773	245	23	527	30,056	378	33,430	0	0	–	0	–
1965	19	2	636	2,148	629	36	493	33,446	378	37,765	0	0	–	0	–
1970	8	7	332	4,179	1,603	74	552	42,956	6	49,703	0	0	–	0	–
1975	(s)	5	173	6,064	2,169	93	497	49,469	285	58,751	0	0	–	0	–
1980	0	8	124	8,570	2,397	84	523	47,897	235	59,829	0	0	–	0	–
1985	0	3	102	9,685	1,663	184	476	45,136	138	57,383	0	0	–	0	–
1986	0	4	108	10,094	1,562	138	465	46,074	95	58,536	0	0	–	0	–
1987	0	3	83	10,301	1,448	125	526	46,205	0	58,688	0	0	–	0	–
1988	0	4	93	12,154	1,344	135	507	48,367	5	62,604	0	0	–	0	–
1989	0	4	129	13,339	1,343	122	520	47,983	4	63,440	R e 12,069	0	–	0	–
1990	0	4	122	12,875	1,424	118	535	47,890	2	62,965	13,939	0	–	0	–
1991	0	4	105	11,676	1,352	139	479	48,655	(s)	62,406	11,049	0	–	0	–
1992	0	4	121	12,186	1,721	120	488	49,257	8	63,901	13,429	0	–	0	–
1993	0	4	119	12,895	1,912	151	497	50,759	11	66,344	14,987	0	–	0	–
1994	0	10	285	14,666	1,975	294	519	52,045	11	69,795	16,357	(s)	–	(s)	–
1995	0	4	374	15,296	2,044	123	511	54,068	22	72,438	35,432	(s)	–	(s)	–
1996	0	4	367	15,673	1,530	100	495	55,313	32	73,510	56,170	(s)	–	(s)	–
1997	0	5	486	16,216	1,949	91	523	54,731	12	74,009	67,901	(s)	–	(s)	–
			Trillion Btu												
1960	2.0	0.6	2.2	10.3	1.3	0.1	3.2	157.9	2.4	177.4	0.0	0.0	180.0	0.0	180.0
1965	0.5	1.6	3.2	12.5	3.5	0.1	3.0	175.7	2.4	200.4	0.0	0.0	202.5	0.0	202.5
1970	0.2	6.7	1.7	24.3	9.0	0.3	3.3	225.7	(s)	264.4	0.0	0.0	271.3	0.0	271.3
1975	(s)	5.1	0.9	35.3	12.3	0.3	3.0	259.9	1.8	313.5	0.0	0.0	318.5	0.0	318.5
1980	0.0	8.3	0.6	49.9	13.5	0.3	3.2	251.6	1.5	320.6	0.0	0.0	328.9	0.0	328.9
1985	0.0	2.8	0.5	56.4	9.3	0.7	2.9	237.1	0.9	307.8	0.0	0.0	310.6	0.0	310.6
1986	0.0	3.8	0.5	58.8	8.8	0.5	2.8	242.0	0.6	314.1	0.0	0.0	317.8	0.0	317.8
1987	0.0	3.4	0.4	60.0	8.1	0.5	3.2	242.7	0.0	314.9	0.0	0.0	318.3	0.0	318.3
1988	0.0	4.3	0.5	70.8	7.5	0.5	3.1	254.1	(s)	336.5	0.0	0.0	340.8	0.0	340.8
1989	0.0	4.2	0.6	77.7	7.5	0.4	3.2	252.1	(s)	341.6	R e 0.9	0.0	e 345.8	0.0	e 345.8
1990	0.0	4.4	0.6	75.0	8.0	0.4	3.2	251.6	(s)	338.9	1.1	0.0	343.3	0.0	343.3
1991	0.0	4.5	0.5	68.0	7.6	0.5	2.9	255.6	(s)	335.1	0.8	0.0	339.6	0.0	339.6
1992	0.0	4.0	0.6	71.0	9.7	0.4	3.0	258.7	0.1	343.5	1.0	0.0	347.5	0.0	347.5
1993	0.0	3.7	0.6	75.1	10.8	0.5	3.0	266.6	0.1	356.7	1.1	0.0	360.4	0.0	360.4
1994	0.0	10.0	1.4	85.4	11.1	1.1	3.2	273.4	0.1	375.7	1.2	(s)	385.7	(s)	385.7
1995	0.0	4.3	1.9	89.1	11.6	0.4	3.1	284.0	0.1	390.3	2.7	(s)	394.6	(s)	394.6
1996	0.0	4.3	1.9	91.3	8.7	0.4	3.0	290.6	0.2	395.9	4.3	(s)	400.3	(s)	400.3
1997	0.0	4.7	2.5	94.5	11.1	0.3	3.2	287.5	0.1	399.0	5.2	(s)	403.7	(s)	403.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 316. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Wisconsin

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	5,195	0	5,195	2	45	5	0	50	0	2,061	0	0	0	–
1965	6,697	0	6,697	14	53	6	0	59	0	1,825	2	0	0	–
1970	10,450	0	10,450	31	1,132	124	240	1,497	157	1,597	8	0	0	–
1975	9,716	0	9,716	20	548	578	37	1,163	10,293	1,719	0	0	0	–
1980	13,229	0	13,229	14	68	499	9	576	9,911	1,857	62	0	0	–
1985	15,876	0	15,876	1	0	251	24	274	10,979	2,288	88	0	(s)	–
1986	16,601	0	16,601	2	0	260	0	260	11,199	2,161	112	0	(s)	–
1987	17,579	0	17,579	2	0	173	0	173	11,311	1,319	154	0	(s)	–
1988	17,861	0	17,861	3	0	229	0	229	11,464	1,230	164	0	(s)	–
1989	17,851	0	17,851	2	0	168	0	168	10,848	1,319	181	0	(s)	–
1990	18,133	0	18,133	2	0	113	0	113	11,226	1,791	173	0	(s)	–
1991	18,771	0	18,771	3	0	147	0	147	10,991	2,701	157	0	(s)	–
1992	18,231	0	18,231	3	0	82	43	125	11,207	2,861	150	0	0	–
1993	19,049	0	19,049	3	0	123	110	233	11,465	2,191	220	0	0	–
1994	19,696	0	19,696	4	0	220	161	380	11,516	2,630	265	0	0	–
1995	20,987	0	20,987	9	0	194	144	337	10,970	5,116	285	0	0	–
1996	22,236	0	22,236	7	0	161	133	293	10,121	2,542	319	0	0	–
1997	23,568	0	23,568	16	0	263	178	441	3,916	2,182	372	0	0	–
	Trillion Btu													
1960	125.8	0.0	125.8	2.1	0.3	(s)	0.0	0.3	0.0	22.2	0.0	0.0	0.0	150.4
1965	161.0	0.0	161.0	14.7	0.3	(s)	0.0	0.4	0.0	19.1	(s)	0.0	0.0	195.1
1970	234.6	0.0	234.6	31.2	7.1	0.7	1.4	9.3	1.7	16.8	0.1	0.0	0.0	293.6
1975	206.3	0.0	206.3	20.3	3.4	3.4	0.2	7.0	113.4	17.9	0.0	0.0	0.0	364.8
1980	271.5	0.0	271.5	13.8	0.4	2.9	0.1	3.4	108.1	19.3	0.6	0.0	0.0	416.8
1985	310.3	0.0	310.3	1.3	0.0	1.5	0.1	1.6	118.7	23.9	0.9	0.0	(s)	456.8
1986	320.8	0.0	320.8	1.8	0.0	1.5	0.0	1.5	120.9	22.6	1.2	0.0	(s)	468.8
1987	338.6	0.0	338.6	2.2	0.0	1.0	0.0	1.0	121.9	13.7	1.6	0.0	(s)	479.0
1988	346.2	0.0	346.2	2.7	0.0	1.3	0.0	1.3	123.2	12.7	1.7	0.0	(s)	487.9
1989	346.5	0.0	346.5	2.1	0.0	1.0	0.0	1.0	116.3	13.8	1.9	0.0	(s)	481.5
1990	349.7	0.0	349.7	2.4	0.0	0.7	0.0	0.7	119.9	18.6	1.8	0.0	(s)	493.0
1991	362.0	0.0	362.0	2.7	0.0	0.9	0.0	0.9	118.0	28.2	1.6	0.0	(s)	514.7
1992	354.6	0.0	354.6	2.6	0.0	0.5	0.3	0.7	119.7	29.6	1.5	0.0	0.0	511.1
1993	361.5	0.0	361.5	3.1	0.0	0.7	0.7	1.4	122.5	22.6	2.3	0.0	0.0	513.3
1994	376.8	0.0	376.8	3.9	0.0	1.3	1.0	2.2	122.9	27.1	2.7	0.0	0.0	540.5
1995	392.5	0.0	392.5	9.4	0.0	1.1	0.9	2.0	116.9	R 52.8	2.9	0.0	0.0	593.4
1996	410.1	0.0	410.1	7.4	0.0	0.9	0.8	1.7	107.5	26.3	3.3	0.0	0.0	R 556.8
1997	441.9	0.0	441.9	15.9	0.0	1.5	1.1	2.6	41.6	22.5	3.8	0.0	0.0	528.3

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 317. Energy Consumption Estimates by Source, Selected Years 1960-1997, Wyoming

Year	Coal [a]	Natural Gas [b]	Petroleum											Nuclear Electric Power	Hydro-electric Power [d]	Biomass [e]	Other [a,f]	Net Interstate Flow of Electricity/Losses [g]	Total [h]
			Asphalt & Road Oil [a]	Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	Kerosene [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Other [a,c]	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh					
1960	993	51	734	132	3,278	56	91	1,114	93	4,431	1,749	1,943	13,622	0	609	–	–	-3,186	–
1965	2,109	59	743	217	3,696	74	206	1,171	84	4,739	2,171	2,416	15,516	0	884	–	–	-4,049	–
1970	3,802	110	1,099	256	5,059	128	341	1,848	114	5,900	1,487	2,554	18,786	0	1,006	–	–	-10,347	–
1975	7,628	87	606	218	7,656	124	172	1,815	154	7,354	2,076	3,157	23,332	0	1,120	–	–	-21,926	–
1980	15,208	69	1,160	108	13,247	162	62	2,030	208	8,501	2,171	3,724	31,374	0	1,108	–	–	-48,625	–
1985	23,155	82	1,676	51	7,669	154	21	1,942	189	7,671	211	2,234	21,819	0	1,068	–	–	-77,560	–
1986	19,338	75	1,604	50	6,900	144	8	2,169	185	7,203	190	2,278	20,732	0	1,140	–	–	-59,893	–
1987	24,399	82	1,469	51	8,772	202	11	2,756	209	7,277	119	2,592	23,457	0	768	–	–	-83,335	–
1988	25,424	82	1,046	53	9,409	193	10	2,083	202	7,427	257	3,150	23,829	0	789	–	–	-87,829	–
1989	23,952	82	924	39	9,782	160	6	2,462	207	7,561	31	3,195	24,365	0	[i] NA	–	–	[R] -78,692	–
1990	25,514	92	955	35	9,603	143	4	1,263	213	7,105	40	3,203	22,563	0	NA	–	–	[R] -86,145	–
1991	25,150	97	1,016	28	8,813	119	9	1,228	191	7,212	40	2,142	20,799	0	NA	–	–	[R] -83,767	–
1992	27,339	124	772	25	9,286	153	7	1,184	194	7,429	10	2,586	21,647	0	NA	–	–	[R] -95,565	–
1993	26,171	105	756	20	10,072	140	21	1,752	198	7,572	72	2,420	23,022	0	NA	–	–	-89,656	–
1994	27,459	106	902	33	10,007	152	23	1,580	207	7,683	41	2,464	23,090	0	NA	–	–	-97,050	–
1995	25,933	98	665	179	11,312	160	24	1,979	203	7,936	21	2,375	24,853	0	NA	–	–	[R] -90,297	–
1996	26,647	101	835	213	12,467	151	27	1,694	197	7,905	6	2,730	26,226	0	NA	–	–	-93,410	–
1997	26,096	101	972	151	13,252	121	25	1,711	208	7,603	4	2,713	26,761	0	NA	–	–	-91,711	–
			Trillion Btu																
1960	15.8	52.8	4.9	0.7	19.1	0.3	0.5	4.5	0.6	23.3	11.0	11.7	76.4	0.0	6.6	[R] 1.6	0.0	-10.9	[R] 142.3
1965	34.5	54.8	4.9	1.1	21.5	0.4	1.2	4.7	0.5	24.9	13.6	14.5	87.4	0.0	9.2	[R] 1.6	0.0	-13.8	[R] 173.6
1970	63.5	112.5	7.3	1.3	29.5	0.7	1.9	7.0	0.7	31.0	9.3	15.3	104.1	0.0	10.6	[R] 1.6	0.0	-35.3	[R] 256.9
1975	128.0	81.4	4.0	1.1	44.6	0.7	1.0	6.7	0.9	38.6	13.1	19.0	129.7	0.0	11.7	[R] 1.6	0.0	-74.8	[R] 277.6
1980	268.1	73.1	7.7	0.5	77.2	0.9	0.4	7.5	1.3	44.7	13.6	22.4	176.1	0.0	11.5	[R] 2.7	0.0	-165.9	[R] 365.6
1985	405.5	86.4	11.1	0.3	44.7	0.9	0.1	7.0	1.1	40.3	1.3	13.8	120.6	0.0	11.2	[R] 3.5	(s)	-264.6	[R] 362.6
1986	336.6	78.8	10.6	0.3	40.2	0.8	(s)	7.9	1.1	37.8	1.2	14.2	114.2	0.0	11.9	[R] 4.3	(s)	-204.4	[R] 341.5
1987	428.1	86.4	9.7	0.3	51.1	1.1	0.1	10.1	1.3	38.2	0.7	15.9	128.5	0.0	8.0	[R] 3.3	(s)	-284.3	[R] 369.9
1988	445.7	86.7	6.9	0.3	54.8	1.1	0.1	7.6	1.2	39.0	1.6	19.1	131.7	0.0	8.1	[R] 3.4	(s)	-299.7	[R] 376.1
1989	421.3	86.9	6.1	0.2	57.0	0.9	(s)	9.1	1.3	39.7	0.2	19.2	133.7	0.0	[i] 7.1	[R i] 4.0	[R i] 0.6	-268.5	[R i] 384.8
1990	458.3	101.3	6.3	0.2	55.9	0.8	(s)	4.6	1.3	37.3	0.3	19.3	126.0	0.0	6.7	3.3	[R] 0.7	-293.9	[R] 401.9
1991	449.8	103.1	6.7	0.1	51.3	0.7	0.1	4.4	1.2	37.9	0.3	13.0	115.7	0.0	7.7	[R] 3.3	[R] 0.7	-285.8	[R] 394.1
1992	490.8	130.7	5.1	0.1	54.1	0.9	(s)	4.3	1.2	39.0	0.1	15.5	120.3	0.0	6.6	[R] 3.0	[R] 0.7	-326.1	[R] 425.5
1993	466.7	110.5	5.0	0.1	58.7	0.8	0.1	6.3	1.2	39.8	0.5	14.6	127.1	0.0	8.1	[R] 3.0	[R] 0.7	-305.9	[R] 409.6
1994	489.5	112.3	6.0	0.2	58.3	0.8	0.1	5.7	1.3	40.4	0.3	14.9	127.9	0.0	[R] 9.3	[R] 3.7	[R] 0.7	-331.1	[R] 411.6
1995	461.9	103.9	4.4	0.9	65.9	0.9	0.1	7.2	1.2	41.7	0.1	14.3	136.8	0.0	8.2	[R] 3.6	[R] 0.7	-308.1	[R] 406.6
1996	473.0	107.6	5.5	1.1	72.6	0.9	0.2	6.1	1.2	41.5	(s)	16.4	145.5	0.0	12.7	[R] 3.4	[R] 0.7	-318.7	[R] 424.1
1997	466.5	107.9	6.4	0.8	77.2	0.7	0.1	6.2	1.3	39.9	(s)	16.3	149.0	0.0	14.2	3.0	0.7	-312.9	428.3

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

[e] "Biomass" is wood, waste, and ethanol. Ethanol blended into motor gasoline is included in motor gasoline and total petroleum. It is also included in the biomass series to give complete biomass data, but it is counted only once in the energy total.

[f] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[g] Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

[h] From 1989, "Total" does not equal the sum of the columns. Ethanol (which is shown in the transportation sector table) is included in both motor gasoline and biomass data in this table but only once in the total. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total in this table but not in any other columns.

[i] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

kWh=kilowatthours. R=Revised data. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 318. Residential Energy Consumption Estimates, Selected Years 1960-1997, Wyoming

Year	Coal			Natural Gas [b]	Petroleum				Wood	Geothermal	Solar [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Total							
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Thousand Cords			Million Kilowatthours		Million Kilowatthours	
1960	20	0	20	9	4	8	561	573	R 61	–	–	275	–	684	–
1965	15	0	15	11	7	32	532	570	R 51	–	–	442	–	1,055	–
1970	7	0	7	18	12	39	1,001	1,053	R 49	–	–	604	–	1,463	–
1975	17	0	17	12	26	11	960	997	R 55	–	–	891	–	2,149	–
1980	37	0	37	10	23	0	644	667	R 73	–	–	1,410	–	3,429	–
1985	37	0	37	14	50	8	496	555	R 103	–	–	1,815	–	4,263	–
1986	35	0	35	13	27	1	780	808	R 100	–	–	1,678	–	3,859	–
1987	36	0	36	11	33	2	1,324	1,359	R 48	–	–	1,635	–	3,735	–
1988	49	0	49	12	31	2	883	915	R 50	–	–	1,764	–	3,988	–
1989	48	0	48	12	33	1	591	625	R 51	–	–	1,721	–	R 3,867	–
1990	46	0	46	11	24	1	487	512	50	–	–	1,720	–	3,762	–
1991	48	(s)	48	12	87	3	595	685	53	–	–	1,819	–	R 3,961	–
1992	35	0	35	11	58	1	506	566	56	–	–	1,763	–	3,765	–
1993	65	0	65	13	51	2	452	505	51	–	–	1,906	–	4,027	–
1994	85	0	85	12	68	1	420	489	50	–	–	1,865	–	R 3,892	–
1995	51	0	51	12	55	1	592	648	R 55	–	–	1,939	–	4,040	–
1996	134	0	134	14	37	1	458	496	55	–	–	2,022	–	4,208	–
1997	49	0	49	13	60	2	458	519	40	–	–	2,007	–	4,169	–
	Trillion Btu														
1960	0.4	0.0	0.4	9.1	(s)	(s)	2.3	2.3	R 1.2	0.0	0.0	0.9	R 14.0	2.3	R 16.3
1965	0.3	0.0	0.3	9.9	(s)	0.2	2.1	2.4	R 1.0	0.0	0.0	1.5	R 15.1	3.6	R 18.7
1970	0.1	0.0	0.1	18.4	0.1	0.2	3.8	4.1	R 1.0	0.0	0.0	2.1	R 25.7	5.0	R 30.7
1975	0.3	0.0	0.3	11.3	0.2	0.1	3.6	3.8	R 1.1	0.0	0.0	3.0	R 19.6	7.3	R 26.9
1980	0.7	0.0	0.7	10.3	0.1	0.0	2.4	2.5	R 1.5	0.0	0.0	4.8	R 19.8	11.7	R 31.5
1985	0.6	0.0	0.6	15.1	0.3	(s)	1.8	2.1	R 2.1	0.0	0.0	6.2	R 26.1	14.5	R 40.7
1986	0.6	0.0	0.6	13.4	0.2	(s)	2.8	3.0	R 2.0	0.0	0.0	5.7	R 24.7	13.2	R 37.9
1987	0.6	0.0	0.6	11.2	0.2	(s)	4.8	5.1	R 1.0	0.0	0.0	5.6	R 23.4	12.7	R 36.2
1988	0.9	0.0	0.9	12.3	0.2	(s)	3.2	3.4	R 1.0	0.0	0.0	6.0	R 23.6	13.6	R 37.2
1989	0.8	0.0	0.8	12.4	0.2	(s)	2.2	2.4	R 1.0	[e] 0.0	R [e] (s)	5.9	R [e] 22.5	13.2	R [e] 35.7
1990	0.9	0.0	0.9	12.6	0.1	(s)	1.8	1.9	1.0	0.0	(s)	5.9	22.3	12.8	35.2
1991	1.1	(s)	1.1	12.7	0.5	(s)	2.2	2.7	1.1	0.0	(s)	6.2	23.8	13.5	37.3
1992	0.7	0.0	0.7	11.5	0.3	(s)	1.8	2.2	1.1	0.0	(s)	6.0	21.5	12.8	34.3
1993	1.2	0.0	1.2	13.4	0.3	(s)	1.6	1.9	1.0	0.0	(s)	6.5	24.0	13.7	37.8
1994	1.6	0.0	1.6	12.2	0.4	(s)	1.5	1.9	1.0	0.0	(s)	6.4	23.1	13.3	36.3
1995	0.9	0.0	0.9	12.9	0.3	(s)	2.1	2.5	1.1	0.0	(s)	6.6	24.0	13.8	37.8
1996	2.4	0.0	2.4	14.4	0.2	(s)	1.7	1.9	1.1	0.0	(s)	6.9	26.7	14.4	41.0
1997	0.9	0.0	0.9	13.9	0.3	(s)	1.7	2.0	0.8	0.0	(s)	6.8	24.5	14.2	38.7

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Includes small amounts of solar energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 319. Commercial Energy Consumption Estimates, Selected Years 1960-1997, Wyoming

Year	Coal			Natural Gas [b]	Petroleum						Wood	Geothermal	Electricity [a]	Net Energy	Electrical System Energy Losses [c]	Total [d]
	Bituminous Coal and Lignite [a]	Anthracite [a]	Total		Distillate Fuel [a]	Kerosene [a]	LPG [a]	Motor Gasoline	Residual Fuel [a]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels						Thousand Cords		Million Kilowatthours		Million Kilowatthours	
1960	37	0	37	5	9	29	99	73	37	246	R 1	–	174	–	432	–
1965	28	0	28	8	16	119	94	73	40	341	R 1	–	594	–	1,419	–
1970	14	0	14	14	30	147	177	85	48	487	R 1	–	657	–	1,591	–
1975	32	0	32	10	63	43	169	72	83	431	R 1	–	775	–	1,870	–
1980	68	0	68	5	428	23	114	103	27	694	R 2	–	1,138	–	2,767	–
1985	70	0	70	9	440	6	88	67	69	670	NA	–	2,321	–	5,454	–
1986	64	0	64	8	391	1	138	121	109	759	NA	–	2,248	–	5,172	–
1987	67	0	67	8	273	2	234	73	30	612	NA	–	2,177	–	4,974	–
1988	90	0	90	9	269	4	156	68	119	616	NA	–	2,220	–	5,018	–
1989	88	0	88	9	250	2	104	64	1	420	NA	–	2,219	–	R 4,987	–
1990	85	0	85	8	216	1	86	74	1	378	NA	–	2,319	–	5,073	–
1991	90	(s)	90	9	240	3	105	87	1	436	NA	–	2,439	–	R 5,310	–
1992	65	0	65	8	222	(s)	89	78	0	390	NA	–	2,496	–	5,330	–
1993	122	0	122	10	214	(s)	80	7	0	301	R 4	–	2,616	–	5,526	–
1994	157	0	157	9	233	(s)	74	7	1	315	R 4	–	2,572	–	R 5,367	–
1995	95	0	95	10	307	2	104	8	(s)	421	R 4	–	2,443	–	R 5,089	–
1996	248	0	248	10	356	1	81	36	(s)	474	R 5	–	2,562	–	5,333	–
1997	91	0	91	11	292	1	81	8	(s)	382	4	–	2,568	–	5,333	–
	Trillion Btu															
1960	0.8	0.0	0.8	5.1	0.1	0.2	0.4	0.4	0.2	1.2	(s)	0.0	0.6	7.7	1.5	9.2
1965	0.6	0.0	0.6	7.4	0.1	0.7	0.4	0.4	0.2	1.8	(s)	0.0	2.0	11.8	4.8	16.7
1970	0.3	0.0	0.3	14.3	0.2	0.8	0.7	0.4	0.3	2.4	(s)	0.0	2.2	19.3	5.4	24.7
1975	0.6	0.0	0.6	9.6	0.4	0.2	0.6	0.4	0.5	2.1	(s)	0.0	2.6	15.0	6.4	R 21.4
1980	1.2	0.0	1.2	5.3	2.5	0.1	0.4	0.5	0.2	3.7	(s)	0.0	3.9	R 14.2	9.4	23.6
1985	1.2	0.0	1.2	9.6	2.6	(s)	0.3	0.4	0.4	3.7	NA	0.0	7.9	22.4	18.6	41.0
1986	1.1	0.0	1.1	8.4	2.3	(s)	0.5	0.6	0.7	4.1	NA	0.0	7.7	21.4	17.6	39.0
1987	1.2	0.0	1.2	8.9	1.6	(s)	0.9	0.4	0.2	3.0	NA	0.0	7.4	20.5	17.0	37.5
1988	1.6	0.0	1.6	9.2	1.6	(s)	0.6	0.4	0.7	3.3	NA	0.0	7.6	21.6	17.1	38.7
1989	1.6	0.0	1.6	9.0	1.5	(s)	0.4	0.3	(s)	2.2	NA	0.6	7.6	R 21.0	17.0	R 38.0
1990	1.7	0.0	1.7	9.3	1.3	(s)	0.3	0.4	(s)	2.0	NA	0.6	7.9	R 21.5	17.3	R 38.8
1991	2.1	(s)	2.1	9.6	1.4	(s)	0.4	0.5	(s)	2.3	NA	0.6	8.3	R 22.9	18.1	R 41.0
1992	1.2	0.0	1.2	8.5	1.3	(s)	0.3	0.4	0.0	2.0	NA	0.6	8.5	R 20.9	18.2	R 39.0
1993	2.3	0.0	2.3	10.8	1.2	(s)	0.3	(s)	0.0	1.6	0.1	0.6	8.9	R 24.3	18.9	R 43.2
1994	2.9	0.0	2.9	9.7	1.4	(s)	0.3	(s)	(s)	1.7	0.1	0.6	8.8	R 23.8	18.3	R 42.1
1995	1.7	0.0	1.7	10.5	1.8	(s)	0.4	(s)	(s)	2.2	R 0.1	0.6	8.3	R 23.4	17.4	R 40.8
1996	4.5	0.0	4.5	10.3	2.1	(s)	0.3	0.2	(s)	2.6	R 0.1	0.6	8.7	R 26.8	18.2	R 45.0
1997	1.6	0.0	1.6	11.5	1.7	(s)	0.3	(s)	(s)	2.0	0.1	0.6	8.8	24.6	18.2	42.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels.

[c] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[d] Small amounts of solar energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

R=Revised data.

– =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 320. Industrial Energy Consumption Estimates, Selected Years 1960-1997, Wyoming

Year	Coal	Natural Gas [a]	Petroleum									Hydro-electric Power [b]	Wood and Waste	Other [b,d]	Electricity [b]	Net Energy	Electrical System Energy Losses [e]	Total
			Asphalt and Road Oil [b]	Distillate Fuel [b]	Kero-sene [b]	LPG [b]	Lubri-cants [b]	Motor Gasoline	Residual Fuel [b]	Other [b,c]	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Million kWh			Million kWh		Million kWh	
1960	119	35	734	1,458	55	384	2	320	756	1,943	5,653	0	–	–	270	–	671	–
1965	124	38	743	1,790	55	496	3	510	942	2,416	6,956	0	–	–	1,285	–	3,067	–
1970	210	70	1,099	1,931	155	578	30	552	960	2,554	7,858	0	–	–	1,896	–	4,595	–
1975	640	59	606	3,596	117	569	45	591	1,881	3,157	10,562	0	–	–	2,918	–	7,038	–
1980	1,605	48	1,160	6,255	39	1,199	57	365	2,144	3,724	14,943	0	–	–	4,621	–	11,237	–
1985	1,875	54	1,676	2,750	7	1,312	52	530	142	2,234	8,703	0	–	–	6,212	–	14,596	–
1986	1,786	49	1,604	2,454	6	1,199	51	503	81	2,278	8,176	0	–	–	6,047	–	13,911	–
1987	1,887	57	1,469	2,653	7	1,148	58	451	89	2,592	8,465	0	–	–	6,699	–	15,306	–
1988	1,722	56	1,046	2,221	5	992	56	461	138	3,150	8,070	0	–	–	6,980	–	15,781	–
1989	1,908	57	924	2,293	3	1,731	57	482	30	3,195	8,714	[f] NA	–	–	7,293	–	[R] 16,386	–
1990	1,857	67	955	2,271	2	663	59	417	39	3,203	7,609	NA	–	–	7,729	–	[R] 16,906	–
1991	1,896	68	1,016	2,659	4	479	53	502	39	2,142	6,893	NA	–	–	7,498	–	[R] 16,322	–
1992	2,126	97	772	2,717	6	561	54	490	10	2,586	7,196	NA	–	–	7,442	–	[R] 15,896	–
1993	1,873	75	756	2,739	19	1,192	55	387	72	2,420	7,637	NA	–	–	7,363	–	15,557	–
1994	1,867	79	902	2,764	22	1,047	57	416	40	2,464	7,712	NA	–	–	7,260	–	[R] 15,149	–
1995	1,937	68	665	2,198	22	1,265	56	443	20	2,375	7,044	NA	–	–	6,817	–	[R] 14,201	–
1996	1,835	70	835	3,072	25	1,137	54	451	6	2,730	8,312	NA	–	–	6,891	–	[R] 14,341	–
1997	1,959	67	972	3,738	22	1,156	57	470	4	2,713	9,132	NA	–	–	7,211	–	14,975	–
			Trillion Btu															
1960	2.4	36.1	4.9	8.5	0.3	1.5	(s)	1.7	4.8	11.7	33.3	0.0	[R] 0.4	0.0	0.9	[R] 73.2	2.3	[R] 75.5
1965	2.5	35.2	4.9	10.4	0.3	2.0	(s)	2.7	5.9	14.5	40.8	0.0	[R] 0.5	0.0	4.4	[R] 83.4	10.5	[R] 93.9
1970	4.0	71.3	7.3	11.2	0.9	2.2	0.2	2.9	6.0	15.3	46.1	0.0	[R] 0.6	0.0	6.5	[R] 128.4	15.7	[R] 144.1
1975	11.8	55.2	4.0	20.9	0.7	2.1	0.3	3.1	11.8	19.0	61.9	0.0	[R] 0.4	0.0	10.0	[R] 139.2	24.0	[R] 163.3
1980	28.8	51.1	7.7	36.4	0.2	4.4	0.3	1.9	13.5	22.4	86.9	0.0	[R] 1.2	0.0	15.8	[R] 183.8	38.3	[R] 222.1
1985	32.9	56.3	11.1	16.0	(s)	4.7	0.3	2.8	0.9	13.8	49.7	0.0	[R] 1.5	0.0	21.2	[R] 161.6	49.8	[R] 211.4
1986	31.0	51.5	10.6	14.3	(s)	4.4	0.3	2.6	0.5	14.2	47.0	0.0	[R] 2.3	0.0	20.6	[R] 152.5	47.5	[R] 199.9
1987	33.0	59.7	9.7	15.5	(s)	4.2	0.4	2.4	0.6	15.9	48.6	0.0	[R] 2.3	0.0	22.9	[R] 166.5	52.2	[R] 218.7
1988	30.6	59.2	6.9	12.9	(s)	3.6	0.3	2.4	0.9	19.1	46.3	0.0	[R] 2.4	0.0	23.8	[R] 162.3	53.8	[R] 216.1
1989	33.8	59.7	6.1	13.4	(s)	6.4	0.3	2.5	0.2	19.2	48.2	[f] 0.0	[R f] 2.6	[R f] (s)	24.9	[R f] 169.2	55.9	[R f] 225.1
1990	41.2	73.8	6.3	13.2	(s)	2.4	0.4	2.2	0.2	19.3	44.1	0.0	1.8	[R] (s)	26.4	187.2	57.7	244.9
1991	41.8	72.4	6.7	15.5	(s)	1.7	0.3	2.6	0.2	13.0	40.2	0.0	[R] 1.9	[R] (s)	25.6	[R] 181.9	55.7	[R] 237.6
1992	44.9	102.3	5.1	15.8	(s)	2.0	0.3	2.6	0.1	15.5	41.5	0.0	[R] 1.4	[R] (s)	25.4	[R] 215.5	54.2	[R] 269.7
1993	39.9	79.0	5.0	16.0	0.1	4.3	0.3	2.0	0.5	14.6	42.8	0.0	[R] 1.4	[R] (s)	25.1	[R] 188.3	53.1	[R] 241.4
1994	40.6	83.6	6.0	16.1	0.1	3.8	0.3	2.2	0.3	14.9	43.7	0.0	[R] 2.1	[R] (s)	24.8	[R] 194.8	51.7	[R] 246.5
1995	42.5	72.6	4.4	12.8	0.1	4.6	0.3	2.3	0.1	14.3	39.1	0.0	[R] 2.0	[R] (s)	23.3	[R] 179.4	[R] 48.5	[R] 227.9
1996	40.2	74.2	5.5	17.9	0.1	4.1	0.3	2.4	(s)	16.4	46.8	0.0	[R] 2.0	[R] (s)	23.5	[R] 186.8	48.9	[R] 235.7
1997	42.3	71.2	6.4	21.8	0.1	4.2	0.3	2.5	(s)	16.3	51.7	0.0	2.1	(s)	24.6	191.9	51.1	243.0

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."

[d] "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

[e] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

kWh=kilowatthours. – =Not applicable. NA=Not available.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 321. Transportation Energy Consumption Estimates, Selected Years 1960-1997, Wyoming

Year	Coal [a]	Natural Gas [b]	Petroleum								Ethanol [c]	Electricity [a]	Net Energy	Electrical System Energy Losses [d]	Total [c]
			Aviation Gasoline [a]	Distillate Fuel [a]	Jet Fuel [a]	LPG [a]	Lubricants [a]	Motor Gasoline	Residual Fuel [a]	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Gallons	Million Kilowatthours		Million Kilowatthours	
1960	2	2	132	1,801	56	70	91	4,038	951	7,138	0	0	–	0	–
1965	(s)	2	217	1,864	74	49	81	4,157	1,173	7,615	0	0	–	0	–
1970	(s)	6	256	3,072	128	91	85	5,262	469	9,363	0	0	–	0	–
1975	(s)	5	218	3,965	124	116	108	6,691	0	11,223	0	0	–	0	–
1980	0	6	108	6,419	162	73	151	8,034	0	14,946	0	0	–	0	–
1985	0	5	51	4,287	154	45	137	7,073	(s)	11,747	0	0	–	0	–
1986	0	5	50	3,906	144	53	134	6,579	0	10,866	0	0	–	0	–
1987	0	6	51	5,697	202	50	151	6,754	0	12,905	0	0	–	0	–
1988	0	6	53	6,767	193	51	146	6,897	0	14,108	0	0	–	0	–
1989	0	5	39	7,087	160	35	150	7,015	(s)	14,487	R e 5,290	0	–	0	–
1990	0	5	35	6,993	143	27	154	6,613	0	13,965	6,110	0	–	0	–
1991	0	8	28	5,705	119	49	138	6,623	0	12,662	4,843	0	–	0	–
1992	0	8	25	6,189	153	27	141	6,861	0	13,396	5,886	0	–	0	–
1993	0	7	20	6,965	140	29	143	7,178	0	14,475	6,569	0	–	0	–
1994	0	6	33	6,856	152	38	150	7,259	0	14,488	7,386	0	–	0	–
1995	0	7	179	8,624	160	17	147	7,486	0	16,612	5,537	0	–	0	–
1996	0	8	213	8,892	151	17	143	7,418	0	16,833	2,004	0	–	0	–
1997	0	10	151	9,058	121	16	151	7,125	0	16,622	139	0	–	0	–
			Trillion Btu												
1960	(s)	1.8	0.7	10.5	0.3	0.3	0.5	21.2	6.0	39.5	0.0	0.0	41.3	0.0	41.3
1965	(s)	2.0	1.1	10.9	0.4	0.2	0.5	21.8	7.4	42.3	0.0	0.0	44.3	0.0	44.3
1970	(s)	6.0	1.3	17.9	0.7	0.3	0.5	27.6	2.9	51.3	0.0	0.0	57.4	0.0	57.4
1975	(s)	4.9	1.1	23.1	0.7	0.4	0.7	35.2	0.0	61.1	0.0	0.0	66.1	0.0	66.1
1980	0.0	6.2	0.5	37.4	0.9	0.3	0.9	42.2	0.0	82.2	0.0	0.0	88.4	0.0	88.4
1985	0.0	5.2	0.3	25.0	0.9	0.2	0.8	37.2	(s)	64.2	0.0	0.0	69.5	0.0	69.5
1986	0.0	5.3	0.3	22.8	0.8	0.2	0.8	34.6	0.0	59.4	0.0	0.0	64.7	0.0	64.7
1987	0.0	6.4	0.3	33.2	1.1	0.2	0.9	35.5	0.0	71.2	0.0	0.0	77.5	0.0	77.5
1988	0.0	6.0	0.3	39.4	1.1	0.2	0.9	36.2	0.0	78.1	0.0	0.0	84.0	0.0	84.0
1989	0.0	5.7	0.2	41.3	0.9	0.1	0.9	36.9	(s)	80.3	R e 0.4	0.0	e 85.9	0.0	e 85.9
1990	0.0	5.6	0.2	40.7	0.8	0.1	0.9	34.7	0.0	77.5	0.5	0.0	83.0	0.0	83.0
1991	0.0	8.3	0.1	33.2	0.7	0.2	0.8	34.8	0.0	69.8	0.4	0.0	78.1	0.0	78.1
1992	0.0	8.4	0.1	36.1	0.9	0.1	0.9	36.0	0.0	74.0	0.4	0.0	82.4	0.0	82.4
1993	0.0	7.2	0.1	40.6	0.8	0.1	0.9	37.7	0.0	80.1	0.5	0.0	87.3	0.0	87.3
1994	0.0	6.6	0.2	39.9	0.8	0.1	0.9	38.1	0.0	80.1	0.6	0.0	86.7	0.0	86.7
1995	0.0	7.7	0.9	50.2	0.9	0.1	0.9	39.3	0.0	92.3	0.4	0.0	100.0	0.0	100.0
1996	0.0	8.7	1.1	51.8	0.9	0.1	0.9	39.0	0.0	93.6	0.2	0.0	102.3	0.0	102.3
1997	0.0	11.2	0.8	52.8	0.7	0.1	0.9	37.4	0.0	92.6	(s)	0.0	103.8	0.0	103.8

[a] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[b] Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

[c] Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

[d] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of non-electric utility use of renewable energy beginning in 1989.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 322. Estimates of Energy Input at Electric Utilities, Selected Years 1960-1997, Wyoming

Year	Coal			Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [e]	Wood and Waste	Geothermal Energy	Other [b,f]	Total [g]
	Bituminous Coal and Lignite	Anthracite	Total		Heavy Oil [b,c]	Light Oil [b,d]	Petroleum Coke [b]	Total						
	Thousand Short Tons			Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	815	0	815	1	5	6	0	12	0	609	0	0	0	–
1965	1,941	0	1,941	(s)	15	19	0	34	0	884	0	0	0	–
1970	3,571	0	3,571	2	11	13	0	25	0	1,006	0	0	0	–
1975	6,938	0	6,938	1	112	6	0	118	0	1,120	0	0	0	–
1980	13,498	0	13,498	(s)	0	123	0	123	0	1,108	0	0	0	–
1985	21,173	0	21,173	(s)	0	143	0	143	0	1,068	0	0	3	–
1986	17,452	0	17,452	(s)	0	123	0	123	0	1,140	0	0	1	–
1987	22,408	0	22,408	(s)	0	115	0	115	0	768	0	0	(s)	–
1988	23,563	0	23,563	(s)	0	121	0	121	0	789	0	0	(s)	–
1989	21,908	0	21,908	(s)	0	118	0	118	0	680	0	0	(s)	–
1990	23,526	0	23,526	(s)	0	99	0	99	0	645	0	0	0	–
1991	23,115	0	23,115	(s)	0	122	0	122	0	736	0	0	0	–
1992	25,114	0	25,114	(s)	0	100	0	100	0	636	0	0	0	–
1993	24,111	0	24,111	(s)	0	104	0	104	0	787	0	0	0	–
1994	25,350	0	25,350	(s)	0	86	0	86	0	897	0	0	0	–
1995	23,850	0	23,850	(s)	0	128	0	128	0	799	0	0	0	–
1996	24,430	0	24,430	(s)	0	110	0	110	0	1,232	0	0	0	–
1997	23,996	0	23,996	(s)	0	105	0	105	0	1,381	0	0	0	–
	Trillion Btu													
1960	12.1	0.0	12.1	0.7	(s)	(s)	0.0	0.1	0.0	6.6	0.0	0.0	0.0	19.4
1965	31.0	0.0	31.0	0.2	0.1	0.1	0.0	0.2	0.0	9.2	0.0	0.0	0.0	40.6
1970	59.0	0.0	59.0	2.4	0.1	0.1	0.0	0.1	0.0	10.6	0.0	0.0	0.0	72.2
1975	115.4	0.0	115.4	0.4	0.7	(s)	0.0	0.7	0.0	11.7	0.0	0.0	0.0	128.2
1980	237.4	0.0	237.4	0.2	0.0	0.7	0.0	0.7	0.0	11.5	0.0	0.0	0.0	249.8
1985	370.7	0.0	370.7	0.1	0.0	0.8	0.0	0.8	0.0	11.2	0.0	0.0	(s)	382.9
1986	303.9	0.0	303.9	0.1	0.0	0.7	0.0	0.7	0.0	11.9	0.0	0.0	(s)	316.7
1987	393.4	0.0	393.4	0.1	0.0	0.7	0.0	0.7	0.0	8.0	0.0	0.0	(s)	402.1
1988	412.6	0.0	412.6	0.2	0.0	0.7	0.0	0.7	0.0	8.1	0.0	0.0	(s)	421.7
1989	385.1	0.0	385.1	0.1	0.0	0.7	0.0	0.7	0.0	7.1	0.0	0.0	(s)	392.9
1990	414.6	0.0	414.6	0.1	0.0	0.6	0.0	0.6	0.0	6.7	0.0	0.0	0.0	421.9
1991	404.8	0.0	404.8	0.1	0.0	0.7	0.0	0.7	0.0	7.7	0.0	0.0	0.0	R 413.3
1992	444.0	0.0	444.0	0.1	0.0	0.6	0.0	0.6	0.0	6.6	0.0	0.0	0.0	451.3
1993	423.3	0.0	423.3	0.1	0.0	0.6	0.0	0.6	0.0	8.1	0.0	0.0	0.0	432.1
1994	444.4	0.0	444.4	0.1	0.0	0.5	0.0	0.5	0.0	R 9.3	0.0	0.0	0.0	454.3
1995	416.8	0.0	416.8	0.1	0.0	0.7	0.0	0.7	0.0	8.2	0.0	0.0	0.0	425.9
1996	425.9	0.0	425.9	0.1	0.0	0.6	0.0	0.6	0.0	12.7	0.0	0.0	0.0	439.4
1997	421.7	0.0	421.7	0.1	0.0	0.6	0.0	0.6	0.0	14.2	0.0	0.0	0.0	436.6

[a] Includes supplemental gaseous fuels.

[b] The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

[c] Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.

[d] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.

[e] If applicable, through 1989, includes all net imports of electricity, and, from 1990, includes only the portion of imports of electricity that is derived from hydroelectric power.

[f] "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.

[g] If applicable, from 1990, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

– =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Appendix A

Documentation

Section 1. Documentation Guide

Appendix A of the *State Energy Data Report* describes how the estimates in the report were derived by the Combined State Energy Data System (CSEDS). The following five sections, one for each energy source, provide: descriptions of all the data series that are entered into CSEDS; the formulas applied in CSEDS for creating additional data series; and notes on special circumstances for any series.

Appendix B is an alphabetical listing of the variable names and formulas used in the system; Appendix C lists the conversion factors used in CSEDS to convert physical units into British thermal units and gives the sources for those factors; Appendix D provides the U.S. Department of Commerce, Bureau of the Census, resident population data used in per capita calculations; Appendix E presents metric and other physical conversion factors for information, although they are not currently used in CSEDS; Appendix F lists carbon dioxide emission factors for coal consumed by State for information, although they are not used in CSEDS; Appendix G is a summary of the changes made in CSEDS since the last report, which was released in December 1997; and Appendix H is a list of other Energy Information Administration reports containing State-level data.

There are 475 variables used in CSEDS to create the estimates in this report. All of the variables are identified by seven-letter names, such as MGTCPAL. In the following example, MGTCPAL is the identifying code for data on motor gasoline total consumption in physical units in Alabama

Characters:	**MG**	**TC**	**P**	**AL**
Positions:	1 and 2	3 and 4	5	6 and 7
Identity:	Type of Energy	Energy activity or consumption end-use sector	Type of data	Geographic

The type of energy categories in CSEDS, which are represented by the first two letters of the variable name, are:

AB = aviation gasoline blending components
AC = anthracite
AI = aluminum ingot
AR = asphalt and road oil
AS = asphalt
AV = aviation gasoline
BC = bituminous coal and lignite
BM = biomass
CC = coal coke
CG = corrugated and solid fiber boxes
CL = coal
CO = crude oil, including lease condensate
CT = catalytic cracking
DF = distillate fuel
DK = distillate fuel, including kerosene-type jet fuel

EL = electricity
EN = ethanol
ER = electricity generated from renewable energy
ES = electricity sales
EX = electricity generated from non-renewable energy
FF = fossil fuels
FN = petrochemical feedstocks, naphtha less than 401° F
FO = petrochemical feedstocks, other oils equal to or greater than 401° F
FS = petrochemical feedstocks, still gas
GE = geothermal energy
GO = geothermal, wind, photovoltaic, and solar thermal energy
HP = hydroelectric power from pumped storage
HV = conventional hydroelectric power
HY = hydroelectric power, all types
JF = jet fuel
JK = jet fuel, kerosene-type
JN = jet fuel, naphtha-type
KS = kerosene
LG = liquefied petroleum gases
LO = electrical system energy losses
LU = lubricants
MB = motor gasoline blending components
MG = motor gasoline
MS = miscellaneous petroleum products
NA = natural gasoline (including isopentane)
NG = natural gas
NU = nuclear electric power
OC = organic chemicals
PA = all petroleum products
PC = petroleum coke
PI = paints and allied products
PL = plant condensate
PO = other petroleum products
PP = pentanes plus
RD = road oil
RE = renewable energy
RF = residual fuel
SG = still gas
SN = special naphtha
SO = photovoltaic and solar thermal energy
TE = total energy
TN = total net energy
TP = resident population
UO = unfinished oils
US = unfractionated stream
WD = wood
WN = wind, photovoltaic, and solar thermal energy
WS = waste
WW = wood and waste
WX = waxes
WY = wind

The consumption end-use sectors, identified by characters three and four of each variable name, such as:

AC = transportation sector consumption
CC = commercial sector consumption
EU = electric utility sector consumption
IC = industrial sector consumption
RC = residential sector consumption
TC = total consumption of all sectors

Many other characters occur in the third and fourth positions of the variable names for the sales, deliveries, and distribution data series used in the intermediate calculations in CSEDS to derive the end-use consumption estimates. Examples of these codes are:

AG = sales for use in agriculture
BK = sales for use in vessel bunkering
IN = deliveries to the industrial sector
OD = distribution to other industrial users

Combining the first two components (the first four letters) produces variable names, such as:

MGAG = motor gasoline sold for use in agriculture
MGAC = motor gasoline consumed by the transportation sector
NGIN = natural gas delivered to the industrial sector
NGIC = natural gas consumed by the industrial sector

The fifth character of the variable names in CSEDS identifies the type of data by using one of the following letters:

B = data in British thermal units (Btu)
K = factor for converting data from physical units to Btu
M = data in alternative physical units
P = data in standardized physical units
S = share or ratio expressed as a fraction
V = value added in manufacture

Data entered into CSEDS are in physical units, represented by a "P" in the fifth character; for example, coal data are in thousand short tons, petroleum data are in thousand barrels, and natural gas data are in million cubic feet. In a few cases, data are obtained from the source documents in different units, such as thousand gallons instead of thousand barrels, and are represented by an "M" until converted in CSEDS to the unit that is consistent with other variables. Conversion factors, represented by a "K" in the fifth character, are applied to the physical unit data to convert the data to British thermal units, a common unit for all forms of energy. The derived data series in thousand British thermal units are represented by "B" in the fifth character. In a few cases, consumption estimates are derived by calculating shares of aggregated consumption data. The fractions used to calculate the consumption shares are identified by an "S" in the fifth character. The consumption estimates for some petroleum products are based on the value added in the manufacturing process by related industries in each State. The data series for those industry activities are in dollars, and the variable names contain "V" in the fifth character.

The last two characters of each variable name are for geographic identification. Geographic areas used in CSEDS are the 50 States and the District of Columbia (represented by the U.S. Postal Service State abbreviations) and the United States as a whole. Some estimates of electricity sales and losses are derived by using only the contiguous 48 States and the District of Columbia, and the variables used in those calculations are identified by "48" in the last two characters of the names. The geographic area codes used in CSEDS are shown in Table A1.

Table A1. Geographic Area Codes Used in the State Energy Data System

Code	State	Code	State
AK	Alaska	NC	North Carolina
AL	Alabama	ND	North Dakota
AR	Arkansas	NE	Nebraska
AZ	Arizona	NH	New Hampshire
CA	California	NJ	New Jersey
CO	Colorado	NM	New Mexico
CT	Connecticut	NV	Nevada
DC	District of Columbia	NY	New York
DE	Delaware	OH	Ohio
FL	Florida	OK	Oklahoma
GA	Georgia	OR	Oregon
HI	Hawaii	PA	Pennsylvania
IA	Iowa	RI	Rhode Island
ID	Idaho	SC	South Carolina
IL	Illinois	SD	South Dakota
IN	Indiana	TN	Tennessee
KS	Kansas	TX	Texas
KY	Kentucky	UT	Utah
LA	Louisiana	VA	Virginia
MA	Massachusetts	VT	Vermont
MD	Maryland	WA	Washington
ME	Maine	WI	Wisconsin
MI	Michigan	WV	West Virginia
MN	Minnesota	WY	Wyoming
MO	Missouri	US	United States
MS	Mississippi	48	The contiguous 48 States and the District of Columbia
MT	Montana		

Throughout this report, the term "State" includes the District of Columbia. Throughout this documentation, "ZZ" is used as a geographic identifier to represent the different State abbreviations that would be interchanged in that position of the variable name.

Section 2. Coal

Two forms of coal—anthracite (AC) and bituminous coal and lignite (BC)—are added to provide coal totals (CL).

Anthracite

Physical Units

There are seven input data series used to estimate the State end-use consumption of anthracite, and all are in units of thousand short tons. "ZZ" in the variable names is used to represent the two-letter State code that differs for each State:

ACEUPZZ = anthracite consumed by the electric utilities in each State;
ACHCPUS = anthracite consumed by the residential and commercial sectors in the United States;
ACHDPZZ = anthracite distributed to the residential and commercial sectors in each State;
ACKCPUS = anthracite consumed by coke plants in the United States;
ACKDPZZ = anthracite distributed to coke plants in each State;
ACOCPUS = anthracite consumed by other industrial users in the United States; and
ACODPZZ = anthracite distributed to other industrial users in each State.

The U.S. totals for the four State-level series, ACEUPZZ, ACHDPZZ, ACKDPZZ, and ACOCDPZZ, are calculated by summing the State data.

Estimates of anthracite consumed by the residential and commercial sectors combined are made by assuming that anthracite is consumed in proportion to the amount of anthracite distributed to the residential and commercial sectors in each State:

ACHCPZZ = (ACHDPZZ/ACHDPUS) * ACHCPUS

Little information is available regarding disaggregating the combined residential and commercial estimates. An estimate of 60 percent to the residential sector and 40 percent to the commercial sector is made for all States and years. Therefore, the residential sector consumption of anthracite, ACRCPZZ, is estimated:

ACRCPZZ = ACHCPZZ * 0.60

and the commercial sector consumption, ACCCPZZ, is estimated:

ACCCPZZ = ACHCPZZ * 0.40

To gain a perspective on these estimates: all anthracite consumed in the United States in 1997 accounted for less than 0.3 percent of total coal consumption, and the residential and commercial use of anthracite was less than half of all anthracite consumed.

The industrial sector consumption is estimated by State. An assumption is made that anthracite is consumed by coke plants in proportion to the amount of anthracite distributed to coke plants in each State. It is also assumed that the consumption of anthracite by industrial users other than coke plants is in proportion to the amount of anthracite delivered to the other industrial users in each State. The industrial sector consumption is the sum of anthracite consumed by coke plants and by other industrial users for each State:

ACKCPZZ = ACKDPZZ/ACKDPUS) * ACKCPUS
ACOCPZZ = (ACODPZZ/ACODPUS) * ACOCPUS
ACICPZZ = ACKCPZZ + ACOCPZZ

Total anthracite consumption in each State is the sum of the sectors' consumption:

ACTCPZZ = ACRCPZZ + ACCCPZZ + ACICPZZ + ACEUPZZ

The U.S. anthracite consumption estimates for each of the sectors and the total are calculated as the sum of the States' values.

British Thermal Units (Btu)

Two factors are used for converting anthracite consumption from physical units to Btu. The factors, in million Btu per short ton, are:

ACEUKUS = the factor for converting anthracite consumed in the electric utility sector from short tons to Btu; and
ACNUKUS = the factor for converting anthracite consumed by all sectors other than electric utilities from short tons to Btu.

The industrial sector Btu consumption is estimated in three steps in order to maintain separate series for anthracite used as coking coal (ACKCB) and anthracite consumed by other industrial users (ACOCB):

ACKCBZZ = ACKCPZZ * ACNUKUS
ACOCBZZ = ACOCPZZ * ACNUKUS
ACICBZZ = ACKCBZZ + ACOCBZZ

The remaining end-use sectors are calculated for all States:

ACEUBZZ = ACEUPZZ * ACEUKUS
ACRCBZZ = ACRCPZZ * ACNUKUS
ACCCBZZ = ACCCPZZ * ACNUKUS
ACTCBZZ = ACRCBZZ + ACCCBZZ + ACICBZZ + ACEUBZZ

Total U.S. end-use consumption estimates are calculated as the sum of the States' data.

Additional Notes on Anthracite

Anthracite consumption at the national level for the residential and commercial sectors (ACHCPUS), coke plants (ACKCPUS), and industries other than coke plants (ACOCPUS) are continuous data series. However, the total coal distribution and anthracite distribution data series used to develop State-level estimates are not continuous.

For 1960 through 1979, State-level anthracite data are not available and the 1980 State data are used to apportion the U.S. totals to the States. From 1980 forward, the data in the distribution series variables—ACKDPZZ, ACODPZZ, and ACHDPZZ—are estimates of actual anthracite consumption rather than the distribution.

For 1980 forward, State-level total coal consumption data are available, but consumption by sector within many States is withheld. Estimates of the withheld sector consumption of total coal are derived by using the distribution series for the residential and commercial sectors to fill in withheld residential and commercial consumption. In most States, this leaves only one sector withheld and it can be derived by subtracting known sectors from the State total. This gives total coal consumption estimates for the end-use sectors that are compatible with State coal consumption data published in other EIA reports. Anthracite consumption is then derived by using anthracite distribution data to estimate consumption within each sector and State. These estimates equal U.S. totals for anthracite consumption by sector contained in other EIA databases.

Data Sources for Anthracite

ACEUKUS — Factor for converting anthracite consumed by the electric utilities from physical units to Btu.

- 1960 through 1972: Energy Information Administration (EIA) assumed that all anthracite consumed at electric utilities was recovered from culm banks and river dredging and was estimated to have an average heat content of 17.500 million Btu per short ton.
- 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite receipts at electric utilities by the quantity of anthracite received at electric utilities. These data are reported on the Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and predecessor forms.

ACEUPZZ — Anthracite consumed by the electric utilities by State.

- EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms.

ACHCPUS — Anthracite consumed by the residential and commercial sectors in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Pennsylvania Anthracite Annual."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 9.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 8.
- 1988 forward: EIA, Unpublished data from Form EIA-6.

ACHDPZZ — Anthracite distributed to the residential and commercial sectors.

- 1960 through 1979: No data available. The 1980 State data are used for years 1960 through 1979.
- 1980 forward: Consumption estimates are used for this distribution series. Consumption of all types of coal by State is published in EIA, *Quarterly Coal Report, October–December* for each year. Data are from the report of the following year, i.e., 1982 final data are published in the *Quarterly Coal Report, October–December 1983*. The specific tables are:
  - — 1980: Unpublished data.
  - — 1981 through 1983: Table 27.
  - — 1984 through 1990: Table 29.
  - — 1991 through 1994: Table 51.
  - — 1995: Table 43.
  - — 1996 and 1997: Table 44.

  Withheld State values for consumption of all types of coal are estimated by using distribution data. When U.S. residential and commercial coal distribution does not equal U.S. residential and commercial coal consumption, the State distribution values are adjusted proportionally until the sum of State distribution values equals the U.S. consumption value published in the *Quarterly Coal Report*. The distribution data are published in:
  - — 1980 through 1984: EIA, *Coal Distribution, January-December 1984*, Table 21.
  - — 1985 through 1989: EIA, *Coal Distribution, January-December 1989*, Table 15.
  - — 1990 and 1991: EIA, *Coal Distribution, January-December* for each year, Table 16.
  - — 1992 through 1994: EIA, *Quarterly Coal Report, October-December* for the following year, Table 10.
  - — 1995 forward: Unpublished data from Form EIA-6.

  Anthracite consumption is estimated by using distribution data published in EIA, *Coal Distribution, January-December* for each year. The specific tables are:
  ("District 24" represents all anthracite.)
  - — 1980 through 1983: Tables 8 and 9.
  - — 1984: Tables 6 and 8.
  - — 1985 through 1989: Tables 6 and 3.

  ("Origin: Pennsylvania, Anthracite" represents all anthracite.)
  - — 1990 and 1991: Table 33.
  - — 1992 forward: Unpublished data from Form EIA-6.

  State distribution data are increased or decreased proportionally until the sum of the States' distribution values equals the U.S. consumption (ACHCPUS).

ACKCPUS — Anthracite carbonized by coke plants in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Pennsylvania Anthracite Annual."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 9.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 8.
- 1988 forward: EIA, Unpublished data from Form EIA-5.

ACKDPZZ — Anthracite distributed to coke plants by State.

- 1960 through 1979: No data available. The 1980 State data are used for years 1960 through 1979.
- 1980 forward: Consumption estimates are used for this distribution series. Consumption of all types of coal by State is published in EIA, *Quarterly Coal Report, October-December* for each year. Data are from the report of the following year, i.e., 1982 final data are published in the *Quarterly Coal Report, October-December 1983*. The specific tables are:
  - — 1980: Unpublished data.
  - — 1981 through 1983: Table 25.
  - — 1984, 1985, and 1987: Table 27.
  - — 1986, 1988, and 1989: Unpublished State revisions that are components of the U.S. revisions published in the *Quarterly Coal Report, October-December 1991,* Table 45.
  - — 1990: Table 27.
  - — 1991 through 1994: Table 48.
  - — 1995: Table 40.

— 1996: Table 41.
— 1997: EIA, Unpublished data from Form EIA-5.

Withheld State values for consumption of all types of coal are estimated by using distribution data. After withheld residential and commercial coal consumption values have been estimated, withheld coke plant consumption is the difference between the sum of the published and estimated end-use sectors' consumption and the published State total consumption.

Anthracite consumption is estimated by using distribution data published in EIA, *Coal Distribution, January-December* for each year. The specific tables are:

("District 24" represents all anthracite.)
— 1980 through 1983: Tables 8 and 9.
— 1984: Tables 6 and 8.
— 1985 through 1989: Tables 6 and 33.

("Origin: Pennsylvania, Anthracite" represents all anthracite.)
— 1990 and 1991: Table 33.
— 1992 forward: Unpublished data from Form EIA-6.

State distribution data are increased or decreased proportionally until the sum of the States' distribution values equals the U.S. consumption (ACKCPUS).

ACNUKUS — Factor for converting anthracite consumed by all sectors other than the electric utility sector from physical units to Btu.

- Calculated annually by EIA by dividing the heat content of anthracite produced less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of anthracite consumption by all sectors other than the electric utility sector less the quantity of anthracite stock changes, losses, and "unaccounted for."

ACOCPUS — Anthracite consumed by industrial users other than coke plants in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Pennsylvania Anthracite, Annual."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 9.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 8.
- 1988 forward: EIA, Unpublished data from Forms EIA-3 and EIA-6.

ACODPZZ — Anthracite distributed to industrial plants (other than coke plants) by State.

- 1960 through 1979: No data available. The 1980 State data are used for years 1960 through 1979.
- 1980 forward: Consumption estimates are used for this distribution series. Consumption of all types of coal by State is published in EIA, *Quarterly Coal Report, October-December* for each year. Data are from the report of the following year, i.e., 1982 final data are published in the *Quarterly Coal Report, October-December 1983*. The specific tables are:
  — 1980: Unpublished data.
  — 1981 through 1983: Table 26.
  — 1984 through 1990: Table 28.
  — 1991 through 1994: Table 49.
  — 1995: Table 41.
  — 1996 and 1997: Table 42.

  Withheld State values for consumption of all types of coal are estimated by using distribution data. After withheld residential and commercial coal consumption values have been estimated, withheld consumption by other industrial users is the difference between the sum of the published and estimated end-use sectors' consumption and the published State total consumption.

  Anthracite consumption is estimated by using distribution data published in EIA, *Coal Distribution, January-December* for each year. The specific tables are:

  ("District 24" represents all anthracite.)
  — 1980 through 1983: Tables 8 and 9.
  — 1984: Tables 6 and 8.
  — 1985 through 1989: Tables 6 and 33.

  ("Origin: Pennsylvania, Anthracite" represents all anthracite.)
  — 1990 and 1991: Table 33.
  — 1992 forward: Unpublished data from Form EIA-6.

  State distribution data are increased or decreased proportionally until the sum of the States' distribution values equals total U.S. consumption (ACOCPUS).

Bituminous Coal and Lignite

Physical Units

Eight data series are used to estimate bituminous coal and lignite consumption. They are consumption and distribution data, and they are all in units of thousand short tons:

BCACPUS = bituminous coal and lignite consumed by the transportation sector in the United States;
BCEUPZZ = bituminous coal and lignite consumed by the electric utilities in each State;
BCHCPUS = bituminous coal and lignite consumed by the residential and commercial sectors in the United States;
BCHDPZZ = bituminous coal and lignite distributed to the residential and commercial sectors in each State.
BCKCPUS = bituminous coal and lignite consumed by coke plants in the United States;
BCKDPZZ = bituminous coal and lignite distributed to coke plants in each State;
BCOCPUS = bituminous coal and lignite consumed by other industrial users in the United States; and
BCODPZZ = bituminous coal and lignite distributed to other industrial users in each State.

The U.S. totals for the four State-level series, BCEUPZZ, BCHDPZZ, BCKDPZZ, and BCODPZZ, are calculated by summing the State data.

An assumption is made that bituminous coal and lignite are consumed by the residential and commercial sectors combined in proportion to the amount of bituminous coal and lignite distributed to the residential and commercial sectors in each State:

BCHCPZZ = (BCHDPZZ / BCHDPUS) * BCHCPUS

Little information exists for disaggregating the combined residential and commercial estimates. An estimate of 35 percent to the residential sector and 65 percent to the commercial sector is made for all States and years. That is, the residential sector consumption, BCRCPZZ, is estimated:

BCRCPZZ = BCHCPZZ * 0.35

and the commercial sector consumption, BCCCPZZ, is estimated:

BCCCPZZ = BCHCPZZ * 0.65

To gain a perspective on these estimates: bituminous coal and lignite consumed by residential and commercial users in 1997 accounted for only 0.5 percent of all bituminous coal and lignite consumed—that is, 5 million short tons out of the 1,005 million short tons consumed in 1997.

Consumption in the industrial sector is estimated by State. An assumption is made that bituminous coal and lignite is consumed by coke plants in proportion to the amount of bituminous coal and lignite distributed to coke plants in each State. It is also assumed that the consumption of bituminous coal and lignite by industrial users other than coke plants is in proportion to the amount delivered to other industrial users in each State. The industrial sector consumption is the sum of bituminous coal and lignite consumed by coke plants and by other industrial users for each State:

BCKCPZZ = (BCKDPZZ / BCKDPUS) * BCKCPUS
BCOCPZZ = (BCODPZZ / BCODPUS) * BCOCPUS
BCICPZZ = BCKCPZZ + BCOCPZZ

There are no data available for estimating the transportation sector's consumption of bituminous coal and lignite by State. The quantity would be very small. The transportation sector accounted for only 1 percent of the national total consumption in 1960 and none since 1978. An assumption is made that when transportation sector consumption exists, the consumption by State, BCACPZZ, is in proportion to the share of the U.S. industrial sector attributed to each State:

BCACPZZ = (BCICPZZ / BCICPUS) * BCACPUS

Total consumption in each State, BCTCPZZ, is the sum of the sectors' consumption:

BCTCPZZ = BCRCPZZ + BCCCPZZ + BCICPZZ + BCACPZZ + BCEUPZZ

The U.S. bituminous coal and lignite consumption estimates for each of the sectors and the total are calculated as the sum of the States' values.

British Thermal Units (Btu)

Three factors are used for converting bituminous coal and lignite from physical units to Btu. The three factors, State-specific for each year, in units of million Btu per short ton, are:

BCEUKZZ = the factor for converting bituminous coal and lignite consumed by the electric utility sector in each State from short tons to Btu;
BCHCKZZ = the factor for converting bituminous coal and lignite consumed by the residential and commercial sectors in each State from short tons to Btu; and
BCOCKZZ = the factor for converting bituminous coal and lignite consumed by other industrial users in each State from short tons to Btu.

The electric utility factor for each State is applied to estimate bituminous coal and lignite consumed by electric utilities in Btu:

BCEUBZZ = BCEUPZZ * BCEUKZZ

The residential and commercial sectors' State factor is applied to estimate bituminous coal and lignite consumed by the two sectors in Btu:

BCRCBZZ = BCRCPZZ * BCHCKZZ
BCCCBZZ = BCCCPZZ * BCHCKZZ

The industrial sector Btu consumption is estimated in three steps. A constant conversion factor of 26.80 million Btu per short ton is used for coking coal consumption for all years. The conversion factor for industrial users other than coke plants in each State is applied to other industrial users sector consumption. The industrial sector Btu consumption is then estimated by adding coking coal Btu consumption and other industrial users Btu consumption:

BCKCBZZ = BCKCPZZ * 26.80
BCOCBZZ = BCOCPZZ * BCOCKZZ
BCICBZZ = BCKCBZZ + BCOCBZZ

The transportation sector Btu consumption is estimated by applying the other industrial users' State factor to the transportation consumption:

BCACBZZ = BCACPZZ * BCOCKZZ

Total consumption for each State is the sum of the sectors' consumption:

BCTCBZZ = BCRCBZZ + BCCCBZZ + BCICBZZ + BCACBZZ + BCEUBZZ

The U.S. consumption estimates in Btu are calculated by summing the State values for each of the data series.

Additional Notes for Bituminous Coal and Lignite

1. Bituminous coal and lignite consumption at the national level for the residential and commercial sectors (BCHCPUS), coke plants (BCKCPUS), and industries other than coke plants (BCOCPUS) are continuous data series. However, the distribution data series used to develop State-level estimates by end-use sector are not continuous.

   For 1960 through 1979, State-level bituminous coal and lignite distribution data are used to apportion the U.S. consumption data to the States. From 1980 forward, the data in the distribution series variables—BCKDPZZ, BCODPZZ, and BCHDPZZ—are estimates of actual bituminous coal and lignite consumption rather than the distribution data used for the previous years.

   For 1980 forward, State-level total coal consumption data are available, but data for consumption by sector within many States are withheld. Estimates of the withheld sector consumption of total coal are derived by using the distribution series for the residential and commercial sectors to fill in withheld residential and commercial consumption. In most States, this leaves only one sector withheld and it can be derived by subtracting known sectors from the State total. This gives total coal consumption estimates for the end-use sectors that are compatible with State coal consumption data published in

other EIA reports. Anthracite consumption is derived by using anthracite distribution data to estimate consumption within each sector and State that sum to the U.S. totals for anthracite consumption by sector contained in other EIA databases. Bituminous coal and lignite consumption for each sector and State is, then, the difference between the total coal consumption estimates and anthracite consumption estimates.

2. Prior to 1974, data for distribution of bituminous coal and lignite by State included several groupings of States for which separate State data were unavailable. These groupings were: (1) Maine, New Hampshire, Vermont, and Rhode Island; (2) North Dakota and South Dakota; (3) Delaware and Maryland; (4) Georgia and Florida; (5) Alabama and Mississippi; (6) Arkansas, Louisiana, Oklahoma, and Texas; (7) Montana and Idaho; (8) Arizona and Nevada; and (9) Washington and Oregon. Beginning with 1974, individual State distribution data became available. To estimate the 1960 through 1973 State distribution data, the combined States were disaggregated in proportion to the individual States' shares of each similar State grouping in 1974.

3. Total coal consumption by State for 1980 through 1989 published in the EIA *Quarterly Coal Report* do not sum to the U.S. totals due to a quantity called "Unknown" in the source tables. This unknown coal consumption is assumed to be bituminous coal and lignite and is added to the residential, commercial, and "other industrial" sectors of Alabama, Illinois, Kentucky, Pennsylvania, Tennessee, and West Virginia.

Data Sources for Bituminous Coal and Lignite

BCACPUS — Bituminous coal and lignite consumed by the transportation sector in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite."
- 1976 and 1977: EIA, *Energy Data Reports*, "Coal-Bituminous and Lignite by Consumer and Retail Deliveries."
- 1978 forward: Small amounts of bituminous coal and lignite consumed by the transportation sector are included in the other industrial category (see BCOCPUS). Zero is entered for this variable.

BCEUKZZ — Factor for converting bituminous coal and lignite consumed by the electric utilities from physical units to Btu by State.

- 1960 through 1972: EIA adopted the average thermal conversion factor of the Bureau of Mines, which used the National Coal Association (NCA) average thermal conversion factor for electric utilities calculated from the Federal Power Commission's (FPC) Form 1 and published in *Steam Electric Plant Factors*, an NCA annual report. The specific tables are:
  - — 1960 and 1961: Table 1.
  - — 1962 through 1972: Table 2.
- 1973 through 1982: The average heat content of coal received at steam electric plants 25 megawatts or greater from FPC Form 423 and published in Btu per pound in EIA, *Cost and Quality of Fuels for Electric Utility Plants*, tables titled "Destination and Origin of Coal 'Delivered to' (1973–1979) 'Receipts to' (1980) 'Received at' (1981–1982) Steam-Electric Plants 25-MW or Greater."
- 1983 forward: The average heat content of coal received at steam electric plants 50 megawatts capacity or larger from FERC Form 423 and published in Btu per pound in the EIA, *Cost and Quality of Fuels for Electric Utility Plants.* The 1997 edition is available electronically only via Internet at: ftp://ftp.eia.doe.gov/pub/pdf/electricity/019197.pdf. The specific tables are:
  - — 1983 and 1984: Table 58.
  - — 1985 through 1989: Table 48.
  - — 1990 and 1991: Table 35.
  - — 1992: Table 22.
  - — 1993 forward: Both Table 4 and Table 22.

Notes: The State conversion factors for 1960 through 1972 were derived from actual consumption data, while the conversion factors for 1973 to the present were based on receipts of coal. The factors for 1960 through 1972 may also have included some quantities of anthracite. These breaks in the series create some data discrepancies. Alaska and Hawaii were excluded from the NCA report, FPC Form 423, and FERC Form 423. However, Alaska reported consumption of bituminous coal and lignite at electric utilities for all years. An FPC heat rate for coal at electric utilities in Alaska was used for 1960 through 1978 as published in EIA, *Federal Energy Data System (FEDS) Technical Documentation*, June 1978, Table 21. The 1972 conversion factor (the last year for which a conversion factor was reported for Alaska) was used for 1972 through 1978. According to industry

sources, new mines were opened in 1978 and a more representative factor was used for 1979 and following years. In instances where a State had no receipts for a particular year but did report consumption, it was assumed that the coal received in one year was consumed during the following year and the Btu value of the previous year's receipts was used.

BCEUPZZ — Bituminous coal and lignite consumed by the electric utilities by State.

- EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms.

BCHCKZZ — State factor for converting bituminous coal and lignite consumed by the residential and commercial sectors from physical units to Btu.

- 1960 through 1973: Estimated by EIA by adjusting the 1974 average heat value of bituminous coal and lignite consumed in the residential and commercial sector by the ratios of 1960 through 1973 national averages for the sector to its 1974 average.
- 1974 forward: Calculated by EIA by assuming that the bituminous coal and lignite consumed in the residential and commercial sector in each State contained heating values equal to those of bituminous coal and lignite received at electric utilities in each State from identified coal-producing districts as reported on the Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." The average Btu content of coal delivered from each coal-producing district was applied to deliveries to the residential and commercial sector in each State and the sum total of the heat content was divided by total tonnages, yielding a weighted average. The coal distribution data by coal-producing district are reported on Form EIA-6, "Coal Distribution Report," and predecessor Bureau of Mines Form 6-1419-Q.

BCHCPUS — Bituminous coal and lignite consumed by the residential and commercial sectors in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite," column titled "Retail dealers" or "Retail sales."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 8.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 7.
- 1988 forward: EIA, Unpublished data from Form EIA-6.

BCHDPZZ — Bituminous coal and lignite distributed to the residential and commercial sectors by State.

- 1960 through 1976: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite," column titled "Retail dealers."
- 1977 through 1979: EIA, *Energy Data Reports*, "Coal-Bituminous and Lignite." The specific tables are:
  - 1977: "Comparative Summary of Distribution of Bituminous Coal and Lignite Produced in the United States During the First Nine Months of 1977" and "Distribution of Bituminous Coal and Lignite Produced in the United States During October-December 1977, by Geographic Division and State Destination," columns titled "Retail dealers."
  - 1978: "Distribution of Bituminous Coal and Lignite Produced in the United States," column titled "Retail sales."
  - 1979: "Overall Summary of Distribution of Bituminous, Subbituminous, and Lignite Coal Produced in the United States," column titled "Retail sales."
- 1980 forward: Consumption estimates are used for this distribution series. Bituminous coal and lignite consumption is the remainder when estimated anthracite consumption is subtracted from all coal consumption in each State. (See ACHDPZZ for data sources and estimation procedures.) Consumption shown as "Unknown" is assumed to be bituminous coal and lignite and is allocated to six States (Alabama, Illinois, Kentucky, Pennsylvania, Tennessee, and West Virginia) in proportion to their total distribution of all coal.

BCKCPUS — Bituminous coal and lignite carbonized at coke plants in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite," sum of columns "Beehive coke plants" and "Oven coke plants."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 8.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 7.

- 1988 forward: EIA, Unpublished data from Form EIA-5.

BCKDPZZ — Bituminous coal and lignite distributed to coke plants, a portion of the industrial sector by State.

- 1960 through 1976: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite."
- 1977 through 1979: EIA, *Energy Data Reports*, "Coal-Bituminous and Lignite." The specific tables are:
  - — 1977: "Comparative Summary of Distribution of Bituminous Coal and Lignite Produced in the United States During the First Nine Months of 1977" and "Distribution of Bituminous Coal and Lignite Produced in the United States During October-December 1977, by Geographic Division and State Destination."
  - — 1978: "Distribution of Bituminous Coal and Lignite Produced in the United States."
  - — 1979: "Overall Summary of Distribution of Bituminous, Subbituminous, and Lignite Coal Produced in the United States."
- 1980 forward: Consumption estimates are used for this distribution series. Bituminous coal and lignite consumption is the remainder when estimated anthracite consumption is subtracted from all coal consumption in each State. See ACKDPZZ for data sources and estimation procedures.

BCOCKZZ — State factor for converting bituminous coal and lignite consumed by other industrial users from physical units to Btu.

- 1960 through 1973: Estimated by EIA by adjusting the 1974 average heat value of bituminous coal and lignite consumed by industrial users other than coke plants by the ratios of 1960 through 1973 national averages for the other industrial users to its 1974 average.
- 1974 forward: Calculated by EIA by assuming that the bituminous coal and lignite consumed by industrial users other than coke plants in each State contained heating values equal to those of bituminous coal and lignite received at electric utilities in each State from identified coal-producing districts as reported on Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." The average Btu content of coal delivered from each coal-producing district was applied to deliveries to other industrial users in each State and the sum total of the heat content was divided by total tonnages, yielding a weighted average. The coal distribution data by coal-producing district are reported on Form EIA-6, "Coal Distribution Report," and predecessor Bureau of Mines Form 6-1419-Q.

BCOCPUS — Bituminous coal and lignite consumed by industrial users other than coke plants in the United States.

- 1960 through 1972: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite," table titled "Consumption of bituminous coal and lignite, by consumer class, and retail deliveries in the United States." Sum of columns titled "Steel and rolling mills," "Cement mills," and "Other manufacturing and mining industries."
- 1973 through 1984: EIA, *Weekly Coal Production*, August 9, 1986, Table 8.
- 1985 through 1987: EIA, *Weekly Coal Production*, July 16, 1988, Table 7.
- 1988 forward: EIA, Unpublished data from Forms EIA-3 and EIA-6.

BCODPZZ — Bituminous coal and lignite distributed to industrial plants (other than coke plants) by State.

- 1960 through 1976: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coal-Bituminous and Lignite."
- 1977 through 1979: EIA, *Energy Data Reports*, "Coal-Bituminous and Lignite." The specific tables are:
  - — 1977: "Comparative Summary of Distribution of Bituminous Coal and Lignite Produced in the United States During the First Nine Months of 1977" and "Distribution of Bituminous Coal and Lignite Produced in the United States During October-December 1977, by Geographic Division and State Destination."
  - — 1978: "Distribution of Bituminous Coal and Lignite Produced in the United States."
  - — 1979: "Overall Summary of Distribution of Bituminous, Subbituminous, and Lignite Coal Produced in the United States."
- 1980 forward: Consumption estimates are used for this distribution series. Bituminous coal and lignite consumption is the remainder when estimated anthracite consumption is subtracted from all coal consumption in each State. (See ACODPZZ for data sources and estimation procedures.) Consumption shown as "Unknown" is assumed to be bituminous coal and lignite and is allocated to six States (Alabama, Illinois, Kentucky, Pennsylvania, Tennessee, and West Virginia) in proportion to their total distribution of all coal.

Coal

Physical Units

All coal totals are the sum of the anthracite and bituminous coal and lignite estimates. It is assumed that no anthracite is consumed by the transportation sector. The calculations for each State and the U.S. total are:

CLRCP = ACRCP + BCRCP
CLCCP = ACCCP + BCCCP
CLICP = ACICP + BCICP
CLACP = BCACP
CLEUP = ACEUP + BCEUP
CLTCP = ACTCP + BCTCP

British Thermal Units (Btu)

Estimates of total coal consumption in Btu for each State and the U.S. are calculated:

CLRCB = ACRCB + BCRCB
CLCCB = ACCCB + BCCCB
CLICB = ACICB + BCICB
CLACB = BCACB
CLEUB = ACEUB + BCEUB
CLTCB = ACTCB + BCTCB

Additonal Calculations

Additional calculations are performed in the Combined State Energy Data System (CSEDS) to provide coal consumption estimates for the price and expenditure calculations published in the *State Energy Price and Expenditure Report*. Total coal used at coke plants (CLKCB) and total coal consumed by all other industrial users (CLOCP and CLOCB) are calculated at the State and U.S. levels:

CLKCB = ACKCB + BCKCB
CLOCP = ACOCP + BCOCP
CLOCB = ACOCB + BCOCB

Net Imports of Coal Coke

Physical Units

Net imports of coal coke is a component of total U.S. energy consumption. There is no attempt to estimate State allocations of this energy source. All of it is considered to be used by the industrial sector. In the *State Energy Data Report*, net imports of coal coke is included in the U.S. data but not in the State-level data in all tables of total energy consumption and industrial sector energy consumption. Variables for net imports of coal coke into the United States are:

CCIMPUS = coal coke imported into the United States, in thousand short tons; and
CCEXPUS = coal coke exported from the United States, in thousand short tons.

Net imports is calculated:

CCNIPUS = CCIMPUS – CCEXPUS

British Thermal Units (Btu)

The factor for converting coal coke from short tons to Btu is 24.80 million Btu per short ton:

CCIMBUS = CCIMPUS * 24.80
CCEXBUS = CCEXPUS * 24.80
CCNIBUS = CCIMBUS – CCEXBUS

Data Sources for Net Imports of Coal

CCEXPUS — Coal coke exported from the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals Annual."
- 1976 through 1979: EIA, *Energy Data Reports*, "Coke and Coal Chemicals Monthly."
- 1980 forward: EIA, *Quarterly Coal Report* (January-March of the following year). The specific tables are:

— 1980: Table 7.
— 1981 through 1984: Table A10.
— 1985 through 1990: Table A9.
— 1991 through 1994: Table 23.
— 1995 forward: Table 15.

CCIMPUS — Coal coke imported into the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals Annual."
- 1976 through 1979: EIA, *Energy Data Reports*, "Coke and Coal Chemicals Monthly."
- 1980 forward: EIA, *Quarterly Coal Report* (October-December of the same year). The specific tables are:
  — 1980: Table 8.
  — 1981 through 1984: Table A12.
  — 1985 through 1987: Table A11.
  — 1988 through 1990: Table A10.
  — 1991 through 1994: Table 27.
  — 1995 forward: Table 19.

Section 3. Natural Gas

Physical Units

Six natural gas data series are used to derive the natural gas consumption estimates in the Combined State Energy Data System (CSEDS). Three of these data series are deliveries of natural gas to the end user by State and are used as consumption because actual consumption data at these levels are not available. The sources for the natural gas data are the reports in the *Natural Gas Annual* series published by the Energy Information Administration (EIA) and its predecessors. These series, in million cubic feet, for each State are as follows (the two-letter State code is represented by "ZZ" in the following variable names):

NGCCPZZ = natural gas delivered to the commercial sector (includes gas used by nonmanufacturing organizations, such as hotels, restaurants, retail stores, laundries, and other service enterprises, and) plus natural gas delivered to other consumers (includes deliveries to municipalities and public authorities for institutional heating and street lighting). Prior to 1996, includes gas used in agriculture, forestry, and fisheries;
NGEUPZZ = natural gas consumed by electric utilities;
NGINPZZ = a portion of the natural gas delivered to the industrial sector (includes gas used as fuel and feedstock in chemical plants and to produce carbon black). Beginning in 1996, includes gas used in agriculture, forestry, and fisheries;
NGLEPZZ = natural gas consumed as lease fuel;
NGPLPZZ = natural gas consumed as plant fuel;
NGPZPZZ = natural gas consumed as pipeline fuel;
NGRCPZZ = natural gas delivered to the residential sector; and
NGVHPZZ = natural gas delivered for use as vehicle fuel.

The U.S. totals of these independent variables are calculated as the sum of the States' values.

The data are combined into the four major end-use sectors used in CSEDS as closely as possible. However, natural gas data are collected by using different aggregations of users. The industrial sector in CSEDS is intended to contain energy used in agriculture, forestry, and fisheries. For natural gas, these categories were reported with commercial use of natural gas through 1995 and in the industrial sector for 1996 forward. These data cannot be separately identified and no adjustment for this end-use inconsistency could be made in CSEDS.

The residential sector's consumption of natural gas is represented by the variable for deliveries to the residential sector, NGRCPZZ.

The commercial sector's consumption of natural gas is represented by the variable for deliveries to the commercial sector, NGCCPZZ.

The industrial sector's consumption of natural gas in CSEDS, NGICPZZ, is estimated to be the sum of natural gas delivered to the industrial sector, NGINPZZ, natural gas consumed as lease fuel, NGLEPZZ, and natural gas consumed as plant fuel, NGPLPZZ. The source document reports lease and plant fuel combined for 1960 through 1992; the combined data series is stored as NGLEPZZ in CSEDS.

NGICPZZ = NGINPZZ + NGLEPZZ + NGPLPZZ

The transportation sector's consumption of natural gas, NGACPZZ, is the sum of natural gas consumed in pipeline operations, primarily in compressors, NGPZPZZ, and natural gas delivered for use as vehicle fuel, NGVHPZZ. Prior to 1990, the small amounts of natural gas consumed as vehicle fuel are included in the commercial sector consumption and cannot be identified separately; therefore, NGVHPZZ is zero prior to 1990.

NGACPZZ = NGPZPZZ + NGVHPZZ

Electric utilities' consumption of natural gas is represented by the data series NGEUPZZ.

The total consumption of natural gas, estimated for each State, is the sum of the consumption by the end-use sectors and electric utilities:

NGTCPZZ = NGRCPZZ + NGCCPZZ + NGICPZZ + NGACPZZ + NGEUPZZ

The U.S. consumption estimates for each of the sectors and the U.S. total are calculated as the sum of the States' values.

British Thermal Units (Btu)

Three factors for each State are used for converting the consumption of natural gas from its physical units of million cubic feet into thousand Btu per cubic foot. Two of these State-level factors are:

NGEUKZZ = The factor for converting natural gas consumed by electric utilities from physical units to Btu; and
NGTCKZZ = The factor for converting natural gas consumed by all sectors from physical units to Btu.

These two factors are used to derive a third factor, NGNUKZZ, for converting natural gas used by all sectors other than electric utilities from physical units to Btu:

NGTCBZZ = NGTCPZZ * NGTCKZZ
NGEUBZZ = NGEUPZZ * NGEUKZZ
NGNUKZZ = (NGTCBZZ – NGEUBZZ) / (NGTCPZZ – NGEUPZZ)

Natural gas consumption in Btu for the residential, commercial, industrial, and transportation sectors in each State is calculated by multiplying the physical unit data by the factor NGNUKZZ, such as:

NGACBZZ = NGACPZZ * NGNUKZZ
NGCCBZZ = NGCCPZZ * NGNUKZZ

The U.S. consumption estimates in Btu for each of the sectors and the U.S. total are calculated as the sum of the States' Btu values:

NGTCBUS = ΣNGTCBZZ
NGEUBUS = ΣNGEUBZZ
NGACBUS = ΣNGACBZZ
NGCCBUS = ΣNGCCBZZ

Prior to 1972, conversion factors for natural gas consumed by electric utilities were not collected; therefore, the factor for all natural gas consumed (NGTCKZZ) is used for electric utilities (NGEUKZZ) and for the other sectors (NGNUKZZ) for 1963 through 1971. Prior to 1963, State-level conversion factors for natural gas consumption were not collected and a standard factor of 1.035 thousand Btu per cubic foot is used for all sectors in all States for 1960 through 1962.

Additional Calculations

Although CSEDS does not use U.S.-level conversion factors for calculating natural gas consumption, these factors are calculated by CSEDS for reference and are shown in the natural gas tables in Appendix C:

NGEUKUS = NGEUBUS / NGEUPUS
NGTCKUS = NGTCBUS / NGTCPUS
NGNUKUS = (NGTCBUS – NGEUBUS) / (NGTCPUS – NGEUPUS)

To produce price and expenditure data for the *State Energy Price and Expenditure Report* (*SEPER*), CSEDS differentiates between natural gas used in the transportation sector as pipeline fuel, which is not sold and has no price, and natural gas purchased and consumed as vehicle fuel. CSEDS also differentiates between natural gas used as lease and plant fuel by the natural gas industry, which is not costed, and natural gas purchased by industrial consumers. Btu values are calculated in CSEDS for use in *SEPER*:

NGPZBZZ = NGPZPZZ * NGNUKZZ
NGVHBZZ = NGVHPZZ * NGNUKZZ
NGLPPZZ = NGLEPZZ + NGPLPZZ
NGLPBZZ = NGLPPZZ * NGNUKZZ

The U.S. totals for each series are calculated as the sum of the States' values.

Data Sources

NGCCPZZ — Natural gas delivered to the commercial sector and to other consumers (municipalities and public authorities for institutional heating and street lighting), including natural gas consumed as vehicle fuel through 1989 and natural gas used in agriculture, forestry, and fisheries through 1995, by State.

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Natural Gas Production and Consumption," table titled "Number of consumers and volume of natural gas consumed by principal users in the United States," column "Commercial."
- 1967 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGEUKZZ — Factor for converting natural gas consumed by the electric utilities from physical units to Btu.

- 1960 through 1971: Assumed by the EIA to be equal to the thermal conversion factor for the consumption of natural gas by all users (NGTCKZZ).
- 1972 forward: Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and quantities received are from the Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and predecessor forms. Data in Btu per cubic foot for 1997 are available via the Internet in the EIA unpublished report, *Cost and Quality of Fuels for Electric Utility Plants* 1997, Table 14. The address is ftp://ftp.eia.doe.gov/pub/pdf/electricity/019197.pdf.

Note: For States that reported consumption on EIA-759 but were not large enough to report on FERC Form 423, factors were estimated by using previous years' factors or the factor for total natural gas consumption in the State.

NGEUPZZ — Natural gas consumed by the electric utilities by State.

- 1960 through 1975: Federal Power Commission, News Release, "Power Production, Fuel Consumption, and Installed Capacity Data," table titled "Consumption of Fuel by Electric Utilities for Production of Electric Energy by State, Kind of Fuel, and Type of Prime Mover," sum of columns, "steam and gas turbine" and "internal combustion" under column heading "gas."
- 1976 through 1981: EIA, *Electric Power Annual* (1981), Table 67.
- 1982 through 1986: Unrounded data as published in rounded form in EIA, *Electric Power Annual, 1986*, Table 14.
- 1987 forward: Unrounded data as published in rounded form in EIA, *Electric Power Annual*. Data are from the report of the following year, i.e., 1987 final data are published in the *Electric Power Annual, 1988*: The specific tables are:
  - 1987: Table 13.
  - 1988 and 1989: Table 19.
  - 1990 through 1993: Table 18.
  - 1994 forward: Volume I, Table 15.

NGINPZZ — A portion of the natural gas delivered to the industrial sector, including natural gas used in agriculture, forestry, and fisheries beginning in 1996, by State.

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Natural Gas Production and Consumption," table titled "Number of consumers and volume of natural gas consumed by principal users in the United States." Sum of data in columns "Carbon black," "Refinery fuel," and "Other industrial fuel" (which includes electric utility fuel) minus data in column "Fuel used at electric utility plants."
- 1967 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGLEPZZ — Natural gas consumed as lease fuel by State (includes natural gas consumed as plant fuel in 1960 through 1992).

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, Natural Gas chapter. State data are not available from 1960 through 1966, although U.S. totals are available. State estimates were calculated by apportioning the U.S. totals to the States on the basis of each State's share of the U.S. total in 1967.
- 1967 through 1992: EIA, *Natural Gas Annual 1994 Volume II*, Table 14.

- 1993 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 15.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGPLPZZ — Natural gas consumed as plant fuel by State.

- 1960 through 1992: Included with natural gas consumed as lease fuel (see NGLEPZZ).
- 1993 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 15.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGPZPZZ — Natural gas consumed as pipeline fuel by State.

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Natural Gas Production and Consumption," table titled "Number of consumers and volume of natural gas consumed by principal users in the United States," column "Used as pipeline fuel."
- 1967 through 1992: EIA, *Natural Gas Annual 1994 Volume II*, Table 14.
- 1993 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 15.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGRCPZZ — Natural gas delivered to the residential sector, used as consumption, by State.

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Natural Gas Production and Consumption," table titled "Number of consumers and volume of natural gas consumed by principal users in the United States," column "Residential."
- 1967 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16.

Data also available via internet:

- 1967 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGVHPZZ — Natural gas delivered for use as vehicle fuel by State.

- 1960 through 1989: Included in natural gas consumed by the commercial sector (See NGCCPZZ).
- 1990 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16.

Data also available via internet:

- 1990 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

NGTCKZZ — Factor for converting natural gas consumed by all users from physical units to Btu.

- 1960 through 1962: EIA adopted the thermal conversion factor of 1,035 Btu per cubic foot as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.
- 1963 through 1979: EIA adopted the thermal conversion factors calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual.
- 1980 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16.

Data also available via internet:

- 1980 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997").

Section 4. Petroleum

Petroleum Overview

The 27 petroleum products included in the Combined State Energy Data System (CSEDS) are explained in this section. For 12 of these products, the means of estimating their individual consumption by State is described in individual sections. The 12 petroleum products are:

- asphalt (AS)
- aviation gasoline (AV)
- distillate fuel (DF)
- jet fuel, kerosene-type (JK)
- jet fuel, naphtha-type (JN)
- kerosene (KS)
- liquefied petroleum gases (LG)
- lubricants (LU)
- motor gasoline (MG)
- petroleum coke (PC)
- residual fuel (RF)
- road oil (RD)

The remaining 15 products are described in the section "Other Petroleum Products" and include the following:

- crude oil, including lease condensate (CO)
- miscellaneous petroleum products (MS)
- natural gasoline (NA) (including isopentane)
- petroleum feedstocks, naphtha less than 401° F (FN)
- petroleum feedstocks, other oils equal to or greater than 401° F (FO)
- petroleum feedstocks, still gas (FS)
- plant condensate (PL)
- pentanes plus (PP)
- special naphthas (SN)
- still gas (SG)
- unfractionated stream (US)
- waxes (WX)
- unfinished oils (UO)
- motor gasoline blending components (MB)
- aviation gasoline blending components (AB)

The last petroleum documentation section, "Petroleum Summaries," describes how the 27 petroleum products are combined for each major end-use sector's estimated consumption.

Table A2 summarizes the petroleum products' end-use assignments in CSEDS. Shown in this table are the first four letters of the seven-letter variable names used to identify all energy sources. The first two letters identify the petroleum product and the next two letters identify the end-use sector. For example, the table shows that the aviation gasoline estimated to be consumed by the transportation sector is all aviation gasoline consumed, and that there is some estimated consumption of lubricants in the industrial and transportation sectors, while distillate fuel is consumed in every sector.

Asphalt and Road Oil

Physical Units

There are no State-level consumption data for asphalt and road oil available. Therefore, the State-level sales data are used to apportion the national consumption numbers to the States.

Table A2. Summary of Petroleum Products in the State Energy Data System

Petroleum Products	Residential Sector Estimated Consumption (RC)		Commercial Sector Estimated Consumption (CC)		Industrial Sector Estimated Consumption (IC)		Transportation Sector Estimated Consumption (AC)		Electric Utility Sector Estimated Consumption (EU)		Total Estimated Consumption (TC)
Asphalt and Road Oil (AR)					ARIC					=	ARTC
											+
Aviation Gasoline (AV)					+		AVAC			=	AVTC
							+				+
Distillate Fuel (DF)	DFRC	+	DFCC	+	DFIC	+	DFAC	+	DFEU	=	DFTC
	+		+		+		+		+		+
Jet Fuel, Kerosene (JK)							JKAC		JKEU	=	JKTC
							+				+
Jet Fuel, Naphtha (JN)							JNAC			=	JNTC
							+				+
Kerosene (KS)	KSRC	+	KSCC	+	KSIC					=	KSTC
	+		+		+						+
Liquefied Petroleum Gases (LG)	LGRC	+	LGCC	+	LGIC	+	LGAC			=	LGTC
					+		+				+
Lubricants (LU)			+		LUIC		LUAC			=	LUTC
					+		+				+
Motor Gasoline (MG)			MGCC		MGIC		MGAC			=	MGTC
			+		+		+				+
Residual Fuel (RF)			RFCC		RFIC	+	RFAC	+	RFEU	=	RFTC
					+				+		+
Other Petroleum Products (PO)					POIC[1]				PCEU[2]	=	POTC
Total Petroleum (PA)	PARC	+	PACC	+	PAIC	+	PAAC	+	PAEU	=	PATC

[1] The category "Other petroleum products" consumed by the industrial sector comprises crude oil, including lease condensate; unfinished oils; plant condensate; aviation gasoline and motor gasoline blending components; natural gasoline; petroleum feedstocks (naphtha less than 401° F, other oils equal to or greater than 401° F, and still gas); pentanes plus; special naphthas; still gas; unfractionated stream; waxes; miscellaneous petroleum products; and petroleum coke for industrial use.

[2] Petroleum coke consumed at electric utilities.

The asphalt and road oil sales data are in short tons, while the consumption data are in thousand barrels. Because the sales data are used only for apportioning the U.S. consumption data to the States, they do not need to be converted into thousand barrels.

The four data series that are used to estimate consumption of asphalt and road oil are ("ZZ" in the variable name represents the two-letter State code that differs for each State):

ASINPZZ = asphalt sold for use in the industrial sector of each State, in short tons;
ASTCPUS = asphalt total consumed in the United States, in thousand barrels;
RDINPZZ = road oil sold for use in the industrial sector of each State, in short tons; and
RDTCPUS = road oil total consumed in the United States, in thousand barrels.

All asphalt consumption is assigned to the industrial sector because it is used in construction activity. ASINPZZ represents all asphalt sold as paving products, as roofing products, and for all other uses.

ASTCPUS represents total U.S. consumption of asphalt, and RDTCPUS represents total U.S. consumption of road oil. Both are the "product supplied" data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA). Beginning in 1983, asphalt product supplied includes road oil, and RDTCPUS is entered as zero in CSEDS.

The source of the third variable, RDINPZZ, is the report series "Sales of Asphalt" for 1960 through 1980, published by EIA. This sales series was discontinued after the 1980 report. Values for 1981 and 1982 are estimated as described under "Additional Notes" in this section. Beginning with 1983 data, when road oil is included in asphalt product supplied data in the source publication, RDINPZZ is entered as zero in CSEDS.

To calculate State consumption estimates of asphalt, total sales of asphalt in the United States to the industrial sector is first calculated as the sum of the State data:

$$ASINPUS = \Sigma ASINPZZ$$

Each State's consumption of asphalt in the industrial sector (ASICPZZ) is calculated to be in proportion to each State's sales:

$$ASICPZZ = (ASINPZZ / ASINPUS) * ASTCPUS$$
$$ASICPUS = \Sigma ASICPZZ$$

Since all consumption of asphalt is assumed to be in the industrial sector, the total consumption of asphalt in each State equals the industrial sector consumption:

$$ASTCPZZ = ASICPZZ$$

The State sales of road oil are used to create an estimate of State consumption of road oil.

The U.S. total of all road oil sales to the industrial sector is calculated by adding all of the States' sales:

$$RDINPUS = \Sigma RDINPZZ$$

Each State's consumption of road oil in the industrial sector (RDICPZZ) is calculated to be in proportion to each State's sales:

$$RDICPZZ = (RDINPZZ / RDINPUS) * RDTCPUS$$
$$RDICPUS = \Sigma RDICPZZ$$

Since all road oil consumption is assumed to be in the industrial sector, the total consumption of road oil in each State equals the industrial sector consumption:

$$RDTCPZZ = RDICPZZ$$

Asphalt and road oil consumption are added together:

$$ARICPZZ = ASICPZZ + RDICPZZ$$
$$ARICPUS = \Sigma ARICPZZ$$
$$ARTCPZZ = ASTCPZZ + RDTCPZZ$$
$$ARTCPUS = \Sigma ARTCPZZ$$

British Thermal Units (Btu)

Asphalt and road oil have a heat content value of approximately 6.636 million Btu per barrel. This factor is applied to convert asphalt and road oil estimated consumption from physical units to Btu:

ARICBZZ = ARICPZZ * 6.636
ARICBUS = ΣARICBZZ

Because all asphalt and road oil are assumed to be used by the industrial sector, total asphalt and road oil consumption in each State and in the United States is assumed to equal the industrial sector consumption:

ARTCBZZ = ARICBZZ
ARTCBUS = ARICBUS

Additional Notes on Asphalt and Road Oil

Because the Federal Government stopped collecting asphalt and road oil sales data in 1980, the source for these numbers in recent years has been reports published by the Asphalt Institute. There is an inherent problem in the methodology of using sales to estimate consumption because asphalt and road oil sold by a producer in one State may be easily transported across State lines and consumed in a neighboring State. The Asphalt Institute acknowledges this problem and estimates that, in any one year, about 15 States may have consumption estimates as much as 20 percent too high or too low.

Total U.S. consumption of asphalt and road oil are the product supplied data series from the EIA publication *Petroleum Supply Annual*. Beginning with 1983 data, the road oil data series is no longer published separately but is included in the asphalt product supplied. The sum of the two series for all years in CSEDS is a continuous series.

The EIA report series "Sales of Asphalt," which is the source for road oil sales by State (RDINPZZ) in CSEDS for 1960 through 1980, was discontinued after the 1980 report. For 1981 and 1982, State estimates of road oil sales were created by first converting the annual total U.S. road oil product supplied data into short tons (one short ton contains 5.5 barrels of road oil). Then, the U.S. total road oil product supplied, in short tons, was disaggregated to each State in proportion to the State's share of total U.S. asphalt sales as reported in the Asphalt Institute's *Report on Sales of Asphalt in the U.S.*

Data Sources for Asphalt and Road Oil

ASINPZZ — Asphalt sold to the industrial sector by State.

- 1960 through 1977: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Asphalt," the specific tables are:
  - — 1960 through 1962: Table 6.
  - — 1963 through 1977: Table 5.
- 1978 through 1980: EIA, *Energy Data Reports*, "Sales of Asphalt," Table 2.
- 1981 through 1986: The Asphalt Institute, *Asphalt Usage 1987 United States and Canada*, Table B.
- 1987 and 1988: The Asphalt Institute, *Asphalt Usage 1988 United States and Canada*, Tables A and B for State data. *Asphalt Usage 1989 United States and Canada*, page 2 for revised U.S. totals. The Asphalt Institute did not publish corresponding revised State data but did advise EIA on an estimation procedure to adjust 19 State values to sum to the revised U.S. totals.
- 1989 through 1995: The Asphalt Institute, *Asphalt Usage United States and Canada*, table titled "U.S. Asphalt Usage."
- 1996 and 1997: The Asphalt Institute, *Asphalt Usage United States and Canada*, table titled "1997 vs. 1996 U.S. Asphalt Usage."

ASTCPUS — Asphalt total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2. (Beginning in 1983, this variable includes road oil.)

RDINPZZ — Road oil sold to the industrial sector by State.

- 1960 through 1977: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Asphalt." The specific tables are:
  - — 1960 through 1962: Table 6.

— 1963 through 1977: Table 5.
- 1978 through 1980: EIA, *Energy Data Reports*, "Sales of Asphalt," Table 2.
- 1981 and 1982: EIA estimates. (See explanation in "Additional Notes" on page 358.)
- 1983 forward: Road oil is included in asphalt data (see ASINPZZ).

RDTCPUS — Road oil total consumed in the United States.
- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 2.
- 1983 forward: EIA, *Petroleum Supply Annual*, Table 2, included in "Asphalt and Road Oil."

Aviation Gasoline

Physical Units

The three data series used to estimate consumption of aviation gasoline are:

AVMIPZZ = aviation gasoline issued to the military in each State, in thousand barrels;
AVNMMZZ = aviation gasoline sold to nonmilitary users in each State, in thousand gallons; and
AVTCPUS = aviation gasoline total consumed in the United States, in thousand barrels.

The U.S. Department of Transportation, Federal Highway Administration publishes the nonmilitary aviation gasoline sales data by State (AVNMMZZ) in *Highway Statistics*.

AVMIPZZ is the issues of aviation gasoline to the military in each State and is obtained from the U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center.

Total U.S. consumption of aviation gasoline (AVTCPUS) is the product supplied data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA).

The State-level data series are summed to provide totals for the United States:

AVMIPUS = ΣAVMIPZZ
AVNMMUS = ΣAVNMMZZ

The State sales of nonmilitary aviation gasoline data are converted from thousand gallons to thousand barrels (42 gallons = 1 barrel):

AVNMPZZ = AVNMMZZ / 42

The U.S. nonmilitary sales is the sum of the States' sales:

AVNMPUS = ΣAVNMPZZ

The total sales of aviation gasoline is estimated as the sum of nonmilitary sales and military issues:

AVTTPZZ = AVNMPZZ + AVMIPZZ
AVTTPUS = ΣAVTTPZZ

All aviation gasoline is assumed to be used by the transportation sector. An estimate of aviation gasoline consumption by the transportation sector by State (AVACPZZ) is calculated by assuming that each State consumes aviation gasoline in proportion to the amount sold to that State:

AVACPZZ = (AVTTPZZ / AVTTPUS) * AVTCPUS
AVACPUS = ΣAVACPZZ

Total aviation gasoline consumption in each State, AVTCPZZ, equals the transportation sector consumption in each State:

AVTCPZZ = AVACPZZ

British Thermal Units (Btu)

Aviation gasoline has a heat content value of approximately 5.048 million Btu per barrel. This factor is applied to convert aviation gasoline estimated consumption from physical units to Btu:

AVACBZZ = AVACPZZ * 5.048
AVACBUS = ΣAVACBZZ

Because all aviation gasoline is assumed to be used for transportation, aviation gasoline total consumption in each State and in the United States equals the transportation sector consumption:

AVTCBZZ = AVACBZZ
AVTCBUS = AVACBUS

Additional Notes on Aviation Gasoline

Aviation gasoline issues to the military for each State (AVMIPZZ) are obtained from the U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center. There are no data available for 1960 through 1974, and the data available for 1975 and 1976 are not consistent; therefore, the 1977 values are used for 1960 through 1976 in CSEDS. The data are reported by fiscal year for 1977 through 1988 and are taken from the Defense Energy Information System. For 1989 and 1990, fiscal-year data from two databases, Defense Fuel Automated Management System and the Into-Plane Database, are summed. For 1991 forward, data from the same two databases, reported by calendar year, are used.

Data Sources for Aviation Gasoline

AVMIPZZ — Aviation fuel issued to the military in the United States by State.

- 1960 through 1974: No data are available. The 1977 data are used for each year.
- 1975 and 1976: No consistent data series are available. The 1977 data are used for both years.
- 1977 through 1988: U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center, Defense Energy Information System, military retail issues based on fiscal year data. The District of Columbia issues are assumed to be zero; therefore, values reported for the District of Columbia are added to Maryland.
- 1989 and 1990: U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center. State data for the fiscal year from two databases are summed: Defense Fuel Automated Management System (military wholesale issues) and Into-Plane Database (military purchases from commercial airports). Into-plane values reported for the District of Columbia are added to Virginia.
- 1991 through 1995, 1997: U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center. State data for the calendar year from two databases are summed: Defense Fuel Automated Management System (military wholesale issues) and Into-Plane Database (military purchases from commercial airports). Into-plane values reported for the District of Columbia are added to Virginia.
- 1996: The data series for 1996 is temporarily unavailable. Simple averages of 1995 and 1997 State data are used to estimate 1996 values.

AVNMMZZ — Aviation gasoline sold to nonmilitary users by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24.
- 1965 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24 in 1965 and Table MF-24 in 1966 forward.

AVTCPUS — Aviation gasoline total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Distillate Fuel

Physical Units

Since State-level and end-use consumption data for distillate fuel (except for that consumed by electric utilities) are not available, sales of distillate fuel into or within each State, in thousand barrels, published by the Energy Information Administration (EIA) are used to estimate distillate fuel consumption. The sales data are adjusted to sum to the Petroleum Administration for Defense District subtotals of the EIA distillate fuel product supplied data series. Both the sales data and the adjusted sales series are published in the EIA *Fuel Oil and Kerosene Sales Report*. The following variable names have been assigned to the adjusted sales series ("ZZ" in the variable names represents the two-letter State code that differs for each State):

DFBKPZZ = distillate fuel adjusted sales for vessel bunkering use (i.e., the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies, and fueling for other marine purposes), excluding that sold to the Armed Forces;

DFCMPZZ = distillate fuel adjusted sales to commercial establishments for space heating, water heating, and cooking;

DFIBPZZ = distillate fuel adjusted sales to industrial establishments for space heating and for other industrial use (i.e., for all uses to mines, smelters, plants engaged in producing manufactured products, in processing goods, and in assembling), including farm use;

DFMIPZZ = distillate fuel adjusted sales to the Armed Forces, regardless of use;

DFOCPZZ = distillate fuel adjusted sales for oil company use, including all fuel oil, crude oil, or acid sludge used as fuel at refineries, by pipelines, or in field operations;

DFOFPZZ = distillate fuel adjusted sales as diesel fuel for off-highway use in construction (i.e., earthmoving equipment, cranes, stationary generators, air compressors, etc.) and for off-highway uses other than construction (i.e., logging);

DFONPZZ = distillate fuel adjusted sales as diesel fuel for on-highway use (i.e., as engine fuel for trucks, buses, and automobiles);

DFOTPZZ = distillate fuel adjusted sales for all other uses not identified in other adjusted sales categories;

DFRRPZZ = distillate fuel adjusted sales to the railroads for use in fueling trains, operating railroad equipment, space heating of buildings, and other operations; and

DFRSPZZ = distillate fuel adjusted sales to the residential sector for space heating, water heating, and cooking, excluding farm houses.

Three series are used in CSEDS for consumption data:

DKEUPZZ = distillate fuel consumed by electric utilities, in thousand barrels;

JKEUPZZ = kerosene-type jet fuel consumed by electric utilities, in thousand barrels; and

DFTCPUS = distillate fuel total consumed in the United States, in thousand barrels.

Distillate fuel consumed by electric utilities (DKEUPZZ) is collected by EIA on Form EIA-759, "Monthly Power Plant Report," and predecessor forms. (See Note 4 at the end of this distillate fuel section for further information on changes in this series' data definitions.) The series DKEUPZZ includes kerosene-type jet fuel consumed at electric utilities that is identified as JKEUPZZ. The kerosene-type jet fuel is subtracted from the distillate fuel data and accounted for in the jet fuel data described in a following section of this documentation.

Total consumption of distillate fuel in the United States, DFTCPUS, is the product supplied series in the EIA publication *Petroleum Supply Annual*.

To begin calculating distillate fuel State and end-use consumption, all of the State-level data series are summed to provide totals for the United States.

Next, the variables are combined as closely as possible into the major end-use sectors used in CSEDS. The residential sector adjusted sales and the commercial sector adjusted sales contain only DFRSPZZ and DFCMPZZ, respectively.

The adjusted sales of distillate fuel to the industrial sector for each State, DFINPZZ, is the sum of the distillate fuel adjusted sales for industrial use, including industrial space heating and farm use (DFIBPZZ), for oil company use (DFOCPZZ), for off-highway use (DFOFPZZ), and for all other uses (DFOTPZZ):

DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPZZ
DFINPUS = ΣDFINPZZ

The adjusted sales of distillate fuel to the transportation sector for each State, DFTRPZZ, is the sum of the distillate fuel adjusted sales for vessel bunkering, military use, railroad use, and the diesel fuel used on-highway:

DFTRPZZ = DFBKPZZ + DFMIPZZ + DFRRPZZ + DFONPZZ
DFTRPUS = ΣDFTRPZZ

Adjusted sales of distillate fuel oil to the residential, commercial, industrial, and transportation sectors are added to create a subtotal of adjusted sales to all sectors other than the electric utility sector, DFNDPZZ:

DFNDPZZ = DFRSPZZ + DFCMPZZ + DFINPZZ + DFTRPZZ
DFNDPUS = ΣDFNDPZZ

Consumption of distillate fuel by electric utilities (DFEUPZZ) is calculated by subtracting the kerosene-type jet fuel consumed by electric utilities from the input series DKEUPZZ:

DFEUPZZ = DKEUPZZ – JKEUPZZ
DFEUPUS = ΣDFEUPZZ

The estimated U.S. distillate fuel consumption by all sectors other than the electric utility sector, DFNCPUS, is calculated by subtracting the distillate fuel consumption at electric utilities from the total U.S. distillate fuel consumption:

DFNCPUS = DFTCPUS – DFEUPUS

This U.S. subtotal of distillate fuel consumption by the four end-use sectors, DFNCPUS, is apportioned to the States by use of the end-use sectors' State-level adjusted sales data. The assumption is made that each State consumes distillate fuel in proportion to the amount of adjusted sales to that State:

DFNCPZZ = (DFNDPZZ / DFNDPUS) * DFNCPUS

The end-use sectors' subtotal for each State, DFNCPZZ, is further divided into estimates for the four end-use sectors in proportion to each sector's adjusted sales. The estimated residential sector consumption in each State, DFRCPZZ, is calculated:

DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ
DFRCPUS = ΣDFRCPZZ

The commercial sector's estimated consumption in each State, DFCCPZZ, is calculated:

DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ
DFCCPUS = ΣDFCCPZZ

The industrial sector's estimated consumption in each State, DFICPZZ, is calculated:

DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ
DFICPUS = ΣDFICPZZ

The transportation sector's estimated consumption in each State, DFACPZZ, is calculated:

DFACPZZ = (DFTRPZZ / DFNDPZZ) * DFNCPZZ
DFACPUS = ΣDFACPZZ

Total State distillate fuel consumption is the sum of the end-use sectors' consumption subtotal and the electric utilities consumption:

DFTCPZZ = DFNCPZZ + DFEUPZZ

British Thermal Units (Btu)

Distillate fuel has a heat content value of approximately 5.825 million Btu per barrel. This factor is applied to convert distillate fuel estimated

consumption for the five consuming sectors from physical units to Btu as shown in the following examples:

DFRCBZZ = DFRCPZZ * 5.825
DFCCBZZ = DFCCPZZ * 5.825
DFTCBZZ = DFRCBZZ + DFCCBZZ + DFICBZZ + DFACBZZ + DFEUBZZ

The U.S. Btu consumption estimates are calculated as the sum of all the States' data.

In the *State Energy Data Report* tables, "Estimates of Energy Input at Electric Utilities," the data used in the column headed "Light Oil" is the variable DKEUP (distillate fuel plus jet kerosene) in physical units. The Btu variable, DKEUB, is calculated:

DKEUBZZ = DFEUBZZ + JKEUBZZ
DKEUBUS = ΣDKEUBZZ

Additional Notes on Distillate Fuel

1. "Deliveries" data are actually called "shipments" in the source document for 1960 and 1961; "consumption" for 1962 through 1966; "shipments" for 1967; "sales" from 1968 through 1978; "deliveries" for 1979 through 1987; and "adjusted sales" for 1988 forward.

2. State data for the variables DFONPZZ (on-highway use), DFOFPZZ (off-highway use), and DFOTPZZ (other) for 1967 are unavailable from published sources. These three variables compose the miscellaneous use category for distillate fuel, which is known for all years by State. State estimates of DFONPZZ and DFOFPZZ for 1967 were developed by dividing the 1966 values for DFONPZZ and DFOFPZZ by the 1966 total miscellaneous use for each State and applying these percentages to the 1967 total miscellaneous use for each State. The 1967 State estimates for DFOTPZZ are the remainder of the 1967 miscellaneous category after DFONPZZ and DFOFPZZ have been subtracted.

3. In 1979, EIA implemented a new survey form, EIA-172, to obtain deliveries of fuel oil and kerosene data and updated the list of respondents. (A detailed explanation is published in the *Energy Data Report,* "Deliveries of Fuel Oil and Kerosene in 1979.") In the new survey form, certain end-use categories were redefined—in many cases to collect more disaggregated data. The reclassifications resulted in some end-use categories that were no longer comparable with those in previous surveys. Where discontinuities occurred, estimates for the pre-1979 years have been made in the Combined State Energy Data System (CSEDS) to conform with the 1979 fuel oil deliveries classifications. The pre-1979 deliveries estimates are not published in this report, but are used in CSEDS to disaggregate the known U.S. total product supplied (consumption) into State and major end-use sector consumption estimates.

   For distillate fuel deliveries in 1979, the end-use categories called "residential," "commercial," "industrial," and "farm" are available. The pre-1979 deliveries categories are called "heating" and "industrial" (which included farm use). While the pre-1979 categories individually are not continuous with the 1979 categories, their subtotals are related. That is, a general comparison can be made between the sum of residential, commercial, industrial, and farm deliveries in 1979 and the sum of heating and industrial deliveries in the pre-1979 years. Therefore, the following method was applied to present a comparable series for distillate fuel delivered to the residential, commercial, and industrial sectors:

   - For each of the pre-1979 years, a subtotal was created for each State by adding each State's heating and industrial deliveries categories. A comparable 1979 subtotal was created by adding each State's residential, commercial, industrial, and farm deliveries categories.

   - Residential, commercial, and industrial (including farm) shares of the subtotal in 1979 were calculated for each State.

   - These 1979 end-use shares were then applied to each pre-1979 subtotal of distillate fuel deliveries in each State to create State estimates of end-use deliveries for 1960 through 1978.

   The 1980 through 1982 distillate fuel deliveries data are based on the same survey as that used for 1979; therefore, the 1980 through 1982 data are directly comparable to 1979 data.

In 1984, EIA again updated the list of respondents for this survey, and the Form EIA-172 became the Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report." EIA did not conduct a fuel oil and kerosene deliveries survey for 1983. The 1983 estimates in CSEDS are based on 1984 data obtained from the Form EIA-821. Statistical procedures and methodologies used for the Form EIA-821 differ from those used in previous years. Therefore, the 1983 and forward sales data may not be directly comparable to the pre-1983 data. (In the source document, the deliveries data for 1983 forward are reported in thousand gallons. These data are first converted to thousand barrels before being entered into CSEDS.)

Some of the No. 2 diesel fuel reported as sold to the commercial and industrial sectors, DFCMPZZ and DFINPZZ, on the EIA forms may also be included in the on-highway data, DFONPZZ, obtained from the Federal Highway Administration. Included in the commercial sector is some diesel fuel consumed by government vehicles and school buses, and included in the industrial sector is some diesel fuel consumed by fleets of trucks. Because the specific quantities involved are unknown, CSEDS reflects the diesel fuel consumption as reported in the EIA *Petroleum Marketing Monthly* and no attempt has been made to adjust the end-use reporting.

4. The data on fuel oil consumed at electric utilities for all years and States are actual fuel oil consumption numbers collected from electric utilities on the EIA Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Due to changes in fuel oil reporting classifications on the Form EIA-759 over the years, it is not possible to develop a thoroughly consistent series for all years. However, over time, data more accurately disaggregating fuel oil into distillate fuel and residual fuel have become available. For 1960 through 1969, only data on total fuel oil consumed at electric utilities by State are available. For 1970 through 1979, fuel oil consumed by plant type (internal combustion and gas turbine plants combined and steam plants) by State are available. For 1980 forward, data on consumption of light oil at all plant types combined and consumption of heavy oil at all plant types combined are available by State. In CSEDS, the following assumptions have been made:

   - 1960 through 1969 — State estimates of fuel oil consumption by plant type have been created for each year by applying the shares of steam plants (primarily residual fuel) and internal combustion and gas turbine plants (primarily distillate fuel plus small amounts of jet kerosene) by State in 1970 to each year's total fuel oil consumption at electric utilities for 1960 through 1969.

   - 1970 through 1979 — fuel oil consumed by steam plants is assumed to equal residual fuel consumption, and fuel oil consumed by internal combustion and gas turbine plants is assumed to equal distillate fuel plus jet kerosene consumption.

   - 1980 and forward — total heavy oil consumption at all plant types is assumed to equal residual fuel consumption, and total light oil consumption at all plant types is assumed to equal distillate fuel plus jet kerosene consumption.

   The data series thus derived for CSEDS for residual fuel and distillate fuel plus jet kerosene consumption at electric utilities is considered to be actual consumption at electric utilities for each State and each year.

Data Sources for Distillate Fuel

DFBKPZZ — Distillate fuel adjusted sales for vessel bunkering use by State, excluding that sold to the Armed Forces.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 17.
  - — 1962 and 1963: Table 16.
  - — 1964 and 1965: Table 15.
  - — 1966 through 1975: Table 11.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 11.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFCMPZZ — Distillate fuel adjusted sales to the commercial sector for space heating, water heating, and cooking.

- 1960 through 1978: EIA estimates based on statistics of commercial sector deliveries of distillate fuel from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 1. State ratios based on 1979 commercial sector deliveries were applied to each State's sum of heating plus industrial (including farm use) deliveries categories from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 363.)
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFIBPZZ — Distillate fuel adjusted sales to industrial establishments for space heating and for other industrial use, including farm use.

- 1960 through 1978: EIA estimates based on statistics of industrial sector deliveries of distillate fuel from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 1. State ratios based on 1979 industrial sector deliveries were applied to each State's sum of heating plus industrial (including farm use) deliveries categories from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 363.)
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFMIPZZ — Distillate fuel adjusted sales for military use (including imports for the military) by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 18.
  - — 1962 and 1963: Table 17.
  - — 1964 and 1965: Table 16.
  - — 1966 through 1975: Table 12.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 12.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFOCPZZ — Distillate fuel adjusted sales for use by oil companies by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:

  - — 1960 and 1961: Table 14.
  - — 1962 and 1963: Table 13.
  - — 1964 and 1965: Table 12.
  - — 1966 through 1975: Table 9.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 9.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFOFPZZ — Distillate fuel adjusted sales as diesel fuel for off-highway use by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 through 1962: Table 19.
  - — 1963 and 1964: Table 18.
  - — 1965 through 1967: Table 17.
  - — 1968 through 1975: Table 14.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 14.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFONPZZ — Distillate fuel adjusted sales as diesel fuel for on-highway use by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 through 1962: Table 19.
  - — 1963 and 1964: Table 18.
  - — 1965 through 1967: Table 17.
  - — 1968 through 1975: Table 14.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 14.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFOTPZZ — Distillate fuel adjusted sales for all other uses not identified in other adjusted sales categories.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 through 1962: Table 19.
  - — 1963 and 1964: Table 18.
  - — 1965 through 1967: Table 17.
  - — 1968 through 1975: Table 14.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 14.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.

- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFRRPZZ — Distillate fuel adjusted sales for use by railroads by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 16.
  - — 1962 and 1963: Table 15.
  - — 1964 and 1965: Table 14.
  - — 1966 through 1975: Table 10.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 10.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

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- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFRSPZZ — Distillate fuel adjusted sales to the residential sector for space heating, water heating, and cooking.

- 1960 through 1978: EIA estimates based on statistics of residential sector deliveries of distillate fuel from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 1. State ratios based on 1979 residential sector deliveries were applied to each State's sum of heating plus industrial (including farm use) deliveries categories from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 363.)
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 4.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983 and 1984: July 1985 issue, Table A12.
  - — 1985 and 1986: July 1987 issue, Table A16.
  - — 1987: June 1988 issue, Table A16.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 16.

DFTCPUS — Distillate fuel total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

DKEUPZZ — Distillate fuel consumed by the electric utilities, including kerosene-type jet fuel.

- EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. The following assumptions have been made:
  - — 1960 through 1969: Only total fuel oil consumed at electric utilities by State is available. State estimates of distillate fuel consumption were created for each year by applying the shares of internal combustion and gas turbine plants (primarily distillate fuel plus small amounts of jet kerosene) by State from 1970 to each year's total fuel oil consumption at electric utilities for 1960 through 1969.
  - — 1970 through 1979: Fuel oil consumed by plant type by State is available. Fuel oil consumed by internal combustion and gas turbine plants combined is assumed to equal distillate and jet kerosene consumption.
  - — 1980 forward: Consumption of light and heavy oil at all plant types by State is available. Total light oil consumption at all

plant types is assumed to equal distillate and jet kerosene consumption.

Jet Fuel

There are two types of jet fuel with different heat contents, kerosene-type jet fuel (JK) and naphtha-type jet fuel (JN), which are added in the Combined State Energy Data System (CSEDS) to give total jet fuel (JF). Jet fuel is used primarily for transportation, although, for 1972 through 1982, small amounts of the kerosene-type jet fuel were reported as used in the electric utility sector.

Kerosene-Type Jet Fuel

Physical Units

Data series used to calculate kerosene-type jet fuel consumption estimates are ("ZZ" in the variable name represents the two-letter State code that differs for each State):

JKTCPUS = kerosene-type jet fuel total consumed, in thousand barrels;
JKEUPZZ = the electric utility sector consumption of kerosene-type jet fuel in each State, in thousand barrels; and
JKTTPZZ = kerosene-type jet fuel total sold, in thousand gallons.

Total U.S. consumption of kerosene-type jet fuel, JKTCPUS, is the product supplied data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA).

Kerosene-type jet fuel consumed by electric utilities, JKEUPZZ, is published by EIA in the *Cost and Quality of Fuels for Electric Utility Plants*. These data are available for 1972 through 1982 only. Consumption in all other years is assumed to be zero.

Kerosene-type jet fuel total sold, JKTTPZZ, was collected by the Ethyl Corporation, Petroleum Chemicals Division, for 1960 through 1983 and by EIA for 1984 forward. The Ethyl Corporation data are sales to commercial users and are used to represent total sales based on the assumption that there is little military use of kerosene-type jet fuel during 1960 through 1983. (See Note 1 in the "Additional Notes" section for the source reference for this assumption.) The EIA data for 1984 forward include commercial and military sales.

U.S. totals for the two State series are calculated as the sum of the State data.

Most kerosene-type jet fuel is used by the transportation sector. The transportation sector consumption for the United States (JKACPUS) is estimated as the difference between the total kerosene-type jet fuel consumed and the electric utility consumption:

JKACPUS = JKTCPUS – JKEUPUS

It is assumed that kerosene-type jet fuel consumption in each State is in proportion to the amount sold in each State:

JKACPZZ = (JKTTPZZ / JKTTPUS) * JKACPUS

Total kerosene-type jet fuel by State is estimated as:

JKTCPZZ = JKACPZZ + JKEUPZZ

British Thermal Units (Btu)

Kerosene-type jet fuel has a heat content value of approximately 5.670 million Btu per barrel. This factor is applied to convert kerosene-type jet fuel from physical units to Btu:

JKACBZZ = JKACPZZ * 5.670
JKACBUS = ΣJKACBZZ
JKEUBZZ = JKEUPZZ * 5.670
JKEUBUS = ΣJKEUBZZ
JKTCBZZ = JKTCPZZ * 5.670
JKTCBUS = ΣJKTCBZZ

Additional Notes on Kerosene-Type Jet Fuel

1. An assumption is made that kerosene-type jet fuel use by the military in 1960 through 1983 is negligible. This assumption is based on product definitions from the American Petroleum Institute's *Standard Definitions for Petroleum Statistics*, Technical Report No. 1, Third Edition (1981), page 13, which states that kerosene-type jet fuel is used primarily by commercial aircraft engines.

2. Ethyl Corporation jet fuel sales to commercial users by State include some sales data that were improperly allocated between the States of Illinois and Indiana for 1960 through 1973. To adjust for this error, the average relative proportions of Illinois and Indiana sales from 1974 through 1978 were applied to the sum of the Illinois and Indiana sales in 1960 through 1973. From 1974 through 1983, sales data were correctly allocated.

3. Jet fuel sales in Illinois decreased sharply from 1984 forward, while sales in Indiana increased by about the same amount. It is possible that jet fuel for use at Chicago, Illinois, airports may have been purchased in Indiana. The same anomaly may have happened between New York and New Jersey beginning in 1981, when jet fuel for consumption at New York City airports may have been purchased in New Jersey. This is an inherent problem when using sales data as an indication of consumption, and no attempt has been made to adjust the numbers.

4. Prior to 1964, kerosene-type jet fuel was included in the total kerosene product supplied data in the source, the U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 2, "Salient Statistics of the Major Refined Petroleum Products in the United States." Table A3 summarizes the derivation of kerosene and jet fuel consumption estimates (columns 4 and 5) from data published in the source (columns 1, 2, and 3) for 1960 through 1963. For 1964 and years following, kerosene and kerosene-type jet fuel are reported separately in the source documents.

5. Kerosene-type jet fuel consumed by electric utilities, JKEUPZZ, is published in the EIA *Cost and Quality of Fuels for Electric Utility Plants*. These data are available for 1972 through 1982 only. Consumption in all other years is assumed to be zero. State-level data for 1972 through 1974 are not available. The percentage of each State's consumption of the total U.S. consumption in 1975 was used to apportion the 1972 through 1974 national data to the States.

Data Sources for Kerosene-type Jet Fuel

JKEUPZZ — Kerosene-type jet fuel consumed by electric utilities by State.

- 1960 through 1971: No data available. Values are assumed to be zero.
- 1972 through 1974: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Fuel Oil and Kerosene," Table 15 footnote for U.S. value. These data were apportioned to the States by using the 1975 State proportions of the 1975 U.S. total from the source below.
- 1975 through 1979: Office of Electric Power Regulation, Federal Energy Regulatory Commission, *Annual Summary of Cost and Quality of Electric Utility Plant Fuels*, "Fuel Oil Deliveries for Combustion Turbine and Internal Combustion Units."
- 1980 through 1982: EIA, *Cost and Quality of Fuel for Electric Utility Plants*, Table 30.
- 1983 forward: Series discontinued; no data available. Values are assumed to be zero.

JKTTPZZ — Kerosene-type jet fuel total sold by State.

- 1960 through 1983: Ethyl Corporation, Petroleum Chemicals Division, *Yearly Report of Gasoline Sales by States*, "Aviation Turbine Fuel Sales."
- 1984 and 1985: EIA, *Petroleum Marketing Annual 1985*, Volume 2.
  - — 1984: Table A6.
  - — 1985: Table 34.
- 1986 through 1988: EIA, *Petroleum Marketing Annual*, Table 46.
- 1989 through 1993: EIA, *Petroleum Marketing Annual*, Table 48.
- 1994 forward: Unpublished data from Form EIA-782C, "Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption." Data published in thousand gallons per day in EIA, *Petroleum Marketing Annual*, Table 49 and on the EIA, *Energy InfoDisc* in the Oil and Gas Information System database. Withheld data were estimated by using averages of published months to fill in withheld

Table A3. Estimate of U.S. Consumption of Kerosene and Jet Fuel for 1960 through 1963
(Thousand barrels)

Year	(1) Kerosene Demand, Including Commercial Jet Fuel	(2) Jet Fuel Demand, Military Use Only	(3) Sales of Kerosene for Commercial Jet Fuel Use	(4) Estimated Kerosene Consumption (1) – (3)	(5) Estimated Total Jet Fuel Consumption (2) + (3)
1960	132,499	102,803	33,159	99,340	135,962
1961	144,435	104,436	47,187	97,248	151,623
1962	164,167	112,401	66,134	98,033	178,535
1963	172,212	115,237	75,236	96,976	190,473

months; subtracting published States from published PAD District totals; and assigning values based on previous years' quantities.

JKTCPUS — Kerosene-type jet fuel total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Naphtha-Type Jet Fuel

Physical Units

Two data series are used to estimate naphtha-type jet fuel consumption:

JNTCPUS = naphtha-type jet fuel total consumed, in thousand barrels; and
JNMIPZZ = naphtha-type jet fuel issued to the military in each State, in thousand barrels.

Total U.S. consumption of naphtha-type jet fuel, JNTCPUS, is the product supplied data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA).

Data on naphtha-type jet fuel issued to the military in each State, JNMIPZZ, are from the U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center.

The total U.S. military issues is the sum of the State data:

$$JNMIPUS = \Sigma JNMIPZZ$$

It is assumed that all naphtha-type jet fuel is used by military aircraft engines. (See the Additional Notes at the end of this section for the source reference for this assumption.) Therefore, an estimate of naphtha-type jet fuel consumption by State, JNTCPZZ, is calculated by assuming that each State consumes naphtha-type jet fuel in proportion to the amount issued to that State:

$$JNTCPZZ = (JNMIPZZ / JNMIPUS) * JNTCPUS$$

All naphtha-type jet fuel is assumed to be used for transportation purposes so the transportation consumption equals the estimated total consumption for each State and for the United States:

JNACPZZ = JNTCPZZ
JNACPUS = JNTCPUS

British Thermal Units (Btu)

Naphtha-type jet fuel has a heat content value of approximately 5.355 million Btu per barrel. This factor is applied to convert naphtha-type jet fuel from physical units to Btu:

JNTCBZZ = JNTCPZZ * 5.355
JNTCBUS = ΣJNTCBZZ
JNACBZZ = JNTCBZZ
JNACBUS = JNTCBUS

Additional Notes on Naphtha-Type Jet Fuel

1. An assumption was made that the naphtha-type jet fuel is for military use only. This assumption was based on product definitions from the American Petroleum Institute's *Standard Definitions for Petroleum Statistics*, Technical Report No. 1, Third Edition (1981), page 13, which states that naphtha-type jet fuel is used primarily by military aircraft engines.

2. Data on naphtha-type jet fuel issued to the military for each State (JNMIPZZ) are obtained from the U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center. There are no data available for 1960 through 1974, and the data available for 1975 and 1976 are not consistent; therefore, the 1977 values are used for 1960 through 1976 in CSEDS. The data are reported by fiscal year for 1977 through 1988 and are taken from the Defense Energy Information System. For 1989 and 1990, fiscal-year data from two databases, Defense Fuel Automated Management System and the Into-Plane Database, are summed. For 1991 and 1992, data from the same two databases, reported by calendar year, are used.

Data Sources for Naphtha-type Jet Fuel

JNMIPZZ — Naphtha-type jet fuel issued to the military in the United States.

- 1960 through 1974: No data are available. The 1977 data are used for each year.
- 1975 and 1976: No consistent data series are available. The 1977 data are used for both years.
- 1977 through 1987: The U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center, Defense Energy Information System, military retail issues based on fiscal year data. The District of Columbia issues are assumed to be zero; therefore, values reported for the District of Columbia are added to Maryland.
- 1988: U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center, average of 1987 data (see source above) and 1989 data (see source below).
- 1989 and 1990: U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center, Defense Fuel Automated Management System, military wholesale issues based on fiscal year data.
- 1991 through 1995, 1997 : U.S. Department of Defense, Defense Logistics Agency, Defense Fuel Supply Center. State data for the calendar year from two databases are summed: Defense Fuel Automated Management System (military wholesale issues) and Into-Plane Database (military purchases from commercial airports). Into-plane values reported for the District of Columbia are added to Virginia.
- 1996: The data series for 1996 is temporarily unavailable. Simple averages of 1995 and 1997 State data are used to estimate 1996 values.

JNTCPUS — Naphtha-type jet fuel total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Jet Fuel Totals

Physical Unit

The following calculations are used to provide total jet fuel consumption estimates by end use in physical units:

JFACPZZ = JKACPZZ + JNACPZZ
JFACPUS = ΣJFACPZZ
JFEUPZZ = JKEUPZZ
JFEUPUS = JKEUPUS
JFTCPZZ = JFACPZZ + JFEUPZZ
JFTCPUS = ΣJFTCPZZ

British Thermal Units (Btu)

The following calculations are used to provide total jet fuel consumption estimates by end use in Btu:

JFACBZZ = JKACBZZ + JNACBZZ
JFACBUS = ΣJFACBZZ
JFEUBZZ = JKEUBZZ
JFEUBUS = JKEUBUS
JFTCBZZ = JFACBZZ + JFEUBZZ
JFTCBUS = ΣJFTCBZZ

Kerosene

Physical Units

Because State-level and end-use consumption data for kerosene are not available, four data series published by EIA representing sales of kerosene into or within each State are used to estimate kerosene consumption. The fifth data series, the U.S. total consumption, is the product supplied series from the EIA *Petroleum Supply Annual*. The sales series are used to apportion the known U.S. total consumption into State-level estimates of end-use consumption. The following variable names have been assigned to the five data series ("ZZ" in the variable names represents the two-letter State code that differs for each State):

KSCMPZZ = kerosene sold to the commercial sector for heating, in thousand barrels;
KSIHPZZ = kerosene sold to the industrial sector for heating, in thousand barrels;
KSOTPZZ = kerosene sold for all other uses, including farm use, in thousand barrels;
KSRSPZZ = kerosene sold to the residential sector for heating, in thousand barrels; and
KSTCPUS = kerosene total consumed in the United States, in thousand barrels.

U.S. sales totals for each of the four State-level series are created by summing the State values.

The variables are combined as closely as possible into the major end-use sectors used in CSEDS. The residential and commercial sectors contain only KSRSPZZ and KSCMPZZ, respectively.

The sales of kerosene to the industrial sector, KSINPZZ, for each State is the sum of kerosene sold for industrial space heating (KSIHPZZ) and kerosene sold for all other uses (KSOTPZZ), including farm use. Sales of kerosene to the industrial sector are calculated:

KSINPZZ = KSOTPZZ + KSIHPZZ
KSINPUS = ΣKSINPZZ

Total sales of kerosene in each State is the sum of these three sectors' sales:

KSTTPZZ = KSRSPZZ + KSCMPZZ + KSINPZZ
KSTTPUS = ΣKSTTPZZ

An estimate of each State's total consumption of kerosene is made by disaggregating the U.S. total consumption to the States in proportion to each State's sales share of the U.S. total sales:

KSTCPZZ = (KSTTPZZ / KSTTPUS) * KSTCPUS

Each State's residential sector sales percentage of total sales is applied to the State's estimated total consumption to create estimated residential sector consumption for the State, KSRCPZZ:

KSRCPZZ = (KSRSPZZ / KSTTPZZ) * KSTCPZZ

The commercial sector's estimated consumption in each State, KSCCPZZ, is calculated:

KSCCPZZ = (KSCMPZZ / KSTTPZZ) * KSTCPZZ

The industrial sector's estimated consumption in each State, KSICPZZ, is calculated:

KSICPZZ = (KSINPZZ / KSTTPZZ) * KSTCPZZ

U.S. totals for the three sectors' consumption estimates are the sums of the States' estimated consumption.

British Thermal Units (Btu)

Kerosene has a heat content value of approximately 5.670 million Btu per barrel. This factor is applied to convert kerosene estimated consumption from physical units to Btu:

KSRCBZZ = KSRCPZZ * 5.670
KSCCBZZ = KSCCPZZ * 5.670
KSICBZZ = KSICPZZ * 5.670
KSTCBZZ = KSRCBZZ + KSCCBZZ + KSICBZZ

The U.S. Btu consumption estimates for the three consuming sectors and the U.S. total are calculated as the sum of the State-level data.

Additional Notes on Kerosene

1. See Note 4 at the end of the "Kerosene-Type Jet Fuel" section on page 369 for comments concerning the inclusion of kerosene-type jet fuel with the kerosene total product supplied prior to 1964 in the source documents.

2. "Sales" data are actually called "shipments" in the source documents for 1960 and 1961; "consumption" for 1962 through 1966; "shipments" for 1967; "sales" from 1968 through 1978; "deliveries" for 1979 through 1983; and "sales" for 1984 forward.

3. In 1979, the Energy Information Administration (EIA) implemented a new survey form, EIA-172, to obtain deliveries of fuel oil and kerosene data and updated the list of respondents. (A detailed explanation is published in the *Energy Data Report* "Deliveries of Fuel Oil and Kerosene in 1979.") In the new survey form, certain end-use categories were redefined—in many cases, to collect more disaggregated data. The reclassifications resulted in some end-use categories that were no longer comparable with those in previous surveys. Where discontinuities occurred, estimates for the pre-1979 years have been made in CSEDS to conform with the 1979 kerosene deliveries classifications. The pre-1979 deliveries estimates are not published in this report but are used in CSEDS to disaggregate the known U.S. total product supplied (consumption) into State and major end-use sector consumption estimates.

For kerosene deliveries in 1979, the end-use categories called "residential," "commercial," and "industrial" are available. The pre-1979 deliveries category called "heating" is related to the sum of "residential," "commercial," and "industrial" in 1979. Therefore, the following method was applied to present a comparable series for kerosene delivered to the residential, commercial, and industrial sectors:

- A 1979 subtotal for heating was created by summing each State's residential, commercial, and industrial deliveries categories, thereby creating a comparable deliveries subtotal for all years.

- Residential, commercial, and industrial shares of the heating subtotal in 1979 were calculated for each State.

- These 1979 end-use shares were then applied to each pre-1979 heating subtotal in each State to create State estimates of end-use deliveries for 1960 through 1978.

The 1980 through 1982 kerosene deliveries data are based on the same survey as that used for 1979; therefore, the 1980 through 1982 data are directly comparable to 1979 data.

In 1984, EIA again updated the list of respondents for this survey, and the Form EIA-172 became the Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report." EIA did not conduct a fuel oil and kerosene sales survey for 1983. The 1983 estimates in CSEDS are based on 1984 data obtained from the Form EIA-821. Statistical procedures and methodologies used for the Form EIA-821 differ from those used in previous years. Therefore, the 1983 and forward sales

data may not be directly comparable to the pre-1983 data. (In the source document, the sales data for 1983 forward are reported in thousand gallons. These data were first converted to thousand barrels before being entered into CSEDS.)

4. In 1975 through 1977, the industrial sector consumption of kerosene includes small quantities of kerosene-type jet fuel that were produced as jet fuel and sold as kerosene.

Data Sources for Kerosene

KSCMPZZ — Kerosene sold to the commercial sector for heating.

- 1960 through 1978: EIA estimates based on statistics of commercial sector deliveries of kerosene from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene, in 1979," Table 3. State ratios based on 1979 commercial sector deliveries were applied to each State's heating deliveries category from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 373.)
- 1979 and 1980: EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene," Table 3.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 6.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A14.
  - — 1984: July 1986 issue, Table A4.
  - — 1985 and 1986: July 1987 issue, Table A6.
  - — 1987: June 1988 issue, Table A6.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 6.

KSIHPZZ — Kerosene sold to the industrial sector for heating.

- 1960 through 1978: EIA estimates based on statistics of industrial sector deliveries of kerosene from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 3. State ratios based on 1979 industrial sector deliveries were applied to each State's heating deliveries category from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 373.)
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 3.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 6.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A14.
  - — 1984: July 1986 issue, Table A4.
  - — 1985 and 1986: July 1987 issue, Table A6.
  - — 1987: June 1988 issue, Table A6.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 6.

KSOTPZZ — Kerosene sold for all other uses, including farm use.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 10.
  - — 1962 and 1963: Table 9.
  - — 1964 and 1965: Table 8.
  - — 1966 through 1975: Table 5.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 5.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene." Calculated as the sum of kerosene delivered for farm and other use from Table 3.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 6.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A14.
  - — 1984: July 1986 issue, Table A4.
  - — 1985 and 1986: July 1987 issue, Table A6.
  - — 1987: June 1988 issue, Table A6.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 6.

KSRSPZZ — Kerosene sold to the residential sector for heating.

- 1960 through 1978: EIA, *Energy Data Report* "Deliveries of Fuel Oil and Kerosene in 1979," Table 3. State ratios based on 1979 residential sector deliveries were applied to each State's heating deliveries category from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 3, on page 373.)
- 1979 and 1980: EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene," Table 3.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 6.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A14.
  - — 1984: July 1986 issue, Table A4.
  - — 1985 and 1986: July 1987 issue, Table A6.
  - — 1987: June 1988 issue, Table A6.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 6.

KSTCPUS — Kerosene total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Liquefied Petroleum Gases

Liquefied petroleum gases (LPG) in CSEDS include: ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane.

Physical Units

The following data series used in CSEDS to estimate LPG consumption represent sales or estimated sales by State in thousand gallons.

LGCBMZZ = LPG sold for internal combustion engine fuel use. Included are sales for use in all kinds of highway vehicles, forklifts, industrial tractors, and for use in oil field drilling and production;

LGHCMZZ = LPG sold for residential and commercial use. Included are sales for nonfarm private households for space heating, cooking, water heating, and other household uses, such as clothes drying and incineration. Also included are sales to nonmanufacturing organizations, such as motels, restaurants, retail stores, laundries, and other service enterprises, primarily for use in space heating, water heating, and cooking; and

LGTTPZZ = LPG total sales for all uses.

Total U.S. consumption of LPG is the product supplied data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA):

LGTCPUS = LPG total consumed in the United States, in thousand barrels.

Another variable is used in CSEDS to estimate LPG consumption by the transportation sector. It is described in detail in Note 2 on page 376.

LGTRSUS = the transportation sector share of LPG internal combustion engine sales.

Since the LPG sales data are in gallons, they must be converted to barrels (42 U.S. gallons per U.S. barrel) to be comparable to total consumption estimates. The formulas for calculating State sales data are:

LGCBPZZ = LGCBMZZ / 42
LGHCPZZ = LGHCMZZ / 42

The U.S. totals for each of the State-level LPG sales data series are calculated as the sum of the State values.

An assumption is made that 85 percent of the LPG sold for residential and commercial use (LGHCPZZ) is sold to the residential sector (LGRCPZZ), and 15 percent is sold to the commercial sector (LGCCPZZ) for all States and years. (See Note 3 on page 377.) It is also assumed that LPG sales to the residential and commercial sectors are equal to the consumption in those sectors. The formulas used are:

LGRCPZZ = LGHCPZZ * 0.85
LGCCPZZ = LGHCPZZ * 0.15

The LPG consumption by the transportation sector is estimated to be the transportation share of the sales for internal combustion engine fuel:

LGACPZZ = LGCBPZZ * LGTRSUS

An estimate of each State's total LPG consumption (LGTCPZZ) is made by allocating the U.S. total consumption to the States in proportion to each State's sales share of the U.S. total sales:

LGTCPZZ = (LGTTPZZ / LGTTPUS) * LGTCPUS

The industrial (LGICPZZ) sector consumption of each State is the difference between the State's total LPG consumption and the sum of its residential, commercial, and transportation sectors' consumption:

LGICPZZ = LGTCPZZ – (LGRCPZZ + LGCCPZZ + LGACPZZ)

U.S. totals for the four end-use sector consumption estimates are calculated as the sums of the State estimates.

British Thermal Units (Btu)

The factor for converting LPG from physical unit values to British thermal units, LGTCKUS, is calculated annually for 1967 forward by EIA as a weighted average by multiplying the quantity consumed of each of the component products (ethane, propane, butane, butane-propane, ethane-propane, and isobutane) by each product's conversion factor (listed in Appendix C, Thermal Conversion Factor Source Documentation) and dividing the sum of those heat contents by the sum of the quantities consumed. The consumption of each product is taken from the product supplied data series in the *Energy Data Report,* "Petroleum Statement, Annual" (1967 through 1980), and the *Petroleum Supply Annual* (1981 forward), published by EIA. For 1960 through 1966, EIA adopted the Bureau of Mines thermal conversion factor of 4.011 million Btu per barrel as published in the *Mineral Industry Surveys*, "Crude Petroleum and Petroleum Products, 1956," Table 4 footnote.

This factor is used to estimate consumption in Btu for all States and end uses:

LGRCBZZ = LGRCPZZ * LGTCKUS
LGCCBZZ = LGCCPZZ * LGTCKUS
LGICBZZ = LGICPZZ * LGTCKUS
LGACBZZ = LGACPZZ * LGTCKUS

Total estimated consumption of LPG in Btu is the sum of the end-use consumption estimates:

LGTCBZZ = LGRCBZZ + LGCCBZZ + LGICBZZ + LGACBZZ

The U.S. Btu consumption estimates for the four sectors and total LGP are calculated as the sum of the State data.

Additional Notes on Liquefied Petroleum Gases

1. Sales data for Maryland and the District of Columbia are combined in the source documents. Sales data are published in six categories. The percentages shown in Table A4 are applied to disaggregate the combined State data in each of the sectors for all years.

2. The sales of LPG for internal combustion engine fuel use are divided between the transportation sector and the industrial sector by using LGTRSUS, the transportation sector's share of internal combustion engine use. LGTRSUS is estimated from data on "special fuels used on highways," a category that includes only LPG and diesel fuel. The special fuels data are published by the U.S. Department of Transportation, Federal Highway Administration (see MGSFPZZ on page 384). The quantity of LPG included in special fuels is estimated each year (the LPG portion ranges from 8.4 percent in 1960 to 1.2 percent in 1990). LGTRSUS is then derived by dividing the quantity of LPG included in special fuels used on highways by the quantity of LPG sold for internal combustion engine use. This U.S. factor is

Table A4. Percentages Used to Disaggregate Maryland and D.C. Combined LPG Sales Data

Sales Category	Maryland	D.C.
Residential and Commercial	99.9%	0.1%
Internal combustion engine fuel	98.9	1.1
Industrial	99.4	0.6
Chemical	100.0	0.0
Utility gas	100.0	0.0
Miscellaneous	100.0	0.0

applied to each of the States. LGTRSUS values are shown in Table A5.

3. Little information exists for allocating the residential and commercial use of LPG to the individual sectors. CSEDS applies an 85 percent residential and 15 percent commercial split for all States and years based on figures published in the Federal Energy Administration Project Independence Blueprint Task Force Report, "Residential and Commercial Energy Use Patterns, 1970–1990," November 1974, Table 1.A.1.

Table A5. Transportation Sector Share of LPG Internal Combustion Engine Use, 1960 Forward

Year	LGTRSUS	Year	LGTRSUS	Year	LGTRSUS
1960	0.229	1973	0.384	1986	0.456
1961	0.258	1974	0.381	1987	0.375
1962	0.266	1975	0.406	1988	0.437
1963	0.273	1976	0.440	1989	0.428
1964	0.259	1977	0.478	1990	0.471
1965	0.290	1978	0.594	1991	0.426
1966	0.325	1979	0.536	1992	0.425
1967	0.368	1980	0.380	1993	0.443
1968	0.389	1981	0.671	1994	0.734
1969	0.341	1982	0.579	1995	0.416
1970	0.363	1983	0.578	1996	0.357
1971	0.423	1984	0.631	1997	0.325
1972	0.392	1985	0.440		

4. LPG sales data by State and end-use categories for 1960 through 1982 are from EIA's "Sales of Liquefied Petroleum Gases and Ethane." In 1979, EIA modified the LPG sales survey, Form EIA-174, and changed the list of respondents. Because of the updated sampling frame, the 1979 through 1982 sales data may not be directly comparable to the pre-1979 sales when a different estimation procedure was used. Explanation of the discontinuities caused by the change in the 1979 sampling frame are provided in EIA's *Energy Data Report,* "Sales of Liquefied Petroleum Gases and Ethane in 1979."

   Because of the change in survey techniques used for measuring LPG sales, many States' data were withheld from publication in the 1979 through 1982 LPG sales reports to avoid disclosure of company-level data. The consumption estimates in CSEDS use all data published in the 1979 through 1982 LPG sales reports and estimates prepared by EIA's Office of Oil and Gas for data that were withheld from publication. (See Note 5 below for estimation procedures.)

   Some end-use categories changed in 1979 due to redefinition of the classifications. One of these changes, for example, occurred with LPG sold to farms for household heating and cooking. Prior to 1979 these sales were reported as part of the residential and commercial category, while in 1979 they were counted in the farm use category that goes into the industrial sector in CSEDS. No attempt has been made to adjust for this type of inconsistency.

   The Form EIA-174 was cancelled after collection of 1982 data. The 1983 LPG consumption estimates are based on the assumption that LPG end-use sector demand in 1983 occurred in the same proportion as 1982 sector demand within each State; i.e., the 1983 LPG product supplied figure was allocated to the States by using the distribution of volumes consumed for 1982.

5. The following procedures were used to estimate the State end-use sales that were withheld from publication in the 1979-1982 LPG sales reports:

- For each year, missing State total sales were estimated by allocating the sum of the missing State sales within each Petroleum Administration for Defense (PAD) District to the individual States, in proportion to the sum of the known end-use sales for those States.

- Missing PAD District end-use totals for 1979 and 1980 were obtained by using the 1980 and 1981 sales reports. Missing PAD District chemical sales were estimated by allocating the total missing volume of chemical sales to the PAD District in proportion to the number of chemical plants in each PAD District. The remaining PAD District end-use totals were obtained by subtraction. For 1981 and 1982, no PAD District estimations were necessary because all PAD District end-use totals are known.

- The published data and the estimated State and PAD District end-use totals were used to estimate missing State end-use sales volumes within a PAD District: missing State end-use sector values were estimated by allocating the missing volume for the State approximately proportional to the PAD District end-use sector totals.

6. Prior to 1979, State data for chemical use of LPG were withheld from publication, although they were included in the U.S. total in the tables in EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports. Beginning in 1979, State-level chemical use data were published in the LPG sales reports, but data for several States were withheld. Estimates for the withheld data for chemical use sales for 1979 and 1980 were created by using the estimation procedure described in Note 5 above. Then the published and the estimated State data for 1979 were used to create State shares of the total U.S. chemical use sales. These percentage shares (shown in Table A6) were applied to the total U.S. LPG chemical use sales in 1960 through 1978 to create State chemical use estimates. The chemical use estimates were added to the States' total LPG sales series, LGTTPZZ.

7. Beginning in 1984, the American Petroleum Institute (API), the Gas Processors Association, and the National LP-Gas Association jointly sponsored an LPG sales survey. The results are published in the API's report *Sales of Natural Gas Liquids and Liquefied Refinery Gases*. These data include sales of pentanes plus; the pentanes plus data were removed prior to use in CSEDS.

The API report publishes total LPG sales for Alaska and Hawaii, but disaggregated data for those States are withheld. EIA estimates the

Table A6. State Shares of the Total U.S. LPG Sold for Chemical Use, 1960 Through 1978

State	Percent	State	Percent
Alabama	0.000	Montana	0.000
Alaska	0.589	Nebraska	0.000
Arizona	0.000	Nevada	0.000
Arkansas	0.000	New Hampshire	0.000
California	2.667	New Jersey	2.040
Colorado	0.232	New Mexico	0.603
Connecticut	0.053	New York	0.000
Delaware	0.811	North Carolina	0.327
District of Columbia	0.000	North Dakota	0.000
Florida	0.000	Ohio	1.103
Georgia	0.699	Oklahoma	0.309
Hawaii	0.000	Oregon	0.000
Idaho	0.000	Pennsylvania	0.354
Illinois	7.066	Rhode Island	0.000
Indiana	0.243	South Carolina	0.021
Iowa	0.900	South Dakota	0.000
Kansas	0.451	Tennessee	0.000
Kentucky	2.548	Texas	57.425
Louisiana	20.566	Utah	0.000
Maine	0.012	Vermont	0.000
Maryland	0.050	Virginia	0.025
Massachusetts	0.009	Washington	0.000
Michigan	0.151	West Virginia	0.286
Minnesota	0.000	Wisconsin	0.000
Mississippi	0.315	Wyoming	0.091
Missouri	0.054	United States	100.000

withheld data for the "Residential and Commercial" and the "Internal Combustion Fuel" columns as follows:

- Alaska and Hawaii are the only States of the seven States in PAD District V for which data are withheld. Therefore, subtracting the available data for the other five States from the PAD District V total gives the withheld data for Alaska and Hawaii combined.

- The withheld data are assigned to Alaska and Hawaii in proportion to each State's share of their combined published total sales.

Data Sources for Liquefied Petroleum Gases

LGCBMZZ — LPG sold for internal combustion engine use by State.
Note: Data for Maryland and the District of Columbia were combined for all years. The method for disaggregating the data is explained in Note 1, on page 376.

- 1960 through 1967: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Liquefied Petroleum Gases and Ethane." The specific tables are:
  - — 1960 and 1961: Table 5 (data called "Shipments").
  - — 1962 through 1966: Table 2 (data called "Consumption").
  - — 1967: Table 2 (data called "Shipments").
- 1968 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1976 through 1980: EIA, *Energy Data Reports*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, "Sales of Liquefied Petroleum Gases and Ethane," Table 3.
- 1983: EIA estimates.

Note: For 1984 forward, some data are adjusted and estimated by EIA. (See explanation in Note 7, on page 378.)

- 1984 through 1988: American Petroleum Institute, *1990 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 24 through 33.
- 1989 through 1991: American Petroleum Institute, *1992 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 4, 5, 18, and 19.
- 1992 forward: American Petroleum Institute, *Sales of Natural Gas Liquids and Liquefied Refinery Gases,* Table 3. Final data for each year is published in the report for the next year.

LGHCMZZ — LPG sold for residential and commercial use by State.
Note: Data for Maryland and the District of Columbia were combined for all years. The method for disaggregating the data is explained in Note 1, on page 376.

- 1960 through 1967: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Liquefied Petroleum Gases and Ethane." The specific tables are:
  - — 1960 and 1961: Table 5 (data called "Shipments").
  - — 1962 through 1966: Table 2 (data called "Consumption").
  - — 1967: Table 2 (data called "Shipments").
- 1968 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1976 through 1980: EIA, *Energy Data Reports*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, "Sales of Liquefied Petroleum Gases and Ethane," Table 3.
- 1983: EIA estimates.

Note: For 1984 forward, some data are adjusted and estimated by EIA. (See explanation in Note 7, on page 378.)

- 1984 through 1988: American Petroleum Institute, *1990 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 24 through 33.
- 1989 through 1991: American Petroleum Institute, *1992 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 4, 5, 18, and 19.
- 1992 forward: American Petroleum Institute, Sales of Natural Gas Liquids and Liquefied Refinery Gases, Table 3. Final data for each year is published in the report for the next year.

LGTCKUS — Factor for converting LPG from physical units to Btu.

- 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Crude Petroleum and Petroleum Products, 1956," Table 4 footnote, constant value of 4.011 million Btu per barrel.
- 1967 forward: Calculated annually by EIA as a weighted average by multiplying the quantity consumed of each of the component products by each product's conversion factor (given with source references

in Appendix C) and dividing the sum of those heat contents by the sum of the quantities consumed. The component products are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. Quantities consumed are from:
  — 1967 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
  — 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

LGTCPUS — LPG total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

LGTRSUS — The transportation sector share of LPG internal combustion engine sales.

- EIA estimates based on the LPG portion of the special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration (variable MGSFPUS in CSEDS), as a percentage of the LPG sold for internal combustion engine use published by the American Petroleum Institute (variable LGCBMUS in CSEDS). For an explanation of the estimation method, see Note 2, on page 376.

LGTTPZZ — LPG total sales for all uses by State.

Note: Data for Maryland and the District of Columbia were combined for all years. The method for disaggregating the data is explained in Note 1, on page 376.

- 1960 through 1967: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Liquefied Petroleum Gases and Ethane." The specific tables are:
  — 1960 and 1961: Table 5 (data called "Shipments").
  — 1962 through 1966: Table 2 (data called "Consumption").
  — 1967: Table 2 (data called "Shipments").
- 1968 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1976 through 1980: EIA, *Energy Data Reports*, "Sales of Liquefied Petroleum Gases and Ethane," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, "Sales of Liquefied Petroleum Gases and Ethane," Table 3.
- 1983: EIA estimates.

Note: For 1984 forward, some data are adjusted and estimated by EIA. (See explanation in Note 7, on page 378.)

- 1984 through 1988: American Petroleum Institute, *1990 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 24 through 33.
- 1989 through 1991: American Petroleum Institute, *1992 Sales of Natural Gas Liquids and Liquefied Refinery Gases*, pages 4, 5, 18, and 19.
- 1992 forward: American Petroleum Institute, *Sales of Natural Gas Liquids and Liquefied Refinery Gases,* Table 3. Final data for each year are published in the report for the next year.

Lubricants

Physical Units

Three data series are used to estimate State consumption of lubricants. The two State-level sales data series are used to apportion the U.S. total consumption data to the States and the end-use sectors within the States. "ZZ" in the variable names represents the two-letter State code that differs for each State:

LUINPZZ = lubricants sold to the industrial sector, in thousand barrels;
LUTRPZZ = lubricants sold to the transportation sector, in thousand barrels; and
LUTCPUS = lubricants total consumed in the United States, in thousand barrels.

Data for the first two variables are developed from the Bureau of the Census reports "Sales of Lubricating and Industrial Oils and Greases" in the *Current Industrial Reports* series. These series were discontinued in 1977 and the method of estimation for 1978 forward is explained in Note 1 at the end of this "Lubricants" section. The third variable for lubricants is the product supplied data series in the publication *Petroleum Supply Annual,* published by the Energy Information Administration (EIA). The first two

variables are used for apportioning the third into State total consumption and State end-use consumption estimates by using the following calculations.

Total sales of lubricants for each State, LUTTPZZ, is created by adding the industrial and transportation sales:

LUTTPZZ = LUINPZZ + LUTRPZZ

U.S. sales totals are calculated by summing the State sales data.

Each State's proportion of total U.S. sales is used to calculate each State's estimated consumption of lubricants:

LUTCPZZ = (LUTTPZZ / LUTTPUS) * LUTCPUS

Each State's estimated total consumption of lubricants is further divided into end-use estimates in proportion to that State's sales by sector as a portion of total sales in the State. Lubricants consumed by State for industrial use, LUICPZZ, and for transportation use, LUACPZZ, are calculated:

LUICPZZ = (LUINPZZ / LUTTPZZ) * LUTCPZZ
LUACPZZ = (LUTRPZZ / LUTTPZZ) * LUTCPZZ

The consumption of lubricants in the United States by these two end-use sectors is created by summing the State estimates.

British Thermal Units (Btu)

Lubricants have a heat content value of approximately 6.065 million Btu per barrel. This factor is applied to convert lubricants estimated consumption from physical units to Btu:

LUICBZZ = LUICPZZ * 6.065
LUACBZZ = LUACPZZ * 6.065

The State total consumption in Btu is the sum of the two sectors' consumption in Btu:

LUTCBZZ = LUICBZZ + LUACBZZ

The U.S. sector and total consumption estimates in Btu are calculated as the sum of the State data.

Additional Notes on Lubricants

1. The lubricants sales data (LUINPZZ and LUTRPZZ) were published approximately every other year by the Bureau of the Census until the discontinuation of the series after 1977. Each year's sales data have been used to calculate that year's and at least one other year's consumption estimates. Table A7 specifies which years of consumption estimates depend on which years of the sales data.

2. The sales data from the source document for LUINPZZ and LUTRPZZ are available in incompatible units. The industrial series, LUINPZZ, is oils and greases sold for industrial lubricating and other uses measured in thousand gallons. The transportation series, LUTRPZZ, is oils and greases sold for automotive and aviation uses measured in thousand pounds. Prior to use in CSEDS, these were converted to thousand barrels by dividing the oil data by 42 gallons per barrel and dividing the greases data by 300 pounds per barrel. In the source document, some State data are not published to avoid disclosing figures for individual companies. The undisclosed data were entered as zero in CSEDS.

Data Sources for Lubricants

LUINPZZ — Lubricants sold to the industrial sector by State. Calculated from:

- U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases," for 1960, 1962, 1965, 1967, 1969, 1971, 1973, 1975, and 1977. (See explanation in Notes 1 and 2 above.)

LUTCPUS — Lubricants total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

LUTRPZZ — Lubricants sold to the transportation sector by State. Calculated from:

- U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases," for 1960, 1962, 1965, 1967, 1969, 1971, 1973, 1975, and 1977. (See explanation in Notes 1 and 2 on page 381.)

Motor Gasoline

Physical Units

Nine data series are used to estimate the State end-use consumption of motor gasoline. Eight of the series are from the U.S. Department of Transportation, Federal Highway Administration publication, *Highway Statistics*, and represent sales of motor gasoline. The sales data are categorized as sales for highway and nonhighway use:

- **Highway Use** sales data (MGMFP) are from the *Highway Statistics* Table MF-21; however, they are reduced by the amount of highway "special fuels" (MGSFP) used in each State each year as reported on Table MF-25 (prior to 1994) and Table MF-21 (1994 forward). Special fuels are primarily diesel fuels, not motor gasoline, and are included in the transportation sector of distillate fuel.

- **Nonhighway Use** sales are further subdivided into sales for: (1) public use by States, counties, and municipalities (MGPNP) from Table MF-21, and (2) private and commercial use as reported on MF-24. The private and commercial nonhighway use of motor gasoline has the following components: agricultural use (MGAGP), industrial and commercial use (MGIYP), construction use (MGCUP), marine use (MGMRP), and miscellaneous and unclassified uses (MGMSP). Another component of the private and commercial nonhighway series is aviation gasoline (AVNMM), which is discussed under the "Aviation Gasoline" section of this documentation.

The ninth motor gasoline data series (MGTCPUS) is the total U.S. consumption of motor gasoline published in the product supplied series in the EIA publication *Petroleum Supply Annual*.

The nine motor gasoline data series are ("ZZ" in the variable names represent the two-letter State code that differs for each State):

MGAGPZZ = motor gasoline sold for agricultural use in each State, in thousand gallons;
MGCUPZZ = motor gasoline sold for construction use in each State, in thousand gallons;
MGIYPZZ = motor gasoline sold for industrial and commercial use in each State, in thousand gallons;
MGMFPZZ = motor fuel sold for highway use in each State, in thousand gallons;
MGMRPZZ = motor gasoline sold for marine use in each State, in thousand gallons;
MGMSPZZ = motor gasoline sold for miscellaneous and unclassified uses in each State, in thousand gallons;
MGPNPZZ = motor fuel sold for public nonhighway use in each State, in thousand gallons;
MGSFPZZ = special fuels (primarily diesel fuel with small amounts of liquefied petroleum gases) sold in each State, in thousand gallons; and
MGTCPUS = motor gasoline total consumed in the United States, in thousand barrels.

Table A7. Lubricants Sales Data Used in Consumption Estimates

Year of Sales Data	Year of Consumption Estimates
1960	1960 and 1961
1962	1962, 1963, and 1964
1965	1965 and 1966
1967	1967 and 1968
1969	1969 and 1970
1971	1971 and 1972
1973	1973 and 1974
1975	1975 and 1976
1977	1977 forward

U.S. totals for the eight State series named above are calculated as the sum of the State data.

The transportation sector accounts for most of the motor gasoline sales. Sales to the transportation sector is estimated to be the sum of motor fuel sales for marine use and for highway use (minus the sales of special fuels, which are primarily diesel fuels and are accounted for in the transportation sector of distillate fuel). Sales of motor gasoline to the transportation sector in each State (MGTRPZZ) is calculated:

MGTRPZZ = MGMFPZZ + MGMRPZZ – MGSFPZZ

Two sales data series are added to estimate motor gasoline sales to the commercial sector: miscellaneous (including unclassified) and public non-highway sales. Sales of motor gasoline to the commercial sector in each State (MGCMPZZ) is calculated:

MGCMPZZ = MGMSPZZ + MGPNPZZ

Sales of motor gasoline for use in the industrial sector in each State (MGINPZZ) is calculated as the sum of the sales for agricultural use, for construction use, and for industrial and commercial use:

MGINPZZ = MGAGPZZ + MGCUPZZ + MGIYPZZ

Total sales of motor gasoline in each State (MGTTPZZ) is calculated as the sum of the sales to the major sectors:

MGTTPZZ = MGCMPZZ + MGINPZZ + MGTRPZZ

U.S. totals for the three end-use sectors' sales and for total sales are calculated as the sum of the States' sales.

The motor gasoline sales data for the three end-use sectors in each State are used to apportion the U.S. total consumption of motor gasoline to the States and to the major end-use sectors within each State.

The estimated consumption of motor gasoline in each State is calculated according to each State's share of the total sales. Estimated consumption of motor gasoline in each State (MGTCPZZ) is calculated:

MGTCPZZ = (MGTTPZZ / MGTTPUS) * MGTCPUS

The commercial sector estimated consumption of motor gasoline (MGCCPZZ) is calculated:

MGCCPZZ = (MGCMPZZ / MGTTPZZ) * MGTCPZZ

The industrial sector estimated consumption (MGICPZZ) is calculated:

MGICPZZ = (MGINPZZ / MGTTPZZ) * MGTCPZZ

The transportation sector estimated consumption (MGACPZZ) is calculated:

MGACPZZ = (MGTRPZZ / MGTTPZZ) * MGTCPZZ

The consumption of motor gasoline by major end-use sector in the United States is estimated by summing the States' estimated consumption.

British Thermal Units (Btu)

Motor gasoline has a heat content value of approximately 5.253 million Btu per barrel. This factor is applied to convert motor gasoline estimated consumption from physical units to Btu:

MGCCBZZ = MGCCPZZ * 5.253
MGICBZZ = MGICPZZ * 5.253
MGACBZZ = MGACPZZ * 5.253
MGTCBZZ = MGCCBZZ + MGICBZZ + MGACBZZ

The U.S. level Btu consumption estimates are calculated by summing the State data.

Data Sources for Motor Gasoline

MGAGPZZ — Motor gasoline sold for agricultural use by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24.

- 1965 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24 in 1965 and Table MF-24 in 1966 forward.

MGCUPZZ — Motor gasoline sold for construction use by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24.
- 1965 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24 in 1965 and Table MF-24 in 1966 forward.

MGIYPZZ — Motor gasoline sold for industrial and commercial use by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24.
- 1965 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24 in 1965 and Table MF-24 in 1966 forward.

MGMFPZZ — Motor fuel sold for highway use by State.

- 1960 through 1995: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995*, Table MF-221 gives revised U.S. totals. State revisions can be calculated by adding data from Tables MF-225 and MF-226.
- 1996 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table MF-21.

MGMRPZZ — Motor gasoline sold for marine use by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24.
- 1965 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24 in 1965 and Table MF-24 in 1966 forward.

MGMSPZZ — Motor gasoline sold for miscellaneous uses by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-24. Sum of the "Miscellaneous" column plus the "Unclassified" column minus the "Total Classified" column.
- 1965: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-24. Sum of the "Miscellaneous" column plus the "Unclassified" column minus the "Total Classified" column.
- 1966 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table MF-24. The specific columns are:
  - 1966 through 1981: Sum of the "Miscellaneous" and "Unclassified" columns.
  - 1982 forward: The "Miscellaneous" column.

MGPNPZZ — Motor fuel sold for public nonhighway use by State.

- 1960 through 1964: U.S. Department of Commerce, Bureau of Public Roads, *Highway Statistics*, Table G-21.
- 1985, 1987, and 1992: Unpublished revised State data comparable to the U.S. values published in *Highway Statistics Summary to 1995*, Table 221.
- 1965 through 1984, 1986, 1988 through 1991, and 1993 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table G-21 in 1965 and Table MF-21 in 1966 forward.

MGSFPZZ — Motor gasoline special fuels sales by State (primarily diesel fuel with small amounts of liquefied petroleum gases).

- 1960 through 1995: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics, Summary to 1995*, Table MF-225.
- 1996 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table MF-21.

MGTCPUS — Motor gasoline total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
  For 1960 through 1963, motor gasoline was combined with aviation gasoline and published as "gasoline" in the source table. Table 19 in the "Petroleum Statement, Annual" titled "Salient Statistics of Aviation Gasoline" provided separate data for aviation gasoline for those years. The aviation gasoline data from the second table were subtracted from the gasoline data in the first table to derive the motor gasoline consumption series used in CSEDS.

- 1976 through 1980: EIA, *Energy Data Reports*. "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Petroleum Coke

Physical Units

Five data series are used to estimate the consumption of petroleum coke. Three are measures of petroleum coke consumption and two are indicators of industrial activity used to apportion U.S. consumption to the States. "ZZ" in the variable name represents the two-letter State code that differs for each State:

PCTCPUS = petroleum coke total consumed in the United States (electric utility and industrial sectors), in thousand barrels;
PCEUMZZ = petroleum coke consumed by electric utilities in each State, in thousand short tons;
PCRFPUS = petroleum coke used at refineries as both catalytic and marketable coke in the United States, in thousand barrels;
CTCAPZZ = catalytic cracking charge capacity of petroleum refineries in each State, in barrels per calendar day (1960 through 1979) and barrels per stream day (1980 forward); and
AICAPZZ = aluminum ingot production capacity in each State, in short tons.

The total consumption of petroleum coke in the United States (PCTCPUS) is the product supplied series from the EIA publication *Petroleum Supply Annual*.

Petroleum coke consumed at electric utilities, PCEUMZZ, is available from 1970 forward from the Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Prior to 1970, no data are available for this series and zero is used. These data are in thousand short tons and are converted into thousand barrels in CSEDS by applying a conversion factor of 5 barrels per short ton:

PCEUPZZ = PCEUMZZ * 5

The source for petroleum coke used at refineries, PCRFPUS, is the EIA series of reports entitled "Petroleum Statement, Annual" and predecessor reports. For 1960 through 1980, the data are provided in thousand short tons. For consistency with later years' data, the 1960 through 1980 data were first converted into thousand barrels before being used in CSEDS.

The data for petroleum coke consumed by electric utilities are available by State. Other petroleum coke consumption data are available only on a U.S. level and are accredited to the industrial sector in CSEDS, either as petroleum coke used as catalyst coke at refineries in a process for increasing the yield of gasoline from crude oil (catalytic cracking) or as petroleum coke used for all other industrial uses (mainly for conversion into electrodes that are consumed in the production of aluminum). The industrial petroleum coke consumption series are apportioned to the States by using the data series that indicate the size of the refining industry and aluminum production industry in each State. The capacity of refineries' catalytic cracking equipment (CTCAPZZ) and the aluminum ingot production capacity (AICAPZZ) are not measured in thousand barrels, but since these data series are used only to apportion U.S. industrial consumption of petroleum coke to the States, they do not need to be converted into thousand barrels.

The U.S. totals for the State-level data series are calculated by summing the State data.

To estimate industrial consumption of petroleum coke, electric utility consumption is subtracted from the total U.S. petroleum coke product supplied:

PCICPUS = PCTCPUS – PCEUPUS

The petroleum coke used at refineries in the United States as catalytic coke is subtracted from the U.S. industrial sector consumption to derive consumption of petroleum coke by all other industrial users:

PCOCPUS = PCICPUS – PCRFPUS

State-level estimates of the catalytic coke portion of the industrial sector are calculated by assuming that each State consumes catalytic coke in proportion to the catalytic cracking charge capacity of the refineries in the State:

PCRFPZZ = (CTCAPZZ / CTCAPUS) * PCRFPUS

State-level estimates of the petroleum coke consumed by the other industrial users are assumed to be in proportion to each State's aluminum ingot production capacity:

PCOCPZZ = (AICAPZZ / AICAPUS) * PCOCPUS

The State totals for the industrial sector use of petroleum coke are added:

PCICPZZ = PCRFPZZ + PCOCPZZ

Total petroleum coke consumption by State is industrial use plus electric utility use:

PCTCPZZ = PCICPZZ + PCEUPZZ

British Thermal Units (Btu)

Petroleum coke has a heat content value of approximately 6.024 million Btu per barrel. This factor is applied to convert petroleum coke estimated consumption from physical units to Btu by State and at the U.S. level:

PCICBZZ = PCICPZZ * 6.024
PCICBUS = ΣPCICBZZ
PCEUBZZ = PCEUPZZ * 6.024
PCEUBUS = ΣPCEUBZZ
PCTCBZZ = PCICBZZ + PCEUBZZ
PCTCBUS = ΣPCTCBZZ

Additional Calculations

Additional calculations are performed in the Combined State Energy Data System (CSEDS) to provide petroleum coke consumption estimates for the price and expenditure calculations published in the *State Energy Price and Expenditure Report*. Petroleum coke consumed by all other industrial users (PCOCB) is calculated at the State and U.S. levels:

PCOCBZZ = PCOCPZZ * 6.024
PCOCBUS = ΣPCOCBZZ

Data Sources for Petroleum Coke

AICAPZZ — Aluminum ingot production capacity in each State.

- 1960 through 1973: American Bureau of Metal Statistics, *Year Book*.
- 1974 through 1994: American Bureau of Metal Statistics, *Non-Ferrous Metal Data*, table titled "Aluminum Ingot Production Capacity."
  Note: Capacities for individual plants owned by one company have been withheld since 1986. The company's total capacity has been apportioned to the individual plants on the basis of their proportional capacities in 1985.
- 1995 forward: Data series is discontinud. 1994 data used for all years.

CTCAPZZ — Catalytic cracking charge capacity of petroleum refineries by State.

- 1960: Data are unavailable from published reports. The 1961 values are used for 1960.
- 1961 through 1963: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Refineries in the United States." The specific tables are:
  - 1961 and 1962: Table 7, under "Cracking Capacity" column heading "Charge."
  - 1963: Table 6, under "Catalytic-Cracking Capacity" column heading "Charge."
- 1964 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Refineries in the United States and Puerto Rico," Table 2, all entries next to "Cat. Ck." summed by State.
- 1977: EIA, *Energy Data Reports*, "Petroleum Refineries in the United States and Puerto Rico," Table 2, all entries next to "Cat. Ck." summed by State.
- 1978: EIA, *Energy Data Reports*, "Petroleum Refineries in the United States and U.S. Territories," Table 2, all entries next to "Cat. Ck." summed by State.
- 1979 and 1980: EIA, *Energy Data Reports*, "Petroleum Refineries in the United States and U.S Territories." The specific tables are:
  - 1979: Table 2, sum of "Catalytic Cracking" columns, "Fresh" and "Recycle."
  - 1980: Table 1, sum of "Catalytic Cracking (fresh)" and "Catalytic Cracking (recycle)" columns.

- 1981 forward: EIA, *Petroleum Supply Annual*, sum of "Catalytic Cracking (Fresh)" and "Catalytic Cracking (Recycled)" columns in the following tables:
  - — 1981 through 1983: Table 1.
  - — 1984: Table 30.
  - — 1985 through 1989: Table 29.
  - — 1989 through 1994: Table 36.
  - — 1995: Data series became biannual. 1994 data used for 1995.
  - — 1996: Table 36.
  - — 1997: 1996 data used for 1997.

PCEUMZZ — Petroleum coke consumed by the electric utilities by State.

- 1960 through 1969: No data available. Values are assumed to be zero.
- 1970 forward: EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms.

PCRFPUS — Petroleum coke consumed at refineries (both catalyst and marketable) in the United States.

- 1960: No data available. The 1961 value is used for 1960.
- 1961 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual." The specific tables are:
  - — 1961 and 1962: Table 18.
  - — 1962 through 1966: Table 19.
  - — 1967: Table 18.
  - — 1968: Table 19.
  - — 1969 through 1972: Table 18.
  - — 1973 and 1974: Table 21.
  - — 1975: Table 22.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual." The specific tables are:
  - — 1976: Table 22.
  - — 1977: Table 21.
  - — 1978 through 1980: Table 20.
- 1981 forward: EIA, *Petroleum Supply Annual*. The specific tables are:
  - — 1981 and 1982: Table 17.
  - — 1983: Table 15.
  - — 1984: Table 44.
  - — 1985: Table 43.
  - — 1986 through 1988: Table 38.
  - — 1989 through 1992: Table 45.
  - — 1993 and 1994: Table 47.
  - — 1995: Table 36.
  - — 1996: Table 47.
  - — 1997: Table 36.

PCTCPUS — Petroleum coke total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Report*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Residual Fuel

Physical Units

Since State-level end-use consumption data for residual fuel (with the exception of electric utilities data) are not available, sales of residual fuel into or within each State, in thousand barrels, published by the Energy Information Administration (EIA), are used to estimate residual fuel consumption. "ZZ" in the following variable names represents the two-letter State code that differs for each State:

RFBKPZZ = residual fuel sold for vessel bunkering use (i.e., the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies, and fueling for other marine purposes), excluding sales to the Armed Forces;
RFCMPZZ = residual fuel sold to the commercial sector for heating;
RFIBPZZ = residual fuel sold to industrial establishments for space heating and for other industrial use (i.e., for all uses to mines, smelters, plants engaged in producing manufactured products, in processing goods, and in assembling);
RFMIPZZ = residual fuel sold to the Armed Forces, regardless of use;
RFMSPZZ = residual fuel sold for all other uses not identified in other sales categories;

RFOCPZZ = residual fuel sold for oil company use, including all fuel oil, crude oil, or acid sludge used as fuel at refineries, by pipelines, or in field operations; and

RFRRPZZ = residual fuel sold to the railroads for use in fueling trains, operating railroad equipment, space heating of buildings, and other operations.

Two other data series that represent consumption of residual fuel are:

RFEUPZZ = residual fuel consumed by electric utilities in each State, in thousand barrels.

RFTCPUS = residual fuel total supplied in the United States, in thousand barrels.

Residual fuel oil consumed by electric utilities, RFEUPZZ, is collected by EIA on Form EIA-759, "Monthly Power Plant Report," and predecessor forms. (See Note 3 at the end of this residual fuel section for further information on changes in this series' data definitions.)

Total U.S. consumption of residual fuel, RFTCPUS, is the product supplied series in EIA's publication *Petroleum Supply Annual*.

To begin calculating residual fuel State and end-use consumption estimates, all State-level data series are summed to provide totals for the United States.

Then the data series are combined as closely as possible into the major end-use sectors used in CSEDS. No residual fuel is sold to the residential sector. Residual fuel sales to the commercial sector is the RFCMPZZ series.

The sales of residual fuel to the industrial sector in each State, RFINPZZ, is the sum of the residual fuel sold for industrial use, including industrial space heating (RFIBPZZ), for oil company use (RFOCPZZ), and for all other uses (RFMSPZZ):

RFINPZZ = RFIBPZZ + RFOCPZZ + RFMSPZZ
RFINPUS = ΣRFINPZZ

The sales of residual fuel to the transportation sector in each State, RFTRPZZ, is the sum of the residual fuel sales for vessel bunkering (RFBKPZZ), military use (RFMIPZZ), and railroad use (RFRRPZZ):

RFTRPZZ = RFBKPZZ + RFMIPZZ + RFRRPZZ
RFTRPUS = ΣRFTRPZZ

Sales of residual fuel oil to the commercial, industrial, and transportation sectors are added to create a subtotal of sales to all sectors other than the electric utility sector (RFNDPZZ):

RFNDPZZ = RFCMPZZ + RFINPZZ + RFTRPZZ
RFNDPUS = ΣRFNDPZZ

The estimated residual fuel consumption for the United States by all sectors other than the electric utility sector (RFNCPUS) is calculated by subtracting the total residual fuel consumption at electric utilities from the total U.S. residual fuel consumption:

RFNCPUS = RFTCPUS – RFEUPUS

This U.S. subtotal of residual fuel consumption by the end-use sectors combined (RFNCPUS) is apportioned to the States by using the States' end-use sector sales data. The assumption is made that each State consumes residual fuel in proportion to the amount sold in that State:

RFNCPZZ = (RFNDPZZ / RFNDPUS) * RFNCPUS

The end-use sectors' subtotal for each State is further divided into estimates for each sector in proportion to each sector's sales. The estimated commercial sector consumption in each State, RFCCPZZ, is calculated:

RFCCPZZ = (RFCMPZZ / RFNDPZZ) * RFNCPZZ

The industrial sector's estimated consumption in each State, RFICPZZ, is calculated:

RFICPZZ = (RFINPZZ / RFNDPZZ) * RFNCPZZ

The transportation sector's estimated consumption in each State, RFACPZZ, is calculated:

RFACPZZ = (RFTRPZZ / RFNDPZZ) * RFNCPZZ

The consumption of residual fuel in the United States by the major end-use sectors is estimated by adding the States' estimated consumption.

Total State residual fuel consumption is the sum of the end-use sectors' consumption subtotal and the electric utilities consumption:

RFTCPZZ = RFNCPZZ + RFEUPZZ

British Thermal Units (Btu)

Residual fuel has a heat content value of approximately 6.287 million Btu per barrel. This factor is applied to convert residual fuel estimated consumption from physical units to Btu as shown in the following examples:

RFCCBZZ = RFCCPZZ * 6.287
RFICBZZ = RFICPZZ * 6.287
RFTCBZZ = RFCCBZZ + RFICBZZ + RFACBZZ + RFEUBZZ

The U.S. level Btu consumption estimates are calculated as the sum of the States' Btu consumption.

Additional Notes on Residual Fuel

1. "Sales" data are actually called "shipments" in the source documents for 1960 and 1961; "consumption" for 1962 through 1966; "shipments" for 1967; "sales" from 1968 through 1978; "deliveries" for 1979 through 1983; and "sales" for 1984 forward.

2. In 1979, the Energy Information Administration implemented a new survey form, EIA-172, to obtain deliveries of fuel oil and kerosene data and updated the list of respondents. (A detailed explanation is published in the *Energy Data Report,* "Deliveries of Fuel Oil and Kerosene in 1979.") In the new survey form, certain end-use categories were redefined—in many cases, to collect more disaggregated data. The reclassifications resulted in some end-use categories that were no longer comparable with those in previous surveys. Where discontinuities occurred, estimates for the pre-1979 years have been made in CSEDS to conform with the 1979 fuel oil deliveries classifications. The pre-1979 deliveries estimates are not published in this report but are used in CSEDS to disaggregate the known U.S. total product supplied (consumption) into State and major end-use sector consumption estimates.

   For residual fuel deliveries in 1979, the end-use categories "commercial" and "industrial" are available. The pre-1979 deliveries categories are called "heating" and "industrial." While the pre-1979 categories individually are not continuous with the 1979 categories, their subtotals are related. That is, a general comparison can be made between the sum of commercial and industrial deliveries in 1979 and the sum of heating and industrial deliveries in the pre-1979 years. Therefore, the following method was applied to present a comparable series for residual fuel delivered to the commercial and industrial sectors:

   - For each of the pre-1979 years, a subtotal was created for each State by adding each State's heating and industrial deliveries categories. A comparable 1979 subtotal was created by adding each State's commercial and industrial deliveries categories.

   - Commercial and industrial shares of the subtotal in 1979 were calculated for each State.

   - These 1979 end-use shares were then applied to each pre-1979 subtotal of residual fuel deliveries in each State to create State estimates of end-use deliveries for 1960 through 1978.

   The 1980 through 1982 residual fuel deliveries data are based on the same survey as that used for 1979; therefore, the 1980 through 1982 data are directly comparable to 1979 data.

   In 1984, EIA again updated the list of respondents for this survey, and the Form EIA-172 became the Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report." EIA did not conduct a fuel oil and kerosene sales survey for 1983. The 1983 estimates in CSEDS are based on 1984 data obtained from the Form EIA-821. Statistical procedures and methodologies used for the Form EIA-821 differ from those used in previous years. Therefore, the 1983 and forward sales data may not be directly comparable to the pre-1983 data. (In the

source document, the sales data for 1983 forward are reported in thousand gallons. These data were first converted to thousand barrels before being entered into CSEDS.)

3. The fuel oil at electric utilities data for all years and States are actual fuel oil consumption numbers collected from electric utilities by EIA on Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Due to changes in fuel oil reporting classifications on the Form EIA-759 over the years, it is not possible to develop a thoroughly consistent series for all years. However, over time, data more accurately disaggregating fuel oil into distillate fuel and residual fuel have become available. For 1960 through 1969, only total fuel oil consumed at electric utilities by State is available. For 1970 through 1979, fuel oil consumed by plant type (internal combustion and gas turbine plants combined and steam plants) by State are available. For 1980 forward, consumption of light oil at all plant types combined and consumption of heavy oil at all plant types combined are available by State. In CSEDS, the following assumptions have been made:

   - 1960 through 1969 — State estimates of fuel oil consumption by plant type have been created for each year by applying the shares of steam plants (primarily residual fuel) and internal combustion and gas turbine plants (primarily distillate fuel plus small amounts of jet kerosene) by State in 1970 to each year's total fuel oil consumption at electric utilities for 1960 through 1969.

   - 1970 through 1979 — fuel oil consumed by steam plants is assumed to equal residual fuel consumption, and fuel oil consumed by internal combustion and gas turbine plants is assumed to equal distillate fuel plus jet kerosene consumption.

   - 1980 and forward — total heavy oil consumption at all plant types is assumed to equal residual fuel consumption, and total light oil consumption at all plant types is assumed to equal distillate fuel plus jet kerosene consumption.

   The data series thus derived for CSEDS for residual fuel and distillate fuel plus jet kerosene consumption at electric utilities is considered to be actual consumption at electric utilities for each State and each year.

Data Sources for Residual Fuel

RFBKPZZ — Residual fuel sold for vessel bunkering use by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 17.
  - — 1962 and 1963: Table 16.
  - — 1964 and 1965: Table 15.
  - — 1966 through 1975: Table 11.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 11.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A13.
  - — 1984 and 1985: July 1986 issue, Table A3.
  - — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5.

RFCMPZZ — Residual fuel sold to the commercial sector for heating.

- 1960 through 1978: EIA estimates based on statistics of commercial sector deliveries of residual fuel from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 2. State ratios based on 1979 commercial sector deliveries were applied to each State's sum of heating plus industrial deliveries categories from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 2, on page 389.)
- 1979 and 1980: EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Notes: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS. Data for Hawaii in 1986 through 1990 reflect unpublished revisions from an EIA internal memorandum from the Office of Oil and Gas to the Office of Energy Markets and End Use, "Revising Historical Petroleum Data," February 26, 1993.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A13.
  - — 1984 and 1985: July 1986 issue, Table A3.
  - — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5.

RFEUPZZ — Residual fuel consumed at electric utilities.

- EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. The following assumptions have been made:
  - — 1960 through 1969: Only total fuel oil consumed at electric utilities by State is available. State estimates of residual fuel consumption were created for each year by applying the shares of steam plants (primarily residual fuel) by State from 1970 to each year's total fuel oil consumption at electric utilities for 1960 through 1969.
  - — 1970 through 1979: Fuel oil consumed by plant type by State is available. Fuel oil consumed by steam plants is assumed to equal residual fuel consumption.
  - — 1980 forward: Consumption of light and heavy oil at all plant types by State is available. Total heavy oil consumption at all plant types is assumed to equal residual fuel consumption.

RFIBPZZ — Residual fuel sold to industrial establishments for heating and for other industrial use.

- 1960 through 1978: EIA, estimates based on statistics of industrial sector deliveries of residual fuel from the EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene in 1979," Table 2. State ratios based on 1979 industrial sector deliveries were applied to each State's sum of heating plus industrial deliveries categories from the fuel oil deliveries reports for each year 1960 through 1978. (See explanation in Note 2, on page 389.)
- 1979 and 1980: EIA, *Energy Data Report*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A13.
  - — 1984 and 1985: July 1986 issue, Table A3.
  - — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5.

RFMIPZZ — Residual fuel sold to the Armed Forces regardless of use by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 and 1961: Table 18.
  - — 1962 and 1963: Table 17.
  - — 1964 and 1965: Table 16.
  - — 1966 through 1975: Table 12.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 12.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  - — 1983: July 1985 issue, Table A13.
  - — 1984 and 1985: July 1986 issue, Table A3.
  - — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5.

RFMSPZZ — Residual fuel sold for miscellaneous uses by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  - — 1960 through 1962: Table 19.
  - — 1963 and 1964: Table 18.
  - — 1965 through 1967: Table 17.

— 1968 through 1975: Table 14.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 14.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 2, column "Other."
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5, column "All Other."

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS. The data series is titled "All Other."

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  — 1983: July 1985 issue, Table A13.
  — 1984 and 1985: July 1986 issue, Table A3.
  — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales,* Table 5.

RFOCPZZ — Residual fuel sold for use by oil companies by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  — 1960 and 1961: Table 14.
  — 1962 and 1963: Table 13.
  — 1964 and 1965: Table 12.
  — 1966 through 1975: Table 9.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 9.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  — 1983: July 1985 issue, Table A13.
  — 1984 and 1985: July 1986 issue, Table A3.
  — 1986 and 1987: June 1988 issue, Table A5.
- 1988 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5.

RFRRPZZ — Residual fuel sold for use by railroads by State.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Shipments of Fuel Oil and Kerosene." The specific tables are:
  — 1960 and 1961: Table 16.
  — 1962 and 1963: Table 15.
  — 1964 and 1965: Table 14.
  — 1966 through 1975: Table 10.
- 1976 through 1978: EIA, *Energy Data Reports*, "Sales of Fuel Oil and Kerosene," Table 10.
- 1979 and 1980: EIA, *Energy Data Reports*, "Deliveries of Fuel Oil and Kerosene," Table 2.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 5.

Note: Data for 1983 forward were published in thousand gallons. They were converted to thousand barrels by dividing by 42 before being entered into CSEDS.

- 1983 through 1987: EIA, *Petroleum Marketing Monthly*. The specific tables are:
  — 1983: July 1985 issue, Table A13.
  — 1984 and 1985: July 1986 issue, Table A3.
  — 1986 and 1987: June 1988 issue, Table A5.
- 1988 and 1989: EIA, *Fuel Oil and Kerosene Sales 1989*, Table 5.
- 1990 forward: EIA, *Fuel Oil and Kerosene Sales*, Table 5, included in the "All Other" data (RFMSPZZ in CSEDS).

RFTCPUS — Residual fuel total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Other Petroleum Products

There are 16 petroleum products that are summed and called "other petroleum products" in CSEDS. These products, in thousand barrels, are:

ABTCPUS = aviation gasoline blending components total consumed in the United States;
COTCPZZ = crude oil (including lease condensate) total consumed in each State;
FNTCPUS = petroleum feedstocks, naphtha less than 401° F, total consumed in the United States;
FOTCPUS = petroleum feedstocks, other oils equal to or greater than 401° F, total consumed in the United States;
FSTCPUS = petroleum feedstocks, still gas, total consumed in the United States;
MBTCPUS = motor gasoline blending components total consumed in the United States;
MSTCPUS = miscellaneous petroleum products total consumed in the United States;
NATCPUS = natural gasoline (including isopentane) total consumed in the United States;
PCTCPUS = petroleum coke total consumed in the United States;
PLTCPUS = plant condensate total consumed in the United States;
PPTCPUS = pentanes plus total consumed in the United States;
SGTCPUS = still gas total consumed in the United States;
SNTCPUS = special naphthas total consumed in the United States;
UOTCPUS = unfinished oils total consumed in the United States;
USTCPUS = unfractionated stream total consumed in the United States; and
WXTCPUS = waxes total consumed in the United States.

The methods used to create State estimates for each of these products (except petroleum coke, which was described earlier in the petroleum coke documentation) are explained in the following sections. It is assumed that all of these products are used by the industrial sector, except for the small portion of petroleum coke consumed at electric utilities. State estimates are created for other petroleum products by using the following four variables to allocate the products to the States:

COCAPZZ = crude oil operating capacity at refineries in each State, in barrels per calendar day;
OCVAVZZ = value added in the manufacture of industrial organic chemicals in each State, in million dollars;
PIVAVZZ = value added in the manufacture of paints and allied products in each State, in million dollars; and
CGVAVZZ = value added in the manufacture of corrugated and solid fiber boxes, in million dollars.

Value added by manufacture is a measure of manufacturing activity that is derived by subtracting the cost of materials (which covers materials, supplies, containers, fuel, purchased electricity, and contract work) from the value of shipments. This difference is then adjusted by the net change in finished goods and work-in-process between the beginning and end-of-year inventories. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas. The value added data are from the Department of Commerce *Census of Manufactures* reports.

Crude Oil

Physical Units

State estimates for crude oil consumed in petroleum industry operations are the data series COTCPZZ. The U.S. total for this data series is summed:

COTCPUS = ΣCOTCPZZ

Industrial consumption equals total consumption of crude oil:

COICPZZ = COTCPZZ
COICPUS = COTCPUS

British Thermal Units (Btu)

Crude oil has a heat content value of approximately 5.800 million Btu per barrel. The calculations performed to estimate total Btu consumption and industrial use Btu consumption by State and for the United States are:

COTCBZZ = COTCPZZ * 5.800
COTCBUS = ΣCOTCBZZ
COICBZZ = COTCBZZ
COICBUS = COTCBUS

Data Source

COTCPZZ — Crude oil consumed in petroleum industry operations by State.

- 1960 through 1982: Crude oil used directly was included in distillate and residual fuel product supplied when reported to EIA. Zeros are entered for all years.
- 1983 forward: Data are available for Petroleum Administration for Defense (PAD) Districts, not by State. State estimates are calculated by allocating all crude oil consumption to the six States (Alaska, California, Colorado, Louisiana, Texas, and Utah) that reported distillate and residual fuels consumed by pipeline and leases in 1982. (Data on pipeline and lease consumption of fuels are not available after 1982.) Each State's 1982 ratio of distillate and residual fuels consumed by pipeline and leases to its respective 1982 PAD District total consumption of those fuels is calculated. This ratio is then applied to the 1983 forward PAD District totals of crude oil product supplied. The 1982 ratios are taken from the Form EIA-90, "Crude Oil Stocks Report," and the crude oil product supplied data are taken from the EIA *Petroleum Supply Annual*. The specific tables are:
  - 1983 through 1988: Tables 2 and 4 through 8.
  - 1989 forward: Tables 2, 4, 6, 8, 10, and 12.

Aviation Gasoline Blending Components; Petroleum Feedstocks, Still Gas; Motor Gasoline Blending Components; Still Gas; and Unfinished Oils

Physical Units

The five petroleum products in this category are consumed as refinery fuels. Beginning in 1986, still gas for petrochemical feedstocks and still gas for other uses are reported together in the source document. State consumption estimates of these products are created in proportion to each State's crude oil operating capacity at refineries (COCAPZZ). The U.S. total for this variable is summed:

COCAPUS = ΣCOCAPZZ

Aviation gasoline blending components State and U.S. consumption are estimated:

ABTCPZZ = (COCAPZZ / COCAPUS) * ABTCPUS
ABICPZZ = ABTCPZZ
ABICPUS = ABTCPUS

Petroleum feedstocks, still gas, State and U.S. consumption are estimated:

FSTCPZZ = (COCAPZZ / COCAPUS) * FSTCPUS
FSICPZZ = FSTCPZZ
FSICPUS = FSTCPUS

Motor gasoline blending components State and U.S. consumption are estimated:

MBTCPZZ = (COCAPZZ / COCAPUS) * MBTCPUS
MBICPZZ = MBTCPZZ
MBICPUS = MBTCPUS

Still gas State and U.S. consumption are estimated:

SGTCPZZ = (COCAPZZ / COCAPUS) * SGTCPUS
SGICPZZ = SGTCPZZ
SGICPUS = SGTCPUS

Unfinished oils State and U.S. consumption are estimated:

UOTCPZZ = (COCAPZZ / COCAPUS) * UOTCPUS
UOICPZZ = UOTCPZZ
UOICPUS = UOTCPUS

British Thermal Units (Btu)

Btu estimates for the five products in this group are developed by multiplying the estimated consumption of each individual product in physical units

by its respective heat content conversion factor. The calculations performed to estimate total Btu consumption and industrial use Btu consumption by State and for the United States are:

ABTCBZZ = ABTCPZZ * 5.048
ABTCBUS = ΣABTCBZZ
ABICBZZ = ABTCBZZ
ABICBUS = ABTCBUS

FSTCBZZ = FSTCPZZ * 6.000
FSTCBUS = ΣFSTCBZZ
FSICBZZ = FSTCBZZ
FSICBUS = FSTCBUS

MBTCBZZ = MBTCPZZ * 5.253
MBTCBUS = ΣMBTCBZZ
MBICBZZ = MBTCBZZ
MBICBUS = MBTCBUS

SGTCBZZ = SGTCPZZ * 6.000
SGTCBUS = ΣSGTCBZZ
SGICBZZ = SGTCBZZ
SGICBUS = SGTCBUS

UOTCBZZ = UOTCPZZ * 5.825
UOTCBUS = ΣUOTCBZZ
UOICBZZ = UOTCBZZ
UOICBUS = UOTCBUS

Data Sources

ABTCPUS — Aviation gasoline blending components total consumed in the United States.

- 1960 through 1980: No data available. Values are assumed to be zero.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2

COCAPZZ — Crude oil operating capacity at refineries by State.

- 1960: U.S. Department of the Interior, Bureau of Mines, *Petroleum Refineries, Including Cracking Plants, in the United States*, Table 3.
- 1961 through 1963: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Refineries in the United States." The specific tables are:
  - 1961 and 1962: Table 3.
  - 1963: Table 1.
- 1964 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Refineries in the United States and Puerto Rico," Table 1.
- 1977: EIA, *Energy Data Reports*, "Petroleum Refineries in the United States and Puerto Rico," Table 1.
- 1978 through 1980: EIA, *Energy Data Reports*, "Petroleum Refineries in the United States and U.S. Territories," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*. The specific tables are:
  - 1981 through 1983: Table 1.
  - 1984: Table 30.
  - 1985 through 1988: Table 29.
  - 1989 through 1994: Table 36.
  - 1995: Unpublished data based on Form EIA-810.
  - 1996 forward: Table 36.

FSTCPUS — Petrochemical feedstocks, still gas, total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, Petroleum Statement, Annual," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 14.
- 1983 through 1985: EIA, *Petroleum Supply Annual*, Table 12.
- 1986 forward: EIA, *Petroleum Supply Annual*, Table 2, included in "Still Gas."

MBTCPUS — Motor gasoline blending components total consumed in the United States.

- 1960 through 1980: No data available. Values are assumed to be zero.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

SGTCPUS — Still gas total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 and 1982: EIA, *Petroleum Supply Annual*, Table 14.
- 1983 through 1985: EIA, *Petroleum Supply Annual*, Table 12.
- 1986 forward: EIA, *Petroleum Supply Annual*, Table 2.

UOTCPUS — Unfinished oils total consumed in the United States.

- 1960 through 1980: No data available. Values assumed to be zero.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Petroleum Feedstocks, Naphtha Less Than 401° F; Petroleum Feedstocks, Other Oils Equal to or Greater Than 401° F; Miscellaneous Petroleum Products; Natural Gasoline (Including Isopentane); Plant Condensate; Pentanes Plus; and Unfractionated Stream.

Physical Units

The seven petroleum products in this category are allocated to the States in proportion to the value added in the manufacture of industrial organic chemicals in each State (OCVAVZZ).

The two petroleum feedstocks are consumed by the chemical industry in producing petrochemical "building blocks" that, in turn, are converted to such products as synthetic fibers, synthetic rubber, and plastics.

Miscellaneous products include such products as petrolatum, synthetic natural gas feedstocks, and specialty oils (e.g., hydraulic oils, insulating oils, medicinal oils, rust preventatives, and spray oils). Finished petrochemicals usually constitute the largest volume of miscellaneous product, and it is assumed that the chief consuming industry for this product line is the chemical industry.

Natural gasoline (including isopentane), plant condensate, pentanes plus, and unfractionated stream are included in this group because the chemical industry is the only one that could readily utilize these lighter liquid hydrocarbons (as petrochemical feedstocks). Beginning in 1984, in the source document, natural gasoline (including isopentane) and plant condensate are reported together as a new product, pentanes plus. At the same time, unfractionated stream was dropped because its components were reported separately as liquefied petroleum gases.

The U.S. total for the data series used to apportion these products to the States is summed:

OCVAVUS = ΣOCVAVZZ

Total petroleum feedstocks, naphtha less than 401° F, State and U.S. consumption are estimated:

FNTCPZZ = (OCVAVZZ / OCVAVUS) * FNTCPUS
FNICPZZ = FNTCPZZ
FNICPUS = FNTCPUS

Petroleum feedstocks, other oils equal to or greater than 401° F, State and U.S. consumption are estimated:

FOTCPZZ = (OCVAVZZ / OCVAVUS) * FOTCPUS
FOICPZZ = FOTCPZZ
FOICPUS = FOTCPUS

Miscellaneous petroleum products State and U.S. consumption are estimated:

MSTCPZZ = (OCVAVZZ / OCVAVUS) * MSTCPUS
MSICPZZ = MSTCPZZ
MSICPUS = MSTCPUS

Natural gasoline (including isopentane) State and U.S. consumption are estimated:

NATCPZZ = (OCVAVZZ / OCVAVUS) * NATCPUS
NAICPZZ = NATCPZZ
NAICPUS = NATCPUS

Plant condensate State and U.S. consumption are estimated:

PLTCPZZ = (OCVAVZZ / OCVAVUS) * PLTCPUS
PLICPZZ = PLTCPZZ
PLICPUS = PLTCPUS

Pentane plus State and U.S. consumption are estimated:

PPTCPZZ = (OCVAVZZ / OCVAVUS) * PPTCPUS
PPICPZZ = PPTCPZZ
PPICPUS = PPTCPUS

Unfractionated stream State and U.S. consumption are estimated:

USTCPZZ = (OCVAVZZ / OCVAVUS) * USTCPUS
USICPZZ = USTCPZZ
USICPUS = USTCPUS

British Thermal Units (Btu)

Btu estimates for the seven petroleum products in this group are developed by multiplying each individual product's estimated consumption in physical units by its respective approximate heat content conversion factor. The calculations performed to estimate total Btu consumption and industrial use Btu consumption by State and for the United States are:

FNTCBZZ = FNTCPZZ * 5.248
FNTCBUS = ΣFNTCBZZ
FNICBZZ = FNTCBZZ
FNICBUS = FNTCBUS

FOTCBZZ = FOTCPZZ * 5.825
FOTCBUS = ΣFOTCBZZ
FOICBZZ = FOTCBZZ
FOICBUS = FOTCBUS

MSTCBZZ = MSTCPZZ * 5.796
MSTCBUS = ΣMSTCBZZ
MSICBZZ = MSTCBZZ
MSICBUS = MSTCBUS

NATCBZZ = NATCPZZ * 4.620
NATCBUS = ΣNATCBZZ
NAICBZZ = NATCBZZ
NAICBUS = NATCBUS

PLTCBZZ = PLTCPZZ * 5.418
PLTCBUS = ΣPLTCBZZ
PLICBZZ = PLTCBZZ
PLICBUS = PLTCBUS

PPTCBZZ = PPTCPZZ * 4.620
PPTCBUS = ΣPPTCBZZ
PPICBZZ = PPTCBZZ
PPICBUS = PPTCBUS

USTCBZZ = USTCPZZ * 5.418
USTCBUS = ΣUSTCBZZ
USICBZZ = USTCBZZ
USICBUS = USTCBUS

Data Sources

FNTCPUS — Petrochemical feedstocks, naphtha, less than 401° F, total consumed in the United States.

- *1960 through 1975: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

FOTCPUS — Petrochemical feedstocks, other oils, equal to or greater than 401° F, total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

MSTCPUS — Miscellaneous petroleum products consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*. "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

NATCPUS — Natural gasoline total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*. "Petroleum Statement, Annual," Table 1.
- 1981 through 1983: EIA, *Petroleum Supply Annual*, Table 2.
- 1984 forward: EIA, *Petroleum Supply Annual*, Table 2, included in "Pentanes Plus."

OCVAVZZ — Value added by the manufacture of industrial organic chemicals by State.

- 1960 through 1970: U.S. Department of Commerce, *1967 Census of Manufactures*, Volume II, Part 2, SIC 2818. The 1963 State data are used for the years 1960 through 1965, and the 1967 State data are used for 1966 through 1970.
- 1971 through 1980: U.S. Department of Commerce, *1977 Census of Manufactures*, Industry Series, SIC 2869. The 1972 State data are used for 1971 through 1975, and the 1977 State data are used for 1976 through 1980.
- 1980 through 1985: U.S. Department of Commerce, *1987 Census of Manufactures* (Final Report), Industry Series, SIC 2869. The 1982 State data are used for 1981 through 1985.
- 1986 forward: U.S. Department of Commerce, *1992 Census of Manufactures* (Final Report), Industry Series, SIC 2869. The 1987 State data are used for 1986 through 1990, and the 1992 State data are used for 1991 forward.

PLTCPUS — Plant condensate total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*. "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 through 1983: EIA, *Petroleum Supply Annual*, Table 2.
- 1984 forward: EIA, *Petroleum Supply Annual*, Table 2, included in "Pentanes Plus."

PPTCPUS — Pentanes plus total consumed in the United States.

- 1960 through 1983: Data were reported separately as natural gasoline, isopentane, and plant condensate.
- 1984 forward: EIA, *Petroleum Supply Annual*, Table 2.

USTCPUS — Unfractionated stream total consumed in the United States.

- 1960 through 1978: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1, included in "Plant Condensate."
- 1979 and 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 through 1983: EIA, *Petroleum Supply Annual*, Table 2.
- 1984 forward: EIA, *Petroleum Supply Annual*, Table 2, individual components are reported separately.

Special Naphthas

Physical Units

Special naphthas are used as paint and varnish thinners and dry cleaning liquids or solvents. This petroleum product is allocated to the States in proportion to the value added in the manufacture of paints and allied products in each State (PIVAVZZ).

The U.S. total for the apportioning data series is calculated:

$$PIVAVUS = \Sigma PIVAVZZ$$

Special naphthas State and U.S. consumption are estimated:

SNTCPZZ = (PIVAVZZ / PIVAVUS) * SNTCPUS
SNICPZZ = SNTCPZZ
SNICPUS = SNTCPUS

British Thermal Units (Btu)

Special naphthas have a heat content value of approximately 5.248 million Btu per barrel. This factor is applied to convert special naphthas estimated consumption from physical units to Btu by State and for the United States:

SNTCBZZ = SNTCPZZ * 5.248
SNTCBUS = ΣSNTCBZZ
SNICBZZ = SNTCBZZ
SNICBUS = SNTCBUS

Data Sources

PIVAVZZ — Value added by the manufacture of paints and allied products by State.

- 1960 through 1970: U.S. Department of Commerce, *1967 Census of Manufactures*, Volume II, Part 2, SIC 2851. The 1963 State data are used for the years 1960 through 1965, and the 1967 State data are used for 1966 through 1970.
- 1971 through 1980: U.S. Department of Commerce, *1977 Census of Manufactures*, Industry Series, SIC 2851. The 1972 State data are used for 1971 through 1975, and the 1977 State data are used for 1976 through 1980.
- 1981 through 1985: U.S. Department of Commerce, *1987 Census of Manufactures* (Final Report), Industry Series, SIC 2851. The 1982 State data are used for the years 1981 through 1985.
- 1986 forward: U.S. Department of Commerce, *1992 Census of Manufactures* (Final Report), Industry Series, SIC 2851. The 1987 State data are used for the years 1986 through 1990, and the 1992 State data are used for 1991 forward.

SNTCPUS — Special naphthas total consumed in the United States.

- 1960 through 1963: Data included in motor gasoline.
- 1964 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Waxes

Physical Units

Because petroleum waxes are very cost-effective moisture and gas barriers, food packaging is the largest market for petroleum waxes in the United States, accounting for more than 50 percent of petroleum wax consumption. Therefore, waxes are allocated to the States in proportion to the value added in the manufacture of corrugated and solid fiber boxes (CGVAVZZ).

The U.S. total for this variable is summed:

CGVAVUS = ΣCGVAVZZ

State and U.S. consumption are estimated:

WXTCPZZ = (CGVAVZZ / CGVAVUS) * WXTCPUS
WXICPZZ = WXTCPZZ
WXICPUS = WXTCPUS

British Thermal Units (Btu)

Waxes have a heat content value of approximately 5.537 million Btu per barrel. This factor is applied to convert the estimated consumption of waxes from physical units to Btu by State and at the U.S. level:

WXTCBZZ = WXTCPZZ * 5.537
WXTCBUS = ΣWXTCBZZ
WXICBZZ = WXTCBZZ
WXICBUS = WXTCBUS

Data Sources

CGVAVZZ — Value added by the manufacture of sanitary food containers by State. Beginning with 1992 data, this series became value added by the manufacture of corrugated and solid fiber boards by State.

- 1960 through 1965: U.S. Department of Commerce, *1963 Census of Manufactures*, Volume II, Part 1, SIC 2654. The 1963 State data are used for the years 1960 through 1965.
- 1966 through 1970: U.S. Department of Commerce, *1967 Census of Manufactures*, Volume II, Part 2, SIC 2654. The 1967 State data are used for 1966 through 1970.
- 1971 through 1980: U.S. Department of Commerce, *1977 Census of Manufactures*, Industry Series, SIC 2654. The 1972 State data are used for 1971 through 1975, and the 1977 State data are used for 1976 through 1980.
- 1981 through 1990: U.S. Department of Commerce, *1982 Census of Manufactures* (Final Report), Industry Series, SIC 2654. The 1982 State data are used for 1981 through 1990.
- 1991 forward: U.S. Department of Commerce, *1992 Census of Manufactures* (Final Report), Industry Series, SIC 2653. The 1992 State data are used for 1991 forward.

WXTCPUS — Waxes total consumed in the United States.

- 1960 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual," Table 1.
- 1976 through 1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual," Table 1.
- 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

Total Other Petroleum Products

Physical Units

Total other petroleum products is the sum of the 16 "other petroleum products." All of these products are consumed by the industrial sector except for some petroleum coke consumed by electric utilities (PCEUP), which is calculated in CSEDS with electric utility fuel consumption. State and U.S. industrial use of these other petroleum products are calculated:

POICPZZ = ABICPZZ + COICPZZ + FNICPZZ + FOICPZZ + FSICPZZ + MBICPZZ + MSICPZZ + NAICPZZ + PCICPZZ + PLICPZZ + PPICPZZ + SGICPZZ + SNICPZZ + UOICPZZ + USICPZZ + WXICPZZ

POICPUS = ΣPOICPZZ

Total consumption of these products (including petroleum coke consumption by electric utilities) is calculated:

POTCPZZ = ABTCPZZ + COTCPZZ + FNTCPZZ + FOTCPZZ + FSTCPZZ + MBTCPZZ + MSTCPZZ + NATCPZZ + PCTCPZZ + PLTCPZZ + PPTCPZZ + SGTCPZZ + SNTCPZZ + UOTCPZZ + USTCPZZ + WXTCPZZ

POTCPUS = ΣPOTCPZZ

British Thermal Units (Btu)

Estimated consumption of all 16 "other petroleum products" in Btu is the sum of the Btu consumption of each product by the industrial sector. The State and U.S. totals are calculated:

POICBZZ = ABICBZZ + COICBZZ + FNICBZZ + FOICBZZ + FSICBZZ + MBICBZZ + MSICBZZ + NAICBZZ + PCICBZZ + PLICBZZ + PPICBZZ + SGICBZZ + SNICBZZ + UOICBZZ + USICBZZ + WXICBZZ

POICBUS = ΣPOICBZZ

State and U.S. total consumption of these products, which includes electric utility consumption of petroleum coke, is calculated:

POTCBZZ = ABTCBZZ + COTCBZZ + FNTCBZZ + FOTCBZZ + FSTCBZZ + MBTCBZZ + MSTCBZZ + NATCBZZ + PCTCBZZ + PLTCBZZ + PPTCBZZ + SGTCBZZ + SNTCBZZ + UOTCBZZ + USTCBZZ + WXTCBZZ

POTCBUS = ΣPOTCBZZ

Additional Notes on Other Petroleum Products

1. In the "Energy Consumption Estimates by Source" tables in this report, a petroleum column called "Other" comprises the other

products, including petroleum coke consumed by electric utilities (POTCB and POTCP). In the "Industrial Energy Consumption Estimates" tables, the petroleum "Other" column is the other petroleum products consumption total for industrial use (POICB and POICP).

2. The data for "value added by manufacture" that are used to allocate many of the other petroleum products are from the Department of Commerce, *Census of Manufactures* reports. For all years, several States' data were withheld from publication to avoid disclosing operations of individual companies. The total withheld data was apportioned to the withheld States on the basis of those States' proportional values in the previous year.

   In 1982, all respondents to the Census of Manufactures survey were requested to report their inventories at cost or market prior to accounting adjustments for "last in, first out" cost. This is a change from prior years in which respondents were permitted to value their inventories by using any generally accepted accounting valuation method. Consequently, data for value added by manufacture for 1982 are not comparable to the prior years' data.

Petroleum Summaries

This section describes the method of estimating consumption by the major end-use sectors within the States for all petroleum data series. Table A2 on page 356 of this section indicates which petroleum products are consumed in each of the five major end-use sectors. In the preceding portions of this section, end-use consumption estimates have been derived for each petroleum product. These petroleum product subtotals are now summed, in physical units of thousand barrels and in Btu, to create estimated end-use consumption for all petroleum products.

Residential Sector

Petroleum products consumed by the residential sector are: distillate fuel (DF), kerosene (KS), and liquefied petroleum gas (LG). For the residential sector, the State and U.S. totals in physical units are:

PARCPZZ = DFRCPZZ + KSRCPZZ + LGRCPZZ
PARCPUS = ΣPARCPZZ

State and U.S. totals in Btu are:

PARCBZZ = DFRCBZZ + KSRCBZZ + LGRCBZZ
PARCBUS = ΣPARCBZZ

Commercial Sector

The commercial sector's use of petroleum products includes: distillate fuel (DF), kerosene (KS), liquefied petroleum gases (LG), motor gasoline (MG), and residual fuel (RF). In physical units, the State and the U.S. totals for the commercial sector are calculated:

PACCPZZ = DFCCPZZ + KSCCPZZ + LGCCPZZ + MGCCPZZ + RFCCPZZ
PACCPUS = ΣPACCPZZ

State and U.S. totals in Btu are:

PACCBZZ = DFCCBZZ + KSCCBZZ + LGCCBZZ + MGCCBZZ + RFCCBZZ
PACCBUS = ΣPACCBZZ

Industrial Sector

Petroleum used in the industrial sector includes: asphalt and road oil (AR); distillate fuel (DF); kerosene (KS); liquefied petroleum gases (LG); lubricants (LU); motor gasoline (MG); residual fuel (RF); and the 16 products that are already summed in the "other petroleum products" (PO) subtotal. The State and U.S. total estimates in physical units are:

PAICPZZ = ARICPZZ + DFICPZZ + KSICPZZ + LGICPZZ + LUICPZZ + MGICPZZ + RFICPZZ + POICPZZ
PAICPUS = ΣPAICPZZ

State and U.S. totals in Btu are:

PAICBZZ = ARICBZZ + DFICBZZ + KSICBZZ + LGICBZZ + LUICBZZ + MGICBZZ + RFICBZZ + POICBZZ
PAICBUS = ΣPAICBZZ

Transportation Sector

Petroleum products used in the transportation sector are: aviation gasoline (AV), distillate fuel (DF), kerosene-type jet fuel (JK), naphtha-type jet fuel (JN), liquefied petroleum gases (LG), lubricants (LU), motor gasoline (MG), and residual fuel (RF). The State and U.S. totals in physical units are:

PAACPZZ = AVACPZZ + DFACPZZ + JKACPZZ + JNACPZZ + LGACPZZ + LUACPZZ + MGACPZZ + RFACPZZ
PAACPUS = ΣPAACPZZ

State and U.S. totals in Btu are:

PAACBZZ = AVACBZZ + DFACBZZ + JKACBZZ + JNACBZZ + LGACBZZ + LUACBZZ + MGACBZZ + RFACBZZ

PAACBUS = ΣPAACBZZ

Electric Utility Sector

Petroleum products consumed by the electric utility sector are: distillate fuel (DF), kerosene-type jet fuel (JK), petroleum coke (PC), and residual fuel (RF). In physical units, the State and U.S. totals are:

PAEUPZZ = DFEUPZZ + JKEUPZZ + PCEUPZZ + RFEUPZZ
PAEUPUS = ΣPAEUPZZ

State and U.S. totals in Btu are:

PAEUBZZ = DFEUBZZ + JKEUBZZ + PCEUBZZ + RFEUBZZ
PAEUBUS = ΣPAEUBZZ

Total Consumption of Petroleum Products

Total consumption of all petroleum products is the sum of all of the individual product totals. The State and U.S. physical unit totals are:

PATCPZZ = ARTCPZZ + AVTCPZZ + DFTCPZZ + JKTCPZZ + JNTCPZZ + KSTCPZZ + LGTCPZZ + LUTCPZZ + MGTCPZZ + RFTCPZZ + POTCPZZ
PATCPUS = ΣPATCPZZ

State and U.S. totals in Btu are:

PATCBZZ = ARTCBZZ + AVTCBZZ + DFTCBZZ + JKTCBZZ + JNTCBZZ + KSTCBZZ + LGTCBZZ + LUTCBZZ + MGTCBZZ + RFTCBZZ + POTCBZZ
PATCBUS = ΣPATCBZZ

Additional Calculations

Additional calculations are performed by CSEDS to provide data that are used in EIA's *Annual Energy Review* and published in the conversion factor section of EIA's *Monthly Energy Review*. Conversion factors for all petroleum products consumed by each sector, as well as data for the residential and commercial sectors combined, are calculated by CSEDS.

The conversion factor for all petroleum products consumed by the residential sector is calculated:

PARCKUS = PARCBUS / PARCPUS

The conversion factor for all petroleum products consumed by the commercial sector is calculated:

PACCKUS = PACCBUS / PACCPUS

Consumption of all petroleum products by the residential and commercial sectors combined, in physical units, in Btu, and the average conversion factor are calculated:

PAHCPUS = PARCPUS + PACCPUS

PAHCBUS = PARCBUS + PACCBUS
PAHCKUS = PAHCBUS / PAHCPUS

The conversion factor for all petroleum products consumed by the industrial sector is calculated:

PAICKUS = PAICBUS / PAICPUS

The conversion factor for all petroleum products consumed by the transportation sector is calculated:

PAACKUS = PAACBUS / PAACPUS

The conversion factor for all petroleum products consumed by electric utilities is calculated:

PAEUKUS = PAEUBUS / PAEUPUS

The conversion factor for all petroleum products consumed by all sectors is calculated:

PATCKUS = PATCBUS / PATCPUS

Section 5. Renewable Energy

Renewable energy sources included in the Combined State Energy Data System (CSEDS) comprise biomass (primarily wood, waste, and ethanol), geothermal, hydroelectric, wind, photovoltaic, and solar thermal energy sources. Renewable energy consumption estimates for all sectors are available for 1960 forward.

Biomass

Different forms of biomass are used by each consuming sector. The residential and commercial sectors burn wood for space heating. The industrial sector's primary biomass source is combustible industrial by-products used for electricity generation and process steam, followed in importance by wood chips. The transportation sector uses ethanol as an additive to motor gasoline. Electric utilities use wood, industrial wood waste and waste gas, and municipal waste as cofiring or primary fuels to produce electricity. Consumption of biomass in all sectors is included in CSEDS for 1960 forward.

Residential Sector

Estimates of wood consumed in the residential sector by State for 1960 through 1979 are from the EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*. For 1980 forward, State estimates are developed from U.S. totals published in the EIA *Annual Energy Review*, from Census division data collected on the EIA triennial survey, *Residential Energy Consumption Survey (RECS)* for 1981, 1984, 1987, 1990 and 1993, and from U.S. Department of Commerce, Bureau of the Census, annual estimates of number of housing units per State. The 1981 *RECS* provides wood consumption data for the national total and Census Regions. For all other years, *RECS* provides data for the national total and Census Divisions. In addition, the survey sample size of the 1993 *RECS* was large enough to provide data for California, Florida, New York, and Texas. Estimates for the other States in 1993 and for all States in the other years are developed by allocating the U.S. total from the *AER* to the Census Divisions or Regions in proportion to *RECS* data. The regional values are then allocated to the States within the regions in proportion to the Census Bureau housing units per State. Estimates for the years intervening the *RECS* surveys are based on the annual U.S. totals from the *AER* and the State proportions of the preceding available *RECS*, i.e., 1982 and 1983 estimates are based on the State proportions of the 1981 data. On the basis of *RECS* data, the assumption is made that no wood is consumed in the residential sector in Hawaii.

The State data derived above are used in CSEDS as wood consumption in the residential sector, identified in the system as WDRCPZZ. "ZZ" in the following variable names represents the two-letter State code that differs for each State.

WDRCPZZ = wood consumed in the residential sector of each State, in thousand cords.

The State-level data are summed to a U.S. total:

$$WDRCPUS = \Sigma WDRCPZZ$$

The residential sector data in cords are converted to Btu by using the conversion factor of 20 million Btu per cord:

$$WDRCBZZ = WDRCPZZ * 20$$
$$WDRCBUS = \Sigma WDRCBZZ$$

Data Sources

WDRCPZZ — Wood energy consumed by the residential sector by State.

- 1960 through 1979: EIA, *Estimates of U.S. Wood Consumption from 1949 to 1981*, Table A4. Data published in thousand short tons are converted to thousand cords by using the factors of one short ton equals 17.2 million Btu (as published in the footnote of Table A4) and 20 million Btu equal one cord of wood, (as published in EIA, *Household Energy Consumption and Expenditures 1993*, page 314.
- 1980 forward: U.S. totals as published for selected years in the EIA, *Annual Energy Review 1998,* Table 10.3, are converted from trillion Btu to thousand cords (by using the factor of 20 million Btu equal one cord) and allocated to the States as described below. Hawaii residential wood consumption is assumed to be zero for all years.
  - — 1980 through 1983: U.S. Census Region wood consumption in thousand cords from Form EIA-457, "1981 Residential Energy Consumption Survey" is allocated to the States within each Region in proportion to the U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, "Total Housing Units for States, July 1, 1981." This derived 1981 State series is used to allocate the *AER* annual U.S. total wood consumption to the States for 1980 through 1983.
  - — 1984 through 1986: U.S. Census Division wood consumption in thousand cords from EIA-457, "1984 Residential Energy Consumption Survey" is allocated to the States within each Division in proportion to the U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, "Total Housing Units for States, July 1, 1984." This derived 1984 State series is used to allocate the *AER* annual U.S. total wood consumption to the States for 1984 through 1986.
  - — 1987 through 1989: U.S. Census Division wood consumption in thousand cords from EIA-457, "1987 Residential Energy Consumption Survey" is allocated to the States within each Division in proportion to the U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, "Total Housing Units for States, July 1, 1987." This derived 1987 series is used to allocate the *AER* annual U.S. total wood consumption to the States for 1987 through 1989.
  - — 1990 through 1992: U.S. Census Division wood consumption in thousand cords are from Form EIA-457, "1990 Residential Energy Consumption Survey." State-level estimates are available for 1993 for California, Florida, New York, and Texas from the Form EIA-457, "1993 Residential Energy Consumption Survey." Those four States' percentages of their respective Division totals in the 1993 survey are applied to the 1990 Census Division data to derive their 1990 values. Wood consumption by the other States in each Division is estimated by allocating the remaining Division data to the States in proportion to the U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, "Total Housing Units for States, April 1, 1990." This derived 1990 State series is used to allocate the *AER* annual U.S. total wood consumption to the States for 1990 through 1992.
  - — 1993 forward: Residential wood consumption data for U.S. Census Divisions and for California, Florida, New York, and Texas are from Form EIA-457, "1993 Residential Energy Consumption Survey." Data for the other States in each Division are estimated by allocating the remaining Division data to the States in proportion to the U.S. Department of Commerce, Bureau of the Census, *American Housing Survey*, "Total Housing Units for States, July 1, 1993." This derived 1993 State series is used to allocate the *AER* annual U.S. total wood consumption to the States for 1993 forward.

Commercial Sector

Estimates of wood consumed in the commercial sector by State for 1960 through 1979 are from the EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*. The data published in thousand short tons are converted to billion Btu by using the conversion factor of one short ton equals 17.2 million Btu. The assumption was made in that report that wood is consumed in the commercial sector in proportion to consumption in the residential sector each year. For 1980 forward national level commercial wood consumption estimates in trillion Btu are from the EIA, *Annual Energy Review*. Using the same methodology as for previous years, the national data are allocated to the States in proportion to residential sector wood use each year.

The data series derived above are used in CSEDS as estimated wood consumption in the commercial sector, WDCCBZZ. "ZZ" in the variable name represents the two-letter State code that differs for each State.

WDCCBUS = wood consumed by the commercial sector in the United States, in billion Btu; and
WDRCPZZ = wood consumed in the residential sector of each State, in thousand cords.

The national wood value is allocated to the States in proportion to residential wood series:

WDCCBZZ = (WDRCPZZ / WDRCPUS) * WDCCBUS

The commercial wood consumption estimates are converted from Btu to cords by using the conversion factor of 20 million Btu per cord:

WDCCPZZ = WDCCBZZ / 20
WDCCPUS = ΣWDCCPZZ

Data Sources

WDCCBUS — Wood consumed by the commercial sector in the United States.

- 1960 through 1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A7. Data published in thousand short tons are converted to Btu using the factor of one short ton equals 17.2 million Btu (as published in the footnote of Table A7).
- 1980 forward: EIA, unpublished data shown for selected years in *Annual Energy Review 1998*, Table 10.3.

WDRCPZZ — Wood energy consumed by the residential sector by State.
See sources on page 406.

Industrial Sector

Industrial sector biomass (wood and waste) consumption estimates by State for 1960 through 1979 are from the EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*. The data, published in thousand short tons, are converted to billion Btu using the factor 1 short ton equals 17.2 million Btu.

Estimates for 1980 forward are based on a national-level data series published for selected years in the EIA, *Annual Energy Review (AER)*; National biomass consumption by type of biomass is collected by Standard Industrial Code (SIC) on the EIA triennial survey Form EIA-846, "Manufacturing Energy Consumption Survey" (MECS) for 1985, 1988, 1991, and 1994. The assumption is made that wood and waste use in the manufacturing sector occurs primarily in the industries included in SIC series 2421 (sawmills and planing mills), 2541 (wood partitions and fixtures), 2621 (paper mills), 2046 (wet corn milling), and 2061 (raw cane sugar). The amount of wood and waste consumed by each of the SIC groups of industries is estimated from the MECS data, and the MECS proportions are used to allocate the U.S. totals from the *AER* to SIC groups for each year. The SIC annual subtotals are allocated to the States using State-level data on the value added in manufacturing processes for each of the SIC series published in the U.S. Department of Commerce, Bureau of the Census, *Census of Manufactures, Industry Series*, for 1982, 1987, and 1992.

For 1989 forward, State-level data on wood and waste consumption by nonutility power producers are available from the Form EIA-867, "Annual Nonutility Power Producer Report" and are also used in the data estimation. These State data in Btu are summed, and the total is subtracted from the *AER* national total. The difference is assumed to be used by the manufacturing sector and is allocated to the States using the methodology described above. The State estimates for manufacturing wood and waste consumption are added to the nonutility State-level data to create State industrial biomass estimates that equal the U.S. totals published in the *AER*.

The State-level estimates derived above in Btu are used in CSEDS as industrial wood and waste consumption (WWICBZZ). "ZZ" in the variable name represents the two-letter State code that differs for each State.

WWICBZZ = wood and waste consumed by the industrial sector of each State, in billion Btu.

The U.S. total is calculated as the sum of the State data:

WWICBUS = ΣWWICBZZ

There are no comparable physical units because industrial biomass is measured in a variety of units (e.g., tons, cubic feet, and kilowatthours).

Data Sources

WWICBZZ — Wood and waste consumed by the industrial sector by State.

- 1960 through 1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A10. Data published in thousand short tons are converted to Btu by using the factor of one short ton equals 17.2 million Btu (as published in the footnote of Table A10).
- 1980 forward: EIA estimates developed by using three data sources. U.S. totals for each year are as published for selected years in the EIA, *Annual Energy Review 1998 (AER)*, Table 10.3.
  - — 1980 through 1985: U.S. totals from the *AER* are allocated to Standard Industrial Code (SIC) groups 20, 24, 25, and 26 based on data from the EIA "Manufacturing Energy Consumption Survey 1985 (MECS)," Table 3. These SIC subtotals are allocated to the States using State-level series from the U.S. Department of Commerce, Bureau of the Census, *1982 Census of Manufactures,*Table 2, column titled "Value Added by Manufacture," from the publications for Industry 2061 Raw Cane Sugar, Industry 2046 Wet Corn Milling, Industry 2421 Sawmills and Planing Mills, Industry 2541 Wood Partitions and Fixtures, and Industry 2621 Paper Mills. The State values for each of the four SIC groups are summed to derive State total wood and waste industrial consumption estimates.
  - — 1986 through 1989: U.S. totals from the *AER* are allocated to Standard Industrial Code (SIC) groups 20, 24, 25, and 26 based on data from the EIA "Manufacturing Energy Consumption Survey 1988 (MECS)," Tables 2 and 18. These SIC subtotals are allocated to the States using State-level series from the U.S. Department of Commerce, Bureau of the Census, *1987 Census of Manufactures,*Table 2, column titled "Value Added by Manufacture," from the publications for Industry 2061 Raw Cane Sugar, Industry 2046 Wet Corn Milling, Industry 2421 Sawmills and Planing Mills, Industry 2541 Wood Partitions and Fixtures, and Industry 2621 Paper Mills. The State values for each of the four SIC groups are summed to derive State total wood and waste industrial consumption estimates.
    For 1989 only, State-level data on wood and waste consumption by nonutility power producers are available from the Form EIA-867, "Annual Nonutility Power Producer Report" in billion Btu. These nonutility State data are summed and subtracted from the *AER* U.S. total. The remaining value is assumed to be the manufacturing sector and is allocated to the States using the method above. The State values for each of the four SIC groups and the nonutilities are summed to derive State total wood and waste industrial consumption estimates.
  - — 1990 through 1993: State-level data on wood and waste consumption by nonutility power producers from the Form EIA-867, "Annual Nonutility Power Producer Report" in billion Btu are summed and subtracted from the *AER* U.S. total. The remaining national value is allocated to Standard Industrial Code (SIC) groups 20, 24, 25, and 26 based on unpublished data from the EIA "Manufacturing Energy Consumption Survey 1991 (MECS)." SIC groups 20 and 26 are grouped as "Other" in MECS 1991. The proportions of those two groups in the 1988 and 1994 MECS are averaged and used to estimate the breakout for 1991. These SIC subtotals are allocated to the States using State-level series from the U.S. Department of Commerce, Bureau of the Census, *1992 Census of Manufactures,* Table 2, column titled "Value Added by Manufacture," from the publications for Industry 2061 Raw Cane Sugar, Industry 2046 Wet Corn Milling, Industry 2421 Sawmills and Planing Mills, Industry 2541 Wood Partitions and Fixtures, and Industry 2621 Paper Mills. The State values for each of the four SIC groups and the nonutilities are summed to derive State total wood and waste industrial consumption estimates.
  - — 1994 forward: State-level data on wood and waste consumption by nonutility power producers from the Form EIA-867, "Annual Nonutility Power Producer Report" in billion Btu are summed and subtracted from the *AER* U.S. total. The remaining national value is allocated to Standard Industrial Code (SIC) groups 20, 24, 25, and 26 based on data from the EIA "1994 Manufacturing Energy Consumption Survey (MECS), Table A7." These SIC subtotals are allocated to the States using State-level series from the U.S. Department of Commerce, Bureau of the Census, *1992 Census of Manufactures,* Table 2, column titled "Value Added by Manufacture," from the publications for Industry 2061 Raw Cane Sugar, Industry 2046 Wet Corn Milling, Industry 2421 Sawmills and Planing Mills, Industry 2541 Wood Partitions and Fixtures, and Industry 2621 Paper Mills. The State values for each of the four SIC groups and the nonutilities are summed to

derive State total wood and waste industrial consumption estimates.

Transportation Sector

Biomass is consumed in the transportation sector in the form of ethanol blended into motor gasoline. Ethanol can be derived from sugar cane, sugar beets, corn, sweet sorghum, wheat, and other grains. The U.S. total in CSEDS is fuel ethanol production reported on the "Monthly Oxygenate Telephone Report," Form EIA-819M. A State data series, estimated by the U.S. Department of Transportation, Federal Highway Administration, and published in *Highway Statistics,* represents ethanol consumed in gasohol. Ethanol estimates are kept separately in CSEDS and shown in the *SEDR* tables to illustrate renewable energy use, but ethanol consumption is already accounted for within the motor gasoline data series.

ENTRPZZ = ethanol blended into motor gasoline by State, in thousand gallons; and
ENACPUS = ethanol consumed in the transportation sector in the United States, in thousand gallons.

The U.S. value, ENACPUS, is allocated to the States in proportion the *Highway Statistics* State estimates, ENTRPZZ:

ENTRPUS = ΣENTRPZZ
ENACPZZ = (ENTRPZZ / ENTRPUS) * ENACPUS

Ethanol is converted to equivalent British thermal units (Btu) by using a conversion factor of 76,400 Btu per gallon.

ENACBZZ = ENACPZZ * 0.0764
ENACBUS = ΣENACBZZ

Data Sources

ENACPUS — Ethanol consumed by the transportation sector in the United States.

- 1960 through 1988: No data are available. Values are assumed to be zero.
- 1989 through 1992: EIA, *Annual Energy Review 1998*, Table 10.2. Data in quadrillion Btu are converted to gallons by using the conversion factor of 76,400 Btu per gallon.
- 1993 forward: EIA, *Petroleum Supply Monthly* (January issue of each year), Table D1. Data in thousand barrels are converted to thousand gallons by using the conversion factor of 42 gallons per barrel.

ENTRPZZ — Ethanol blended into motor gasoline by State.

- 1960 through 1988: No data are available. Values are assumed to be zero.
- 1989 through 1992: No data are available. The 1993 data are used for each year.
- 1993 through 1995: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics, Sumary to 1995,* Table MF-233E, column "Total Ethanol Used in Gasohol."
- 1996 forward: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Table MF-33E, column "Total Ethanol Used in Gasohol."

Electric Utilities

Electric utilities' generation of electricity from wood and waste energy, by State, are available combined from 1960 through 1981 and separately from 1982 forward from the Form EIA-759, "Monthly Power Plant Report." The data identifiers in CSEDS are:

WDEOPZZ = electricity produced from wood energy sources at electric utilities in each State (included in waste energy for 1960 through 1981), in million kilowatthours; and
WSEOPZZ = electricity produced from waste energy sources at electric utilities in each State (includes wood energy for 1960 through 1981), in million kilowatthours.

The U.S. totals are calculated as the sum of the State data, and wood and waste are summed to provide a total (WW) value:

WDEOPUS = ΣWDEOPZZ
WSEOPUS = ΣWSEOPZZ
WWEOPZZ = WDEOPZZ + WSEOPZZ
WWEOPUS = ΣWWEOPZZ

Electricity produced from wood and waste sources is converted into Btu by use of a conversion factor that is the U.S. average heat content of fossil fuels burned at steam-electric power plants, FFEOKUS. The annual values for this factor are shown in Appendix C, Table C1.

WDEOBZZ = WDEOPZZ * FFEOKUS
WDEOBUS = ΣWDEOBZZ

WSEOBZZ = WSEOPZZ * FFEOKUS
WSEOBUS = ΣWSEOBZZ

WWEOBZZ = WDEOBZZ + WSEOBZZ
WWEOBUS = ΣWWEOBZZ

Data Sources

WDEOPZZ — Electricity produced from wood energy sources at electric utilities by State.

- 1960 through 1981: Data included in waste energy sources, see WSEOPZZ.
- 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report.

WSEOPZZ — Electricity produced from waste energy sources at electric utilities by State.

- 1960 forward: EIA, Form EIA-759, "Monthly Power Plant Report" (includes wood energy sources from 1960 through 1981).

FFEOKUS — Fossil fuel steam-electric power plant conversion factor.

- 1960 through 1991: Estimated by EIA as the weighted annual average heat rate for fossil-fueled steam-electric plants in the United States as published in the EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9.
- 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

Totals

State total consumption of biomass is calculated as the sum of the consumption in the residential, commercial, industrial, and transportation sectors as well as consumption at electric utilities. The U.S. total is the sum of the State data:

BMTCBZZ = WDRCBZZ + WDCCBZZ + WWICBZZ + ENACBZZ + WWEOBZZ
BMTCBUS = ΣBMTCBZZ

Geothermal

Geothermal energy used as direct heat or from heat pumps in the residential, commercial, and industrial sectors is included in the Combined State Energy Data System (CSEDS) for 1989 forward. Geothermal energy used to generate electricity by nonutility power producers is also included in CSEDS industrial sector from 1989 forward. CSEDS data on energy input at electric utilities includes geothermal energy for all years, 1960 forward, and includes imports of electricity from Mexico that are generated from geothermal energy for 1989 forward These data series are identified in CSEDS by the following names ("ZZ" in the variable name represents the two-letter State code that differs for each State):

GECCBZZ = direct use of geothermal energy and heat pumps in the commercial sector by State, in billion Btu;
GEEOPZZ = electricity produced from geothermal energy at electric utilities by State, in million kilowatthours;
GEIMPZZ = electricity produced from geothermal energy and imported into the United States by State, in million kilowatthours;
GEINBZZ = direct use of geothermal energy and heat pumps in the industrial sector by State, in billion Btu;
GENGBZZ = electricity produced from geothermal energy by nonutility power producers by State, in billion Btu; and
GERCBZZ = direct use of geothermal energy and heat pumps in the residential sector by State, in billion Btu.

The U.S. totals for the State-level series are calculated by summing the State data:

GECCBUS = ΣGECCBZZ
GEEOPUS = ΣGEEOPZZ
GEIMPUS = ΣGEIMPZZ
GEINBUS = ΣGEINBZZ
GENGBUS = ΣGENGBZZ
GERCBUS = ΣGERCBZZ

Industrial sector use of geothermal energy is the sum of direct use and heat pumps and electricity produced by nonutility power producers:

GEICBZZ = GEINBZZ + GENGBZZ
GEICBUS = ΣGEICBZZ

Electricity imports produced from geothermal energy are added to the electricity produced from geothermal energy at electric utilities to be shown in the "Geothermal Energy" column of the *State Energy Data Report* (*SEDR*) tables titled "Energy Input at Electric Utilities."

GEENPZZ = GEEOPZZ + GEIMPZZ
GEENPUS = ΣGEENPZZ

To convert electricity produced from geothermal energy from kilowatthours into comparable Btu, a U.S. average factor that varies by year is used. The values for the factor, GEEOKUS, are shown in Appendix C, Table C1.

GEEOKUS = factor for converting electricity produced from geothermal energy from kilowatthours to Btu.

The values for each sector within each State are converted to Btu:

GEEOBZZ = GEEOPZZ * GEEOKUS
GEEOBUS = ΣGEEOBZZ
GEIMBZZ = GEIMPZZ * GEEOKUS
GEIMBUS = ΣGEIMBZZ
GEENBZZ = GEEOBZZ + GEIMBZZ
GEENBUS = ΣGEENBZZ

The State totals for geothermal energy are the sum of the residential, commercial, and industrial sectors' use and the electric utilities' geothermal-based generation (including imports). The U.S. total is the sum of the State data.

GETCBZZ = GERCBZZ + GECCBZZ + GEICBZZ + GEENBZZ
GETCBUS = ΣGETCBZZ

Additional Note

Geothermal energy from direct use and heat pumps in the residential, commercial, and industrial sectorss are from the Oregon Institute of Technology Geoheat Center. State data for 1989 1994, and 1998 are from surveys. U.S. totals for intervening years are estimates. The State data for 1989, 1994, and 1998 are used to estimate the State values for intervening years by using the following methodology. States with the same value in two survey years are assigned that value for each intervening year. For States with increases or decreases in the survey data, the difference is allocated evenly over the intervening years. If a State went from zero to a value or from a value to zero, it was given zero in the intervening years. The State data for each intervening year are summed and States with increasing or decreasing values are adjusted until the U.S. total equals the U.S. total estimated by the Oregon Institute of Technology Geoheat Center.

Data Sources

GECCBZZ — Direct use and heat pump geothermal energy in the commercial sector.

- 1989: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.
- 1990 through 1993: U.S. totals are estimates from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1989 and 1994 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the note on page 411.
- 1994: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.

- 1995 forward: U.S. totals are from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1994 and 1998 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the "Additional Note" above.

GEEOKUS — Factor for converting electricity produced from geothermal energy from physical units to Btu.

- 1960 through 1981: Calculated by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on Federal Power Commission Form 12.
- 1982 forward: Estimated annually by the EIA on the basis of an informal survey of relevant plants.

GEEOPZZ — Electricity produced from geothermal energy at electric utilities by State.

- EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms.

GEIMPZZ — Electricity produced from geothermal energy and imported into the United States by State.

- 1960 through 1988: No data available. Values assumed to be zero.
- 1989 forward: EIA estimates based on data from U.S. Department of Energy, Fossil Energy, Form FE-781R, "Annual Report of International Electricity Export/Import Data."

GEINBZZ — Direct use and heat pump geothermal energy in the industrial sector.

- 1989: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.
- 1990 through 1993: U.S. totals are estimates from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1989 and 1994 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the note on page 411.
- 1994: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.
- 1995 forward: U.S. totals are from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1994 and 1998 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the note on page 411.

GENGBZZ — Electricity produced from geothermal energy by nonutility power producers by State.

- 1960 through 1988: No data available. Values assumed to be zero.
- 1989 forward: EIA estimates based on data collected on Form EIA-867, "Annual Nonutility Power Producers Report."

GERCBZZ — Direct use and heat pump geothermal energy in the residential sector.

- 1989: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.
- 1990 through 1993: U.S. totals are estimates from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1989 and 1994 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the note on page 411.
- 1994: Lund, John W., Oregon Institute of Technology Geoheat Center, unpublished tables, (Klamath Falls, Oregon: April 1999), based on a survey.
- 1995 forward: U.S. totals are from the Oregon Institute of Technology Geoheat Center, unpublished tables. State data for 1994 and 1998 are used to estimate State values for the intervening years. For an the explanation of the estimation methodology, see the note on page 411.

Hydroelectric Power

Electricity produced from hydropower in the industrial sector and by electric utilities is included in CSEDS for all years. The industrial sector includes estimates of hydroelectricity generation by industries for their own use for all years, as well as generation by nonutility power producers for sale in 1990 forward as collected on the Form EIA-867, "Annual Nonutility Power Producers Report." Industrial data for 1990 forward are not

available in kilowatthours but are included in CSEDS in equivalent British thermal units (Btu). Data on electric utilities' use of hydropower are collected on the Form EIA-759, "Monthly Power Plant Report," and include two types of hydropower—conventional and pumped storage. Conventional hydroelectric power uses falling water to drive turbines to produce electricity. With pumped storage hydroelectricity, energy is used to pump water into higher storage areas during non-peak hours so that it can be released to drive turbines during times of peak electricity demand. Because pumped storage hydroelectricity uses energy, it is not considered a renewable energy source; however, it is discussed in this chapter with other hydropower.

The hydroelectric data series included in CSEDS are identified by the following names ("ZZ" in the name represents the two-letter State code that differs for each State):

HVEOPZZ = electricity produced by conventional hydroelectric power at electric utilities, in million kilowatthours;
HPEOPZZ = electricity produced by pumped storage hydroelectric power at electric utilities, in million kilowatthours;
HYICPZZ = electricity produced by hydroelectric power at industrial facilities, by State, in million kilowatthours (available for 1960–1988 only);
HYICBZZ = electricity produced by hydroelectric power at industrial facilities, by State, in billion Btu;
HYIMPZZ = electricity produced from hydroelectric power and imported into the United States, by State, in million kilowatthours; and
HYEXPZZ = electricity produced from hydroelectric power and exported from the United States, by State, in million kilowatthours.

The U.S. value for each of the series is the sum of the State data.

Total electricity produced from hydropower at electric utilities is calculated as the sum of conventional and pumped storage hydroelectric power.

HYEOPZZ = HVEOPZZ + HPEOPZZ
HYEOPUS = ΣHYEOPZZ

Hydroelectric-based electricity that is imported and exported across U.S. borders is added to the electric utility hydroelectric generation and shown in the "Hydroelectric Power" column of the *State Energy Data Report (SEDR*) tables titled "Energy Input at Electric Utilities."

HYENPZZ = HYEOPZZ + HYIMPZZ – HYEXPZZ
HYENPUS = ΣHYENPZZ

Additional calculations are made to estimate the renewable portion of hydroelectric power at electric utilities, i.e., excluding hydroelectricity produced from pumped storage:

HVENPZZ = HVEOPZZ + HYIMPZZ – HYEXPZZ
HVENPUS = ΣHVENPZZ

Electricity produced from hydroelectric power is converted from kilowatthours into Btu by using a conversion factor that is the U.S. average heat content of fossil fuels consumed at steam-electric power plants, FFEOKUS. The annual values for this factor are shown in Appendix C, Table C1.

HPEOBZZ = HPEOPZZ * FFEOKUS
HVEOBZZ = HVEOPZZ * FFEOKUS
HYEOBZZ = HPEOBZZ + HVEOBZZ

HYIMBZZ = HYIMPZZ * FFEOKUS
HYEXBZZ = HYEXPZZ * FFEOKUS
HYENBZZ = HYEOBZZ + HYIMBZZ – HYEXBZZ
HVENBZZ = HVEOBZZ + HYIMBZZ – HYEXBZZ

The U.S. value for each of the series is the sum of the State data.

Total hydroelectricity consumption for each State is the sum of the electric utilities generation (plus imports and minus exports) and the industrial sector generation:

HYTCBZZ = HYENBZZ + HYICBZZ
HYTCBUS = ΣHYTCBZZ

Total hydroelectricity consumption for each State in million kilowatthours is available for only 1960 through 1988 to avoid disclosure of company

proprietary data in the later years. The formulas for 1960 through 1988 are:

HYTCPZZ = HYENPZZ + HYICPZZ
HYTCPUS = ΣHYTCPZZ

Data Sources

FFEOKUS — Fossil fuel steam-electric power plant conversion factor.
- 1960 through 1991: Estimated by EIA as the weighted annual average heat rate for fossil-fueled steam-electric plants in the United States as published in the EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9.
- 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

HPEOPZZ — Electricity produced from pumped storage hydropower at electric utilities by State.
- 1960 through 1989: Included in conventional hydroelectric power.
- 1990 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

HVEOPZZ — Electricity produced from conventional hydropower at electric utilities (includes pumped storage hydroelectric power through 1989) by State.
- 1960 through 1977: Federal Power Commission, News Release, "Power Production, Fuel Consumption, and Installed Capacity Data."
- 1978 through 1980: EIA, *Energy Data Reports*, "Power Production, Fuel Consumption and Installed Capacity Data."
- 1981 through 1989: EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Published data rounded to gigawatthours in the following reports:
  - — 1981 through 1985: EIA, *Electric Power Annual 1985*, Table 6.
  - — 1986 and 1987: EIA, *Electric Power Annual 1987*, Table 18.
  - — 1988 and 1989: EIA, *Electric Power Annual 1989*, Table 14.
- 1990 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

HYEXPZZ — Electricity produced from hydroelectric power and exported from the United States by State.
- 1960 through 1988: Assumed to be equal to total electricity exports (ELEXPZZ).
- 1989 forward: EIA estimates based on data from Natural Resources Canada, *Electric Power in Canada 1996,* and National Energy Board of Canada, *Electricity Exports and Imports* (Ottawa, Canada, 1996).

HYICBZZ — Electricity produced from hydropower at industrial facilities by State.
- 1960 through 1988: Calculated by EIA by multiplying the average factor for fossil fuels burned at steam-electric power plants (FFEOKUS) times the data in CSEDS series HYICPZZ.
- 1989 forward: EIA estimates from data collected on Form EIA-867, "Annual Nonutility Power Producers Report."

HYICPZZ — Electricity produced from hydropower at industrial facilities by State (available for 1960 through 1988 only).
- 1960 through 1978: Federal Power Commission, Form 4, "Monthly Power Plant Report."
- 1979 and 1980: EIA estimates based on previous years' data.
- 1981 through 1988: No data available. The 1980 data are repeated for each year.

HYIMPZZ — Electricity produced from hydroelectric power and imported into the United States by State.
- 1960 through 1988: Assumed to be equal to total electricity imports (ELIMPZZ).
- 1989 forward: EIA estimates based on data from Natural Resources Canada, *Electric Power in Canada 1996,* and National Energy Board of Canada, *Electricity Exports and Imports* (Ottawa, Canada, 1996).

Solar

Estimates of solar energy use for the residential and commercial sectors combined and the industrial sector are included in the Combined State Energy Data System (CSEDS) for 1989 forward. Generation of electricity by electric utilities from solar energy sources is included in CSEDS for 1984 forward.

Residential/Commercial Sector

Solar thermal energy use in the residential and commercial sectors combined is estimated by using data on shipments of solar thermal collectors to States, measured in thousand square feet, as collected on the EIA Form CE-63A, "Annual Solar Thermal Collector Manufacturers Survey," and predecessor surveys. The data are published for recent years in the EIA, *Renewable Energy Annual*. The assumptions are that: (1) the retirement/replacement period for solar thermal collectors is 20 years and, therefore, the cumulative square footage of solar thermal collectors produced since 1974 are still in use; (2) the daily average energy output of all three categories of solar thermal collectors is 1,500 Btu per square foot; and (3) the average efficiency of the collectors is 50 percent. The data series are identified in CSEDS by the following names ("ZZ" in the variable name represents the two-letter State code that differs for each State):

SOHCBZZ = energy produced by solar thermal energy collectors in the residential and commercial sectors combined, in billion Btu.

The U.S. total is calculated as the sum of the State data:

SOHCBUS = ΣSOHCBZZ

Industrial Sector and Electric Utilities

Estimates of electricity produced from photovoltaic and solar thermal energy sources by nonutility power producers are included in the CSEDS industrial sector for 1989 forward, in Btu, from data collected on the Form EIA-867, "Annual Nonutility Power Producers Report." Electric utilities' generation from solar sources are included for 1984 forward as collected on the Form EIA-759, "Monthly Power Plant Report." The data identifiers are:

SOEOPZZ = electricity produced from photovoltaic and solar thermal energy sources at electric utilities, by State, in million kilowatthours; and

SOICBZZ = electricity produced from photovoltaic and solar thermal energy sources by nonutility power producers, by State, in billion Btu.

U.S. totals for these series are calculated as the sum of the State data:

SOEOPUS = ΣSOEOPZZ
SOICBUS = ΣSOICBZZ

Electricity produced from photovoltaic and solar thermal energy at electric utilities is converted from kilowatthours to Btu by using a conversion factor that is the U.S. average heat content of fossil fuels consumed at steam-electric power plants, FFEOKUS. The annual values for this factor are shown in Appendix C, Table C1.

SOEOBZZ = SOEOPZZ * FFEOKUS
SOEOBUS = ΣSOEOBZZ

Totals

Each State's total use of photovoltaic and solar thermal energy sources is the sum of the sectors' values, and the U.S. total is the sum of the States' totals:

SOTCBZZ = SOHCBZZ + SOICBZZ + SOEOBZZ
SOTCBUS = ΣSOTCBZZ

Data Sources

FFEOKUS — Fossil fuel steam-electric power plant conversion factor.

- 1960 through 1991: Estimated by EIA as the weighted annual average heat rate for fossil-fueled steam-electric plants in the United States as published in the EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9.
- 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

SOEOPZZ — Electricity produced from solar thermal energy sources at electric utilities by State.

- 1960 through 1983: No data available. Values are assumed to be zero.
- 1984 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

SOHCBZZ — Electricity produced from solar thermal energy sources in the residential and commercial sectors combined by State.

- 1960 through 1988: Values are assumed to be zero for consistency with other EIA reports.
- 1989 forward: EIA estimates are developed by using the same method as used for the U.S. data published in the EIA, *Renewable Energy Annual 1995*, Table 11. Shipments of solar thermal collectors in the United States, in thousand square feet, for 1974 forward that are collected on the EIA Form CE-63A, "Annual Solar Thermal Collector Manufacturers Survey," are accumulated each year on the basis of the assumption that the replacement/retirement period for solar thermal collectors is 20 years. Data for 1974 through 1985 are available for the U.S. total only. U.S. values are allocated to the States by using an allocating series that is the simple average of each State's 1986 and 1987 data. The U.S. data are adjusted to remove Puerto Rico and the Virgin Islands. California data for 1986 forward are reduced by the number of high-temperature solar thermal collectors (used at an electric utility in California).
  - — State data for 1986 through 1992 used in the accumulated data series are published in the EIA, *Solar Collector Manufacturing Activity* for each year. The table numbers are:
    - 1986 through 1988: Table 5.
    - 1989: Table 4.
    - 1990 through 1992: Table 13.

    California data for 1986 through 1992 are reduced by the number of high-temperature solar thermal collectors shown in the EIA, *Renewable Energy Annual 1995*, Table 13.
  - — 1993 and 1994: EIA, *Renewable Energy Annual 1995*, Tables 13 and H3.
  - — 1995: EIA, *Renewable Energy Annual 1996,* Tables F9 and F10.
  - — 1996: EIA, *Renewable Energy Annual 1997,* Tables 16 and 17.
  - — 1997: EIA, *Renewable Energy Annual 1998,* Tables 15 and 19.

SOICBZZ — Electricity produced from solar thermal energy sources in the industrial sector by State.

- 1960 through 1988: No data available. Values are assumed to be zero.
- 1989 forward: EIA estimates based on data collected on Form EIA-867, "Annual Nonutility Power Producers Report."

Wind

Wind energy used to produce electricity by nonutility power producers is included in the CSEDS industrial sector for 1989 forward in Btu from data collected on the Form EIA-867, "Annual Nonutility Power Producers Report." Electricity generation from wind energy by electric utilities is included for 1983 forward as collected on the Form EIA-759, "Monthly Power Plant Report." The data are identified in CSEDS by the following names ("ZZ" in the variable name represents the two-letter State code that differs for each State):

WYEOPZZ = electricity produced from wind energy at electric utilities, by State, in million kilowatthours; and
WYICBZZ = electricity produced from wind energy in the industrial sector, by State, in billion Btu.

The U.S. totals are calculated as the sum of the State data:

WYEOPUS =ΣWYEOPZZ
WYICBUS =ΣWYICBZZ

Electricity produced from wind energy at electric utilities is converted from kilowatthours to Btu by using a conversion factor that is the U.S. average heat content of fossil fuels consumed at steam-electric power plants, FFEOKUS. The annual values for this factor are shown in Appendix C, Table C1.

WYEOBZZ = WYEOPZZ * FFEOKUS
WYEOBUS = ΣWYEOBZZ

The State and U.S. totals for wind energy are calculated:

WYTCBZZ = WYEOBZZ + WYICBZZ
WYTCBUS = ΣWYTCBZZ

Data Sources

FFEOKUS — Fossil fuel steam-electric power plant conversion factor.

- 1960 through 1991: Estimated by EIA as the weighted annual average heat rate for fossil-fueled steam-electric plants in the United States as published in the EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9.
- 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

WYEOPZZ — Electricity produced from wind at electric utilities by State.

- 1960 through 1982: No data available. Values are assumed to be zero.
- 1983 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

WYICBZZ — Electricity produced from wind in the industrial sector by State.

- 1960 through 1988: No data available. Values are assumed to be zero.
- 1989 forward: EIA estimates based on data collected on Form EIA-867, "Annual Nonutility Power Producers Report."

Additional Calculations

Additional calculations are made in CSEDS to aggregate some data series to be shown in the tables of this report. Geothermal, wind, photovoltaic, and solar thermal energy sources are combined to be shown in the "Other" column in tables titled "Energy Consumption Estimates by Source" and "Industrial Energy Consumption Estimates." The variables are calculated for each State and the United States in billion Btu as follows:

GOICBZZ = GEICBZZ + SOICBZZ + WYICBZZ
GOICBUS = ΣGOICBZZ

GOTCBZZ = GETCBZZ + SOTCBZZ + WYTCBZZ
GOTCBUS = ΣGOTCBZZ

Wind, photovoltaic, and solar thermal energy sources are combined to be shown in the "Other" column in tables titled "Estimates of Energy Input at Electric Utilities." The variables are calculated for each State and the United States in billion Btu as follows:

WNEOPZZ = WYEOPZZ + SOEOPZZ
WNEOPUS = ΣWNEOPZZ

WNEOBZZ = WYEOBZZ + SOEOBZZ
WNEOBUS = ΣWNEOBZZ

Renewable Energy Total

Renewable energy subtotals for each consuming sector in thousand Btu can be calculated for 1989 forward by using the same formulas for each State and the U.S. totals. Renewable energy subtotals can also be calculated in physical units for the transportation sector (thousand gallons) and electric utilities (million kilowatthours).

RERCB = WDRCB + GERCB + SOHCB

RECCB = WDCCB + GECCB

REICB = HYICB + WWICB + GOICB

REACP = ENACP
REACB = ENACB

REEOP = HVENP + GEENP + WWEOP + WNEOP
REEOB = HVENB + GEENB + WWEOB + WNEOB

RETCB = RERCB + RECCB + REICB + REACB + REEOB

Section 6. Electricity

This section describes electrical energy sources; electricity consumed by end users (i.e., electricity sold to end users); estimates of the electrical system energy losses incurred in the generation, transmission, and distribution of electricity; and estimates of net interstate sales of electricity.

Electrical Energy Sources

Physical Units

Electricity is produced from a number of energy sources. In the Combined State Energy Data System (CSEDS), coal, natural gas, and petroleum are measured in physical units of thousand short tons, million cubic feet, and thousand barrels, respectively, as they are consumed by the electric utilities. Because comparable measures in physical units for nuclear power, hydroelectric, biomass fuels, geothermal, wind, photovoltaic, and solar thermal energy sources are not available, energy output in the form of electricity produced from these energy sources, in million kilowatthours, is used instead. The variable names for these data are as follows ("ZZ" in the variable name represents the two-letter State code that differs for each State):

CLEUPZZ = coal consumed by electric utilities (described in Section 2 of this report), in thousand short tons;

ELEXPZZ = electricity exported from the United States (assumed to be produced from hydroelectric power through 1989), in million kilowatthours;

ELIMPZZ = electricity imported into the United States (assumed to be produced from hydroelectric power through 1989), in million kilowatthours;

GEEOPZZ = electricity produced from geothermal energy at electric utilities (described in Section 5), in million kilowatthours;

GEIMPZZ = electricity produced from geothermal energy and imported into the United States (described in Section 5), in million kilowatthours;

HPEOPZZ = electricity produced from pumped storage hydroelectric power at electric utilities (described in Section 5), in million kilowatthours;

HVEOPZZ = electricity produced from conventional hydroelectric power at electric utilities (described in Section 5), in million kilowatthours;

HYEXPZZ = electricity produced from hydroelectric power and exported from the United States (described in Section 5), in million kilowatthours;

HYIMPZZ = electricity produced from hydroelectric power and imported into the United States (described in Section 5), in million kilowatthours;

NGEUPZZ = natural gas consumed by electric utilities (described in Section 3), in million cubic feet;

NUEOPZZ = electricity produced from nuclear power at electric utilities, in million kilowatthours;

PAEUPZZ = petroleum consumed by electric utilities (described in Section 4), in thousand barrels;

SOEOPZZ = electricity produced from photovoltaic and solar thermal energy sources at electric utilities (described in Section 5), in million kilowatthours;

WDEOPZZ = electricity produced from wood energy sources at electric utilities (described in Section 5), in million kilowatthours;

WSEOPZZ = electricity produced from waste energy sources at electric utilities (described in Section 5), in million kilowatthours; and

WYEOPZZ = electricity produced from wind energy at electric utilities (described in Section 5), in million kilowatthours.

The U.S. totals for these series are calculated as the sum of the State data, with the exception of coal, which is the sum of the U.S. totals for each rank of coal as described in Section 2.

British Thermal Units (Btu)

In order to total all the energy that is used to produce electricity, the energy sources are converted to the common unit of Btu. The methods for calculating the Btu content of coal, natural gas, petroleum, and renewable energy sources consumed by utilities are explained in their respective sections of this documentation. The factor for converting electricity produced from nuclear energy (NUEOKUS) is developed from data collected from nuclear steam-electric power plants. These U.S. average factors, which vary from year to year, can be found in Appendix C, Table C1.

NUEOKUS = factor for converting nuclear electricity from kilowatthours to Btu.

The formulas for applying the nuclear factor are:

NUEOBZZ = NUEOPZZ * NUEOKUS
NUEOBUS = ΣNUEOBZZ

A total of all energy input at electric utilities, including imports and exports of electricity across U.S. borders, is calculated by the following formulas for each State and for the United States:

TEEUBZZ = PAEUBZZ + NGEUBZZ + CLEUBZZ + HYENBZZ + NUEOBZZ + GEENBZZ + WWEOBZZ + WNEOBZZ + EXNIBZZ
TEEUBUS = ΣTEEUBZZ

Data Sources

NUEOKUS — Factor for converting electricity produced from nuclear power from physical units to Btu.

- 1960 through 1991: Calculated annually by EIA by dividing the total heat content consumed in reactors at nuclear plants by the total (net) electricity generated by nuclear plants. The heat content and electricity generation are reported on FERC Form 1, "Annual Report of Major Electric Utilities, Licensees, and Others;" Form EIA-412, "Annual Report of Public Electric Utilities;" and predecessor forms. The factors for 1982 through 1991 are published in the following:
  - 1982: EIA, *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215.
  - 1983 through 1991: EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 13.
- 1992 forward: Unpublished factors calculated annually by EIA by dividing the total heat content of the steam leaving nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in the Nuclear Regulatory Commission, *Licensed Operating Reactors—Status Summary Report*.

NUEOPZZ — Electricity produced from nuclear power at electric utilities by State.

- 1960 through 1977: Federal Power Commission, News Release, "Power Production, Fuel Consumption, and Installed Capacity Data," table titled "Net Generation of Electric Utilities by State and Source."
- 1978 through 1980: EIA, *Energy Data Reports*, "Power Production, Fuel Consumption and Installed Capacity Data;" 1978: table titled "Net Generation of Electric Utilities by State and Source;" 1979 and 1980: Table 36.
- 1981 through 1985: EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Published data rounded to gigawatthours in EIA, *Electric Power Annual 1985*, Table 6.
- 1986 forward: EIA, Form EIA-759, "Monthly Power Plant Report," and predecessor forms. Published data rounded to gigawatthours in *Electric Power Annual*. Data are from the report of the following year., i.e., 1986 final data are published in the *Electric Power Annual, 1987*. The specific tables are:
  - 1986: Table 19.
  - 1987: Table 10.
  - 1988 and 1989: Table 14.
  - 1990 through 1993: Table 13.
  - 1994 forward: Volume I, Table 10.

Electricity Imports and Exports

Imports and exports of electricity across U.S. borders prior to 1989 are assumed to be based on hydroelectric power. Beginning with 1989, traded electricity is identified in CSEDS as derived from hydroelectric power, geothermal energy, or nonrenewable energy sources. Electricity imports and exports based on renewable energy sources are summed in million kilowatthours and billion Btu and identified with "ER" as the source code in the variable name:

EREXPZZ = HYEXPZZ
EREXPUS = ΣEREXPZZ
ERIMPZZ = HYIMPZZ + GEIMPZZ
ERIMPUS = ΣERIMPZZ

EREXBZZ = HYEXBZZ
EREXBUS = ΣEREXBZZ
ERIMBZZ = HYIMBZZ + GEIMBZZ
ERIMBUS = ΣERIMBZZ

Imports and exports of electricity produced from nonrenewable energy sources ("EX"), in million kilowatthours, are calculated by subtracting renewable-based imports and exports from total electricity imports and exports :

EXIMPZZ = ELIMPZZ – ERIMPZZ
EXIMPUS = ΣEXIMPZZ
EXEXPZZ = ELEXPZZ – EREXPZZ
EXEXPUS = ΣEXEXPZZ

Nonrenewable-based electricity imports and exports are converted from million kilowatthours to billion Btu by using the average conversion factor for fossil fuels burned at steam-electric power plants (FFEOKUS):

EXIMBZZ = EXIMPZZ * FFEOKUS
EXIMBUS = ΣEXIMBZZ
EXEXBZZ = EXEXPZZ * FFEOKUS
EXEXBUS = ΣEXEXBZZ

Net imports of electricity produced from nonrenewable energy sources is calculated by subtracting exports from imports:

EXNIPZZ = EXIMPZZ – EXEXPZZ
EXNIPUS = ΣEXNIPZZ
EXNIBZZ = EXIMBZZ – EXEXBZZ
EXNIBUS = ΣEXNIBZZ

Net imports of renewable-based electricity are included in the "Total" column of SEDR tables titled "Energy Consumption Estimates by Source" and "Estimates of Energy Input at Electric Utilities" but are not shown separately in the tables' columns. Table A8 provides the data by State and year.

Total imports and exports of electricity are calculated in billion Btu by summing the renewable and nonrenewable components:

ELIMBZZ = HYIMBZZ + GEIMBZZ + EXIMBZZ
ELIMBUS = ΣELIMBZZ
ELEXBZZ = HYEXBZZ + EXEXBZZ
ELEXBUS = ΣELEXBZZ

Data Sources

ELEXPZZ — Electricity exported from the United States (assumed to be produced by hydroelectric power through 1989) by State.

- 1960 through 1981: Economic Regulatory Administration, *Staff Reports*, "Report on Electric Energy Exchanges with Canada and Mexico." Source data are arranged by the Regional Reliability Council Areas and then by the electric utility. State data were tabulated by aggregating the data of all electric utilities within each State.
- 1982 and 1983: EIA State estimates are based on data from Economic Regulatory Administration Form ERA-781R, "Annual Report of Electrical Export/Import Data." State estimates are consistent with national and regional totals published in the ERA, *Electricity Exchanges Across International Borders*.
- 1984 through 1987: EIA State estimates are based on data from Economic Regulatory Administration Form ERA-781R, "Annual Report of Electrical Export/Import Data," the Federal Energy Regulatory Commission Form 1, and the Bonneville Power Administration

Table A8. Net Imports of Electricity Produced from Nonrenewable Energy Sources, 1989–1997
(Trillion Btu)

State	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Alaska	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.007
Arizona	0.000	-0.022	1.110	-0.022	-0.023	-0.026	3.464	-0.027	-0.624
Arkansas	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
California	20.792	16.212	21.978	17.505	14.704	14.954	12.936	4.048	3.374
Colorado	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.184
Connecticut	0.494	0.386	0.423	2.313	2.551	4.114	5.643	3.301	5.186
Delaware	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dist. of Col.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Florida	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Georgia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hawaii	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Idaho	0.062	0.196	0.310	0.629	0.312	0.763	0.169	0.591	0.726
Illinois	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Indiana	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Iowa	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Kansas	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Kentucky	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Louisiana	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maine	5.642	1.964	1.441	2.089	0.642	10.040	16.961	8.235	21.445
Maryland	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Massachusetts	4.468	4.443	4.380	4.145	4.362	16.538	5.643	4.025	5.186
Michigan	0.029	-113.894	-5.486	-2.933	1.986	28.227	20.656	3.580	-4.417
Minnesota	4.363	-17.948	-3.137	-0.753	-5.186	24.527	14.737	22.694	58.071
Mississippi	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Missouri	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Montana	0.039	0.073	0.039	0.072	0.048	0.467	0.128	0.097	0.025
Nebraska	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nevada	0.156	0.000	0.007	0.095	0.078	0.047	0.159	0.000	0.000
New Hampshire	0.401	0.386	2.060	2.313	2.551	4.415	5.643	3.301	5.186
New Jersey	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
New Mexico	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
New York	13.554	-17.148	-3.448	-1.126	8.156	45.442	28.023	9.920	8.423
North Carolina	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
North Dakota	0.541	0.333	-2.206	1.274	0.217	2.362	0.979	2.329	-1.880
Ohio	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Oklahoma	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Oregon	4.623	4.668	8.347	14.957	7.807	16.106	6.080	9.618	3.301
Pennsylvania	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.564	0.149
Rhode Island	0.207	0.386	0.423	2.313	2.551	2.238	5.643	3.301	5.186
South Carolina	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
South Dakota	0.000	0.000	0.321	0.699	0.000	1.434	0.000	0.000	0.000
Tennessee	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Texas	0.014	-0.660	-4.663	-9.953	-8.258	-9.952	-9.542	-10.584	-11.314
Utah	(s)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.123
Vermont	4.971	1.347	3.469	-3.831	3.160	2.980	4.901	7.493	13.296
Virginia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Washington	6.706	5.646	-2.074	6.791	-5.441	-6.529	-26.088	-12.548	2.297
West Virginia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Wisconsin	0.000	0.000	1.286	2.331	0.000	4.780	16.937	0.518	0.000
Wyoming	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
United States	67.063	-113.633	24.579	38.906	30.215	162.925	113.068	60.460	113.930

(s)=Number less than 0.0005.
Source: Combined State Energy Data System 1997.

Annual Report. State estimates are consistent with national and regional totals published in the ERA, *Electricity Transactions Across International Borders*.

- 1988 forward: EIA State estimates are based on data from DOE, Fossil Fuels, Fuels Programs, Office of Coal and Electricity, Form FE-781R, "Annual Report of International Electrical Export/Import Data," and predecessor forms, the Federal Energy Regulatory Commission Form 1, the Bonneville Power Administration data, and the Canada National Energy Board Annual Report.

ELIMPZZ — Electricity imported into the United States (assumed to be produced by hydroelectric power through 1989) by State.

- 1960 through 1981: Economic Regulatory Administration, *Staff Reports*, "Report on Electric Energy Exchanges with Canada and Mexico." Source data are arranged by the Regional Reliability Council Areas and then by the electric utility. State data were tabulated by aggregating the data of all electric utilities within each State.
- 1982 and 1983: EIA State estimates are based on data from Economic Regulatory Administration Form ERA-781R, "Annual Report of Electrical Export/Import Data." State estimates are consistent with national and regional totals published in the ERA, *Electricity Exchanges Across International Borders*.
- 1984 through 1987: EIA State estimates are based on data from Economic Regulatory Administration Form ERA-781R, "Annual Report of Electrical Export/Import Data," the Federal Energy Regulatory Commission Form 1, and the Bonneville Power Administration Annual Report. State estimates are consistent with national and regional totals published in the ERA, *Electricity Transactions Across International Borders*.
- 1988 forward: EIA State estimates are based on data from DOE, Fossil Fuels, Fuels Programs, Office of Coal and Electricity, Form FE-781R, "Annual Report of International Electrical Export/Import Data," and predecessor forms, the Federal Energy Regulatory Commission Form 1, the Bonneville Power Administration data, and the Canada National Energy Board Annual Report.

FFEOKUS — Fossil fuel steam-electric power plant conversion factor.

- 1960 through 1991: Estimated by EIA as the weighted annual average heat rate for fossil-fueled steam-electric plants in the United States as published in the EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9.

- 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

Electricity Consumed by the End User

Physical Units

The amount of electricity sold to end users is considered to be the amount of electricity consumed by the end-use sectors. Five electricity sales data series, in physical units of million kilowatthours, and one data series that represents the proportional share of an end-use sector are used to estimate consumption of electricity by end-use sector:

ESRCPZZ = electricity sold to the residential sector of each State;
ESCMPZZ = a portion of the electricity sold to the commercial sector of each State;
ESICPZZ = electricity sold to the industrial sector of each State;
ESOTPZZ = electricity sold to "Other" users (i.e., public street and highway lighting, other public authorities, railroads and railways, and interdepartmental sales) in each State; and
ESTRPZZ = electricity consumed by transit systems, in each State.

U.S. totals for the five State-level series are calculated as the sum of the State data.

The sales of electricity to the residential and industrial sectors are used directly as consumption of electricity by these sectors.

Electricity consumed by transit systems in each State is assumed to be the total electricity used for transportation:

ESACPZZ = ESTRPZZ
ESACPUS = ΣESACPZZ

The commercial sector consumption of electricity, represented by ESCCPZZ, is estimated as the sum of sales to the commercial sector and the portion of sales to the "Other" sector that is not used for transportation:

ESCCPZZ = ESCMPZZ + ESOTPZZ – ESACPZZ
ESCCPUS = ΣESCCPZZ

Total electricity consumed by the major end-use sectors is represented by ESTCPZZ and is calculated by adding the four major sector estimates:

ESTCPZZ = ESRCPZZ + ESCCPZZ + ESICPZZ + ESACPZZ
ESTCPUS = ΣESTCPZZ

British Thermal Units (Btu)

Electricity consumption estimates are converted into Btu by applying a constant factor of 3.412 thousand Btu per kilowatthour as illustrated in the formulas:

ESRCBZZ = ESRCPZZ * 3.412
ESTCBZZ = ESTCPZZ * 3.412

And U.S. totals in Btu are calculated by summing the States' Btu values.

Additional Calculations

Additional calculations are performed in CSEDS to provide data for the EIA *Monthly Energy Review* and *Annual Energy Review*. The share of electricity sold to the "Other" category of consumers that is used for transportation is calculated:

ESTRSUS = ESACPUS / ESOTPUS

Data Sources

ESCMPZZ — A portion of the electricity sold to the commercial sector by State.
Note: Data for Maryland and the District of Columbia were combined for 1960 through 1983. The method for disaggregating the data is explained in Note 3 on page 427.

- 1960 through 1975: Federal Power Commission, *Electric Power Statistics*, "Sales of Electric Energy to Ultimate Consumers."
- 1976 through 1980: EIA, *Electric Power Annual* (November 1982), Table 125.
- 1981 through 1983: EIA, Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Published data rounded to gigawatthours in EIA, *Electric Power Annual 1983*, Table 51.
- 1984 through 1986: EIA, Form EIA-861, "Annual Electric Utility Report." Unpublished data.
- 1987: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours in EIA, *Electric Power Annual 1988,* Table 19.
- 1988 forward: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours.
  - — 1988 through 1990: EIA, *Electric Power Annual,* Table 27.
  - — 1991 forward: EIA, *Electric Sales and Revenue,* Table 15.

ESICPZZ — Electricity consumed by the industrial sector by State.

Note: Data for Maryland and the District of Columbia were combined for 1960 through 1983. The method for disaggregating the data is explained in Appendix A, Note 3, on page 427.

- 1960 through 1975: Federal Power Commission, Electric Power Statistics, "Sales of Electric Energy to Ultimate Consumers."
- 1976 through 1980: EIA, *Electric Power Annual* (November 1982), Table 126.
- 1981 through 1983: EIA, Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Published data rounded to gigawatthours in EIA, *Electric Power Annual 1983*, Table 51.
- 1984 through 1986: EIA, Form EIA-861, "Annual Electric Utility Report." Unpublished data.
- 1987: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours in EIA, *Electric Power Annual 1988*, Table 19.
- 1988 forward: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours in EIA, *Electric Power Annual* (*Volume I* for 1994). The specific tables are:
  - — 1988 through 1990: EIA, *Electric Power Annual,* Table 27.
  - — 1991 forward: EIA, *Electric Sales and Revenue,* Table 16.

ESOTPZZ — Electricity sold to the "Other" sector (i.e., public street and highway lighting, sales to other public authorities, railroads and railways, and interdepartmental sales) by State.

Note: Data for Maryland and the District of Columbia were combined for 1960 through 1983. The method for disaggregating the data is explained in Appendix A, Note 3, on page 427.

- 1960 through 1975: Federal Power Commission, *Electric Power Statistics*, "Sales of Electric Energy to Ultimate Consumers."
- 1976 through 1980: EIA, *Electric Power Annual* (November 1982), Table 127.
- 1981 through 1983: EIA, Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Published data rounded to gigawatthours in EIA, *Electric Power Annual 1983*, Table 51.
- 1984 through 1986: EIA, Form EIA-861, "Annual Electric Utility Report." Unpublished data.
- 1987: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours in EIA, *Electric Power Annual 1988*, Table 19.
- 1988 forward: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours.
  - — 1988 through 1990: EIA, *Electric Power Annual*, Table 27.
  - — 1991 forward: EIA, *Electric Sales and Revenue,* Table 6.

ESRCPZZ — Electricity consumed by the residential sector by State.

Note: Data for Maryland and the District of Columbia were combined for 1960 through 1983. The method for disaggregating the data is explained in Appendix A, Note 3, on page 427.

- 1960 through 1975: Federal Power Commission, *Electric Power Statistics*, "Sales of Electric Energy to Ultimate Consumers."
- 1976 through 1980: EIA, *Electric Power Annual* (November 1982), Table 124.
- 1981 through 1983: EIA, Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Published data rounded to gigawatthours in EIA, *Electric Power Annual 1983*, Table 51.
- 1984 through 1986: EIA, Form EIA-861, "Annual Electric Utility Report." Unpublished data.
- 1987: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours in EIA, *Electric Power Annual 1988*, Table 19.

- 1988 forward: EIA, Form EIA-861, "Annual Electric Utility Report." Published data rounded to gigawatthours.
  - — 1988 through 1990: *Electric Power Annual*, Table 27.
  - — 1991 forward: EIA, *Electric Sales and Revenue,* Table 14.

ESTRPZZ — Electricity consumed by transit systems by State.

Note: The transit system data include electricity used to operate commuter rail, rapid rail, streetcars or light rail, cable cars, trolley-buses, motorbuses, automated guideways, inclined plane railways, and aerial tramways. These data do not include electricity used by Amtrak.

- 1960 through 1978: EIA estimates are based on data from:
  - — The American Public Transit Association (formerly the American Transit Association) annual operating reports.
  - — Pushkarev, Boris S. and others, *Urban Rail in America*. (Bloomington, IN: Indiana University Press, 1982.)
  - — U.S. Department of Transportation, *A Directory of Regularly Scheduled, Fixed Route, Local Public Transportation Service in Urbanized Areas Over 50,000 Population*, 1980 and 1981.
- 1979 through 1989: U.S. Department of Transportation, Urban Mass Transportation Administration, *National Urban Mass Transportation Statistics, Section 15 Annual Report*, table titled "Energy Consumption: Details by Transit System."
  - — 1979 and 1980: Table 2.13.1.
  - — 1981 and 1982: Table 3.13.1.
  - — 1983 through 1989: Table 3.12.
- 1990 forward: U.S. Department of Transportation, Federal Transit Administration, *Data Tables for the Section 15 Report Year.*
  - — 1990: Table 2.12.
  - — 1991: Table 13.
  - — 1992 forward: Table 15.
- Data for 1997 also available via internet at http://www.ntdprogram.com/NTD/NTDData.nsf/Data+Tables?OpenView

Notes: These data are available on a fiscal year basis (July 1 through June 30) for 1979 through 1982 and for calendar years 1983 forward. Some data for 1979 through 1983 were adjusted by EIA on the basis of an analysis of historical trends. Electricity consumption for the District of Columbia for 1976 forward is partially apportioned to Maryland and Virginia on the basis of electricity consumption data from the Washington Metropolitan Area Transit Authority.

Estimates of Electrical System Energy Losses

British Thermal Units (Btu)

Electrical system energy losses, identified by "LO," include all losses incurred in the generation, transmission, and distribution of electricity, including plant use and unaccounted for quantities. Total losses for the United States, LOTCBUS, is assumed to be the difference between the total of all energy input at electric utilities (TEEUBUS) and the total electricity sold to end users (ESTCBUS). Total losses for the United States is calculated in billion Btu as follows:

LOTCBUS = TEEUBUS – ESTCBUS

Because Alaska and Hawaii have no exchanges of electricity with other States, their electrical system energy losses are estimated as the difference between the sum of all energy input at the State's electric utilities and the electricity sold within the State:

LOTCBAK = TEEUBAK – ESTCBAK
LOTCBHI = TEEUBHI – ESTCBHI

Individual State electrical system energy losses for the remaining States are estimated by a different method. The difference between each of the contiguous 48 States' (including the District of Columbia) TEEUB series and ESTCB is not only the losses but also any net interstate flow of electricity that may occur between States. In some cases these net interstate flows are substantial. Therefore, an effort is made to estimate separately each State's losses and net interstate flow. The methodology is to calculate the contiguous-48-State subtotal of losses and subtotal of sales; to create annual losses-to-sales ratios for the aggregate of the 48 States; and to apply the annual losses-to-sales ratios from the total 48 States to the individual 48 States' sales to estimate their losses.

The following steps are performed to complete the losses estimates. A subtotal of losses in the contiguous 48 States, LOTCB48, is created by subtracting the Alaska and Hawaii losses from the total United States' losses:

LOTCB48 = LOTCBUS – (LOTCBAK + LOTCBHI)

A similar subtotal of electricity sales in the 48 States only, ESTCB48, is calculated:

ESTCB48 = ESTCBUS – (ESTCBAK + ESTCBHI)

The losses-to-sales ratio for the contiguous 48 States only, ELLSS48, is calculated:

ELLSS48 = LOTCB48 / ESTCB48

Over the 38-year period now covered in CSEDS, the ratio is fairly constant, with a slight downward trend. For 1960, the ratio is 2.5; for 1961 through 1983 the ratio is 2.4; for 1984 through 1988 the ratio is 2.3; for 1989 through 1991 it is 2.2; and for 1992 forward the losses-to-sales ratio is 2.1. The decline in the ratio in recent years is attributed partially to the fact that electricity produced by nonutility power producers is included in the electricity sales data, while the resources consumed to produce the nonutility electricity are not. When the electricity purchased by utilities from nonutilities is subtracted from the electricity sales, the ratio is 2.3 for 1989 through 1993, and 2.2 for 1994 forward.

The U.S. ratios are applied to each State's sales to the major end-use sectors and total sales (temporarily including Alaska, Hawaii, and the 48-State subtotal for processing convenience):

LORCBZZ = ESRCBZZ * ELLSS48
LOCCBZZ = ESCCBZZ * ELLSS48
LOICBZZ = ESICBZZ * ELLSS48
LOACBZZ = ESACBZZ * ELLSS48
LOTCBZZ = ESTCBZZ * ELLSS48

Alaska, Hawaii, and the contiguous 48-State subtotal are recalculated to their original estimates. The end-use losses for Alaska and Hawaii are created in proportion to each sector's share of the State's total electricity sales:

LOTCBAK = TEEUBAK – ESTCBAK
LOTCBHI = TEEUBHI – ESTCBHI
LOTCB48 = LOTCBUS – (LOTCBAK + LOTCBHI)

LORCBAK(HI) = (ESRCBAK(HI) / ESTCBAK(HI)) * LOTCBAK(HI)
LOCCBAK(HI) = (ESCCBAK(HI) / ESTCBAK(HI)) * LOTCBAK(HI)
LOICBAK(HI) = (ESICBAK(HI) / ESTCBAK(HI)) * LOTCBAK(HI)
LOACBAK(HI) = (ESACBAK(HI) / ESTCBAK(HI)) * LOTCBAK(HI)

Losses for the United States, including Alaska and Hawaii, are the sums of all the States' losses.

Physical Units

Estimates of losses in physical units of million kilowatthours are made by dividing the Btu estimate by the constant 3.412 thousand Btu per kilowatthour as illustrated in the following formulas:

LORCPZZ = LORCBZZ/3.412 LORCPUS = LORCBUS/3.412
LOTCPZZ = LOTCBZZ/3.412 LOTCPUS = LOTCBUS/3.412

Net Interstate Flow of Electricity

British Thermal Units (Btu)

An estimate of the net interstate flow of electricity is calculated as the difference between the total electricity sales and attributed losses and the total energy input to the electric utilities within each State. The estimated net interstate flow of electricity (ELISB) for each State and the United States is calculated:

ELISBZZ = (ESTCBZZ + LOTCBZZ) – TEEUBZZ
ELISBUS = ΣELISBZZ

Physical Units

Estimates of net interstate flow of electricity in physical units of million kilowatthours are calculated by dividing the Btu value by the constant 3.412 thousand Btu per kilowatthour:

ELISPZZ = ELISBZZ / 3.412
ELISPUS = ΣELISPZZ

Positive net interstate flow for a State means that the amount consumed within the State (including attributed losses) is greater than the amount of energy input at electric utilities in the State. That is, the State is using more electricity than it generates and, therefore, is a net buyer from other States.

A negative number indicates that the State's input into its electric utilities is greater than the requirements for electricity within its own borders, and, therefore, it is a net seller of electricity to other States.

Additional Notes on Electricity

1. The source for the electricity sales data for 1960 through 1983 is the Energy Information Administration (EIA) Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Electricity sales data for 1984 forward are from Form EIA-861, "Annual Electric Utility Report." At the national level, data from both forms correspond closely (within 3 percent) for all end-use sectors. However, differences in the number of survey respondents and the reporting of commercial and industrial sales caused inconsistencies between 1983 and 1984 data in those end-use sectors for some States. See the EIA's, *Electric Power Annual, 1991,* DOE/EIA-0348(91), p. 130, and *An Assessment of the Quality of Selected EIA Data Series, Electric Power Data*, DOE/EIA-0292(87), pp. 17–28, for detailed discussions of the reporting differences.

2. The source document for CSEDS electricity sales, the EIA *Electric Sales and Revenue,* includes a category called "Other" sales. Sales to the "Other" category include: (1) public street and highway lighting; (2) sales to other public authorities; (3) railroads and railways; and (4) interdepartmental sales. These sales are allocated to the transportation and commercial sectors in CSEDS as described on page 423.

   ESTRSUS, the share of "Other" allocated to the transportation sector in CSEDS is calculated for use by other EIA reports. The shares are shown in Table A9.

3. The source for the electricity sales data for 1960 through 1983 is the EIA Form EIA-826, "Electric Utility Company Monthly Statement," and predecessor forms. Electricity sales data for the District of Columbia and Maryland are combined on those forms. Estimates of separate sales for the District of Columbia and Maryland were created by using electricity sales data by end-use sector by communities from the FERC Form 1, "Annual Report of Major Electric Utilities, Licensees, and Others," filed by the Potomac Electric Power Company (PEPCO). PEPCO sales to the District of Columbia were assumed to be total electricity sales in the District of Columbia. Electricity sales to the District of Columbia reported by PEPCO on the FERC Form 1 were subtracted from the EIA-826 District of Columbia and Maryland aggregate figures to obtain estimates of Maryland electricity sales by sector. Beginning with 1981 data, electric utilities were no longer required to report sales to specific communities. Therefore, sales data for the District of Columbia for 1981 through 1983 were obtained directly from PEPCO's accounting department.

Table A9. Railroads and Railways Share of Other Electricity Sales

Year	ESTRSUS	Year	ESTRSUS	Year	ESTRSUS
1960	0.09730	1973	0.05203	1986	0.04980
1961	0.09321	1974	0.04909	1987	0.05173
1962	0.09368	1975	0.04360	1988	0.05211
1963	0.08659	1976	0.04234	1989	0.05314
1964	0.09088	1977	0.04331	1990	0.05165
1965	0.08705	1978	0.04014	1991	0.05044
1966	0.07687	1979	0.04058	1992	0.05036
1967	0.07395	1980	0.04400	1993	0.05025
1968	0.07116	1981	0.03759	1994	0.05105
1969	0.06660	1982	0.03768	1995	0.05214
1970	0.06428	1983	0.04631	1996	0.05047
1971	0.05995	1984	0.04914	1997	0.04769
1972	0.05398	1985	0.04751		

Alternative Method for Calculating Interstate Flow of Electricity and Electrical System Energy Losses

EIA is examining a method to disaggregate the estimates of net interstate sales of electricity and electrical system energy losses as shown in Tables A10 through A21.

The fuel consumed at electric utilities and the net generation of other energy sources by electric utilities collected by EIA on Form EIA-759, "Monthly Power Plant Report," represent the total energy input at electric utilities, TIEUB, shown in column 1 of Tables A10 through A21. This series is equal to the CSEDS series TEEUB, except TEEUB also contains net imports of electricity. The formulas for TIEUB for each State and the United States are:

TIEUBZZ = PAEUBZZ + NGEUBZZ + CLEUBZZ + HYEOBZZ + NUEOBZZ + GEEOBZZ + WWEOBZZ + WNEOBZZ
TIEUBUS = ΣTIEUBZZ

Another series collected on Form EIA-759 is the net generation of electricity by electric utilities (total generation minus plant use). This data series, in thousand kilowatthours, given the variable name ELEOP, represents the energy output of electric utilities. ELEOPZZ is converted to Btu by using the standard conversion factor of 3.412 thousand Btu per kilowatthour:

ELEOBZZ = ELEOPZZ * 3.412
ELEOBUS = ΣELEOBZZ

Subtracting energy output by electric utilities, ELEOBZZ (shown in column 3 of Tables A10 through A21), from energy input at electric utilities, TIEUBZZ (shown in column 1 of those tables), gives an indication of energy losses that occur at electric utility plants, ELPLBZZ (shown in column 2). These losses are primarily energy lost in the conversion of the energy sources to electricity. Plant use of electricity is also included in this number.

ELPLBZZ = TIEUBZZ – ELEOBZZ
ELPLBUS = ΣELPLBZZ

Data for electricity imported or exported across U.S. borders, described earlier in "Electrical Energy Sources," are reported in thousand kilowatthours. These data are converted to Btu by using the standard conversion factor and are shown in column 4 of Tables A10 through A21. The electricity trade data are added to the net generation of each State involved in international exchanges of electricity to derive electricity transmitted for sale within the United States (shown in column 5 of the following tables).

ETIMBZZ = ELIMPZZ * 3.412
ETEXBZZ = ELEXPZZ * 3.412
ETNIBZZ = ETIMBZZ – ETEXBZZ
ETNIBUS = ΣETNIBZZ

ETENBZZ = ELEOBZZ + ETNIBZZ
ETENBUS = ΣETENBZZ

Total electrical energy lost in the transmission and distribution of electricity is reported by each electric utility. However, some electric utilities distribute electricity to more than one State. The EIA Electric Power Division has estimated these losses by State. The losses in million kilowatthours are converted to billion Btu by using the standard conversion factor and are shown in column 6 in the following tables.

ELLOBZZ = ELLOPZZ * 3.412
ELLOBUS = ΣELLOBZZ

Subtracting the State estimates for transmission and distribution losses (column 6) from the electricity transmitted (column 5) yields the electricity available for sale within each State, ELFSBZZ, shown in column 7.

ELFSBZZ = ETENBZZ – ELLOBZZ
ELFSBUS = ΣELFSBZZ

Column 7, electricity available for sale, can be compared to column 8, the actual reported sales to consumers within each State. The sales data are collected on Form EIA-861, "Annual Electric Utility Report," and are currently used in CSEDS as variable ESTCBZZ. If column 7, the electricity available for sale, is larger than column 8, the electricity sold, the State would be a supplier of electricity to neighboring States. If the electricity available within the State is less than the amount needed to meet sales

demand, the State would be a purchaser of electricity from other States. Column 9 of Tables A10 through A21 shows the difference between columns 8 and 7 for each State as calculated:

ESISBZZ = ESTCBZZ – ELFSBZZ
ESISBUS = ΣESISBZZ

Negative values in column 9 show the amount of electricity that flowed out of the State. Positive numbers show the amount of electricity that flowed into the State to meet the State's own requirements. For comparison, data in column 10 are the "Net Interstate Flow of Electricity and Associated Losses" (ELISBZZ) series now calculated by CSEDS (as described earlier in "Net Interstate Flow of Electricity") and shown in the State tables of this report. Values in Column 9 are estimates of the net interstate flow of electricity alone and would be a subset of the data in column 10, which include electrical system energy losses associated with that flow.

There are some unresolved problems with the separate estimate of electricity flow as shown in Column 9: Alaska and Hawaii appear to have small purchases of electricity from other States, and the total United States appears to have excess electricity. The current methodology used in CSEDS avoids these discrepancies as shown in column 10. The U.S. value in column 9 may reflect, at least in part, the electricity that is generated by companies other than electric utilities that would be included in the electricity sales to end users (column 8) but not in the electricity available for sale (column 7). The U.S. value for electricity production by nonutilities is shown in the footnotes on Tables A10 through A21.

Comments on these methodologies would be appreciated.

Table A10. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1997
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	1,159,115	771,226	387,889	0	387,889	19,109	368,780	254,378	-114,402	-376,455
Alaska	56,580	39,152	17,429	6	17,434	1,238	16,196	16,516	319	0
Arizona	819,264	552,921	266,342	-207	266,136	15,214	250,922	185,803	-65,118	-246,967
Arkansas	453,238	307,239	145,998	0	145,998	8,354	137,645	125,758	-11,887	-66,311
California	1,233,922	851,153	382,769	4,446	387,215	78,852	308,363	777,514	469,151	1,144,690
Colorado	363,610	246,321	117,289	147	117,436	9,221	108,215	129,892	21,677	35,593
Connecticut	140,207	95,074	45,133	4,140	49,273	7,118	42,155	97,010	54,855	145,760
Delaware	69,652	47,206	22,446	0	22,446	1,966	20,481	34,538	14,057	36,612
Dist. of Col.	1,203	962	241	0	241	1,767	-1,526	34,484	36,010	104,897
Florida	1,485,601	980,681	504,920	0	504,920	37,633	467,288	597,240	129,952	351,963
Georgia	1,098,989	751,714	347,275	0	347,275	17,131	330,144	348,877	18,733	-25,579
Hawaii	66,993	45,795	21,198	0	21,198	1,929	19,268	31,947	12,678	0
Idaho	139,321	93,218	46,102	579	46,682	5,914	40,768	72,455	31,687	81,854
Illinois	1,397,606	950,162	447,444	0	447,444	31,789	415,655	431,443	15,788	-70,160
Indiana	1,165,379	788,468	376,911	0	376,911	20,552	356,359	304,168	-52,190	-229,526
Iowa	373,086	256,858	116,228	0	116,228	8,043	108,184	123,337	15,153	6,392
Kansas	423,722	294,599	129,123	0	129,123	9,651	119,472	110,105	-9,366	-84,954
Kentucky	924,511	612,115	312,396	0	312,396	13,887	298,509	262,163	-36,346	-117,899
Louisiana	661,620	453,079	208,541	0	208,541	13,760	194,782	258,922	64,140	135,020
Maine	34,167	23,171	10,996	17,247	28,243	2,664	25,579	40,804	15,225	39,257
Maryland	455,898	303,883	152,015	0	152,015	11,256	140,758	191,974	51,216	134,762
Massachusetts	332,844	217,182	115,662	4,140	119,802	9,898	109,905	162,614	52,709	154,968
Michigan	932,911	627,317	305,594	4,726	310,321	22,114	288,207	332,297	44,090	75,204
Minnesota	452,379	314,867	137,512	47,254	184,766	13,808	170,958	189,961	19,002	-10,717
Mississippi	342,801	236,252	106,549	0	106,549	10,479	96,070	136,783	40,713	78,047
Missouri	753,135	510,634	242,502	0	242,502	18,823	223,679	224,075	396	-63,711
Montana	294,796	199,917	94,878	37	94,915	5,535	89,380	40,662	-48,717	-169,798
Nebraska	304,358	207,498	96,860	0	96,860	6,846	90,014	77,051	-12,963	-67,291
Nevada	242,358	164,326	78,032	0	78,032	4,378	73,654	82,636	8,982	11,892
New Hampshire	153,286	104,617	48,670	4,140	52,810	4,599	48,211	30,985	-17,226	-70,464
New Jersey	255,900	174,826	81,074	0	81,074	19,270	61,804	224,902	163,099	436,070
New Mexico	323,468	219,170	104,299	0	104,299	5,255	99,044	59,805	-39,239	-139,462
New York	1,140,477	771,644	368,832	13,513	382,345	37,971	344,374	450,166	105,793	203,743
North Carolina	1,067,877	701,527	366,350	0	366,350	22,212	344,138	372,079	27,941	76,920
North Dakota	333,626	232,222	101,404	-275	101,129	3,715	97,413	28,260	-69,154	-245,846
Ohio	1,432,906	950,965	481,941	0	481,941	34,955	446,986	540,830	93,843	231,097
Oklahoma	509,634	344,561	165,073	0	165,073	11,675	153,398	151,673	-1,725	-42,972
Oregon	502,550	335,129	167,421	2,636	170,057	12,971	157,086	162,421	5,335	-10,786
Pennsylvania	1,811,046	1,206,554	604,492	119	604,611	31,055	573,556	436,310	-137,245	-468,983
Rhode Island	28,049	15,893	12,156	4,140	16,296	987	15,309	22,837	7,529	29,705
South Carolina	814,725	547,311	267,414	0	267,414	12,959	254,455	233,840	-20,615	-95,257
South Dakota	129,654	87,177	42,478	0	42,478	2,388	40,090	26,520	-13,570	-48,059
Tennessee	942,702	624,385	318,317	0	318,317	16,491	301,825	296,561	-5,264	-30,255
Texas	2,931,245	1,985,471	945,773	-3,744	942,029	64,071	877,959	978,232	100,274	89,856
Utah	344,727	228,824	115,903	98	116,002	6,595	109,406	69,521	-39,885	-131,124
Vermont	56,337	38,173	18,164	11,361	29,524	2,843	26,681	18,125	-8,556	-34,902
Virginia	600,761	399,501	201,260	0	201,260	19,583	181,677	298,278	116,601	316,969
Washington	1,218,362	817,613	400,750	-4,411	396,339	25,781	370,558	301,302	-69,257	-278,000
West Virginia	860,927	559,700	301,227	0	301,227	7,441	293,785	89,556	-204,230	-585,386
Wisconsin	528,330	362,643	165,687	0	165,687	12,800	152,888	205,041	52,153	102,531
Wyoming	436,648	297,558	139,090	0	139,090	3,787	135,303	40,215	-95,089	-312,918
United States	32,602,503	21,948,454	10,654,049	110,092	10,764,141	768,334	9,995,807	10,712,864	717,058	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1997 was 762,469 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A11. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1996
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	1,174,467	781,769	392,698	0	392,698	19,893	372,805	249,432	-123,373	-405,914
Alaska	54,946	37,946	16,999	4	17,004	1,242	15,761	16,308	546	0
Arizona	754,447	512,615	241,832	-9	241,823	13,264	228,559	177,712	-50,847	-206,851
Arkansas	458,491	309,463	149,028	0	149,028	7,665	141,363	123,298	-18,065	-78,584
California	1,257,197	865,820	391,377	4,191	395,568	76,848	318,720	744,200	425,479	1,016,242
Colorado	354,210	238,298	115,911	0	115,911	8,141	107,770	126,493	18,723	35,542
Connecticut	167,746	113,926	53,820	4,140	57,960	7,154	50,806	96,959	46,153	118,463
Delaware	82,980	55,268	27,712	0	27,712	1,939	25,772	32,894	7,122	18,374
Dist. of Col.	1,802	1,428	375	0	375	1,872	-1,497	34,586	36,084	104,765
Florida	1,454,190	958,972	495,218	0	495,218	35,736	459,482	586,291	126,808	352,295
Georgia	1,053,154	716,290	336,864	0	336,864	18,738	318,127	345,660	27,533	11,897
Hawaii	68,154	46,249	21,906	0	21,906	1,966	19,940	32,001	12,061	0
Idaho	126,406	84,674	41,732	741	42,473	6,774	35,699	72,059	36,360	93,378
Illinois	1,533,637	1,041,913	491,724	0	491,724	36,023	455,701	428,510	-27,191	-213,307
Indiana	1,107,760	747,600	360,161	0	360,161	18,905	341,256	303,331	-37,924	-173,132
Iowa	364,888	250,972	113,916	0	113,916	10,826	103,090	119,418	16,328	3,064
Kansas	444,474	308,422	136,052	0	136,052	9,285	126,767	106,764	-20,004	-115,513
Kentucky	895,115	593,364	301,751	0	301,751	14,771	286,980	262,788	-24,192	-85,410
Louisiana	637,002	436,912	200,090	0	200,090	15,643	184,448	256,818	72,371	154,309
Maine	82,897	56,283	26,614	13,314	39,928	2,518	37,409	40,011	2,601	56
Maryland	452,033	300,606	151,426	0	151,426	10,833	140,593	194,476	53,883	147,187
Massachusetts	278,313	183,599	94,713	5,047	99,760	9,400	90,361	161,366	71,005	203,603
Michigan	987,891	663,222	324,670	6,488	331,158	22,329	308,828	328,581	19,752	4,883
Minnesota	465,232	322,639	142,593	34,095	176,688	15,351	161,337	187,461	26,124	9,100
Mississippi	318,166	219,770	98,396	0	98,396	8,042	90,355	135,192	44,837	98,388
Missouri	713,553	482,126	231,427	0	231,427	19,029	212,397	221,245	8,848	-31,850
Montana	276,034	187,189	88,846	154	89,000	5,793	83,206	47,152	-36,054	-131,215
Nebraska	293,272	200,047	93,225	0	93,225	6,822	86,403	73,349	-13,053	-67,267
Nevada	236,775	163,887	72,887	0	72,887	4,392	68,496	77,023	8,527	548
New Hampshire	164,779	112,171	52,608	4,140	56,748	2,440	54,308	31,143	-23,165	-81,362
New Jersey	211,578	144,052	67,526	0	67,526	17,458	50,068	228,227	178,159	491,637
New Mexico	310,174	209,983	100,191	0	100,191	4,995	95,196	58,596	-36,600	-129,629
New York	1,104,744	748,667	356,077	21,661	377,738	38,323	339,415	448,771	109,356	212,401
North Carolina	1,033,804	683,097	350,708	0	350,708	22,155	328,553	369,507	40,955	104,725
North Dakota	345,368	240,381	104,986	3,482	108,468	4,630	103,838	28,368	-75,470	-268,507
Ohio	1,449,288	961,712	487,576	0	487,576	35,426	452,150	541,100	88,950	217,955
Oklahoma	496,128	333,906	162,222	0	162,222	11,483	150,739	147,710	-3,029	-41,003
Oregon	492,575	329,195	163,380	12,061	175,441	14,870	160,571	160,995	424	-33,049
Pennsylvania	1,804,768	1,207,593	597,175	707	597,882	32,224	565,658	435,450	-130,208	-465,198
Rhode Island	26,208	14,944	11,263	4,140	15,403	1,087	14,317	22,534	8,217	30,683
South Carolina	790,853	530,430	260,423	0	260,423	12,380	248,043	228,898	-19,145	-85,569
South Dakota	109,626	75,280	34,346	0	34,346	2,726	31,620	26,396	-5,225	-28,295
Tennessee	903,081	600,617	302,464	0	302,464	17,366	285,098	299,093	13,995	18,486
Texas	2,860,524	1,931,496	929,028	-3,494	925,534	65,395	860,139	950,070	89,931	77,425
Utah	331,859	221,895	109,964	0	109,964	6,434	103,530	67,756	-35,775	-123,089
Vermont	52,894	35,820	17,074	11,757	28,831	2,860	25,971	17,877	-8,094	-33,422
Virginia	579,512	386,622	192,890	0	192,890	20,772	172,118	298,876	126,758	341,389
Washington	1,171,148	786,935	384,213	4,759	388,972	34,486	354,486	298,254	-56,232	-266,581
West Virginia	818,784	532,251	286,533	0	286,533	8,013	278,520	89,145	-189,376	-544,111
Wisconsin	554,879	378,644	176,235	649	176,884	13,567	163,317	200,433	37,116	60,732
Wyoming	439,354	299,968	139,386	0	139,386	3,847	135,539	39,153	-96,386	-318,716
United States	32,147,160	21,646,927	10,500,233	128,029	10,628,262	784,133	9,844,128	10,569,728	725,599	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1996 was 766,492 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A12. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1995
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	1,009,931	670,132	339,799	0	339,799	31,051	308,748	238,863	-69,885	-273,442
Alaska	53,701	37,164	16,538	0	16,538	1,158	15,380	15,804	424	0
Arizona	724,188	488,874	235,314	1,146	236,460	19,442	217,018	165,786	-51,232	-216,484
Arkansas	421,186	286,320	134,866	0	134,866	18,009	116,856	118,299	1,443	-56,434
California	1,318,556	902,697	415,859	10,103	425,962	79,060	346,903	725,407	378,504	878,183
Colorado	346,716	235,233	111,484	0	111,484	12,322	99,162	120,501	21,339	24,826
Connecticut	285,655	193,764	91,892	5,299	97,191	7,205	89,985	95,434	5,448	-7,419
Delaware	84,730	56,328	28,402	0	28,402	2,284	26,118	32,685	6,568	16,049
Dist. of Col.	2,962	2,318	644	0	644	4,335	-3,690	35,197	38,887	105,560
Florida	1,470,348	968,249	502,099	0	502,099	43,749	458,350	571,483	113,134	291,712
Georgia	1,063,920	715,842	348,078	0	348,078	22,702	325,375	328,208	2,832	-51,954
Hawaii	66,504	45,382	21,122	0	21,122	1,828	19,295	31,348	12,053	0
Idaho	103,769	69,434	34,334	159	34,493	6,470	28,023	66,943	38,920	102,158
Illinois	1,556,529	1,061,226	495,304	0	495,304	41,566	453,737	430,700	-23,037	-228,546
Indiana	1,092,828	733,924	358,904	0	358,904	21,352	337,553	296,864	-40,688	-177,504
Iowa	363,370	249,061	114,309	0	114,309	9,367	104,942	117,035	12,093	-2,515
Kansas	420,901	290,459	130,442	0	130,442	13,882	116,561	103,578	-12,983	-101,539
Kentucky	868,011	574,028	293,983	0	293,983	11,456	282,527	254,358	-28,169	-83,745
Louisiana	714,248	490,574	223,674	0	223,674	18,237	205,438	248,486	43,049	51,912
Maine	28,568	19,463	9,105	16,058	25,163	2,415	22,748	39,447	16,699	44,527
Maryland	452,516	300,140	152,376	0	152,376	8,457	143,919	191,611	47,692	138,281
Massachusetts	276,260	184,232	92,027	5,299	97,326	11,535	85,791	158,693	72,902	197,026
Michigan	956,197	640,660	315,538	19,649	335,187	32,096	303,091	323,120	20,030	-19,303
Minnesota	472,945	327,925	145,020	16,364	161,384	19,780	141,604	184,107	42,504	45,259
Mississippi	298,181	208,121	90,060	0	90,060	8,666	81,395	129,207	47,813	100,205
Missouri	689,637	466,491	223,146	0	223,146	6,930	216,216	212,428	-3,788	-34,657
Montana	270,773	184,070	86,703	139	86,842	16,295	70,547	45,784	-24,763	-130,027
Nebraska	270,767	184,514	86,253	0	86,253	6,476	79,777	71,285	-8,491	-50,973
Nevada	218,368	150,137	68,231	149	68,380	2,773	65,607	70,490	4,883	-1,476
New Hampshire	148,436	100,886	47,550	5,299	52,849	2,616	50,233	30,733	-19,500	-69,691
New Jersey	290,572	198,149	92,423	0	92,423	15,980	76,443	227,764	151,321	411,695
New Mexico	308,902	208,480	100,422	0	100,422	5,867	94,555	56,010	-38,545	-136,206
New York	1,070,897	725,736	345,161	30,275	375,435	45,792	329,643	445,166	115,523	210,190
North Carolina	964,252	636,325	327,927	0	327,927	39,945	287,982	357,143	69,162	136,932
North Dakota	324,599	226,190	98,409	1,368	99,777	3,361	96,416	26,896	-69,521	-245,807
Ohio	1,399,415	929,036	470,379	0	470,379	39,142	431,237	541,230	109,994	269,366
Oklahoma	498,417	334,794	163,623	0	163,623	7,077	156,547	141,231	-15,316	-62,958
Oregon	453,546	303,311	150,235	5,710	155,945	5,449	150,496	156,015	5,519	10,238
Pennsylvania	1,742,995	1,166,566	576,429	0	576,429	28,956	547,473	430,767	-116,706	-414,806
Rhode Island	5,656	3,428	2,228	5,299	7,527	981	6,546	22,641	16,095	48,138
South Carolina	819,584	551,947	267,637	0	267,637	8,302	259,334	222,034	-37,301	-134,985
South Dakota	92,987	62,921	30,066	0	30,066	1,726	28,340	25,295	-3,045	-14,995
Tennessee	826,158	545,427	280,731	0	280,731	10,110	270,621	279,887	9,266	36,822
Texas	2,774,610	1,881,659	892,951	-3,157	889,794	52,372	837,422	898,307	60,885	4,690
Utah	329,809	220,280	109,529	0	109,529	681	108,848	62,986	-45,862	-135,602
Vermont	51,400	34,887	16,513	7,441	23,954	1,890	22,064	17,415	-4,649	-20,191
Virginia	541,377	361,471	179,906	0	179,906	11,627	168,279	290,574	122,295	354,554
Washington	993,110	666,679	326,431	-14,167	312,264	10,043	302,221	301,462	-759	-20,793
West Virginia	767,846	504,022	263,823	0	263,823	230	263,594	88,633	-174,961	-494,564
Wisconsin	545,360	371,306	174,054	15,905	189,960	5,027	184,933	197,783	12,850	16,397
Wyoming	425,903	290,503	135,401	0	135,401	531	134,870	38,209	-96,660	-308,092
United States	31,278,098	21,060,766	10,217,332	128,338	10,345,669	778,604	9,567,066	10,281,334	714,268	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1995 was 743,495 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A13. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1994
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	965,833	641,109	324,724	0	324,724	20,712	304,012	230,585	-73,426	-254,078
Alaska	52,289	36,041	16,248	0	16,248	1,194	15,055	15,468	413	0
Arizona	739,779	496,832	242,947	-8	242,939	11,376	231,563	161,326	-70,236	-241,782
Arkansas	424,304	289,367	134,937	0	134,937	8,565	126,372	111,296	-15,076	-80,762
California	1,374,506	942,038	432,468	12,696	445,164	72,399	372,765	729,091	356,326	825,193
Colorado	351,244	237,541	113,703	0	113,703	8,295	105,408	117,722	12,314	12,131
Connecticut	289,385	196,574	92,811	3,462	96,273	6,200	90,073	95,624	5,551	-4,687
Delaware	87,055	58,049	29,006	0	29,006	1,785	27,221	31,728	4,507	10,881
Dist. of Col.	4,131	3,195	936	0	936	1,946	-1,010	35,125	36,135	104,292
Florida	1,413,806	930,016	483,790	0	483,790	33,135	450,656	544,365	93,710	266,502
Georgia	1,004,816	667,872	336,944	0	336,944	20,583	316,362	306,783	-9,578	-57,858
Hawaii	64,666	44,006	20,660	0	20,660	1,947	18,713	30,532	11,819	0
Idaho	75,340	50,421	24,918	642	25,560	6,268	19,292	67,826	48,534	132,080
Illinois	1,491,277	1,021,289	469,988	0	469,988	30,906	439,081	414,524	-24,557	-211,753
Indiana	1,080,939	727,847	353,092	0	353,092	16,524	336,569	285,951	-50,617	-198,284
Iowa	349,757	240,697	109,060	0	109,060	7,139	101,921	112,730	10,809	-1,790
Kansas	414,597	287,385	127,213	0	127,213	8,195	119,017	101,042	-17,975	-102,707
Kentucky	851,210	564,271	286,939	0	286,939	16,903	270,036	247,320	-22,716	-87,800
Louisiana	653,797	448,498	205,300	0	205,300	12,320	192,980	239,290	46,310	84,825
Maine	96,277	65,516	30,761	10,655	41,416	2,274	39,142	39,599	457	-6,259
Maryland	450,600	301,272	149,328	0	149,328	10,049	139,279	186,813	47,534	126,040
Massachusetts	278,047	184,333	93,714	13,916	107,630	9,255	98,375	157,264	58,889	165,310
Michigan	854,390	568,735	285,655	23,767	309,421	22,124	287,298	311,038	23,740	33,843
Minnesota	456,526	316,916	139,610	24,099	163,709	12,014	151,695	174,541	22,846	9,374
Mississippi	289,843	200,373	89,471	0	89,471	11,882	77,589	124,970	47,381	95,905
Missouri	651,831	441,928	209,903	0	209,903	16,547	193,356	203,672	10,316	-23,152
Montana	263,598	179,304	84,294	410	84,704	5,572	79,131	44,984	-34,147	-125,983
Nebraska	236,854	161,976	74,878	0	74,878	6,256	68,622	67,807	-815	-27,551
Nevada	229,847	159,836	70,011	39	70,051	4,553	65,498	68,364	2,866	-18,946
New Hampshire	126,875	86,313	40,562	3,715	44,277	2,799	41,478	30,559	-10,919	-43,779
New Jersey	349,007	240,057	108,951	0	108,951	13,164	95,786	226,071	130,284	348,812
New Mexico	312,044	209,623	102,421	0	102,421	3,947	98,475	54,110	-44,365	-145,020
New York	1,094,816	740,777	354,039	42,468	396,507	38,811	357,696	447,574	89,879	158,327
North Carolina	918,795	606,751	312,044	0	312,044	21,140	290,904	340,481	49,577	132,177
North Dakota	326,334	227,374	98,961	2,477	101,438	3,162	98,275	26,207	-72,069	-252,930
Ohio	1,315,856	875,638	440,218	0	440,218	33,040	407,178	526,733	119,555	310,028
Oklahoma	474,702	319,863	154,839	0	154,839	10,299	144,539	140,381	-4,158	-41,382
Oregon	387,114	259,198	127,916	13,552	141,468	11,993	129,475	153,440	23,965	45,540
Pennsylvania	1,744,460	1,167,733	576,727	0	576,727	29,472	547,255	419,830	-127,425	-448,559
Rhode Island	1,067	833	234	1,883	2,117	1,159	959	22,423	21,465	62,454
South Carolina	774,301	521,153	253,149	0	253,149	11,536	241,613	211,059	-30,553	-122,818
South Dakota	84,448	57,182	27,266	1,207	28,473	1,995	26,478	24,478	-2,000	-12,539
Tennessee	756,713	501,312	255,400	0	255,400	23,881	231,519	281,604	50,084	112,522
Texas	2,702,504	1,831,964	870,540	-3,292	867,248	54,095	813,153	880,909	67,757	26,577
Utah	349,007	231,447	117,561	0	117,561	5,981	111,580	60,894	-50,686	-161,043
Vermont	56,346	38,283	18,063	4,207	22,270	2,486	19,784	17,287	-2,497	-15,706
Virginia	540,268	360,346	179,923	0	179,923	18,024	161,899	280,501	118,602	325,562
Washington	852,366	571,396	280,970	-7,610	273,360	21,367	251,992	297,299	45,307	88,325
West Virginia	762,464	497,343	265,122	0	265,122	6,814	258,307	84,535	-173,773	-501,529
Wisconsin	528,330	359,649	168,681	4,022	172,703	12,565	160,138	189,064	28,927	43,101
Wyoming	454,320	309,865	144,454	0	144,454	3,721	140,733	39,908	-100,825	-331,134
United States	30,408,684	20,477,334	9,931,350	152,304	10,083,654	718,369	9,365,285	10,012,728	647,444	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1994 was 698,395 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A14. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1993
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	954,841	633,692	321,150	0	321,150	23,753	297,397	221,977	-75,420	-263,872
Alaska	51,195	35,564	15,631	0	15,631	1,195	14,436	14,926	491	0
Arizona	705,866	473,765	232,101	-8	232,094	12,015	220,078	151,520	-68,559	-234,193
Arkansas	406,107	276,284	129,823	0	129,823	7,765	122,059	108,034	-14,025	-69,819
California	1,388,097	958,928	429,168	11,925	441,093	69,463	371,630	718,226	346,596	802,266
Colorado	345,627	234,098	111,529	0	111,529	7,492	104,037	112,452	8,415	4,414
Connecticut	304,961	206,986	97,975	3,670	101,646	7,447	94,198	92,938	-1,261	-26,754
Delaware	88,170	59,829	28,342	0	28,342	1,821	26,520	31,121	4,601	8,704
Dist. of Col.	2,984	2,341	643	0	643	2,075	-1,432	35,398	36,830	107,204
Florida	1,414,936	937,028	477,908	0	477,908	35,172	442,736	521,176	78,439	207,379
Georgia	961,660	635,003	326,656	0	326,656	16,594	310,062	304,320	-5,742	-14,373
Hawaii	66,172	45,414	20,758	0	20,758	1,925	18,833	29,541	10,708	0
Idaho	93,015	62,230	30,785	449	31,235	6,009	25,225	63,872	38,647	104,449
Illinois	1,524,836	1,046,879	477,956	0	477,956	32,154	445,803	401,887	-43,916	-273,842
Indiana	1,042,034	701,000	341,033	0	341,033	15,986	325,047	279,550	-45,497	-171,850
Iowa	335,310	229,567	105,744	0	105,744	6,791	98,953	109,539	10,586	5,661
Kansas	404,593	280,285	124,308	0	124,308	7,624	116,684	98,294	-18,389	-98,623
Kentucky	858,999	568,986	290,012	0	290,012	14,575	275,437	232,525	-42,912	-135,195
Louisiana	641,073	438,562	202,511	0	202,511	14,440	188,071	231,183	43,112	78,553
Maine	86,302	58,747	27,555	7,328	34,883	1,162	33,721	40,781	7,061	18,501
Maryland	447,806	299,424	148,382	0	148,382	10,866	137,516	183,813	46,297	124,366
Massachusetts	285,386	189,292	96,094	6,277	102,371	10,448	91,923	154,498	62,575	176,570
Michigan	953,388	638,630	314,757	3,179	317,936	21,614	296,322	298,852	2,530	-32,725
Minnesota	449,778	309,019	140,759	21,789	162,548	12,134	150,414	167,907	17,493	7,050
Mississippi	252,963	173,688	79,275	0	79,275	12,760	66,515	118,565	52,050	116,105
Missouri	567,064	385,537	181,526	0	181,526	16,828	164,698	200,018	35,321	55,554
Montana	250,540	170,538	80,002	102	80,105	5,697	74,407	44,115	-30,293	-113,530
Nebraska	244,347	166,811	77,535	0	77,535	6,282	71,253	63,972	-7,282	-45,215
Nevada	212,414	144,787	67,627	112	67,739	3,655	64,085	63,118	-967	-16,280
New Hampshire	157,066	107,299	49,767	3,670	53,438	2,204	51,233	29,892	-21,341	-75,107
New Jersey	371,778	254,799	116,979	0	116,979	17,444	99,535	223,898	124,363	325,171
New Mexico	300,314	203,535	96,779	0	96,779	4,502	92,277	50,931	-41,347	-141,778
New York	1,117,992	755,247	362,745	23,342	386,087	38,930	347,157	444,141	96,984	194,004
North Carolina	887,274	584,447	302,827	0	302,827	22,176	280,651	340,441	59,790	172,450
North Dakota	321,011	223,770	97,241	4,855	102,096	3,099	98,997	25,358	-73,639	-256,746
Ohio	1,355,562	899,257	456,305	0	456,305	33,369	422,936	506,923	83,987	222,388
Oklahoma	508,752	342,210	166,542	0	166,542	10,586	155,956	138,293	-17,663	-78,274
Oregon	417,703	278,687	139,015	11,234	150,249	12,192	138,057	152,100	14,042	21,812
Pennsylvania	1,700,848	1,133,772	567,077	0	567,077	31,406	535,670	409,377	-126,293	-426,540
Rhode Island	853	669	183	3,670	3,854	1,156	2,698	22,343	19,645	57,608
South Carolina	790,325	532,418	257,908	0	257,908	12,510	245,398	209,950	-35,448	-136,794
South Dakota	55,670	37,738	17,932	0	17,932	1,909	16,023	23,559	7,536	17,664
Tennessee	709,816	465,468	244,348	0	244,348	27,587	216,761	272,387	55,627	138,072
Texas	2,601,978	1,755,208	846,771	-2,733	844,037	60,678	783,360	853,288	69,928	62,395
Utah	340,125	225,956	114,169	0	114,169	5,598	108,571	57,551	-51,020	-160,981
Vermont	45,696	31,023	14,673	9,213	23,887	1,985	21,902	17,114	-4,788	-20,263
Virginia	531,171	353,127	178,045	0	178,045	18,595	159,450	277,641	118,191	333,068
Washington	868,070	582,243	285,827	-11,082	274,745	23,948	250,796	308,693	57,896	126,312
West Virginia	699,908	457,390	242,518	0	242,518	6,836	235,683	83,394	-152,288	-440,318
Wisconsin	513,343	350,376	162,967	0	162,967	12,304	150,663	181,370	30,706	51,225
Wyoming	432,136	295,129	137,007	0	137,007	3,772	133,235	40,552	-92,683	-305,905
United States	30,067,855	20,232,681	9,835,175	96,994	9,932,168	738,530	9,193,638	9,763,310	569,672	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1993 was 639,634 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A15. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1992
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	920,265	610,482	309,783	0	309,783	21,144	288,639	212,113	-76,527	-255,080
Alaska	47,293	33,075	14,218	0	14,218	1,158	13,060	14,804	1,745	0
Arizona	733,687	494,475	239,212	-7	239,204	11,727	227,477	148,938	-78,539	-266,594
Arkansas	397,722	270,216	127,506	0	127,506	7,724	119,782	97,075	-22,707	-93,294
California	1,327,432	920,347	407,085	15,349	422,434	74,749	347,685	728,282	380,597	900,529
Colorado	336,576	227,736	108,840	0	108,840	9,296	99,545	108,577	9,032	3,920
Connecticut	265,578	179,753	85,824	3,260	89,084	6,493	82,592	92,557	9,965	14,800
Delaware	78,379	56,995	21,385	0	21,385	1,709	19,676	29,112	9,437	12,918
Dist. of Col.	1,546	1,294	252	0	252	1,838	-1,586	34,267	35,853	105,915
Florida	1,376,208	919,079	457,129	0	457,129	35,172	421,957	501,598	79,641	196,803
Georgia	926,563	613,412	313,151	0	313,151	16,950	296,201	284,532	-11,670	-34,272
Hawaii	74,573	51,162	23,411	0	23,411	1,938	21,472	29,571	8,099	0
Idaho	64,743	43,383	21,359	887	22,246	6,125	16,121	64,856	48,735	135,958
Illinois	1,350,551	924,651	425,900	0	425,900	30,000	395,900	383,920	-11,980	-146,578
Indiana	1,014,679	682,693	331,986	0	331,986	16,347	315,640	262,645	-52,995	-191,025
Iowa	321,787	221,383	100,404	0	100,404	9,090	91,314	103,070	11,756	1,440
Kansas	355,240	246,862	108,378	0	108,378	6,739	101,639	92,360	-9,279	-65,600
Kentucky	777,428	513,505	263,922	0	263,922	12,297	251,625	228,835	-22,790	-59,800
Louisiana	594,693	406,391	188,302	0	188,302	13,281	175,021	222,116	47,095	101,861
Maine	89,006	60,567	28,439	7,244	35,682	2,500	33,183	39,180	5,998	11,906
Maryland	406,134	271,064	135,069	0	135,069	9,830	125,239	173,974	48,735	139,448
Massachusetts	331,793	219,749	112,044	5,844	117,888	10,890	106,998	153,533	46,536	131,975
Michigan	848,555	566,453	282,102	-627	281,475	21,648	259,827	286,063	26,236	50,439
Minnesota	422,999	294,081	128,919	16,849	145,768	10,555	135,213	161,770	26,557	33,242
Mississippi	228,091	158,186	69,905	0	69,905	11,565	58,339	113,419	55,079	127,591
Missouri	596,490	403,278	193,212	0	193,212	15,192	178,020	185,650	7,630	-14,292
Montana	271,007	184,111	86,896	129	87,025	6,168	80,857	44,685	-36,172	-131,267
Nebraska	241,373	164,987	76,385	0	76,385	5,909	70,476	60,680	-9,796	-51,080
Nevada	224,028	152,502	71,526	133	71,659	4,306	67,353	60,380	-6,973	-35,082
New Hampshire	142,351	96,456	45,895	3,260	49,156	1,136	48,019	30,552	-17,467	-56,421
New Jersey	339,287	232,947	106,340	0	106,340	16,505	89,836	215,373	125,538	336,124
New Mexico	292,259	197,721	94,538	0	94,538	3,821	90,717	49,240	-41,477	-137,842
New York	1,179,624	796,699	382,925	13,255	396,180	35,298	360,882	438,339	77,457	154,828
North Carolina	831,866	548,646	283,221	0	283,221	20,732	262,489	321,394	58,906	176,027
North Dakota	322,083	224,526	97,557	2,332	99,889	3,525	96,364	24,322	-72,042	-252,877
Ohio	1,376,582	911,538	465,044	0	465,044	32,190	432,854	494,796	61,942	175,099
Oklahoma	478,421	321,664	156,757	0	156,757	9,705	147,052	130,568	-16,484	-68,961
Oregon	427,386	286,742	140,644	21,085	161,729	12,590	149,139	146,410	-2,729	-32,156
Pennsylvania	1,684,021	1,117,512	566,509	0	566,509	25,219	541,290	396,773	-144,516	-439,740
Rhode Island	1,595	1,222	373	3,260	3,633	1,008	2,625	21,811	19,187	56,924
South Carolina	749,731	505,846	243,885	0	243,885	11,493	232,392	199,264	-33,129	-124,839
South Dakota	66,505	45,192	21,313	986	22,299	1,845	20,454	22,157	1,703	-9
Tennessee	761,612	504,360	257,252	0	257,252	24,687	232,564	268,129	35,565	79,241
Texas	2,551,489	1,732,732	818,757	-3,284	815,473	56,085	759,388	816,939	57,551	20,384
Utah	332,833	220,508	112,326	0	112,326	5,849	106,476	56,527	-49,950	-155,565
Vermont	50,002	33,972	16,030	5,005	21,034	2,071	18,964	16,859	-2,105	-12,302
Virginia	500,948	333,884	167,064	0	167,064	17,305	149,759	260,842	111,083	317,053
Washington	873,845	586,845	287,000	-1,522	285,478	22,326	263,152	304,758	41,606	86,488
West Virginia	708,957	462,154	246,803	0	246,803	6,811	239,993	81,312	-158,681	-453,963
Wisconsin	501,118	342,583	158,534	3,286	161,821	12,189	149,631	173,756	24,125	33,821
Wyoming	451,259	308,458	142,800	0	142,800	3,941	138,859	39,920	-98,939	-326,069
United States	29,248,191	19,704,080	9,544,112	96,724	9,640,836	708,672	8,932,165	9,428,603	496,438	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1992 was 560,844 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A16. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1991
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	861,747	571,553	290,193	0	290,193	17,609	272,584	208,908	-63,676	-198,072
Alaska	50,016	35,391	14,625	0	14,625	1,262	13,363	14,520	1,158	0
Arizona	702,238	474,427	227,810	363	228,173	12,223	215,950	142,787	-73,164	-249,731
Arkansas	411,599	280,697	130,902	0	130,902	7,073	123,829	97,038	-26,791	-103,321
California	1,191,724	833,573	358,151	21,681	379,831	68,964	310,867	711,915	401,048	995,849
Colorado	328,386	222,483	105,902	0	105,902	7,639	98,263	107,330	9,067	12,590
Connecticut	249,132	168,772	80,360	622	80,982	5,910	75,072	92,709	17,637	43,490
Delaware	91,741	65,797	25,944	0	25,944	1,843	24,101	29,124	5,023	784
Dist. of Col.	3,097	2,484	614	0	614	2,279	-1,666	34,786	36,451	107,413
Florida	1,345,106	899,008	446,098	0	446,098	34,513	411,586	499,299	87,713	241,107
Georgia	923,120	613,279	309,842	0	309,842	16,241	293,601	278,211	-15,389	-39,276
Hawaii	79,242	54,221	25,021	0	25,021	1,547	23,474	29,084	5,610	0
Idaho	86,428	58,171	28,256	456	28,713	5,087	23,626	61,572	37,946	107,783
Illinois	1,399,503	963,274	436,229	0	436,229	31,146	405,083	398,756	-6,328	-132,705
Indiana	1,027,106	692,048	335,058	0	335,058	16,532	318,526	262,839	-55,687	-192,098
Iowa	340,029	233,479	106,550	0	106,550	8,035	98,515	105,026	6,511	-6,373
Kansas	364,005	253,747	110,258	0	110,258	7,509	102,749	96,055	-6,694	-58,849
Kentucky	765,903	508,280	257,623	0	257,623	10,750	246,873	219,029	-27,844	-70,073
Louisiana	619,365	424,342	195,023	0	195,023	12,872	182,151	220,771	38,620	81,998
Maine	102,491	70,014	32,477	7,169	39,647	2,570	37,076	38,838	1,762	-1,036
Maryland	397,199	266,809	130,390	0	130,390	11,175	119,215	174,380	55,164	156,785
Massachusetts	359,053	236,896	122,158	6,443	128,600	11,143	117,457	152,847	35,389	106,816
Michigan	976,777	654,113	322,664	-1,467	321,197	21,628	299,570	288,377	-11,193	-56,152
Minnesota	437,765	299,826	137,939	7,304	145,242	9,702	135,541	166,351	30,810	68,372
Mississippi	255,938	176,421	79,517	0	79,517	9,059	70,458	112,662	42,204	101,976
Missouri	633,135	428,003	205,132	0	205,132	15,746	189,386	192,826	3,440	-20,549
Montana	299,852	203,779	96,073	89	96,162	5,640	90,522	45,743	-44,778	-154,804
Nebraska	246,604	168,224	78,380	0	78,380	5,633	72,747	63,481	-9,267	-44,933
Nevada	225,228	153,841	71,387	11	71,398	3,840	67,559	56,726	-10,833	-45,050
New Hampshire	135,189	91,839	43,350	3,030	46,380	2,027	44,353	29,895	-14,458	-49,483
New Jersey	404,876	278,533	126,343	0	126,343	16,432	109,911	220,697	110,786	296,251
New Mexico	264,348	178,827	85,520	0	85,520	3,753	81,767	48,054	-33,713	-111,685
New York	1,323,345	893,171	430,174	12,085	442,259	34,975	407,284	441,550	34,266	42,443
North Carolina	845,739	560,768	284,970	0	284,970	20,327	264,643	314,984	50,340	154,927
North Dakota	311,703	217,753	93,950	1,562	95,512	3,300	92,212	24,755	-67,457	-237,839
Ohio	1,356,073	903,322	452,751	0	452,751	32,209	420,542	496,986	76,444	222,793
Oklahoma	469,008	315,980	153,029	0	153,029	9,730	143,298	134,448	-8,850	-41,884
Oregon	483,965	325,997	157,969	12,278	170,247	11,517	158,730	148,936	-9,794	-48,366
Pennsylvania	1,661,622	1,107,626	553,996	0	553,996	31,465	522,531	396,942	-125,589	-400,585
Rhode Island	2,573	1,988	585	622	1,207	1,141	66	21,847	21,782	64,930
South Carolina	734,526	496,239	238,287	0	238,287	11,460	226,828	194,721	-32,107	-115,922
South Dakota	71,302	48,876	22,426	472	22,898	1,938	20,959	22,810	1,850	-282
Tennessee	757,163	504,908	252,255	0	252,255	16,917	235,338	267,467	32,129	92,548
Texas	2,546,229	1,733,002	813,228	-1,525	811,703	52,361	759,342	820,080	60,738	63,730
Utah	310,510	207,609	102,901	0	102,901	5,385	97,515	54,276	-43,239	-138,081
Vermont	56,247	38,304	17,943	7,524	25,467	2,232	23,235	16,052	-7,183	-28,266
Virginia	504,361	337,375	166,986	0	166,986	17,478	149,508	256,279	106,771	309,808
Washington	1,059,648	713,831	345,817	-4,619	341,198	22,574	318,624	316,338	-2,285	-40,551
West Virginia	695,070	451,951	243,119	0	243,119	6,890	236,229	80,608	-155,621	-438,987
Wisconsin	508,962	348,090	160,872	1,892	162,764	11,943	150,820	174,122	23,301	38,416
Wyoming	413,252	281,320	131,932	0	131,932	3,873	128,059	40,114	-87,945	-285,814
United States	29,689,242	20,050,264	9,638,978	75,993	9,714,971	685,094	9,029,877	9,423,954	394,078	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1991 was 440,551 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A17. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1990
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	773,921	513,818	260,103	0	260,103	16,542	243,560	204,466	-39,094	-122,240
Alaska	53,204	37,874	15,330	0	15,330	1,310	14,020	14,514	494	0
Arizona	656,419	443,889	212,530	-7	212,523	13,688	198,834	141,494	-57,340	-205,423
Arkansas	399,422	272,995	126,426	0	126,426	7,066	119,360	93,370	-25,990	-101,829
California	1,292,178	901,409	390,770	15,924	406,693	78,954	327,740	720,249	392,509	949,118
Colorado	331,334	224,495	106,840	0	106,840	7,630	99,209	105,071	5,862	3,552
Connecticut	339,721	230,006	109,715	612	110,327	6,259	104,069	92,763	-11,306	-45,931
Delaware	86,611	62,387	24,224	0	24,224	1,332	22,893	28,265	5,372	3,475
Dist. of Col.	5,441	4,209	1,232	0	1,232	1,445	-213	33,603	33,816	101,659
Florida	1,274,201	852,396	421,805	0	421,805	30,366	391,438	489,741	98,303	286,717
Georgia	981,182	648,290	332,892	0	332,892	16,053	316,839	274,462	-42,377	-106,410
Hawaii	86,114	58,831	27,283	0	27,283	1,709	25,574	28,356	2,782	0
Idaho	89,647	60,242	29,405	310	29,715	5,797	23,918	61,428	37,510	105,191
Illinois	1,381,867	948,620	433,247	0	433,247	30,452	402,794	380,700	-22,094	-168,488
Indiana	1,026,095	692,611	333,484	0	333,484	16,442	317,042	252,427	-64,615	-221,551
Iowa	318,102	218,990	99,112	0	99,112	7,632	91,479	100,440	8,961	2,025
Kansas	380,811	265,251	115,560	0	115,560	7,987	107,573	92,632	-14,942	-85,572
Kentucky	747,938	496,108	251,830	0	251,830	9,561	242,269	208,463	-33,807	-83,520
Louisiana	626,383	427,913	198,471	0	198,471	12,780	185,690	217,774	32,083	67,712
Maine	96,213	65,288	30,925	7,976	38,901	2,278	36,623	39,337	2,714	4,847
Maryland	326,041	218,572	107,469	0	107,469	8,433	99,037	169,009	69,973	212,630
Massachusetts	375,723	251,258	124,465	7,043	131,508	11,096	120,412	155,047	34,635	96,975
Michigan	915,227	611,359	303,868	-37,255	266,613	21,731	244,881	281,036	36,154	94,077
Minnesota	448,114	306,346	141,767	302	142,070	10,783	131,286	160,934	29,647	63,897
Mississippi	252,009	173,793	78,217	0	78,217	8,240	69,977	109,618	39,641	97,367
Missouri	616,679	415,334	201,345	0	201,345	15,398	185,947	183,991	-1,956	-30,258
Montana	273,667	185,914	87,753	155	87,908	6,557	81,351	44,781	-36,570	-131,411
Nebraska	233,262	159,459	73,804	0	73,804	5,837	67,967	60,966	-7,001	-38,948
Nevada	208,150	142,346	65,805	0	65,805	4,074	61,731	55,793	-5,938	-30,326
New Hampshire	114,704	77,819	36,884	612	37,497	1,810	35,687	30,638	-5,048	-18,919
New Jersey	396,449	271,950	124,499	0	124,499	15,553	108,946	214,467	105,521	287,106
New Mexico	303,535	206,323	97,212	0	97,212	3,769	93,443	47,156	-46,286	-153,237
New York	1,351,639	912,667	438,972	1,564	440,535	30,024	410,512	441,255	30,743	49,976
North Carolina	805,452	533,020	272,432	0	272,432	15,209	257,223	306,822	49,600	172,462
North Dakota	304,535	213,010	91,525	2,233	93,758	3,216	90,542	23,931	-66,611	-235,069
Ohio	1,284,038	852,387	431,652	0	431,652	31,612	400,039	486,092	86,053	265,249
Oklahoma	470,141	316,386	153,756	0	153,756	10,249	143,506	145,024	1,518	-7,915
Oregon	513,027	345,253	167,775	7,400	175,175	12,825	162,349	146,639	-15,710	-68,214
Pennsylvania	1,696,555	1,131,245	565,310	0	565,310	27,191	538,119	391,529	-146,590	-448,661
Rhode Island	7,909	5,890	2,019	612	2,631	1,127	1,504	21,902	20,397	60,030
South Carolina	725,315	489,001	236,314	0	236,314	8,831	227,483	189,884	-37,599	-120,111
South Dakota	69,941	48,010	21,931	0	21,931	1,832	20,099	21,611	1,512	-1,061
Tennessee	748,822	496,666	252,156	0	252,156	15,058	237,098	263,218	26,120	90,114
Texas	2,511,451	1,711,397	800,054	-217	799,837	50,440	749,397	810,060	60,663	71,058
Utah	321,136	211,063	110,072	0	110,072	5,495	104,577	52,551	-52,027	-153,645
Vermont	52,963	35,928	17,035	3,971	21,006	1,858	19,148	16,092	-3,056	-13,780
Virginia	486,603	325,555	161,048	0	161,048	16,528	144,520	248,040	103,520	303,956
Washington	1,049,316	706,482	342,834	-4,479	338,355	24,105	314,249	310,649	-3,600	-45,549
West Virginia	750,732	486,767	263,965	0	263,965	6,491	257,474	78,928	-178,546	-499,171
Wisconsin	493,048	337,628	155,420	0	155,420	11,484	143,936	167,864	23,927	41,972
Wyoming	421,912	287,554	134,358	0	134,358	4,156	130,202	40,155	-90,047	-293,928
United States	29,474,900	19,892,005	9,582,895	6,756	9,589,652	666,295	8,923,356	9,255,237	331,880	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1990 was 362,436 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A18. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1989
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	790,079	525,307	264,772	0	264,772	16,563	248,210	198,535	-49,674	-145,471
Alaska	51,157	36,187	14,970	0	14,970	1,405	13,565	14,131	567	0
Arizona	564,047	382,783	181,264	-7	181,257	13,482	167,775	139,031	-28,744	-112,617
Arkansas	355,394	241,435	113,959	0	113,959	7,441	106,518	89,002	-17,516	-66,421
California	1,484,819	1,033,533	451,286	14,424	465,710	71,806	393,904	696,521	302,617	726,874
Colorado	341,042	230,837	110,205	0	110,205	7,848	102,356	102,834	478	-7,156
Connecticut	363,733	246,781	116,952	777	117,729	6,895	110,834	93,368	-17,466	-62,960
Delaware	90,350	61,492	28,858	0	28,858	2,014	26,844	27,519	675	-1,001
Dist. of Col.	9,268	7,049	2,219	0	2,219	2,301	-83	32,935	33,018	97,667
Florida	1,286,046	862,089	423,956	0	423,956	38,618	385,338	472,473	87,135	247,989
Georgia	936,117	620,682	315,434	0	315,434	16,940	298,495	262,928	-35,567	-82,438
Hawaii	85,821	58,700	27,122	0	27,122	1,733	25,389	27,195	1,806	0
Idaho	93,150	62,684	30,465	97	30,562	5,395	25,167	60,806	35,639	103,979
Illinois	1,373,765	940,982	432,783	0	432,783	31,982	400,801	372,935	-27,865	-162,911
Indiana	920,335	618,159	302,176	0	302,176	17,556	284,620	248,703	-35,916	-112,840
Iowa	304,997	209,189	95,808	0	95,808	7,438	88,369	97,967	9,597	13,084
Kansas	386,539	269,733	116,807	0	116,807	7,902	108,905	88,105	-20,800	-100,479
Kentucky	716,724	475,290	241,434	0	241,434	10,497	230,937	199,558	-31,379	-68,796
Louisiana	584,500	399,254	185,245	0	185,245	13,584	171,661	211,003	39,342	100,590
Maine	123,819	84,157	39,662	7,101	46,763	2,778	43,985	39,013	-4,972	-18,861
Maryland	371,064	249,055	122,009	0	122,009	12,358	109,651	168,071	58,419	174,631
Massachusetts	397,752	264,146	133,606	7,027	140,633	12,632	128,001	155,871	27,870	86,847
Michigan	933,048	620,789	312,259	-18,514	293,745	22,517	271,228	282,955	11,727	42,262
Minnesota	434,702	296,935	137,767	-1,460	136,307	11,385	124,922	156,719	31,797	78,602
Mississippi	228,746	156,906	71,839	0	71,839	8,639	63,200	100,908	37,708	98,884
Missouri	615,167	412,555	202,612	0	202,612	16,599	186,013	179,480	-6,533	-32,428
Montana	274,844	186,737	88,107	52	88,159	5,753	82,407	44,564	-37,843	-130,311
Nebraska	228,406	156,451	71,955	0	71,955	5,836	66,119	59,938	-6,182	-33,799
Nevada	213,868	146,717	67,151	246	67,396	3,359	64,037	51,071	-12,966	-48,801
New Hampshire	74,616	50,305	24,311	630	24,941	2,770	22,171	31,001	8,830	24,111
New Jersey	449,699	309,314	140,384	0	140,384	17,379	123,005	216,179	93,174	252,196
New Mexico	309,615	212,890	96,726	0	96,726	3,587	93,139	45,618	-47,521	-161,503
New York	1,369,691	924,581	445,110	15,505	460,615	35,682	424,933	437,430	12,498	3,160
North Carolina	880,327	583,130	297,196	0	297,196	23,363	273,834	300,970	27,136	96,869
North Dakota	290,451	202,746	87,705	187	87,892	3,390	84,501	24,095	-60,407	-212,791
Ohio	1,342,391	893,945	448,446	0	448,446	31,504	416,941	483,222	66,281	226,544
Oklahoma	465,558	313,901	151,657	0	151,657	11,128	140,529	126,269	-14,260	-55,584
Oregon	470,657	317,242	153,416	7,272	160,687	12,001	148,686	142,004	-6,682	-31,828
Pennsylvania	1,584,485	1,056,340	528,144	0	528,144	31,657	496,487	388,626	-107,861	-322,685
Rhode Island	6,682	4,989	1,693	326	2,019	1,278	741	21,698	20,957	62,770
South Carolina	701,824	473,273	228,551	0	228,551	12,884	215,667	183,761	-31,906	-105,186
South Dakota	76,125	52,294	23,831	0	23,831	1,969	21,862	21,626	-236	-5,910
Tennessee	751,815	499,467	252,348	0	252,348	16,963	235,385	256,285	20,900	80,296
Texas	2,471,949	1,679,070	792,879	-199	792,680	59,663	733,017	783,601	50,583	72,870
Utah	303,915	199,863	104,052	1	104,052	5,088	98,964	51,059	-47,904	-138,136
Vermont	50,817	34,573	16,244	6,669	22,913	59	22,854	15,603	-7,251	-20,547
Virginia	446,512	298,570	147,943	0	147,943	18,032	129,910	250,650	120,739	367,303
Washington	913,048	615,791	297,257	-2,684	294,573	22,548	272,025	295,733	23,708	55,350
West Virginia	810,419	527,701	282,718	0	282,718	7,223	275,495	77,955	-197,540	-557,312
Wisconsin	481,534	330,173	151,361	0	151,361	11,724	139,637	165,059	25,422	54,381
Wyoming	392,945	267,551	125,394	0	125,394	3,697	121,697	38,329	-83,368	-268,498
United States	29,204,373	19,704,326	9,500,047	37,450	9,537,496	716,846	8,820,650	9,030,913	210,263	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity sold by nonutilities to utilities for distribution in 1989 was 277,153 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A19. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1988
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	685,072	454,700	230,372	0	230,372	14,771	215,601	193,247	-22,354	-54,938
Alaska	49,172	34,860	14,313	0	14,313	1,292	13,020	13,801	781	0
Arizona	650,901	440,850	210,051	-6	210,044	13,429	196,615	132,783	-63,833	-217,909
Arkansas	361,689	246,487	115,202	0	115,202	7,543	107,659	86,230	-21,429	-80,513
California	1,439,577	1,009,730	429,848	24,859	454,707	74,441	380,266	684,574	304,308	717,442
Colorado	328,838	223,424	105,414	0	105,414	7,588	97,826	100,091	2,265	-2,464
Connecticut	384,817	260,693	124,124	2,313	126,436	7,213	119,223	91,862	-27,361	-92,274
Delaware	94,795	64,249	30,546	0	30,546	1,673	28,873	25,738	-3,135	-10,870
Dist. of Col.	6,842	5,243	1,600	0	1,600	1,978	-378	32,003	32,382	97,512
Florida	1,279,179	855,909	423,270	0	423,270	32,120	391,150	444,382	53,232	169,847
Georgia	833,533	552,470	281,063	0	281,063	15,297	265,766	253,669	-12,097	-6,375
Hawaii	81,909	55,884	26,025	0	26,025	1,627	24,398	26,337	1,939	0
Idaho	69,644	46,627	23,016	342	23,359	5,131	18,227	58,568	40,341	120,298
Illinois	1,332,747	911,912	420,835	0	420,835	31,030	389,805	375,459	-14,346	-108,461
Indiana	880,198	593,748	286,450	0	286,450	17,452	268,998	244,557	-24,441	-82,755
Iowa	304,442	209,829	94,613	0	94,613	7,652	86,961	98,394	11,433	16,398
Kansas	356,741	249,654	107,087	0	107,087	7,728	99,359	88,128	-11,231	-69,377
Kentucky	760,254	499,454	260,800	0	260,800	10,475	250,325	184,515	-65,810	-158,594
Louisiana	614,573	420,861	193,711	0	193,711	12,686	181,026	204,757	23,731	53,091
Maine	100,915	68,399	32,516	11,559	44,075	2,582	41,493	38,432	-3,061	-10,570
Maryland	418,244	280,453	137,792	0	137,792	11,647	126,145	162,288	36,143	110,940
Massachusetts	347,404	229,130	118,274	9,798	128,072	11,881	116,191	152,608	36,417	120,569
Michigan	912,784	609,567	303,218	561	303,779	23,016	280,762	281,548	786	3,582
Minnesota	430,262	292,922	137,340	-5,695	131,645	11,248	120,397	156,022	35,625	95,721
Mississippi	267,440	181,824	85,616	0	85,616	8,436	77,180	95,807	18,628	44,966
Missouri	622,007	418,175	203,832	0	203,832	16,298	187,534	178,267	-9,267	-40,720
Montana	263,712	179,022	84,690	10	84,699	5,460	79,239	44,156	-35,082	-119,757
Nebraska	223,600	153,193	70,407	0	70,407	5,769	64,638	58,886	-5,752	-31,585
Nevada	219,106	149,855	69,250	0	69,250	3,532	65,718	46,691	-19,027	-66,858
New Hampshire	73,080	49,204	23,875	2,459	26,334	2,596	23,739	30,190	6,451	17,921
New Jersey	438,104	301,078	137,025	0	137,025	17,999	119,026	211,925	92,899	252,935
New Mexico	288,161	198,189	89,972	0	89,972	3,862	86,109	43,521	-42,588	-146,248
New York	1,300,960	875,437	425,523	41,604	467,128	32,992	434,136	428,694	-5,442	-28,973
North Carolina	793,545	526,025	267,521	0	267,521	21,020	246,501	291,863	45,363	158,154
North Dakota	305,281	211,958	93,323	1,329	94,652	3,454	91,198	24,248	-66,950	-230,234
Ohio	1,266,079	842,874	423,205	0	423,205	30,553	392,652	458,286	65,635	228,287
Oklahoma	462,868	312,619	150,249	0	150,249	9,803	140,446	127,356	-13,090	-47,589
Oregon	426,814	286,758	140,055	5,578	145,633	11,498	134,135	134,133	-2	-6,313
Pennsylvania	1,559,243	1,037,438	521,806	0	521,806	31,674	490,132	385,186	-104,946	-303,242
Rhode Island	9,841	7,234	2,607	2,313	4,919	1,436	3,483	21,221	17,738	52,360
South Carolina	681,298	458,895	222,403	0	222,403	11,830	210,573	180,183	-30,390	-93,763
South Dakota	85,086	58,180	26,906	0	26,906	1,920	24,986	21,273	-3,714	-15,720
Tennessee	598,203	393,968	204,234	0	204,234	16,346	187,889	248,639	60,750	212,551
Texas	2,351,083	1,596,418	754,665	-108	754,556	52,489	702,068	765,468	63,401	145,260
Utah	298,882	197,759	101,122	0	101,122	3,958	97,164	49,496	-47,668	-137,485
Vermont	54,021	36,794	17,227	9,624	26,851	1,950	24,902	15,067	-9,835	-34,012
Virginia	468,952	314,826	154,126	0	154,126	16,979	137,146	239,233	102,086	311,131
Washington	867,533	582,313	285,220	1,859	287,079	21,396	265,683	289,448	23,765	70,667
West Virginia	796,078	518,634	277,444	0	277,444	7,288	270,157	76,388	-193,769	-546,995
Wisconsin	487,882	334,332	153,550	0	153,550	11,421	142,129	163,318	21,189	44,660
Wyoming	421,659	288,088	133,571	0	133,571	3,743	129,828	37,410	-92,418	-299,673
United States	28,355,050	19,128,149	9,226,901	108,399	9,335,300	687,201	8,648,099	8,796,349	148,251	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity purchased from nonutilities for distribution in 1988 was 232,118 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A20. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1987
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	707,843	471,268	236,575	0	236,575	10,820	225,755	186,646	-39,110	-94,726
Alaska	48,498	34,432	14,066	0	14,066	1,377	12,689	13,520	831	0
Arizona	550,183	374,122	176,061	-5	176,055	12,963	163,093	125,012	-38,081	-139,513
Arkansas	384,971	261,161	123,811	0	123,811	7,387	116,423	82,557	-33,866	-113,777
California	1,499,867	1,055,133	444,733	26,421	471,154	72,843	398,312	657,833	259,522	580,383
Colorado	308,177	209,878	98,299	0	98,299	7,360	90,939	95,778	4,839	6,447
Connecticut	351,950	238,765	113,185	1,961	115,146	6,495	108,651	87,761	-20,890	-69,650
Delaware	90,645	61,606	29,039	0	29,039	1,664	27,375	23,936	-3,438	-12,016
Dist. of Col.	3,837	3,041	796	0	796	1,863	-1,066	30,733	31,799	97,118
Florida	1,153,400	775,470	377,930	0	377,930	32,592	345,337	417,862	72,525	219,245
Georgia	860,595	567,826	292,769	0	292,769	16,378	276,391	244,571	-31,820	-57,199
Hawaii	76,616	52,060	24,555	0	24,555	1,558	22,997	24,901	1,905	0
Idaho	84,449	56,794	27,655	140	27,795	5,296	22,499	54,953	32,453	95,637
Illinois	1,186,130	811,194	374,936	0	374,936	29,355	345,581	357,540	11,959	-11,641
Indiana	815,045	546,947	268,099	0	268,099	16,507	251,592	230,733	-20,859	-57,106
Iowa	279,846	192,672	87,174	0	87,174	7,292	79,882	92,212	12,331	23,064
Kansas	348,550	243,384	105,165	0	105,165	7,475	97,690	83,356	-14,334	-74,730
Kentucky	689,234	459,082	230,152	0	230,152	8,753	221,399	173,285	-48,114	-120,008
Louisiana	554,709	379,643	175,066	0	175,066	12,375	162,691	201,840	39,149	108,319
Maine	88,648	60,171	28,477	12,777	41,254	2,536	38,718	36,570	-2,147	-7,533
Maryland	378,813	255,127	123,687	0	123,687	10,193	113,494	153,226	39,732	124,522
Massachusetts	348,248	229,733	118,515	16,532	135,047	10,836	124,211	144,610	20,399	76,304
Michigan	886,168	589,206	296,962	2,627	299,590	20,822	278,768	269,479	-9,288	-8,973
Minnesota	374,648	257,256	117,392	6,623	124,015	10,025	113,990	142,538	28,548	73,352
Mississippi	242,219	165,833	76,386	0	76,386	7,214	69,172	92,758	23,586	62,483
Missouri	573,266	385,310	187,956	0	187,956	15,144	172,812	171,011	-1,801	-11,509
Montana	223,692	152,435	71,258	87	71,344	5,424	65,921	42,387	-23,534	-84,719
Nebraska	221,720	151,812	69,909	0	69,909	5,217	64,691	55,222	-9,469	-40,320
Nevada	188,738	129,227	59,511	67	59,578	3,270	56,308	43,515	-12,793	-45,998
New Hampshire	63,036	42,411	20,625	3,791	24,416	2,555	21,861	28,570	6,709	19,237
New Jersey	435,846	301,672	134,174	0	134,174	16,917	117,257	200,441	83,184	222,588
New Mexico	280,661	193,366	87,296	0	87,296	4,146	83,149	42,077	-41,072	-142,440
New York	1,242,413	841,059	401,354	52,754	454,109	35,922	418,187	405,924	-12,263	-70,078
North Carolina	798,141	529,189	268,952	0	268,952	18,547	250,405	281,864	31,459	127,760
North Dakota	251,129	173,950	77,179	4,718	81,897	2,959	78,938	22,509	-56,429	-191,595
Ohio	1,222,786	814,503	408,283	0	408,283	30,332	377,951	444,865	66,915	238,562
Oklahoma	455,512	309,694	145,819	0	145,819	9,339	136,480	123,161	-13,319	-50,938
Oregon	416,018	280,427	135,591	17,938	153,530	11,718	141,811	128,677	-13,135	-48,103
Pennsylvania	1,488,052	992,075	495,977	0	495,977	28,729	467,248	365,563	-101,685	-287,206
Rhode Island	10,720	7,865	2,855	29	2,884	1,384	1,500	20,274	18,774	55,789
South Carolina	675,275	455,506	219,769	0	219,769	11,059	208,709	177,310	-31,399	-92,827
South Dakota	66,491	45,113	21,378	0	21,378	1,679	19,699	19,485	-213	-2,483
Tennessee	574,794	375,833	198,962	0	198,962	12,548	186,413	237,920	51,507	206,754
Texas	2,259,333	1,533,874	725,459	-135	725,324	51,417	673,907	737,219	63,312	162,785
Utah	273,457	183,563	89,893	127	90,020	3,528	86,492	45,711	-40,781	-123,688
Vermont	49,783	33,971	15,812	7,771	23,582	2,048	21,534	13,979	-7,556	-27,594
Virginia	447,146	301,465	145,682	0	145,682	15,735	129,947	228,083	98,136	302,087
Washington	878,213	592,439	285,774	3,877	289,652	23,010	266,642	263,005	-3,637	-26,103
West Virginia	767,001	499,596	267,406	0	267,406	6,616	260,790	71,907	-188,882	-530,791
Wisconsin	478,969	328,737	150,232	0	150,232	10,972	139,260	153,459	14,200	25,133
Wyoming	402,138	274,630	127,508	0	127,508	3,311	124,197	35,861	-88,336	-284,338
United States	27,057,621	18,281,526	8,776,096	158,101	8,934,197	655,509	8,278,688	8,384,213	105,525	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity purchased from nonutilities for distribution in 1987 was 171,163 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Table A21. Disaggregated Data for Net Interstate Flow and Electrical System Energy Losses, 1986
(Billion Btu)

State	(1) Total Energy Input at Electric Utilities (TIEUB)	(2) Electric Utilities Conversion Losses and Plant Use (ELPLB)	(3) Electric Utilities Net Generation (Output) (ELEOB)	(4) Net Imports (ETNIB)	(5) Net Generation Plus Net Imports (ETENB)	(6) Transmission & Distribution Losses (ELLOB)	(7) Electricity for Sale to End Users (5) - (6) (ELFSB)	(8) Electricity Sold to End Users [a] (ESTCB)	(9) Net Interstate Flow of Electricity: (8) - (7) (ESISB)	(10) Net Interstate Flow of Electricity and Associated Losses (ELISB)
Alabama	702,953	468,976	233,977	0	233,977	14,600	219,377	176,049	-43,328	-121,943
Alaska	53,237	38,730	14,507	0	14,507	1,161	13,346	13,812	466	0
Arizona	541,616	367,006	174,610	-5	174,605	11,937	162,668	115,957	-46,711	-158,909
Arkansas	372,374	252,495	119,879	0	119,879	8,031	111,848	78,244	-33,605	-114,148
California	1,431,585	1,015,781	415,804	12,899	428,703	66,728	361,975	632,650	270,675	616,848
Colorado	305,926	209,429	96,497	0	96,497	6,891	89,606	92,673	3,068	-78
Connecticut	342,118	232,293	109,824	1,468	111,293	6,303	104,990	83,681	-21,308	-70,440
Delaware	89,237	60,541	28,697	0	28,697	1,578	27,119	23,284	-3,834	-12,392
Dist. of Col.	2,948	2,385	563	0	563	1,625	-1,062	29,303	30,365	93,761
Florida	1,127,712	757,631	370,081	0	370,081	26,846	343,235	398,095	54,859	186,112
Georgia	756,658	501,067	255,591	0	255,591	15,059	240,531	233,688	-6,843	14,580
Hawaii	72,884	49,484	23,401	0	23,401	1,456	21,945	23,994	2,049	0
Idaho	126,956	85,489	41,467	0	41,467	4,660	36,807	53,879	17,072	50,860
Illinois	1,146,607	781,893	364,714	0	364,714	26,234	338,480	347,197	8,717	-760
Indiana	806,552	542,661	263,891	0	263,891	15,715	248,175	219,701	-28,474	-81,477
Iowa	266,268	183,914	82,354	0	82,354	6,833	75,521	89,925	14,404	30,510
Kansas	336,986	236,226	100,760	0	100,760	7,177	93,582	81,323	-12,259	-68,597
Kentucky	688,018	459,703	228,315	0	228,315	9,304	219,011	169,561	-49,449	-128,418
Louisiana	564,528	384,226	180,302	0	180,302	12,485	167,817	202,305	34,488	103,136
Maine	116,243	79,085	37,158	8,785	45,943	2,509	43,434	34,813	-8,622	-28,246
Maryland	393,955	265,212	128,743	0	128,743	9,583	119,160	143,170	24,009	78,545
Massachusetts	347,418	229,769	117,649	12,378	130,027	9,986	120,040	136,624	16,584	65,585
Michigan	787,091	527,572	259,519	2,347	261,866	19,643	242,223	260,174	17,951	64,372
Minnesota	308,685	211,780	96,905	23,407	120,312	9,924	110,388	132,160	21,771	55,816
Mississippi	205,375	140,617	64,758	0	64,758	7,704	57,054	90,527	33,473	93,390
Missouri	571,762	386,828	184,934	0	184,934	14,455	170,479	164,710	-5,770	-28,174
Montana	241,880	165,286	76,594	-9	76,585	6,468	70,116	47,154	-22,963	-86,232
Nebraska	206,110	141,831	64,279	0	64,279	5,325	58,955	54,182	-4,773	-27,295
Nevada	217,183	149,427	67,756	0	67,756	3,035	64,721	39,764	-24,956	-85,950
New Hampshire	64,910	44,035	20,874	2,838	23,713	2,419	21,294	26,859	5,566	15,044
New Jersey	321,875	223,670	98,205	0	98,205	15,061	83,144	191,047	107,902	308,632
New Mexico	262,720	182,195	80,526	0	80,526	3,964	76,561	40,606	-35,955	-128,710
New York	1,180,502	800,763	379,738	52,756	432,494	33,409	399,085	392,067	-7,018	-48,084
North Carolina	764,329	502,296	262,032	0	262,032	18,755	243,278	264,210	20,933	107,639
North Dakota	252,146	176,461	75,686	3,334	79,020	2,883	76,138	23,368	-52,770	-185,233
Ohio	1,147,264	766,804	380,460	0	380,460	29,301	351,160	423,903	72,743	251,734
Oklahoma	438,737	298,594	140,143	0	140,143	9,873	130,270	122,010	-8,260	-36,069
Oregon	502,097	339,071	163,026	4,520	167,546	9,407	158,139	119,646	-38,492	-121,069
Pennsylvania	1,535,207	1,031,644	503,563	0	503,563	26,296	477,266	349,823	-127,443	-380,692
Rhode Island	9,333	6,863	2,470	22	2,492	1,257	1,235	19,303	18,068	54,305
South Carolina	596,499	403,563	192,936	0	192,936	10,036	182,900	168,667	-14,233	-39,851
South Dakota	84,419	57,779	26,640	0	26,640	1,702	24,938	19,358	-5,580	-20,531
Tennessee	557,208	364,584	192,624	0	192,624	14,344	178,280	231,360	53,080	206,345
Texas	2,264,646	1,538,401	726,246	-36	726,210	50,065	676,145	727,676	51,531	136,997
Utah	174,660	117,273	57,387	0	57,387	3,393	53,994	44,320	-9,674	-28,391
Vermont	33,873	23,128	10,744	5,701	16,446	2,229	14,217	12,717	-1,499	-9,357
Virginia	450,040	304,543	145,497	0	145,497	12,248	133,249	215,861	82,612	262,363
Washington	970,774	655,055	315,720	-7,924	307,796	18,070	289,726	257,168	-32,558	-97,788
West Virginia	772,310	507,813	264,497	0	264,497	6,398	258,099	70,297	-187,802	-540,310
Wisconsin	468,759	322,777	145,982	0	145,982	11,511	134,471	159,289	24,817	56,938
Wyoming	316,660	218,485	98,176	0	98,176	3,059	95,117	34,029	-61,088	-204,355
United States	26,299,833	17,813,132	8,486,701	122,481	8,609,182	618,934	7,990,248	8,082,185	91,937	0

[a] Includes electricity generated by nonutility power producers. The U.S. total electricity purchased from nonutilities for distribution in 1986 was 136,337 billion Btu.

Source: Energy Information Administration calculations using data from the Combined State Energy Data System, the Form EIA-759 database, and the Form EIA-861 database.

Section 7. Total Energy

Total Energy Consumed

The preceding sections of this documentation describe how State end-use consumption estimates are made by individual energy source. This section describes how all energy sources are added in Btu to create end-use sector and total energy consumption estimates.

Energy consumption estimates for the residential sector include solar energy consumed in the commercial sector that cannot be identified separately. The code "RC" in the data identifier indicates residential sector and "HC" indicates residential and commercial sectors combined in the following calculation used for each State and the United States:

TERCB = CLRCB + NGRCB + PARCB + WDRCB + GERCB + SOHCB + ESRCB + LORCB

The commercial sector calculations for each State and the U.S. total are:

TECCB = CLCCB + NGCCB + PACCB + WDCCB + GECCB + ESCCB + LOCCB

For the industrial sector, the State calculations are slightly different from the U.S. calculation ("ZZ" in the variable name represents the two-letter State code that differs for each State). The industrial sector includes net imports of coal coke (CCNIBUS) in the U.S. total but not in the individual State estimates because no reliable means of allocating the U.S. amount to the States has been developed.

TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + HYICBZZ + WWICBZZ + GOICBZZ + ESICBZZ + LOICBZZ

TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + HYICBUS + WWICBUS + GOICBUS + ESICBUS + LOICBUS

For the transportation sector, the calculations are:

TEACB = CLACB + NGACB + PAACB + ESACB + LOACB

Total energy consumed is calculated as the sum of all energy sources. The US and State calculations differ slightly. The States' calculations include net interstate flow of electricity and associated electricity system losses, and the U.S. calculation includes net imports of coal coke:

TETCBZZ = CLTCBZZ + NGTCBZZ + PATCBZZ + NUEOBZZ + HYTCBZZ + BMTCBZZ – ENACBZZ + GOTCBZZ + EXNIBZZ + ELISBZZ

TETCBUS = CLTCBUS + CCNIBUS + NGTCBUS + PATCBUS + NUEOBUS + HYTCBUS + BMTCBUS – ENACBUS + GOTCBUS + EXNIBUS

As a cross-check that is not used in the report tables, total energy cosumed is also calculated in CSEDS as the sum of the consumption by the four end-use sectors for each State and US total:

TESSB = TERCB + TECCB + TEICB + TEACB

Total Net Energy Consumed

A set of totals is calculated to estimate consumption in the four major end use sectors excluding each sector's share of all electrical system energy

losses that are incurred in the generation, transmission, and distribution of electricity. This series is total net energy consumed and is represented by "TN."

Total net energy consumed by the residential, commercial, industrial, and transportation sectors are calculated:

TNRCB = TERCB – LORCB
TNCCB = TECCB – LOCCB
TNICB = TEICB – LOICB
TNACB = TEACB – LOACB

Total Energy Consumed per Capita

The energy consumed per person residing in each State and in the United States is estimated by dividing the total energy series ("TE") by the resident population as published by the U.S. Department of Commerce, Bureau of the Census. The U.S. total population published by the Bureau of the Census is based on unrounded numbers that are not available by State so that the sum of the States' population does not equal the U.S. total. Therefore, the U.S. total population is input to CSEDS instead of being calculated as the sum of the States' values. The Bureau of the Census series are estimated, in thousands of people, as of July 1 of each year, except in 1960, 1970, 1980, and 1990, when the April 1 census data were used. The variable names for the series are:

TPOPPZZ = The resident population of each State; and
TPOPPUS = The resident population of the United States.

Estimated energy consumption per capita for each State and the United States, in million Btu, is represented by "TETP'' and is calculated:

TETPB = TETCB / TPOPP

The residential, commercial, industrial, and transportation sectors' energy consumption per capita are estimated:

TERPB = TERCB / TPOPP
TECPB = TECCB / TPOPP
TEIPB = TEICB / TPOPP
TEAPB = TEACB / TPOPP

Data Sources

TPOPPUS — Resident population of the United States. April 1 census for 1960, 1970, 1980, and 1990, and July 1 estimates for all other years.

- U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections," Series P-25. Specific publication numbers and table numbers:
  - 1960 through 1969: Number 990, Table 4.
  - 1970 through 1979: Number 957, Table 4.
  - 1980 through 1989: Number 1058, Table 3.
  - 1990 forward: Press Release Number CB98-242, December 1998.

Data also available via internet:

- 1990 forward: http://www.census.gov/population/www/estimates/statepop.html

TPOPPZZ — Resident population by State. April 1 census for 1960, 1970, 1980, and 1990, and July 1 estimates for all other years.

- U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections," Series P-25. Specific publication numbers and table numbers:
  - 1960 through 1969: Number 460, Table 1.
  - 1970 through 1979: Number 957, Table 4.
  - 1980 through 1989: Number 1058, Table 3.
  - 1990 forward: Press Release Number CB98-242, December 1998.

Data also available via internet:

- 1990 forward: http://www.census.gov/population/www/estimates/statepop.html

Appendix B

Combined State Energy Data System Variables

This is an alphabetical listing of all the variable names used in the Combined State Energy Data System (CSEDS). Provided for each variable on the system are: a brief description of the variable; units of the variable as found in CSEDS; and the formulas used in CSEDS to create the variable. If a variable is not one created by CSEDS but is entered into the system, it is described as an independent variable. Formulas are provided for the State calculations ("ZZ" in the variable name would be replaced by the two-letter code for each State) and for the U.S. calculation (wherever appropriate).

Variables in the CSEDS have seven-letter names that consist of the following components:

Character Positions:	**1 and 2**	**3 and 4**	**5**	**6 and 7**
Identify:	Type of energy	Energy activity or consumption end-use sector	Type of data	Geographic area

Characters 1 through 4 are explained in the description of each variable.

Character 5 is always one of the following:

B = Data in British thermal units (Btu)
K = Factor for converting data from physical units to Btu
M = Data in alternative physical units
P = Data in standardized physical units
S = Share or ratio expressed as a fraction
V = Value added in manufacture.

Characters 6 and 7 are two-letter U.S. Postal Service codes for the 50 States and the District of Columbia (represented by "ZZ" in the following variable names) and the United States ("US"). In this system, the United States means the 50 States and the District of Columbia. Some estimates of electricity sales and losses are derived by using only the contiguous 48 States and the District of Columbia. The variables used in those calculations are identified by "48" as characters 6 and 7 in the variable names.

ABICB	Aviation gasoline blending components total consumed by the industrial sector.	Billion Btu	ABICBZZ = ABTCBZZ ABICBUS = ABTCBUS
ABICP	Aviation gasoline blending components total consumed by the industrial sector.	Thousand barrels	ABICPZZ = ABTCPZZ ABICPUS = ABTCPUS
ABTCB	Aviation gasoline blending components total consumed.	Billion Btu	ABTCBZZ = ABTCPZZ * 5.048 ABTCBUS = ΣABTCBZZ
ABTCP	Aviation gasoline blending components total consumed.	Thousand barrels	ABTCPZZ = (COCAPZZ / COCAPUS) * ABTCPUS ABTCPUS is independent.
ACCCB	Anthracite consumed by the commercial sector.	Billion Btu	ACCCBZZ = ACCCPZZ * ACNUKUS ACCCBUS = ΣACCCBZZ
ACCCP	Anthracite consumed by the commercial sector.	Thousand short tons	ACCCPZZ = ACHCPZZ * 0.40 ACCCPUS = ΣACCCPZZ
ACEUB	Anthracite consumed by the electric utilities.	Billion Btu	ACEUBZZ = ACEUPZZ * ACEUKUS ACEUBUS = ΣACEUBZZ
ACEUKUS	Factor for converting anthracite consumed by the electric utilities from physical units to Btu.	Million Btu per short ton	ACEUKUS is independent.
ACEUP	Anthracite consumed by the electric utilities.	Thousand short tons	ACEUPZZ is independent. ACEUPUS = ΣACEUPZZ
ACHCP	Anthracite consumed by the residential and commercial sectors.	Thousand short tons	ACHCPZZ = (ACHDPZZ / ACHDPUS) * ACHCPUS ACHCPUS is independent.
ACHDP	Anthracite distributed to the residential and commercial sectors.	Thousand short tons	ACHDPZZ is independent. ACHDPUS = ΣACHDPZZ
ACICB	Anthracite consumed by the industrial sector.	Billion Btu	ACICBZZ = ACKCBZZ + ACOCBZZ ACICBUS = ΣACICBZZ
ACICP	Anthracite consumed by the industrial sector.	Thousand short tons	ACICPZZ = ACKCPZZ + ACOCPZZ ACICPUS = ΣACICPZZ
ACKCB	Anthracite consumed at coke plants.	Billion Btu	ACKCBZZ = ACKCPZZ * ACNUKUS ACKCBUS = ΣACKCBZZ
ACKCP	Anthracite consumed at coke plants.	Thousand short tons	ACKCPZZ = (ACKDPZZ / ACKDPUS) * ACKCPUS ACKCPUS is independent.

ACKDP	Anthracite distributed to coke plants.	Thousand short tons	ACKDPZZ is independent. ACKDPUS = ΣACKDPZZ
ACNUKUS	Factor for converting anthracite consumed by all sectors other than the electric utility sector from physical units to Btu.	Million Btu per short ton	ACNUKUS is independent.
ACOCB	Anthracite consumed by other industrial users.	Billion Btu	ACOCBZZ = ACOCPZZ * ACNUKUS ACOCBUS = ΣACOCBZZ
ACOCP	Anthracite consumed by other industrial users.	Thousand short tons	ACOCPZZ = (ACODPZZ / ACODPUS) * ACOCPUS ACOCPUS is independent.
ACODP	Anthracite distributed to other industrial users.	Thousand short tons	ACODPZZ is independent. ACODPUS = ΣACODPZZ
ACRCB	Anthracite consumed by the residential sector.	Billion Btu	ACRCBZZ = ACRCPZZ * ACNUKUS ACRCBUS = ΣACRCBZZ
ACRCP	Anthracite consumed by the residential sector.	Thousand short tons	ACRCPZZ = ACHCPZZ * 0.60 ACRCPUS = ΣACRCPZZ
ACTCB	Anthracite total consumed.	Billion Btu	ACTCBZZ = ACRCBZZ + ACCCBZZ + ACICBZZ + ACEUBZZ ACTCBUS = ΣACTCBZZ
ACTCP	Anthracite total consumed.	Thousand short tons	ACTCPZZ = ACRCPZZ + ACCCPZZ + ACICPZZ + ACEUPZZ ACTCPUS = ΣACTCPZZ
AICAP	Aluminum ingot production capacity.	Short tons	AICAPZZ is independent. AICAPUS = ΣAICAPZZ
ARICB	Asphalt and road oil consumed by the industrial sector.	Billion Btu	ARICBZZ = ARICPZZ * 6.636 ARICBUS = ΣARICBZZ
ARICP	Asphalt and road oil consumed by the industrial sector.	Thousand barrels	ARICPZZ = ASICPZZ + RDICPZZ ARICPUS = ΣARICPZZ
ARTCB	Asphalt and road oil total consumed.	Billion Btu	ARTCBZZ = ARICBZZ ARTCBUS = ARICBUS
ARTCP	Asphalt and road oil total consumed.	Thousand barrels	ARTCPZZ = ASTCPZZ + RDTCPZZ ARTCPUS = ΣARTCPZZ

ASICP	Asphalt consumed by the industrial sector.	Thousand barrels	ASICPZZ = (ASINPZZ / ASINPUS) * ASTCPUS ASICPUS = ΣASICPZZ
ASINP	Asphalt sold to the industrial sector.	Short tons	ASINPZZ is independent. ASINPUS = ΣASINPZZ
ASTCP	Asphalt total consumed.	Thousand barrels	ASTCPZZ = ASICPZZ ASTCPUS is independent.
AVACB	Aviation gasoline consumed by the transportation sector.	Billion Btu	AVACBZZ = AVACPZZ * 5.048 AVACBUS = ΣAVACBZZ
AVACP	Aviation gasoline consumed by the transportation sector.	Thousand barrels	AVACPZZ = (AVTTPZZ / AVTTPUS) * AVTCPUS AVACPUS = ΣAVACPZZ
AVMIP	Aviation gasoline issued to the military.	Thousand barrels	AVMIPZZ is independent. AVMIPUS = ΣAVMIPZZ
AVNMM	Aviation gasoline sold to nonmilitary users.	Thousand gallons	AVNMMZZ is independent. AVNMMUS = ΣAVNMMZZ
AVNMP	Aviation gasoline sold to nonmilitary users.	Thousand barrels	AVNMPZZ = AVNMMZZ / 42 AVNMPUS = ΣAVNMPZZ
AVTCB	Aviation gasoline total consumed.	Billion Btu	AVTCBZZ = AVACBZZ AVTCBUS = AVACBUS
AVTCP	Aviation gasoline total consumed.	Thousand barrels	AVTCPZZ = AVACPZZ AVTCPUS is independent.
AVTTP	Aviation gasoline total sales to the transportation sector.	Thousand barrels	AVTTPZZ = AVNMPZZ + AVMIPZZ AVTTPUS = ΣAVTTPZZ
BCACB	Bituminous coal and lignite consumed by the transportation sector.	Billion Btu	BCACBZZ = BCACPZZ * BCOCKZZ BCACBUS = ΣBCACBZZ
BCACP	Bituminous coal and lignite consumed by the transportation sector.	Thousand short tons	BCACPZZ = (BCICPZZ / BCICPUS) * BCACPUS BCACPUS is independent.
BCCCB	Bituminous coal and lignite consumed by the commercial sector.	Billion Btu	BCCCBZZ = BCCCPZZ * BCHCKZZ BCCCBUS = ΣBCCCBZZ
BCCCP	Bituminous coal and lignite consumed by the commercial sector.	Thousand short tons	BCCCPZZ = BCHCPZZ * 0.65 BCCCPUS = ΣBCCCPZZ

BCEUB	Bituminous coal and lignite consumed by the electric utilities.	Billion Btu	BCEUBZZ = BCEUPZZ * BCEUKZZ BCEUBUS = ΣBCEUBZZ
BCEUKZZ	Factor for converting bituminous coal and lignite consumed by the electric utilities from physical units to Btu.	Million Btu per short ton	BCEUKZZ is independent.
BCEUP	Bituminous coal and lignite consumed by the electric utilities.	Thousand short tons	BCEUPZZ is independent. BCEUPUS = ΣBCEUPZZ
BCHCKZZ	The factor for converting bituminous coal and lignite consumed by the residential and commercial sectors from physical units to Btu.	Million Btu per short ton	BCHCKZZ is independent.
BCHCP	Bituminous coal and lignite consumed by the residential and commercial sectors.	Thousand short tons	BCHCPZZ = (BCHDPZZ / BCHDPUS) * BCHCPUS BCHCPUS is independent.
BCHDP	Bituminous coal and lignite distributed to the residential and commercial sectors.	Thousand short tons	BCHDPZZ is independent. BCHDPUS = ΣBCHDPZZ
BCICB	Bituminous coal and lignite consumed by the industrial sector.	Billion Btu	BCICBZZ = BCKCBZZ + BCOCBZZ BCICBUS = ΣBCICBZZ
BCICP	Bituminous coal and lignite consumed by the industrial sector.	Thousand short tons	BCICPZZ = BCKCPZZ + BCOCPZZ BCICPUS = ΣBCICPZZ
BCKCB	Bituminous coal and lignite consumed by coke plants.	Billion Btu	BCKCBZZ = BCKCPZZ * 26.80 BCKCBUS = ΣBCKCBZZ
BCKCP	Bituminous coal and lignite consumed by coke plants.	Thousand short tons	BCKCPZZ = (BCKDPZZ / BCKDPUS) * BCKCPUS BCKCPUS is independent.
BCKDP	Bituminous coal and lignite distributed to coke plants.	Thousand short tons	BCKDPZZ is independent. BCKDPUS = ΣBCKDPZZ
BCOCB	Bituminous coal and lignite consumed by other industrial users.	Billion Btu	BCOCBZZ = BCOCPZZ * BCOCKZZ BCOCBUS = ΣBCOCBZZ
BCOCKZZ	The factor for converting bituminous coal and lignite consumed by other industrial users from physical units to Btu.	Million Btu per short ton	BCOCKZZ is independent.
BCOCP	Bituminous coal and lignite consumed by other industrial users.	Thousand short tons	BCOCPZZ = (BCODPZZ / BCODPUS) * BCOCPUS BCOCPUS is independent.

BCODP	Bituminous coal and lignite distributed to other industrial users.	Thousand short tons	BCODPZZ is independent. BCODPUS = ΣBCODPZZ
BCRCB	Bituminous coal and lignite consumed by the residential sector.	Billion Btu	BCRCBZZ = BCRCPZZ * BCHCKZZ BCRCBUS = ΣBCRCBZZ
BCRCP	Bituminous coal and lignite consumed by the residential sector.	Thousand short tons	BCRCPZZ = BCHCPZZ * 0.35 BCRCPUS = ΣBCRCPZZ
BCTCB	Bituminous coal and lignite total consumed.	Billion Btu	BCTCBZZ = BCRCBZZ + BCCCBZZ + BCICBZZ + BCACBZZ + BCEUBZZ BCTCBUS = ΣBCTCBZZ
BCTCP	Bituminous coal and lignite total consumed.	Thousand short tons	BCTCPZZ = BCRCPZZ + BCCCPZZ + BCICPZZ + BCACPZZ + BCEUPZZ BCTCPUS = ΣBCTCPZZ
BMTCB	Biomass total consumed.	Billion Btu	BMTCBZZ = WDRCBZZ + WDCCBZZ + WWICBZZ + ENACBZZ + WWEOBZZ BMTCBUS = ΣBMTCBZZ
CCEXBUS	Coal coke exported from the United States.	Billion Btu	CCEXBUS = CCEXPUS * 24.80
CCEXPUS	Coal coke exported from the United States.	Thousand short tons	CCEXPUS is independent.
CCIMBUS	Coal coke imported into the United States.	Billion Btu	CCIMBUS = CCIMPUS * 24.80
CCIMPUS	Coal coke imported into the United States.	Thousand short tons	CCIMPUS is independent.
CCNIBUS	Coal coke net imports into the United States.	Billion Btu	CCNIBUS = CCIMBUS – CCEXBUS
CCNIPUS	Coal coke net imports into the United States.	Thousand short tons	CCNIPUS = CCIMPUS – CCEXPUS
CGVAV	Value added in the manufacture of corrugated and solid fiber boxes.	Million dollars	CGVAVZZ is independent. CGVAVUS = ΣCGVAVZZ
CLACB	Coal consumed by the transportation sector.	Billion Btu	CLACBZZ = BCACBZZ CLACBUS = BCACBUS
CLACP	Coal consumed by the transportation sector.	Thousand short tons	CLACPZZ = BCACPZZ CLACPUS = BCACPUS
CLCCB	Coal consumed by the commercial sector.	Billion Btu	CLCCBZZ = ACCCBZZ + BCCCBZZ CLCCBUS = ACCCBUS + BCCCBUS

CLCCP	Coal consumed by the commercial sector.	Thousand short tons	CLCCPZZ = ACCCPZZ + BCCCPZZ CLCCPUS = ACCCPUS + BCCCPUS
CLEUB	Coal consumed by the electric utilities.	Billion Btu	CLEUBZZ = ACEUBZZ + BCEUBZZ CLEUBUS = ACEUBUS + BCEUBUS
CLEUP	Coal consumed by the electric utilities.	Thousand short tons	CLEUPZZ = ACEUPZZ + BCEUPZZ CLEUPUS = ACEUPUS + BCEUPUS
CLICB	Coal consumed by the industrial sector.	Billion Btu	CLICBZZ = ACICBZZ + BCICBZZ CLICBUS = ACICBUS + BCICBUS
CLICP	Coal consumed by the industrial sector.	Thousand short tons	CLICPZZ = ACICPZZ + BCICPZZ CLICPUS = ACICPUS + BCICPUS
CLKCB	Coal consumed at coke plants (coking coal).	Billion Btu	CLKCBZZ = ACKCBZZ + BCKCBZZ CLKCBUS = ACKCBUS + BCKCBUS
CLOCB	Coal consumed by other industrial users.	Billion Btu	CLOCBZZ = ACOCBZZ + BCOCBZZ CLOCBUS = ACOCBUS + BCOCBUS
CLOCP	Coal consumed by other industrial users.	Thousand short tons	CLOCPZZ = ACOCPZZ + BCOCPZZ CLOCPUS = ACOCPUS + BCOCPUS
CLRCB	Coal consumed by the residential sector.	Billion Btu	CLRCBZZ = ACRCBZZ + BCRCBZZ CLRCBUS = ACRCBUS + BCRCBUS
CLRCP	Coal consumed by the residential sector.	Thousand short tons	CLRCPZZ = ACRCPZZ + BCRCPZZ CLRCPUS = ACRCPUS + BCRCPUS
CLSCB	Coal consumed other than at coke plants (steam coal).	Billion Btu	CLSCBZZ = CLTCBZZ – CLKCBZZ CLSCBUS = CLTCBUS – CLKCBUS
CLTCB	Coal total consumed.	Billion Btu	CLTCBZZ = ACTCBZZ + BCTCBZZ CLTCBUS = ACTCBUS + BCTCBUS
CLTCP	Coal total consumed.	Thousand short tons	CLTCPZZ = ACTCPZZ + BCTCPZZ CLTCPUS = ACTCPUS + BCTCPUS
COCAP	Crude oil operating capacity at refineries.	Barrels per calendar day	COCAPZZ is independent. COCAPUS = ΣCOCAPZZ
COICB	Crude oil consumed by the industrial sector.	Billion Btu	COICBZZ = COTCBZZ COICBUS = COTCBUS
COICP	Crude oil consumed by the industrial sector.	Thousand barrels	COICPZZ = COTCPZZ COICPUS = COTCPUS

COTCB	Crude oil consumed in petroleum industry operations.	Billion Btu	COTCBZZ = COTCPZZ * 5.800 COTCBUS = ΣCOTCBZZ
COTCP	Crude oil consumed in petroleum industry operations.	Thousand barrels	COTCPZZ is independent. COTCPUS = ΣCOTCPZZ
CTCAP	Catalytic cracking charge capacity of petroleum refineries.	1960 through 1979: Barrels per calendar day 1980 forward: Barrels per stream day	CTCAPZZ is independent. CTCAPUS = ΣCTCAPZZ
DFACB	Distillate fuel consumed by the transportation sector.	Billion Btu	DFACBZZ = DFACPZZ * 5.825 DFACBUS = ΣDFACBZZ
DFACP	Distillate fuel consumed by the transportation sector.	Thousand barrels	DFACPZZ = (DFTRPZZ / DFNDPZZ) * DFNCPZZ DFACPUS = ΣDFACPZZ
DFBKP	Distillate fuel adjusted sales for vessel bunkering use, excluding that sold to the Armed Forces.	Thousand barrels	DFBKPZZ is independent. DFBKPUS = ΣDFBKPZZ
DFCCB	Distillate fuel consumed by the commercial sector.	Billion Btu	DFCCBZZ = DFCCPZZ * 5.825 DFCCBUS = ΣDFCCBZZ
DFCCP	Distillate fuel consumed by the commercial sector.	Thousand barrels	DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ DFCCPUS = ΣDFCCPZZ
DFCMP	Distillate fuel adjusted sales to the commercial sector.	Thousand barrels	DFCMPZZ is independent. DFCMPUS = ΣDFCMPZZ
DFEUB	Distillate fuel consumed by the electric utilities.	Billion Btu	DFEUBZZ = DFEUPZZ * 5.825 DFEUBUS = ΣDFEUBZZ
DFEUP	Distillate fuel (excluding kerosene-type jet fuel) consumed by the electric utilities.	Thousand barrels	DFEUPZZ = DKEUPZZ – JKEUPZZ DFEUPUS = ΣDFEUPZZ
DFIBP	Distillate fuel adjusted sales for industrial space heating and other industrial use, including farm use.	Thousand barrels	DFIBPZZ is independent. DFIBPUS = ΣDFIBPZZ
DFICB	Distillate fuel consumed by the industrial sector.	Billion Btu	DFICBZZ = DFICPZZ * 5.825 DFICBUS = ΣDFICBZZ
DFICP	Distillate fuel consumed by the industrial sector.	Thousand barrels	DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ DFICPUS = ΣDFICPZZ

DFINP	Distillate fuel adjusted sales to the industrial sector.	Thousand barrels	DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPZZ DFINPUS = ΣDFINPZZ
DFMIP	Distillate fuel adjusted sales to the Armed Forces, regardless of use.	Thousand barrels	DFMIPZZ is independent. DFMIPUS = ΣDFMIPZZ
DFNCP	Distillate fuel consumption by all sectors other than the electric utility sector.	Thousand barrels	DFNCPZZ = (DFNDPZZ / DFNDPUS) * DFNCPUS DFNCPUS = DFTCPUS – DFEUPUS
DFNDP	Distillate fuel adjusted sales to all sectors other than the electric utility sector.	Thousand barrels	DFNDPZZ = DFRSPZZ + DFCMPZZ + DFINPZZ + DFTRPZZ DFNDPUS = ΣDFNDPZZ
DFOCP	Distillate fuel adjusted sales for use by oil companies.	Thousand barrels	DFOCPZZ is independent. DFOCPUS = ΣDFOCPZZ
DFOFP	Distillate fuel adjusted sales as diesel fuel for off-highway use.	Thousand barrels	DFOFPZZ is independent. DFOFPUS = ΣDFOFPZZ
DFONP	Distillate fuel adjusted sales as diesel fuel for on-highway use.	Thousand barrels	DFONPZZ is independent. DFONPUS = ΣDFONPZZ
DFOTP	Distillate fuel adjusted sales for all other uses not identified in other adjusted sales categories.	Thousand barrels	DFOTPZZ is independent. DFOTPUS = ΣDFOTPZZ
DFRCB	Distillate fuel consumed by the residential sector.	Billion Btu	DFRCBZZ = DFRCPZZ * 5.825 DFRCBUS = ΣDFRCBZZ
DFRCP	Distillate fuel consumed by the residential sector.	Thousand barrels	DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ DFRCPUS = ΣDFRCPZZ
DFRRP	Distillate fuel adjusted sales for use by railroads.	Thousand barrels	DFRRPZZ is independent. DFRRPUS = ΣDFRRPZZ
DFRSP	Distillate fuel adjusted sales to the residential sector.	Thousand barrels	DFRSPZZ is independent. DFRSPUS = ΣDFRSPZZ
DFTCB	Distillate fuel total consumed.	Billion Btu	DFTCBZZ = DFRCBZZ + DFCCBZZ + DFICBZZ + DFACBZZ + DFEUBZZ DFTCBUS = ΣDFTCBZZ
DFTCP	Distillate fuel total consumed.	Thousand barrels	DFTCPZZ = DFNCPZZ + DFEUPZZ DFTCPUS is independent.

DFTRP	Distillate fuel adjusted sales to the transportation sector.	Thousand barrels	DFTRPZZ = DFBKPZZ + DFMIPZZ + DFRRPZZ + DFONPZZ DFTRPUS = ΣDFTRPZZ
DKEUB	Distillate fuel and kerosene-type jet fuel consumed by the electric utilities.	Billion Btu	DKEUBZZ = DFEUBZZ + JKEUBZZ DKEUBUS = ΣDKEUBZZ
DKEUP	Distillate fuel and kerosene-type jet fuel consumed by the electric utilities.	Thousand barrels	DKEUPZZ is independent. DKEUPUS = ΣDKEUPZZ
ELEXB	Electricity exported from the United States (assumed to be produced from hydroelectric power through 1988).	Billion Btu	ELEXBZZ = HYEXBZZ + EXEXBZZ ELEXBUS = ΣELEXBZZ
ELEXP	Electricity exported from the United States (assumed to be produced from hydroelectric power through 1988).	Million kilowatthours	ELEXPZZ is independent. ELEXPUS = ΣELEXPZZ
ELIMB	Electricity imported into the United States (assumed to be produced from hydroelectric power through 1988).	Billion Btu	ELIMBZZ = HYIMBZZ + GEIMBZZ + EXIMBZZ ELIMBUS = ΣELIMBZZ
ELIMP	Electricity imported into the United States (assumed to be produced from hydroelectric power through 1988).	Million kilowatthours	ELIMPZZ is independent. ELIMPUS = ΣELIMPZZ
ELISB	Net interstate flow of electricity. (Negative indicates flow out of State; positive indicates flow into State.)	Billion Btu	ELISBZZ = (ESTCBZZ + LOTCBZZ) – TEEUBZZ ELISBUS = ΣELISBZZ
ELISP	Net interstate flow of electricity. (Negative indicates flow out of State; positive indicates flow into State.)	Million kilowatthours	ELISPZZ = ELISBZZ / 3.412 ELISPUS = ΣELISPZZ
ELLSS48	The ratio of electrical system energy losses to electricity sold in the contiguous 48 States and the District of Columbia.	Fraction	ELLSS48 = LOTCB48 / ESTCB48
ENACB	Ethanol consumed by the transportation sector.	Billion Btu	ENACBZZ = ENACPZZ * 0.0764 ENACBUS = ΣENACBZZ
ENACP	Ethanol consumed by the transportation sector.	Thousand gallons	ENACPZZ = (ENTRPZZ / ENTRPUS) * ENACPUS ENACPUS is independent.
ENTRP	Ethanol blended into motor gasoline.	Thousand gallons	ENTRPZZ is independent. ENTRPUS = ΣENTRPZZ

EREXB	Electricity produced from renewable energy sources and exported from the United States.	Billion Btu	EREXBZZ = HYEXBZZ EREXBUS = ΣEREXBZZ
EREXP	Electricity produced from renewable energy sources and exported from the United States.	Million kilowatthours	EREXPZZ = HYEXPZZ EREXPUS = ΣEREXPZZ
ERIMB	Electricity produced from renewable energy sources and imported into the United States.	Billion Btu	ERIMBZZ = HYIMBZZ + GEIMBZZ ERIMBUS = ΣERIMBZZ
ERIMP	Electricity produced from renewable energy sources and imported into the United States.	Million kilowatthours	ERIMPZZ = HYIMPZZ + GEIMPZZ ERIMPUS = ΣERIMPZZ
ESACB	Electricity consumed by (i.e., sold to) the transportation sector.	Billion Btu	ESACBZZ = ESACPZZ * 3.412 ESACBUS = ΣESACBZZ
ESACP	Electricity consumed by (i.e., sold to) the transportation sector.	Million kilowatthours	ESACPZZ = (ESTRPZZ / ESTRPUS) * ESACPUS ESACPUS = ESOTPUS * ESTRSUS
ESCCB	Electricity consumed by (i.e., sold to) the commercial sector.	Billion Btu	ESCCBZZ = ESCCPZZ * 3.412 ESCCBUS = ΣESCCBZZ
ESCCP	Electricity consumed by (i.e., sold to) the commercial sector.	Million kilowatthours	ESCCPZZ = ESCMPZZ + ESOTPZZ – ESACPZZ ESCCPUS = ΣESCCPZZ
ESCMP	Electricity sold to a portion of the commercial sector.	Million kilowatthours	ESCMPZZ is independent. ESCMPUS = ΣESCMPZZ
ESICB	Electricity consumed by (i.e., sold to) the industrial sector.	Billion Btu	ESICBZZ = ESICPZZ * 3.412 ESICBUS = ΣESICBZZ
ESICP	Electricity consumed by (i.e., sold to) the industrial sector.	Million kilowatthours	ESICPZZ is independent. ESICPUS = ΣESICPZZ
ESOTP	Electricity sold to the "Other" sector (i.e., public street and highway lighting, sales to other public authorities, railroads and railways, and interdepartmental sales).	Million kilowatthours	ESOTPZZ is independent. ESOTPUS = ΣESOTPZZ
ESRCB	Electricity consumed by (i.e., sold to) the residential sector.	Billion Btu	ESRCBZZ = ESRCPZZ * 3.412 ESRCBUS = ΣESRCBZZ
ESRCP	Electricity consumed by (i.e., sold to) the residential sector.	Million kilowatthours	ESRCPZZ is independent. ESRCPUS = ΣESRCPZZ
ESTCB	Electricity total consumed (i.e., sold).	Billion Btu	ESTCBZZ = ESTCPZZ * 3.412 ESTCBUS = ΣESTCBZZ

			ESTCB48 = ESTCBUS – (ESTCBAK + ESTCBHI)
ESTCP	Electricity total consumed (i.e., sold).	Million kilowatthours	ESTCPZZ = ESRCPZZ + ESCCPZZ + ESICPZZ + ESACPZZ ESTCPUS = ΣESTCPZZ
ESTRP	Electricity consumed by transit systems.	Million kilowatthours	ESTRPZZ is independent. ESTRPUS = ΣESTRPZZ
ESTRSUS	The share of electricity sold to the "Other" sector (ESOTP) that is used for transportation.	Fraction	ESTRSUS is independent.
EXEXB	Electricity produced from nonrenewable energy sources and exported from the United States.	Billion Btu	EXEXBZZ = EXEXPZZ * FFEOKUS EXEXBUS = ΣEXEXBZZ
EXEXP	Electricity produced from nonrenewable energy sources and exported from the United States.	Million kilowatthours	EXEXPZZ = ELEXPZZ – EREXPZZ EXEXPUS = ΣEXEXPZZ
EXIMB	Electricity produced from nonrenewable energy sources and imported into the United States.	Billion Btu	EXIMBZZ = EXIMPZZ * FFEOKUS EXIMBUS = ΣEXIMBZZ
EXIMP	Electricity produced from nonrenewable energy sources and imported into the United States.	Million kilowatthours	EXIMPZZ = ELIMPZZ – ERIMPZZ EXIMPUS = ΣEXIMPZZ
EXNIB	Net imports of electricity into the United States produced from nonrenewable energy sources.	Billion Btu	EXNIBZZ = EXIMBZZ – EXEXBZZ EXNIBUS = ΣEXNIBZZ
EXNIP	Net imports of electricity into the United States produced from nonrenewable energy sources.	Million kilowatthours	EXNIPZZ = EXIMPZZ – EXEXPZZ EXNIPUS = ΣEXNIPZZ
FFEOKUS	Fossil fuel steam-electric power plant conversion factor.	Thousand Btu per kilowatthour	FFEOKUS is independent.
FNICB	Petrochemical feedstocks, naphtha less than 401° F, consumed by the industrial sector.	Billion Btu	FNICBZZ = FNTCBZZ FNICBUS = FNTCBUS
FNICP	Petrochemical feedstocks, naphtha less than 401° F, consumed by the industrial sector.	Thousand barrels	FNICPZZ = FNTCPZZ FNICPUS = FNTCPUS
FNTCB	Petrochemical feedstocks, naphtha less than 401° F, total consumed.	Billion Btu	FNTCBZZ = FNTCPZZ * 5.248 FNTCBUS = ΣFNTCBZZ
FNTCP	Petrochemical feedstocks, naphtha less than 401° F, total consumed.	Thousand barrels	FNTCPZZ = (OCVAVZZ / OCVAVUS) * FNTCPUS FNTCPUS is independent.

FOICB	Petrochemical feedstocks, other oils equal to or greater than 401° F, consumed by the industrial sector.	Billion Btu	FOICBZZ = FOTCBZZ FOICBUS = FOTCBUS
FOICP	Petrochemical feedstocks, other oils equal to or greater than 401° F, consumed by the industrial sector.	Thousand barrels	FOICPZZ = FOTCPZZ FOICPUS = FOTCPUS
FOTCB	Petrochemical feedstocks, other oils equal to or greater than 401° F, total consumed.	Billion Btu	FOTCBZZ = FOTCPZZ * 5.825 FOTCBUS = ΣFOTCBZZ
FOTCP	Petrochemical feedstocks, other oils equal to or greater than 401° F, total consumed.	Thousand barrels	FOTCPZZ = (OCVAVZZ / OCVAVUS) * FOTCPUS FOTCPUS is independent.
FSICB	Petrochemical feedstocks, still gas, consumed by the industrial sector.	Billion Btu	FSICBZZ = FSTCBZZ FSICBUS = FSTCBUS
FSICP	Petrochemical feedstocks, still gas, consumed by the industrial sector.	Thousand barrels	FSICPZZ = FSTCPZZ FSICPUS = FSTCPUS
FSTCB	Petrochemical feedstocks, still gas, total consumed.	Billion Btu	FSTCBZZ = FSTCPZZ * 6.000 FSTCBUS = ΣFSTCBZZ
FSTCP	Petrochemical feedstocks, still gas, total consumed.	Thousand barrels	FSTCPZZ = (COCAPZZ / COCAPUS) * FSTCPUS FSTCPUS is independent.
GECCB	Direct use of geothermal energy and heat pumps in the commerical sector.	Billion Btu	GECCBZZ is independent. GECCBUS = ΣGECCBZZ
GEENB	Geothermal subtotal: electricity produced from geothermal energy at electric utilities plus imports of electricity into the United States.	Billion Btu	GEENBZZ = GEEOBZZ + GEIMBZZ GEENBUS = ΣGEENBZZ
GEENP	Geothermal subtotal: electricity produced from geothermal energy at electric utilities plus imports of electricity into the United States.	Million kilowatthours	GEENPZZ = GEEOPZZ + GEIMPZZ GEENPUS = ΣGEENPZZ
GEEOB	Electricity produced from geothermal energy at electric utilities.	Billion Btu	GEEOBZZ = GEEOPZZ * GEEOKUS GEEOBUS = ΣGEEOBZZ
GEEOKUS	Factor for converting electricity produced from geothermal energy from physical units to Btu.	Thousand Btu per kilowatthour	GEEOKUS is independent.

GEEOP	Electricity produced from geothermal energy at electric utilities.	Million kilowatthours	GEEOPZZ is independent. GEEOPUS = ΣGEEOPZZ
GEICB	Geothermal energy used in the indusrial sector.	Billion Btu	GEICBZZ = GEINBZZ + GENGBZZ GEICBUS = ΣGEICBZZ
GEIMB	Electricity produced from geothermal energy and imported into the United States.	Billion Btu	GEIMBZZ = GEIMPZZ * GEEOKUS GEIMBUS = ΣGEIMBZZ
GEIMP	Electricity produced from geothermal energy and imported into the United States.	Million kilowatthours	GEIMPZZ is independent. GEIMPUS = ΣGEIMPZZ
GEINB	Direct use of geothermal energy and heat pumps in the industrial sector.	Billion Btu	GEINBZZ is independent. GEINBUS = ΣGEINBZZ
GENGB	Electricity produced from geothermal energy by nonutility power producers.	Billion Btu	GENGBZZ is independent. GENGBUS = ΣGENGBZZ
GERCB	Direct use of geothermal energy and heat pumps in the residential sector.	Billion Btu	GERCBZZ is independent. GERCBUS = ΣGERCBZZ
GETCB	Geothermal total energy consumed (including imports of geothermal-based electricity).	Billion Btu	GETCBZZ = GERCBZZ + GECCBZZ + GEICBZZ + GEENBZZ GETCBUS = ΣGETCBZZ
GOICB	Electricity produced from geothermal, wind, photovoltaic, and solar thermal energy sources in the industrial sector.	Billion Btu	GOICBZZ = GEICBZZ + SOICBZZ + WYICBZZ GOICBUS = ΣGOICBZZ
GOTCB	Electricity produced from geothermal, wind, photovoltaic, and solar thermal energy sources; total produced.	Billion Btu	GOTCBZZ = GETCBZZ + SOTCBZZ + WYTCBZZ GOTCBUS = ΣGOTCBZZ
HPEOB	Electricity produced from pumped storage hydroelectric power at electric utilities.	Billion Btu	HPEOBZZ = HPEOPZZ * FFEOKUS HPEOBUS = ΣHPEOBZZ
HPEOP	Electricity produced from pumped storage hydroelectric power at electric utilities.	Million kilowatthours	HPEOPZZ is independent. HPEOPUS = ΣHPEOPZZ
HVENB	Renewable hydroelectric subtotal: electricity produced from conventional hydropower at electric utilities plus net imports of electricity into the United States.	Billion Btu	HVENBZZ = HVEOBZZ + HYIMBZZ – HYEXBZZ HVENBUS = ΣHVENBZZ
HVENP	Renewable hydroelectric subtotal: electricity produced from conventional hydropower at	Million kilowatthours	HVENPZZ = HVEOPZZ + HYIMPZZ – HYEXPZZ HVENPUS = ΣHVENPZZ

	electric utilities plus net imports of electricity into the United States.		
HVEOB	Electricity produced from conventional hydropower at electric utilities.	Billion Btu	HVEOBZZ = HVEOPZZ * FFEOKUS HVEOBUS = ΣHVEOBZZ
HVEOP	Electricity produced from conventional hydropower at electric utilities.	Million kilowatthours	HVEOPZZ is independent. HVEOPUS = ΣHVEOPZZ
HYENB	Electricity produced from all types of hydropower at electric utilities plus net imports of electricity into the United States.	Billion Btu	HYENBZZ = HYEOBZZ + HYIMBZZ – HYEXBZZ HYENBUS = ΣHYENBZZ
HYENP	Electricity produced from all types of hydropower at electric utilities plus net imports of electricity into the United States.	Million kilowatthours	HYENPZZ = HYEOPZZ + HYIMPZZ – HYEXPZZ HYENPUS = ΣHYENPZZ
HYEOB	Electricity produced from all types of hydropower at electric utilities.	Billion Btu	HYEOBZZ = HPEOBZZ + HVEOBZZ HYEOBUS = ΣHYEOBZZ
HYEOP	Electricity produced from all types of hydropower at electric utilities.	Million kilowatthours	HYEOPZZ = HPEOPZZ + HVEOPZZ HYEOPUS = ΣHYEOPZZ
HYEXB	Electricity produced from hydroelectric power and exported from the United States.	Billion Btu	HYEXBZZ = HYEXPZZ * FFEOKUS HYEXBUS = ΣHYEXBZZ
HYEXP	Electricity produced from hydroelectric power and exported from the United States.	Million kilowatthours	HYEXPZZ is independent. HYEXPUS = ΣHYEXPZZ
HYICB	Electricity produced from hydroelectric power at industrial facilities.	Billion Btu	HYICBZZ is independent. HYICBUS = ΣHYICBZZ
HYICP	Electricity produced from hydroelectric power at industrial facilities (available for 1960–1988 only).	Million kilowatthours	HYICPZZ is independent. HYICPUS = ΣHYICPZZ
HYIMB	Electricity produced from hydroelectric power and imported into the United States.	Billion Btu	HYIMBZZ = HYIMPZZ * FFEOKUS HYIMBUS = ΣHYIMBZZ
HYIMP	Electricity produced from hydroelectric power and imported into the United States.	Million kilowatthours	HYIMPZZ is independent. HYIMPUS = ΣHYIMPZZ
HYTCB	Electricity produced from hydropower at electric utilities (including net imports of electricity) and at industrial facilities.	Billion Btu	HYTCBZZ = HYENBZZ + HYICBZZ HYTCBUS = ΣHYTCBZZ

HYTCP	Electricity produced from hydropower at electric utilities (including net imports of electricity) and at industrial facilities (available for 1960–1988 only).	Million kilowatthours	HYTCPZZ = HYENPZZ + HYICPZZ HYTCPUS = ΣHYTCPZZ
JFACB	Jet fuel consumed by the transportation sector.	Billion Btu	JFACBZZ = JKACBZZ + JNACBZZ JFACBUS = ΣJFACBZZ
JFACP	Jet fuel consumed by the transportation sector.	Thousand barrels	JFACPZZ = JKACPZZ + JNACPZZ JFACPUS = ΣJFACPZZ
JFEUB	Jet fuel consumed by electric utilities.	Billion Btu	JFEUBZZ = JKEUBZZ JFEUBUS = JKEUBUS
JFEUP	Jet fuel consumed by electric utilities.	Thousand barrels	JFEUPZZ = JKEUPZZ JFEUPUS = JKEUPUS
JFTCB	Jet fuel total consumed.	Billion Btu	JFTCBZZ = JFACBZZ + JFEUBZZ JFTCBUS = ΣJFTCBZZ
JFTCP	Jet fuel total consumed.	Thousand barrels	JFTCPZZ = JFACPZZ + JFEUPZZ JFTCPUS = ΣJFTCPZZ
JKACB	Kerosene-type jet fuel consumed by the transportation sector.	Billion Btu	JKACBZZ = JKACPZZ * 5.670 JKACBUS = ΣJKACBZZ
JKACP	Kerosene-type jet fuel consumed by the transportation sector.	Thousand barrels	JKACPZZ = (JKTTPZZ / JKTTPUS) * JKACPUS JKACPUS = JKTCPUS – JKEUPUS
JKEUB	Kerosene-type jet fuel consumed by electric utilities.	Billion Btu	JKEUBZZ = JKEUPZZ * 5.670 JKEUBUS = ΣJKEUBZZ
JKEUP	Kerosene-type jet fuel consumed by electric utilities.	Thousand barrels	JKEUPZZ is independent. JKEUPUS = ΣJKEUPZZ
JKTCB	Kerosene-type jet fuel total consumed.	Billion Btu	JKTCBZZ = JKTCPZZ * 5.670 JKTCBUS = ΣJKTCBZZ
JKTCP	Kerosene-type jet fuel total consumed.	Thousand barrels	JKTCPZZ = JKACPZZ + JKEUPZZ JKTCPUS is independent.
JKTTP	Kerosene-type jet fuel total sold.	Thousand gallons	JKTTPZZ is independent. JKTTPUS = ΣJKTTPZZ
JNACB	Naphtha-type jet fuel consumed by the transportation sector.	Billion Btu	JNACBZZ = JNTCBZZ JNACBUS = JNTCBUS

JNACP	Naphtha-type jet fuel consumed by the transportation sector.	Thousand barrels	JNACPZZ = JNTCPZZ JNACPUS = JNTCPUS
JNMIP	Naphtha-type jet fuel issued to the military.	Thousand barrels	JNMIPZZ is independent. JNMIPUS = ΣJNMIPZZ
JNTCB	Naphtha-type jet fuel total consumed.	Billion Btu	JNTCBZZ = JNTCPZZ * 5.355 JNTCBUS = ΣJNTCBZZ
JNTCP	Naphtha-type jet fuel total consumed.	Thousand barrels	JNTCPZZ = (JNMIPZZ / JNMIPUS) * JNTCPUS JNTCPUS is independent.
KSCCB	Kerosene consumed by the commercial sector.	Billion Btu	KSCCBZZ = KSCCPZZ * 5.670 KSCCBUS = ΣKSCCBZZ
KSCCP	Kerosene consumed by the commercial sector.	Thousand barrels	KSCCPZZ = (KSCMPZZ / KSTTPZZ) * KSTCPZZ KSCCPUS = ΣKSCCPZZ
KSCMP	Kerosene sold to the commercial sector.	Thousand barrels	KSCMPZZ is independent. KSCMPUS = ΣKSCMPZZ
KSICB	Kerosene consumed by the industrial sector.	Billion Btu	KSICBZZ = KSICPZZ * 5.670 KSICBUS = ΣKSICBZZ
KSICP	Kerosene consumed by the industrial sector.	Thousand barrels	KSICPZZ = (KSINPZZ / KSTTPZZ) * KSTCPZZ KSICPUS = ΣKSICPZZ
KSIHP	Kerosene sold for industrial heating.	Thousand barrels	KSIHPZZ is independent. KSIHPUS = ΣKSIHPZZ
KSINP	Kerosene sold to the industrial sector.	Thousand barrels	KSINPZZ = KSOTPZZ + KSIHPZZ KSINPUS = ΣKSINPZZ
KSOTP	Kerosene sold for all other uses, including farm use.	Thousand barrels	KSOTPZZ is independent. KSOTPUS = ΣKSOTPZZ
KSRCB	Kerosene consumed by the residential sector.	Billion Btu	KSRCBZZ = KSRCPZZ * 5.670 KSRCBUS = ΣKSRCBZZ
KSRCP	Kerosene consumed by the residential sector.	Thousand barrels	KSRCPZZ = (KSRSPZZ / KSTTPZZ) * KSTCPZZ KSRCPUS = ΣKSRCPZZ
KSRSP	Kerosene sold to the residential sector.	Thousand barrels	KSRSPZZ is independent. KSRSPUS = ΣKSRSPZZ

KSTCB	Kerosene total consumed.	Billion Btu	KSTCBZZ = KSRCBZZ + KSICBZZ + KSCCBZZ KSTCBUS = ΣKSTCBZZ
KSTCP	Kerosene total consumed.	Thousand barrels	KSTCPZZ = (KSTTPZZ / KSTTPUS) * KSTCPUS KSTCPUS is independent.
KSTTP	Kerosene total sold.	Thousand barrels	KSTTPZZ = KSRSPZZ + KSCMPZZ + KSINPZZ KSTTPUS = ΣKSTTPZZ
LGACB	LPG consumed by the transportation sector.	Billion Btu	LGACBZZ = LGACPZZ * LGTCKUS LGACBUS = ΣLGACBZZ
LGACP	LPG consumed by the transportation sector.	Thousand barrels	LGACPZZ = LGCBPZZ * LGTRSUS LGACPUS = ΣLGACPZZ
LGCBM	LPG sales for internal combustion engine use.	Thousand gallons	LGCBMZZ is independent. LGCBMUS = ΣLGCBMZZ
LGCBP	LPG consumed for internal combustion engine use.	Thousand barrels	LGCBPZZ = LGCBMZZ / 42 LGCBPUS = ΣLGCBPZZ
LGCCB	LPG consumed by the commercial sector.	Billion Btu	LGCCBZZ = LGCCPZZ * LGTCKUS LGCCBUS = ΣLGCCBZZ
LGCCP	LPG consumed by the commercial sector.	Thousand barrels	LGCCPZZ = LGHCPZZ * 0.15 LGCCPUS = ΣLGCCPZZ
LGHCM	LPG sold for residential and commercial use.	Thousand gallons	LGHCMZZ is independent. LGHCMUS = ΣLGHCMZZ
LGHCP	LPG consumed by the residential and commercial sectors.	Thousand barrels	LGHCPZZ = LGHCMZZ / 42 LGHCPUS = ΣLGHCPZZ
LGICB	LPG consumed by the industrial sector.	Billion Btu	LGICBZZ = LGICPZZ * LGTCKUS LGICBUS = ΣLGICBZZ
LGICP	LPG consumed by the industrial sector.	Thousand barrels	LGICPZZ = LGTCPZZ – (LGRCPZZ + LGCCPZZ + LGACPZZ) LGICPUS = ΣLGICPZZ
LGRCB	LPG consumed by the residential sector.	Billion Btu	LGRCBZZ = LGRCPZZ * LGTCKUS LGRCBUS = ΣLGRCBZZ
LGRCP	LPG consumed by the residential sector.	Thousand barrels	LGRCPZZ = LGHCPZZ * 0.85 LGRCPUS = ΣLGRCPZZ

LGTCB	LPG total consumed.	Billion Btu	LGTCBZZ = LGRCBZZ + LGCCBZZ + LGICBZZ + LGACBZZ LGTCBUS = ΣLGTCBZZ
LGTCKUS	Factor for converting LPG from physical units to Btu.	Million Btu per barrel	LGTCKUS is independent.
LGTCP	LPG total consumed.	Thousand barrels	LGTCPZZ = (LGTTPZZ / LGTTPUS) * LGTCPUS LGTCPUS is independent.
LGTRSUS	The transportation sector's share of LPG internal combustion engine sales.	Fraction	LGTRSUS is independent.
LGTTP	LPG total sold.	Thousand gallons	LGTTPZZ is independent. LGTTPUS = ΣLGTTPZZ
LOACB	The transportation sector's share of electrical system energy losses.	Billion Btu	LOACBZZ = ESACBZZ * ELLSS48 Exceptions: LOACBAK = (ESACBAK / ESTCBAK) * LOTCBAK LOACBHI = (ESACBHI / ESTCBHI) * LOTCBHI LOACBUS = ΣLOACBZZ
LOACP	The transportation sector's share of electrical system energy losses.	Million kilowatthours	LOACPZZ = LOACBZZ / 3.412 LOACPUS = LOACBUS / 3.412
LOCCB	The commercial sector's share of electrical system energy losses.	Billion Btu	LOCCBZZ = ESCCBZZ * ELLSS48 Exceptions: LOCCBAK = (ESCCBAK / ESTCBAK) * LOTCBAK LOCCBHI = (ESCCBHI / ESTCBHI) * LOTCBHI LOCCBUS = ΣLOCCBZZ
LOCCP	The commercial sector's share of electrical system energy losses.	Million kilowatthours	LOCCPZZ = LOCCBZZ / 3.412 LOCCPUS = LOCCBUS / 3.412
LOICB	The industrial sector's share of electrical system energy losses.	Billion Btu	LOICBZZ = ESICBZZ * ELLSS48 Exceptions: LOICBAK = (ESICBAK / ESTCBAK) * LOTCBAK LOICBHI = (ESICBHI / ESTCBHI) * LOTCBHI LOICBUS = ΣLOICBZZ
LOICP	The industrial sector's share of electrical system energy losses.	Million kilowatthours	LOICPZZ = LOICBZZ / 3.412 LOICPUS = LOICBUS / 3.412
LORCB	The residential sector's share of electrical system energy losses.	Billion Btu	LORCBZZ = ESRCBZZ * ELLSS48 Exceptions: LORCBAK = (ESRCBAK / ESTCBAK) * LOTCBAK

			LORCBHI = (ESRCBHI / ESTCBHI) * LOTCBHI LORCBUS = ΣLORCBZZ
LORCP	The residential sector's share of electrical system energy losses.	Million kilowatthours	LORCPZZ = LORCBZZ / 3.412 LORCPUS = LORCBUS / 3.412
LOTCB	Total electrical system energy losses.	Billion Btu	LOTCBZZ = ESTCBZZ * ELLSS48 Exceptions: LOTCBAK = TEEUBAK – ESTCBAK LOTCBHI = TEEUBHI – ESTCBHI LOTCBUS = TEEUBUS – ESTCBUS LOTCB48 = LOTCBUS – (LOTCBAK + LOTCBHI)
LOTCP	Total electrical system energy losses.	Million kilowatthours	LOTCPZZ = LOTCBZZ / 3.412 LOTCPUS = LOTCBUS / 3.412
LUACB	Lubricants consumed by the transportation sector.	Billion Btu	LUACBZZ = LUACPZZ * 6.065 LUACBUS = ΣLUACBZZ
LUACP	Lubricants consumed by the transportation sector.	Thousand barrels	LUACPZZ = (LUTRPZZ / LUTTPZZ) * LUTCPZZ LUACPUS = ΣLUACPZZ
LUICB	Lubricants consumed by the industrial sector.	Billion Btu	LUICBZZ = LUICPZZ * 6.065 LUICBUS = ΣLUICBZZ
LUICP	Lubricants consumed by the industrial sector.	Thousand barrels	LUICPZZ = (LUINPZZ / LUTTPZZ) * LUTCPZZ LUICPUS = ΣLUICPZZ
LUINP	Lubricants sold to the industrial sector.	Thousand barrels	LUINPZZ is independent. LUINPUS = ΣLUINPZZ
LUTCB	Lubricants total consumed.	Billion Btu	LUTCBZZ = LUICBZZ + LUACBZZ LUTCBUS = ΣLUTCBZZ
LUTCP	Lubricants total consumed.	Thousand barrels	LUTCPZZ = (LUTTPZZ / LUTTPUS) * LUTCPUS LUTCPUS is independent.
LUTRP	Lubricants sold to the transportation sector.	Thousand barrels	LUTRPZZ is independent. LUTRPUS = ΣLUTRPZZ
LUTTP	Lubricants total sold.	Thousand barrels	LUTTPZZ = LUINPZZ + LUTRPZZ LUTTPUS = ΣLUTTPZZ
MBICB	Motor gasoline blending components consumed by the industrial sector.	Billion Btu	MBICBZZ = MBTCBZZ MBICBUS = MBTCBUS

MBICP	Motor gasoline blending components consumed by the industrial sector.	Thousand barrels	MBICPZZ = MBTCPZZ MBICPUS = MBTCPUS
MBTCB	Motor gasoline blending components total consumed.	Billion Btu	MBTCBZZ = MBTCPZZ * 5.253 MBTCBUS = ΣMBTCBZZ
MBTCP	Motor gasoline blending components total consumed.	Thousand barrels	MBTCPZZ = (COCAPZZ / COCAPUS) * MBTCPUS MBTCPUS is independent.
MGACB	Motor gasoline consumed by the transportation sector.	Billion Btu	MGACBZZ = MGACPZZ * 5.253 MGACBUS = ΣMGACBZZ
MGACP	Motor gasoline consumed by the transportation sector.	Thousand barrels	MGACPZZ = (MGTRPZZ / MGTTPZZ) * MGTCPZZ MGACPUS = ΣMGACPZZ
MGAGP	Motor gasoline sold for agricultural use.	Thousand gallons	MGAGPZZ is independent. MGAGPUS = ΣMGAGPZZ
MGCCB	Motor gasoline consumed by the commercial sector.	Billion Btu	MGCCBZZ = MGCCPZZ * 5.253 MGCCBUS = ΣMGCCBZZ
MGCCP	Motor gasoline consumed by the commercial sector.	Thousand barrels	MGCCPZZ = (MGCMPZZ / MGTTPZZ) * MGTCPZZ MGCCPUS = ΣMGCCPZZ
MGCMP	Motor gasoline sold to the commercial sector.	Thousand gallons	MGCMPZZ = MGMSPZZ + MGPNPZZ MGCMPUS = ΣMGCMPZZ
MGCUP	Motor gasoline sold for construction use.	Thousand gallons	MGCUPZZ is independent. MGCUPUS = ΣMGCUPZZ
MGICB	Motor gasoline consumed by the industrial sector.	Billion Btu	MGICBZZ = MGICPZZ * 5.253 MGICBUS = ΣMGICBZZ
MGICP	Motor gasoline consumed by the industrial sector.	Thousand barrels	MGICPZZ = (MGINPZZ / MGTTPZZ) * MGTCPZZ MGICPUS = ΣMGICPZZ
MGINP	Motor gasoline sold to the industrial sector.	Thousand gallons	MGINPZZ = MGAGPZZ + MGCUPZZ + MGIYPZZ MGINPUS = ΣMGINPZZ
MGIYP	Motor gasoline sold for industrial and commercial use (Federal Highway Administration terminology).	Thousand gallons	MGIYPZZ is independent MGIYPUS = ΣMGIYPZZ
MGMFP	Motor gasoline sold for highway use.	Thousand gallons	MGMFPZZ is independent. MGMFPUS = ΣMGMFPZZ

MGMRP	Motor gasoline sold for marine use.	Thousand gallons	MGMRPZZ is independent. MGMRPUS = ΣMGMRPZZ
MGMSP	Motor gasoline sold for miscellaneous and unclassified uses.	Thousand gallons	MGMSPZZ is independent. MGMSPUS = ΣMGMSPZZ
MGPNP	Motor gasoline sold for public nonhighway use.	Thousand gallons	MGPNPZZ is independent. MGPNPUS = ΣMGPNPZZ
MGSFP	Motor gasoline special fuels sold (primarily diesel fuel with small amounts of liquefied petroleum gases).	Thousand gallons	MGSFPZZ is independent. MGSFPUS = ΣMGSFPZZ
MGTCB	Motor gasoline total consumed.	Billion Btu	MGTCBZZ = MGCCBZZ + MGICBZZ + MGACBZZ MGTCBUS = ΣMGTCBZZ
MGTCP	Motor gasoline total consumed.	Thousand barrels	MGTCPZZ = (MGTTPZZ / MGTTPUS) * MGTCPUS MGTCPUS is independent.
MGTRP	Motor gasoline sold to the transportation sector.	Thousand gallons	MGTRPZZ = MGMFPZZ + MGMRPZZ – MGSFPZZ MGTRPUS = ΣMGTRPZZ
MGTTP	Motor gasoline total sold.	Thousand gallons	MGTTPZZ = MGCMPZZ + MGINPZZ + MGTRPZZ MGTTPUS = ΣMGTTPZZ
MSICB	Miscellaneous petroleum products consumed by the industrial sector.	Billion Btu	MSICBZZ = MSTCBZZ MSICBUS = MSTCBUS
MSICP	Miscellaneous petroleum products consumed by the industrial sector.	Thousand barrels	MSICPZZ = MSTCPZZ MSICPUS = MSTCPUS
MSTCB	Miscellaneous petroleum products total consumed.	Billion Btu	MSTCBZZ = MSTCPZZ * 5.796 MSTCBUS = ΣMSTCBZZ
MSTCP	Miscellaneous petroleum products total consumed.	Thousand barrels	MSTCPZZ = (OCVAVZZ / OCVAVUS) * MSTCPUS MSTCPUS is independent.
NAICB	Natural gasoline consumed by the industrial sector.	Billion Btu	NAICBZZ = NATCBZZ NAICBUS = NATCBUS
NAICP	Natural gasoline consumed by the industrial sector.	Thousand barrels	NAICPZZ = NATCPZZ NAICPUS = NATCPUS
NATCB	Natural gasoline total consumed.	Billion Btu	NATCBZZ = NATCPZZ * 4.620 NATCBUS = ΣNATCBZZ

NATCP	Natural gasoline total consumed.	Thousand barrels	NATCPZZ = (OCVAVZZ / OCVAVUS) * NATCPUS NATCPUS is independent.
NGACB	Natural gas consumed by the transportation sector.	Billion Btu	NGACBZZ = NGACPZZ * NGNUKZZ NGACBUS = ΣNGACBZZ
NGACP	Natural gas consumed by the transportation sector.	Million cubic feet	NGACPZZ = NGPZPZZ + NGVHPZZ NGACPUS = ΣNGACPZZ
NGCCB	Natural gas delivered to the commercial sector, used as consumption.	Billion Btu	NGCCBZZ = NGCCPZZ * NGNUKZZ NGCCBUS = ΣNGCCBZZ
NGCCP	Natural gas delivered to the commercial sector, used as consumption.	Million cubic feet	NGCCPZZ is independent. NGCCPUS = ΣNGCCPZZ
NGEUB	Natural gas consumed by the electric utilities.	Billion Btu	NGEUBZZ = NGEUPZZ * NGEUKZZ NGEUBUS = ΣNGEUBZZ
NGEUK	Factor for converting natural gas consumed by the electric utilities from physical units to Btu.	Thousand Btu per cubic foot	NGEUKZZ is independent. NGEUKUS = NGEUBUS / NGEUPUS
NGEUP	Natural gas consumed by the electric utilities.	Million cubic feet	NGEUPZZ is independent. NGEUPUS = ΣNGEUPZZ
NGICB	Natural gas consumed by the industrial sector.	Billion Btu	NGICBZZ = NGICPZZ * NGNUKZZ NGICBUS = ΣNGICBZZ
NGICP	Natural gas consumed by the industrial sector.	Million cubic feet	NGICPZZ = NGINPZZ + NGLEPZZ + NGPLPZZ NGICPUS = ΣNGICPZZ
NGINP	A portion of the natural gas delivered to the industrial sector.	Million cubic feet	NGINPZZ is independent. NGINPUS = ΣNGINPZZ
NGLPB	Natural gas consumed as lease and plant fuel.	Billion Btu	NGLPBZZ = NGLPPZZ * NGNUKZZ NGLPBUS = ΣNGLPBZZ
NGLPP	Natural gas consumed as lease and plant fuel.	Million cubic feet	NGLPPZZ = NGLEPZZ + NGPLPZZ NGLPPUS = ΣNGLPPZZ
NGLEP	Natural gas consumed as lease fuel.	Million cubic feet	NGLEPZZ is independent. NGLEPUS = ΣNGLEPZZ
NGNUK	Factor for converting natural gas consumed by all sectors other than the electric utility sector from physical units to Btu.	Thousand Btu per cubic foot	NGNUKZZ = (NGTCBZZ – NGEUBZZ) / (NGTCPZZ – NGEUPZZ) NGNUKUS = (NGTCBUS – NGEUBUS) / (NGTCPUS – NGEUPUS)

NGPLP	Natural gas consumed as plant fuel.	Million cubic feet	NGPLPZZ is independent. NGPLPUS = ΣNGPLPZZ
NGPZB	Natural gas consumed as pipeline fuel.	Billion Btu	NGPZBZZ = NGPZPZZ * NGNUKZZ NGPZBUS = ΣNGPZBZZ
NGPZP	Natural gas consumed as pipeline fuel.	Million cubic feet	NGPZPZZ is independent. NGPZPUS = ΣNGPZPZZ
NGRCB	Natural gas delivered to the residential sector, used as consumption.	Billion Btu	NGRCBZZ = NGRCPZZ * NGNUKZZ NGRCBUS = ΣNGRCBZZ
NGRCP	Natural gas delivered to the residential sector, used as consumption.	Million cubic feet	NGRCPZZ is independent. NGRCPUS = ΣNGRCPZZ
NGTCB	Natural gas total consumed.	Billion Btu	NGTCBZZ = NGTCPZZ * NGTCKZZ NGTCBUS = ΣNGTCBZZ
NGTCK	Factor for converting natural gas total consumed from physical units to Btu.	Thousand Btu per cubic foot	NGTCKZZ is independent. NGTCKUS = NGTCBUS / NGTCPUS
NGTCP	Natural gas total consumed.	Million cubic feet	NGTCPZZ = NGRCPZZ + NGCCPZZ + NGICPZZ + NGACPZZ + NGEUPZZ NGTCPUS = ΣNGTCPZZ
NGVHB	Natural gas consumed as vehicle fuel.	Billion Btu	NGVHBZZ = NGVHPZZ * NGNUKZZ NGVHBUS = ΣNGVHBZZ
NGVHP	Natural gas consumed as vehicle fuel.	Million cubic feet	NGVHPZZ is independent. NGVHPUS = ΣNGVHPZZ
NUEOB	Electricity produced from nuclear power at electric utilities.	Billion Btu	NUEOBZZ = NUEOPZZ * NUEOKUS NUEOBUS = ΣNUEOBZZ
NUEOKUS	Factor for converting electricity produced from nuclear power from physical units to Btu.	Thousand Btu per kilowatthour	NUEOKUS is independent.
NUEOP	Electricity produced from nuclear power at electric utilities.	Million kilowatthours	NUEOPZZ is independent. NUEOPUS = ΣNUEOPZZ
OCVAV	Value added in manufacture of industrial organic chemicals.	Million dollars	OCVAVZZ is independent. OCVAVUS = ΣOCVAVZZ
PAACB	All petroleum products consumed by the transportation sector.	Billion Btu	PAACBZZ = AVACBZZ + DFACBZZ + JKACBZZ + JNACBZZ + LGACBZZ + LUACBZZ + MGACBZZ + RFACBZZ

			PAACBUS = ΣPAACBZZ
PAACKUS	Factor for converting all petroleum products consumed by the transportation sector from physical units to Btu.	Million Btu per barrel	PAACKUS = PAACBUS / PAACPUS
PAACP	All petroleum products consumed by the transportation sector.	Thousand barrels	PAACPZZ = AVACPZZ + DFACPZZ + JKACPZZ + JNACPZZ + LGACPZZ + LUACPZZ + MGACPZZ + RFACPZZ PAACPUS = ΣPAACPZZ
PACCB	All petroleum products consumed by the commercial sector.	Billion Btu	PACCBZZ = DFCCBZZ + KSCCBZZ + LGCCBZZ + MGCCBZZ + RFCCBZZ PACCBUS = ΣPACCBZZ
PACCKUS	Factor for converting all petroleum products consumed by the commercial sector from physical units to Btu.	Million Btu per barrel	PACCKUS = PACCBUS / PACCPUS
PACCP	All petroleum products consumed by the commercial sector.	Thousand barrels	PACCPZZ = DFCCPZZ + KSCCPZZ + LGCCPZZ + MGCCPZZ + RFCCPZZ PACCPUS = ΣPACCPZZ
PAEUB	All petroleum products consumed by the electric utilities.	Billion Btu	PAEUBZZ = DFEUBZZ + JKEUBZZ + PCEUBZZ + RFEUBZZ PAEUBUS = ΣPAEUBZZ
PAEUKUS	Factor for converting all petroleum products consumed by the electric utilities from physical units to Btu.	Million Btu per barrel	PAEUKUS = PAEUBUS / PAEUPUS
PAEUP	All petroleum products consumed by the electric utilities.	Thousand barrels	PAEUPZZ = DFEUPZZ + JKEUPZZ + PCEUPZZ + RFEUPZZ PAEUPUS = ΣPAEUPZZ
PAHCBUS	All petroleum products consumed by the residential and commercial sectors combined.	Billion Btu	PAHCBUS = PARCBUS + PACCBUS
PAHCKUS	Factor for converting all petroleum products consumed by the residential and commercial sectors combined from physical units to Btu.	Million Btu per barrel	PAHCKUS = PAHCBUS / PAHCPUS
PAHCPUS	All petroleum products consumed by the residential and commercial sectors combined.	Thousand barrels	PAHCPUS = PARCPUS + PACCPUS

PAICB	All petroleum products consumed by the industrial sector.	Billion Btu	PAICBZZ = ARICBZZ + DFICBZZ + KSICBZZ + LGICBZZ + LUICBZZ + MGICBZZ + RFICBZZ + POICBZZ PAICBUS = ΣPAICBZZ
PAICKUS	Factor for converting all petroleum products consumed by the industrial sector from physical units to Btu.	Million Btu per barrel	PAICKUS = PAICBUS / PAICPUS
PAICP	All petroleum products consumed by the industrial sector.	Thousand barrels	PAICPZZ = ARICPZZ + DFICPZZ + KSICPZZ + LGICPZZ + LUICPZZ + MGICPZZ + RFICPZZ + POICPZZ PAICPUS = ΣPAICPZZ
PARCB	All petroleum products consumed by the residential sector.	Billion Btu	PARCBZZ = DFRCBZZ + KSRCBZZ + LGRCBZZ PARCBUS = ΣPARCBZZ
PARCKUS	Factor for converting all petroleum products consumed by the residential sector from physical units to Btu.	Million Btu per barrel	PARCKUS = PARCBUS / PARCPUS
PARCP	All petroleum products consumed by the residential sector.	Thousand barrels	PARCPZZ = DFRCPZZ + KSRCPZZ + LGRCPZZ PARCPUS = ΣPARCPZZ
PATCB	All petroleum products consumed by all sectors.	Billion Btu	PATCBZZ = ARTCBZZ + AVTCBZZ + DFTCBZZ + JKTCBZZ + JNTCBZZ + KSTCBZZ + LGTCBZZ + LUTCBZZ + MGTCBZZ + RFTCBZZ + POTCBZZ PATCBUS = ΣPATCBZZ
PATCKUS	Factor for converting all petroleum products consumed by all sectors from physical units to Btu.	Million Btu per barrel	PATCKUS = PATCBUS / PATCPUS
PATCP	All petroleum products consumed by all sectors.	Thousand barrels	PATCPZZ = ARTCPZZ + AVTCPZZ + DFTCPZZ + JKTCPZZ + JNTCPZZ + KSTCPZZ + LGTCPZZ + LUTCPZZ + MGTCPZZ + RFTCPZZ + POTCPZZ PATCPUS = ΣPATCPZZ
PCRFP	Petroleum coke used at refineries as both catalytic and marketable coke.	Thousand barrels	PCRFPZZ = (CTCAPZZ / CTCAPUS) * PCRFPUS PCRFPUS is independent.
PCEUB	Petroleum coke consumed by the electric utilities.	Billion Btu	PCEUBZZ = PCEUPZZ * 6.024 PCEUBUS = ΣPCEUBZZ

PCEUM	Petroleum coke consumed by the electric utilities.	Thousand tons	PCEUMZZ is independent. PCEUMUS = ΣPCEUMZZ
PCEUP	Petroleum coke consumed by the electric utilities.	Thousand barrels	PCEUPZZ = PCEUMZZ * 5 PCEUPUS = ΣPCEUPZZ
PCICB	Petroleum coke consumed by the industrial sector.	Billion Btu	PCICBZZ = PCICPZZ * 6.024 PCICBUS = ΣPCICBZZ
PCICP	Petroleum coke consumed by the industrial sector.	Thousand barrels	PCICPZZ = PCRFPZZ + PCOCPZZ PCICPUS = PCTCPUS – PCEUPUS
PCOCP	Industrial use of petroleum coke other than that used for catalytic cracking.	Thousand barrels	PCOCPZZ = (AICAPZZ / AICAPUS) * PCOCPUS PCOCPUS = PCICPUS – PCRFPUS
PCTCB	Petroleum coke total consumed.	Billion Btu	PCTCBZZ = PCICBZZ + PCEUBZZ PCTCBUS = ΣPCTCBZZ
PCTCP	Petroleum coke total consumed.	Thousand barrels	PCTCPZZ = PCICPZZ + PCEUPZZ PCTCPUS is independent.
PIVAV	Value added in the manufacture of paints and allied products.	Million dollars	PIVAVZZ is independent. PIVAVUS = ΣPIVAVZZ
PLICB	Plant condensate consumed by the industrial sector.	Billion Btu	PLICBZZ = PLTCBZZ PLICBUS = PLTCBUS
PLICP	Plant condensate consumed by the industrial sector.	Thousand barrels	PLICPZZ = PLTCPZZ PLICPUS = PLTCPUS
PLTCB	Plant condensate total consumed.	Billion Btu	PLTCBZZ = PLTCPZZ * 5.418 PLTCBUS = ΣPLTCBZZ
PLTCP	Plant condensate total consumed.	Thousand barrels	PLTCPZZ = (OCVAVZZ / OCVAVUS) * PLTCPUS PLTCPUS is independent.
POICB	Other petroleum products consumed by the industrial sector.	Billion Btu	POICBZZ = ABICBZZ + COICBZZ + FNICBZZ + FOICBZZ + FSICBZZ + MBICBZZ + MSICBZZ + NAICBZZ + PCICBZZ + PLICBZZ + PPICBZZ + SGICBZZ + SNICBZZ + UOICBZZ + USICBZZ + WXICBZZ POICBUS = ΣPOICBZZ
POICP	Other petroleum products consumed by the industrial sector.	Thousand barrels	POICPZZ = ABICPZZ + COICPZZ + FNICPZZ + FOICPZZ + FSICPZZ +

			MBICPZZ + MSICPZZ + NAICPZZ + PCICPZZ + PLICPZZ + PPICPZZ + SGICPZZ + SNICPZZ + UOICPZZ + USICPZZ + WXICPZZ POICPUS = ΣPOICPZZ
POTCB	Other petroleum products total consumed.	Billion Btu	POTCBZZ = ABTCBZZ + COTCBZZ + FNTCBZZ + FOTCBZZ + FSTCBZZ + MBTCBZZ + MSTCBZZ + NATCBZZ + PCTCBZZ + PLTCBZZ + PPTCBZZ + SGTCBZZ + SNTCBZZ + UOTCBZZ + USTCBZZ + WXTCBZZ POTCBUS = ΣPOTCBZZ
POTCP	Other petroleum products total consumed.	Thousand barrels	POTCPZZ = ABTCPZZ + COTCPZZ + FNTCPZZ + FOTCPZZ + FSTCPZZ + MBTCPZZ + MSTCPZZ + NATCPZZ + PCTCPZZ + PLTCPZZ + PPTCPZZ + SGTCPZZ + SNTCPZZ + UOTCPZZ + USTCPZZ + WXTCPZZ POTCPUS = ΣPOTCPZZ
PPICB	Pentanes plus consumed by the industrial sector.	Billion Btu	PPICBZZ = PPTCBZZ PPICBUS = PPTCBUS
PPICP	Pentanes plus consumed by the industrial sector.	Thousand barrels	PPICPZZ = PPTCPZZ PPICPUS = PPTCPUS
PPTCB	Pentanes plus total consumed.	Billion Btu	PPTCBZZ = PPTCPZZ * 4.620 PPTCBUS = ΣPPTCBZZ
PPTCP	Pentanes plus total consumed.	Thousand barrels	PPTCPZZ = (OCVAVZZ / OCVAVUS) * PPTCPUS PPTCPUS is independent.
RDICP	Road oil consumed by the industrial sector.	Thousand barrels	RDICPZZ = (RDINPZZ / RDINPUS) * RDTCPUS RDICPUS = ΣRDICPZZ
RDINP	Road oil sold to the industrial sector.	Short tons	RDINPZZ is independent. RDINPUS = ΣRDINPZZ
RDTCP	Road oil total consumed.	Thousand barrels	RDTCPZZ = RDICPZZ RDTCPUS is independent.
REACB	Renewable energy sources consumed by the transportation sector.	Billion Btu	REACBZZ = ENACBZZ REACBUS = ENACBUS

REACP	Renewable energy sources consumed by the transportation sector.	Thousand gallons	REACPZZ = ENACPZZ REACPUS = ENACPUS
REEOB	Renewable energy sources consumed by the electric utilities.	Billion Btu	REEOBZZ = HVENBZZ + GEENBZZ + WWEOBZZ + WNEOBZZ REEOBUS = HVENBUS + GEENBUS + WWEOBUS + WNEOBUS
REEOP	Renewable energy sources consumed by the electric utilities.	Million kilowatthours	REEOPZZ = HVENPZZ + GEENPZZ + WWEOPZZ + WNEOPZZ REEOPUS = HVENPUS + GEENPUS + WWEOPUS + WNEOPUS
RECCB	Renewable energy sources consumed by the commercial sector.	Billion Btu	RECCBZZ = WDCCBZZ + GECCBZZ RECCBUS = WDCCBUS + GECCBUS
RECCP	Renewable energy sources consumed by the commercial sector.	Thousand cords	RECCPZZ = WDCCPZZ RECCPUS = WDCCPUS
REICB	Renewable energy sources consumed by the industrial sector.	Billion Btu	REICBZZ = HYICBZZ + WWICBZZ + GOICBZZ REICBUS = HYICBUS + WWICBUS + GOICBUS
RERCB	Renewable energy sources consumed by the residential sector.	Billion Btu	RERCBZZ = WDRCBZZ + GERCBZZ + SOHCBZZ RERCBUS = WDRCBUS + GERCBUS + SOHCBUS
RETCB	Renewable energy sources total consumed.	Billion Btu	RETCBZZ = RERCBZZ + RECCBZZ + REICBZZ + REACBZZ + REEOBZZ RETCBUS = RERCBUS + RECCBUS + REICBUS + REACBUS + REEOBUS
RFACB	Residual fuel consumed by the transportation sector.	Billion Btu	RFACBZZ = RFACPZZ * 6.287 RFACBUS = ΣRFACBZZ
RFACP	Residual fuel consumed by the transportation sector.	Thousand barrels	RFACPZZ = (RFTRPZZ / RFNDPZZ) * RFNCPZZ RFACPUS = ΣRFACPZZ
RFBKP	Residual fuel sold for vessel bunkering use, excluding deliveries to the Armed Forces.	Thousand barrels	RFBKPZZ is independent. RFBKPUS = ΣRFBKPZZ
RFCCB	Residual fuel consumed by the commercial sector.	Billion Btu	RFCCBZZ = RFCCPZZ * 6.287 RFCCBUS = ΣRFCCBZZ
RFCCP	Residual fuel consumed by the commercial sector.	Thousand barrels	RFCCPZZ = (RFCMPZZ / RFNDPZZ) * RFNCPZZ RFCCPUS = ΣRFCCPZZ

RFCMP	Residual fuel sold to the commercial sector.	Thousand barrels	RFCMPZZ is independent. RFCMPUS = ΣRFCMPZZ
RFEUB	Residual fuel consumed by the electric utilities.	Billion Btu	RFEUBZZ = RFEUPZZ * 6.287 RFEUBUS = ΣRFEUBZZ
RFEUP	Residual fuel consumed by the electric utilities.	Thousand barrels	RFEUPZZ is independent. RFEUPUS = ΣRFEUPZZ
RFIBP	A portion of residual fuel sold for industrial use, including industrial space heating.	Thousand barrels	RFIBPZZ is independent. RFIBPUS = ΣRFIBPZZ
RFICB	Residual fuel consumed by the industrial sector.	Billion Btu	RFICBZZ = RFICPZZ * 6.287 RFICBUS = ΣRFICBZZ
RFICP	Residual fuel consumed by the industrial sector.	Thousand barrels	RFICPZZ = (RFINPZZ / RFNDPZZ) * RFNCPZZ RFICPUS = ΣRFICPZZ
RFINP	Residual fuel sold to the industrial sector.	Thousand barrels	RFINPZZ = RFIBPZZ + RFOCPZZ + RFMSPZZ RFINPUS = ΣRFINPZZ
RFMIP	Residual fuel sold to the Armed Forces, regardless of use.	Thousand barrels	RFMIPZZ is independent. RFMIPUS = ΣRFMIPZZ
RFMSP	Residual fuel sold for miscellaneous uses.	Thousand barrels	RFMSPZZ is independent. RFMSPUS = ΣRFMSPZZ
RFNCP	Residual fuel consumption by all sectors other than the electric utility sector.	Thousand barrels	RFNCPZZ = (RFNDPZZ / RFNDPUS) * RFNCPUS RFNCPUS = RFTCPUS – RFEUPUS
RFNDP	Residual fuel sold to all sectors other than the electric utility sector.	Thousand barrels	RFNDPZZ = RFCMPZZ + RFINPZZ + RFTRPZZ RFNDPUS = ΣRFNDPZZ
RFOCP	Residual fuel sold for use by oil companies.	Thousand barrels	RFOCPZZ is independent. RFOCPUS = ΣRFOCPZZ
RFRRP	Residual fuel sold for use by railroads.	Thousand barrels	RFRRPZZ is independent. RFRRPUS = ΣRFRRPZZ
RFTCB	Residual fuel total consumed.	Billion Btu	RFTCBZZ = RFCCBZZ + RFICBZZ + RFACBZZ + RFEUBZZ RFTCBUS = ΣRFTCBZZ
RFTCP	Residual fuel total consumed.	Thousand barrels	RFTCPZZ = RFNCPZZ + RFEUPZZ RFTCPUS is independent.

RFTRP	Residual fuel sold to the transportation sector.	Thousand barrels	RFTRPZZ = RFBKPZZ + RFMIPZZ + RFRRPZZ RFTRPUS = ΣRFTRPZZ
SGICB	Still gas consumed by the industrial sector.	Billion Btu	SGICBZZ = SGTCBZZ SGICBUS = SGTCBUS
SGICP	Still gas consumed by the industrial sector.	Thousand barrels	SGICPZZ = SGTCPZZ SGICPUS = SGTCPUS
SGTCB	Still gas total consumed.	Billion Btu	SGTCBZZ = SGTCPZZ * 6.000 SGTCBUS = ΣSGTCBZZ
SGTCP	Still gas total consumed.	Thousand barrels	SGTCPZZ = (COCAPZZ / COCAPUS) * SGTCPUS SGTCPUS is independent.
SNICB	Special naphthas consumed by the industrial sector.	Billion Btu	SNICBZZ = SNTCBZZ SNICBUS = SNTCBUS
SNICP	Special naphthas consumed by the industrial sector.	Thousand barrels	SNICPZZ = SNTCPZZ SNICPUS = SNTCPUS
SNTCB	Special naphthas total consumed.	Billion Btu	SNTCBZZ = SNTCPZZ * 5.248 SNTCBUS = ΣSNTCBZZ
SNTCP	Special naphthas total consumed.	Thousand barrels	SNTCPZZ = (PIVAVZZ / PIVAVUS) * SNTCPUS SNTCPUS is independent.
SOEOB	Electricity produced from photovoltaic and solar thermal energy by electric utilities.	Billion Btu	SOEOBZZ = SOEOPZZ * FFEOKUS SOEOBUS = ΣSOEOBZZ
SOEOP	Electricity produced from photovoltaic and solar thermal energy by electric utilities.	Million kilowatthours	SOEOPZZ is independent. SOEOPUS = ΣSOEOPZZ
SOHCB	Solar thermal energy consumed by the residential and commercial sectors.	Billion Btu	SOHCBZZ is independent. SOHCBUS = ΣSOHCBZZ
SOICB	Electricity produced from photovoltaic and solar thermal energy sources in the industrial sector.	Billion Btu	SOICBZZ is independent. SOICBUS = ΣSOICBZZ
SOTCB	Photovoltaic and solar thermal energy sources total consumed.	Billion Btu	SOTCBZZ = SOHCBZZ + SOICBZZ + SOEOBZZ SOTCBUS = ΣSOTCBZZ
TEACB	Total energy consumed by the transportation sector.	Billion Btu	TEACBZZ = CLACBZZ + NGACBZZ + PAACBZZ + ESACBZZ + LOACBZZ TEACBUS = CLACBUS + NGACBUS + PAACBUS +

			ESACBUS + LOACBUS
TEAPB	The transportation sector's energy consumption per capita.	Million Btu	TEAPBZZ = TEACBZZ / TPOPPZZ TEAPBUS = TEACBUS / TPOPPUS
TECCB	Total energy consumed by the commercial sector.	Billion Btu	TECCBZZ = CLCCBZZ + NGCCBZZ + PACCBZZ + WDCCBZZ + GECCBZZ + ESCCBZZ + LOCCBZZ TECCBUS = CLCCBUS + NGCCBUS + PACCBUS + WDCCBUS + GECCBUS + ESCCBUS + LOCCBUS
TECPB	The commercial sector's energy consumption per capita.	Million Btu	TECPBZZ = TECCBZZ / TPOPPZZ TECPBUS = TECCBUS / TPOPPUS
TEEUB	Total energy consumed by the electric utilities plus net imports of electricity into the United States.	Billion Btu	TEEUBZZ = CLEUBZZ + NGEUBZZ + PAEUBZZ + HYENBZZ + NUEOBZZ + GEENBZZ + WWEOBZZ + WNEOBZZ + EXNIBZZ TEEUBUS = CLEUBUS + NGEUBUS + PAEUBUS + HYENBUS + NUEOBUS + GEENBUS + WWEOBUS + WNEOBUS + EXNIBUS
TEICB	Total energy consumed by the industrial sector.	Billion Btu	TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + HYICBZZ + WWICBZZ + GOICBZZ + ESICBZZ + LOICBZZ TEICBUS = CLICBUS + NGICBUS + PAICBUS + HYICBUS + WWICBUS + GOICBUS + ESICBUS + LOICBUS + CCNIBUS
TEIPB	The industrial sector's energy consumption per capita.	Million Btu	TEIPBZZ = TEICBZZ / TPOPPZZ TEIPBUS = TEICBUS / TPOPPUS
TERCB	Total energy consumed by the residential sector.	Billion Btu	TERCBZZ = CLRCBZZ + NGRCBZZ + PARCBZZ + WDRCBZZ + GERCBZZ + SOHCBZZ + ESRCBZZ + LORCBZZ TERCBUS = CLRCBUS + NGRCBUS + PARCBUS + WDRCBUS + GERCBUS + SOHCBUS + ESRCBUS + LORCBUS
TERPB	The residential sector's energy consumption per capita.	Million Btu	TERPBZZ = TERCBZZ / TPOPPZZ TERPBUS = TERCBUS / TPOPPUS
TESSB	Total energy consumed (sum of the four end-use sectors). CSEDS cross-check not used in *SEDR* tables.	Billion Btu	TESSBZZ = TERCBZZ + TECCBZZ + TEICBZZ + TEACBZZ TESSBUS = TERCBUS + TECCBUS + TEICBUS +

			TEACBUS
TETCB	Total energy consumed (sum of all energy sources) used in *SEDR* tables.	Billion Btu	TETCBZZ = CLTCBZZ + NGTCBZZ + PATCBZZ + NUEOBZZ + HYTCBZZ + BMTCBZZ – ENACBZZ + GOTCBZZ + ELISBZZ TETCBUS = CLTCBUS + CCNIBUS + NGTCBUS + PATCBUS + NUEOBUS + HYTCBUS + BMTCBUS – ENACBUS + GOTCBUS + EXNIBUS
TETPB	Total energy consumption per capita.	Million Btu	TETPBZZ = TETCBZZ / TPOPPZZ TETPBUS = TETCBUS / TPOPPUS
TNACB	Total net energy consumed by the transportation sector excluding the sector's share of electrical system energy losses.	Billion Btu	TNACBZZ = TEACBZZ – LOACBZZ TNACBUS = TEACBUS – LOACBUS
TNCCB	Total net energy consumed by the commercial sector excluding the sector's share of electrical system energy losses.	Billion Btu	TNCCBZZ = TECCBZZ – LOCCBZZ TNCCBUS = TECCBUS – LOCCBUS
TNICB	Total net energy consumed by the industrial sector excluding the sector's share of electrical system energy losses.	Billion Btu	TNICBZZ = TEICBZZ – LOICBZZ TNICBUS = TEICBUS – LOICBUS
TNRCB	Total net energy consumed by the residential sector excluding the sector's share of electrical system energy losses.	Billion Btu	TNRCBZZ = TERCBZZ – LORCBZZ TNRCBUS = TERCBUS – LORCBUS
TPOPP	The resident population including the Armed Forces residing in each State.	Thousand	TPOPPZZ is independent. TPOPPUS is independent.
UOICB	Unfinished oils consumed by the industrial sector.	Billion Btu	UOICBZZ = UOTCBZZ UOICBUS = UOTCBUS
UOICP	Unfinished oils consumed by the industrial sector.	Thousand barrels	UOICPZZ = UOTCPZZ UOICPUS = UOTCPUS
UOTCB	Unfinished oils total consumed.	Billion Btu	UOTCBZZ = UOTCPZZ * 5.825 UOTCBUS = ΣUOTCBZZ
UOTCP	Unfinished oils total consumed.	Thousand barrels	UOTCPZZ = (COCAPZZ / COCAPUS) * UOTCPUS UOTCPUS is independent.
USICB	Unfractionated stream consumed by the industrial sector.	Billion Btu	USICBZZ = USTCBZZ USICBUS = USTCBUS

USICP	Unfractionated stream consumed by the industrial sector.	Thousand barrels	USICPZZ = USTCPZZ USICPUS = USTCPUS
USTCB	Unfractionated stream total consumed.	Billion Btu	USTCBZZ = USTCPZZ * 5.418 USTCBUS = ΣUSTCBZZ
USTCP	Unfractionated stream total consumed.	Thousand barrels	USTCPZZ = (OCVAVZZ / OCVAVUS) * USTCPUS USTCPUS is independent.
WDCCB	Wood energy consumed by the commercial sector.	Billion Btu	WDCCBZZ = (WDRCPZZ / WDRCPUS) * WDCCBUS WDCCBUS is independent.
WDCCP	Wood energy consumed by the commercial sector.	Thousand cords	WDCCPZZ = WDCCBZZ / 20 WDCCPUS = ΣWDCCPZZ
WDEOB	Electricity produced from wood energy sources at electric utilities.	Billion Btu	WDEOBZZ = WDEOPZZ * FFEOKUS WDEOBUS = ΣWDEOBZZ
WDEOP	Electricity produced from wood energy sources at electric utilities.	Million kilowatthours	WDEOPZZ is independent. WDEOPUS = ΣWDEOPZZ
WDRCB	Wood energy consumed by the residential sector.	Billion Btu	WDRCBZZ = WDRCPZZ * 20 WDRCBUS = ΣWDRCBZZ
WDRCP	Wood energy consumed by the residential sector.	Thousand cords	WDRCPZZ is independent. WDRCPUS = ΣWDRCPZZ
WNEOB	Electricity produced from wind, photovoltaic, and solar thermal energy sources at electric utilities.	Billion Btu	WNEOBZZ = SOEOBZZ + WYEOBZZ WNEOBUS = ΣWNEOBZZ
WNEOP	Electricity produced from wind, photovoltaic, and solar thermal energy sources at electric utilities.	Million kilowatthours	WNEOPZZ = SOEOPZZ + WYEOPZZ WNEOPUS = ΣWNEOPZZ
WSEOB	Electricity produced from waste energy sources at electric utilities.	Billion Btu	WSEOBZZ = WSEOPZZ * FFEOKUS WSEOBUS = ΣWSEOBZZ
WSEOP	Electricity produced from waste energy sources at electric utilities.	Million kilowatthours	WSEOPZZ is independent. WSEOPUS = ΣWSEOPZZ
WWEOB	Electricity produced from wood and waste at electric utilities.	Billion Btu	WWEOBZZ = WDEOBZZ + WSEOBZZ WWEOBUS = ΣWWEOBZZ

WWEOP	Electricity produced from wood and waste at electric utilities.	Million kilowatthours	WWEOPZZ = WDEOPZZ + WSEOPZZ WWEOPUS = ΣWWEOPZZ
WWICB	Wood and waste consumed by the industrial sector.	Billion Btu	WWICBZZ is independent. WWICBUS = ΣWWICBZZ
WXICB	Waxes consumed by the industrial sector.	Billion Btu	WXICBZZ = WXTCBZZ WXICBUS = WXTCBUS
WXICP	Waxes consumed by the industrial sector.	Thousand barrels	WXICPZZ = WXTCPZZ WXICPUS = WXTCPUS
WXTCB	Waxes total consumed.	Billion Btu	WXTCBZZ = WXTCPZZ * 5.537 WXTCBUS = ΣWXTCBZZ
WXTCP	Waxes total consumed.	Thousand barrels	WXTCPZZ = (CGVAVZZ / CGVAVUS) * WXTCPUS WXTCPUS is independent.
WYEOB	Electricity produced from wind energy at electric utilities.	Billion Btu	WYEOBZZ = WYEOPZZ * FFEOKUS WYEOBUS = ΣWYEOBZZ
WYEOP	Electricity produced from wind energy at electric utilities.	Million kilowatthours	WYEOPZZ is independent. WYEOPUS = ΣWYEOPZZ
WYICB	Electricity produced from wind energy by the industrial sector.	Billion Btu	WYICBZZ is independent. WYICBUS = ΣWYICBZZ
WYTCB	Electricity produced from wind energy total produced.	Billion Btu	WYTCBZZ = WYICBZZ + WYEOBZZ WYTCBUS = ΣWYTCBZZ

Appendix C

Thermal Conversion Factors

Table C1. Approximate Heat Content of Petroleum and Coal and Heat Rates for Electricity, 1960-1997

	Petroleum Consumption		Anthracite Consumption				Electricity Consumption		
	Liquefied Petroleum Gases (LGTCKUS)	Total Petroleum Products [a] (PATCKUS)	Sectors Other Electric (ACNUKUS)	Electric Utilities (ACEUKUS)	Total [a] (ACTCKUS)	Bituminous Coal and Lignite Consumption [a] (BCTCKUS)	Fossil-Fueled Steam-Electric Plants [b] (FFEOKUS)	Nuclear Steam-Electric Plants (NUEOKUS)	Geothermal Energy Plants (GEEOKUS)
Year	Million Btu per Barrel		Million Btu per Short Ton				Btu per Kilowatthour		
1960	4.011	5.55503	24.721	17.500	23.592	24.765	10,760	11,629	23,200
1961	4.011	5.55163	24.870	17.500	23.707	24.693	10,650	11,629	23,200
1962	4.011	5.54496	24.666	17.500	23.515	24.668	10,558	11,629	23,200
1963	4.011	5.53379	24.110	17.500	23.107	24.639	10,482	11,877	22,182
1964	4.011	5.52758	24.164	17.500	23.128	24.652	10,462	11,912	22,182
1965	4.011	5.53200	24.316	17.500	23.175	24.575	10,453	11,804	22,182
1966	4.011	5.53178	24.193	17.500	22.906	24.431	10,415	11,623	22,182
1967	3.838	5.51469	23.506	17.500	22.291	24.287	10,432	11,555	21,770
1968	3.818	5.50368	23.293	17.500	22.037	24.229	10,398	11,297	21,606
1969	3.805	5.49220	23.200	17.500	22.003	24.011	10,447	11,037	21,606
1970	3.779	5.50317	23.476	17.500	22.102	23.461	10,494	10,977	21,606
1971	3.772	5.50449	23.572	17.500	22.210	23.138	10,478	10,837	21,655
1972	3.760	5.50004	23.403	17.500	21.822	23.050	10,379	10,792	21,668
1973	3.746	5.51461	22.674	17.920	21.464	23.073	10,389	10,903	21,674
1974	3.730	5.50388	22.330	17.200	20.919	22.694	10,442	11,161	21,674
1975	3.715	5.49427	22.272	17.064	20.762	22.522	10,406	11,013	21,611
1976	3.711	5.50448	22.618	17.526	21.254	22.509	10,373	11,047	21,611
1977	3.677	5.51825	24.101	17.244	22.066	22.266	10,435	10,769	21,611
1978	3.669	5.51865	24.388	17.104	22.398	22.014	10,361	10,941	21,611
1979	3.680	5.49383	24.272	17.454	22.069	22.100	10,353	10,879	21,545
1980	3.674	5.47933	22.719	17.652	21.405	21.950	10,388	10,908	21,639
1981	3.643	5.44818	23.749	18.168	22.080	21.710	10,453	11,030	21,639
1982	3.615	5.41514	24.578	18.160	22.518	21.670	10,454	11,073	21,629
1983	3.614	5.40567	24.536	16.516	21.583	21.576	10,520	10,905	21,290
1984	3.599	5.39530	25.128	17.018	22.322	21.570	10,440	10,843	21,303
1985	3.603	5.38744	23.031	16.784	20.817	21.368	10,447	10,813	21,263
1986	3.640	5.41832	24.399	15.578	21.512	21.462	10,446	10,799	21,263
1987	3.659	5.40281	26.293	15.962	22.435	21.514	10,419	10,776	21,263
1988	3.652	5.41017	26.021	17.312	22.423	21.324	10,324	10,743	21,096
1989	3.683	5.40967	27.196	16.310	22.623	21.268	10,432	10,724	21,096
1990	3.625	5.41084	25.199	16.140	21.668	21.330	10,402	10,680	21,096
1991	3.614	5.38408	25.268	15.858	21.410	21.146	10,436	10,740	20,997
1992	3.624	5.37773	24.617	16.944	21.423	21.142	10,342	10,678	20,914
1993	3.606	5.37911	24.096	16.534	21.262	20.983	10,309	10,682	20,914
1994	3.635	5.37084	25.037	14.680	20.828	21.011	10,316	10,676	20,914
1995	3.623	5.35807	24.696	14.572	20.808	20.845	10,312	10,658	20,914
1996	3.613	5.35232	24.638	14.360	20.652	20.857	10,335	10,623	20,960
1997	3.616	5.35320	24.497	15.022	20.878	20.861	10,311	10,623	20,960

[a] This factor is not actually applied in CSEDS but is displayed here for information.
[b] This factor is the average for electricity generated at U.S. fossil-fueled steam-electric plants. In CSEDS, it is applied to convert hydroelectricity, electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy, and imports and exports of electricity produced at hydroelectric and conventional power plants.

Sources: See source listing at the end of this appendix.

Table C2. Approximate Heat Content of Natural Gas Consumed by Electric Utilities, 1960-1984, Selected Years

(Thousand Btu per Cubic Foot)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	1.03500	1.03400	1.03100	1.03300	1.15300	1.18200	1.12600	1.12100	1.13300	1.13400	1.12500	1.10300	1.12400
Alaska	–	1.01000	1.00500	1.00600	1.00600	1.00600	1.00600	1.00600	1.00600	1.00500	1.00600	1.00600	1.00600
Arizona	1.03500	1.07600	1.05900	1.07100	1.07200	1.06600	1.06400	1.05700	1.05700	1.04900	1.05100	1.04200	1.05100
Arkansas	1.03500	1.00100	1.00400	1.01100	1.01300	1.05100	1.05300	1.02600	1.02600	1.02300	1.03200	1.03500	1.03700
California	1.03500	1.07300	1.05400	1.06300	1.06100	1.05900	1.06000	1.05500	1.05200	1.05500	1.05300	1.04800	1.05000
Colorado	1.03500	0.91200	0.97400	0.99600	0.99200	0.98800	0.99200	0.98200	0.98100	0.97500	0.96400	0.98900	0.98800
Connecticut	1.03500	1.02200	1.01600	1.00500	1.00800	–	–	–	–	–	–	–	1.02800
Delaware	1.03500	1.04300	1.02000	1.07300	1.07800	1.10300	1.07000	1.04300	1.04200	1.03600	1.03300	1.03500	1.03900
District of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	1.03500	1.03700	1.04100	1.00900	1.01400	1.01900	1.02400	1.02000	1.01500	1.01300	1.01400	1.01100	1.01100
Georgia	1.03500	1.04000	1.03100	1.02900	1.02900	1.02600	1.02600	1.09700	1.03500	1.02700	1.02800	1.02500	1.02300
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	–	–	–	1.05300	1.05900	1.05600	1.04800	1.04200	1.03700	1.08700	1.07500	1.04700	1.04500
Illinois	1.03500	1.02900	1.02500	1.02900	1.02800	1.02800	1.02800	1.02100	1.02400	1.02300	1.02400	1.02900	1.03100
Indiana	1.03500	0.99900	1.00600	1.00000	1.00300	1.00800	1.00100	1.00200	1.00400	1.00200	1.00200	1.00200	1.00300
Iowa	1.03500	1.01000	1.00900	1.00800	1.01100	1.01200	1.02100	1.00900	1.00800	1.00700	1.01900	1.02700	1.03500
Kansas	1.03500	0.99500	0.99800	0.99100	0.98200	0.98000	0.96800	0.96200	0.96000	0.96200	0.95600	0.95300	0.97500
Kentucky	1.03500	1.02800	1.01700	1.01700	1.01800	1.02000	1.02400	1.02300	1.02400	1.02400	1.02400	1.02300	1.02400
Louisiana	1.03500	1.04200	1.02900	1.05900	1.06100	1.05300	1.05600	1.04700	1.04100	1.04100	1.04600	1.04900	1.04800
Maine	–	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	1.03500	1.02500	1.02200	0.94300	0.94600	0.99800	1.06200	1.07600	1.02300	1.01500	1.02500	1.02500	1.02500
Massachusetts	1.03500	1.01300	1.01200	1.00200	1.00100	1.00000	1.00000	1.00100	1.00000	1.00000	1.04800	1.05400	1.06000
Michigan	1.03500	1.01400	1.01500	0.83400	0.76700	0.69800	0.77400	0.67700	0.73700	0.65300	0.66200	999999999.0	0.59200
Minnesota	1.03500	0.99800	1.00200	0.98400	0.97200	0.97200	0.92800	0.99200	0.99400	0.99400	0.99900	1.01100	1.00100
Mississippi	1.03500	1.02900	1.02500	1.03000	1.01600	1.02000	1.00900	1.00900	1.01700	1.01600	1.02200	1.02900	1.02700
Missouri	1.03500	1.02000	1.00700	0.97700	0.97400	0.97300	0.97400	0.97600	0.97900	0.98600	1.02200	0.99500	0.99800
Montana	1.03500	1.00100	1.03200	1.14900	1.19200	1.17300	1.14600	1.08400	1.04900	1.07500	1.17300	1.19700	1.17900
Nebraska	1.03500	0.99100	1.00800	0.98200	0.97100	0.96700	0.96800	0.95400	0.95000	0.94200	0.98200	0.94900	0.94800
Nevada	1.03500	1.06200	1.08200	1.06700	1.06800	1.06300	1.07700	1.06400	1.07100	1.07500	1.06800	1.06300	1.06000
New Hampshire	–	–	–	1.00000	1.00000	1.00000	–	1.00000	–	1.02500	–	1.02500	1.02700
New Jersey	1.03500	1.04500	1.02600	1.02800	1.02900	1.02800	1.03000	1.03900	1.03400	1.03600	1.03300	1.03700	1.03600
New Mexico	1.03500	1.10800	1.08300	1.03300	1.02900	1.02800	1.04200	1.03400	1.02900	1.02900	1.02100	0.99200	0.99600
New York	1.03500	1.02600	1.02100	1.02500	1.02500	1.02800	1.02900	1.03000	1.03600	1.03200	1.03000	1.03100	1.03300
North Carolina	1.03500	1.03300	1.02400	1.03100	1.03300	1.03300	1.03300	1.03000	1.03400	1.03500	1.03300	1.03300	1.03300
North Dakota	1.03500	1.00000	1.03100	1.05400	1.05400	1.05400	1.05400	1.05400	1.05400	1.05400	1.05400	1.05400	1.05400
Ohio	1.03500	1.03300	1.02300	0.86400	0.82500	0.69600	0.65300	0.86200	1.00400	1.01000	1.01400	1.01100	1.01400
Oklahoma	1.03500	1.02600	1.03200	1.03800	1.04200	1.04600	1.04800	1.05000	1.04800	1.04700	1.04500	1.05100	1.04000
Oregon	1.03500	1.07000	1.04500	1.03700	1.03500	1.04200	–	1.04600	0.99800	1.04700	0.99000	0.99000	0.99000
Pennsylvania	1.03500	1.03800	1.03300	1.00000	1.00000	1.00000	1.00000	1.00400	1.02000	1.01500	1.00900	1.00000	1.00000
Rhode Island	1.03500	1.04200	1.02100	1.04200	1.04200	–	–	1.04600	1.02200	1.02200	1.02000	1.03900	1.03000
South Carolina	1.03500	1.04200	1.02800	1.02800	1.02800	1.02800	1.04800	1.07600	1.03000	1.02300	1.02900	1.02600	1.02700
South Dakota	1.03500	0.99700	1.00400	1.00000	0.99600	0.99000	0.92800	0.98300	0.98800	0.99300	0.94800	1.01100	1.01100
Tennessee	1.03500	1.04600	1.02200	–	1.02900	–	–	–	1.01600	1.01600	–	1.02300	–
Texas	1.03500	1.03700	1.02700	1.01900	1.01800	1.02600	1.03300	1.03800	1.03700	1.03000	1.03300	1.02400	1.03000
Utah	1.03500	0.92500	0.93800	0.94100	0.95200	0.94500	0.95100	0.96300	0.95500	0.93200	0.94000	0.94100	1.03000
Vermont	–	–	–	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Virginia	1.03500	1.03100	1.02600	1.09800	1.09100	1.17400	1.21800	1.10100	1.10400	1.09700	1.08100	1.04600	1.04100
Washington	–	–	–	–	–	–	1.03000	1.03000	1.03000	1.03100	1.03300	1.03300	1.03300
West Virginia	1.03500	1.07100	1.02900	0.57500	0.68300	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Wisconsin	1.03500	1.01800	1.01900	1.01600	1.01400	1.01400	1.00500	1.01000	1.00700	1.00800	1.01200	0.99100	0.99200
Wyoming	1.03500	0.92600	1.02300	0.84300	0.84300	0.85400	0.83700	0.84700	0.84700	0.85500	0.84700	1.03900	1.04700
U.S. Average	1.03500	1.03765	1.02944	1.02341	1.02345	1.02841	1.03289	1.03263	1.03313	1.03258	1.03396	1.02794	1.03332

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C3. Approximate Heat Content of Natural Gas Consumed by Electric Utilities, 1985-1997

(Thousand Btu per Cubic Foot)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	1.09900	1.09100	1.05400	1.03900	1.03000	1.03000	1.02200	1.02100	1.01600	1.01100	1.01600	1.02400	1.03100
Alaska	1.00600	1.00600	1.00600	1.00600	1.00600	1.00600	1.00100	1.00000	0.99900	0.99900	1.00200	1.00100	1.00000
Arizona	1.05900	1.04400	1.03400	1.03400	1.03500	1.03400	1.02700	1.03100	1.02700	1.02300	1.02200	1.01500	1.01400
Arkansas	1.05500	1.05300	1.03100	1.02900	1.01900	1.01800	1.02000	1.02500	1.02900	1.02400	1.02300	1.02400	1.02900
California	1.05100	1.04500	1.03800	1.03600	1.04000	1.03300	1.02800	1.03300	1.03000	1.02900	1.02700	1.02600	1.01900
Colorado	0.98900	0.99400	0.98800	0.98500	0.97700	0.98800	0.99500	1.00000	1.01200	1.04200	1.00800	0.99800	0.99500
Connecticut	1.03100	1.03600	1.03100	1.03100	1.03000	1.03300	1.03300	1.03100	1.03200	1.01700	1.01700	1.01900	1.01900
Delaware	1.03800	1.04600	1.03600	1.07200	1.07500	1.05400	1.05200	1.03700	1.03300	1.03700	1.03200	1.03400	1.03500
District of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	1.01100	1.00800	1.00800	1.00800	1.01000	1.01100	1.01400	1.01100	1.00900	1.01000	1.01000	1.00800	1.04400
Georgia	1.02400	1.02400	1.02300	1.02300	1.02400	1.02400	1.02500	1.02400	1.02300	1.02500	1.02400	1.02400	1.02400
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	1.04900	1.02100	1.01700	–	–	–	–	–	–	–	–	–	–
Illinois	1.02700	1.02600	1.02500	1.02100	1.01700	1.02100	1.01800	1.01600	1.01600	1.02200	1.01600	1.02000	1.01600
Indiana	1.00500	1.00600	1.00500	1.00200	1.00200	1.00200	1.00100	1.00100	1.01300	1.02300	1.02100	1.02100	1.02100
Iowa	1.02100	1.01700	1.00700	1.00700	1.00700	1.00600	1.00400	1.00400	1.00600	1.00600	1.00500	1.00300	1.00300
Kansas	0.96800	0.96900	0.98800	0.99300	0.97100	0.99000	0.96800	0.97000	0.97500	0.98300	0.98000	0.97300	0.97800
Kentucky	1.02400	1.02200	1.02100	1.02300	1.02100	1.02000	1.02000	1.02000	1.02000	1.02100	1.02200	1.02200	1.02300
Louisiana	1.04700	1.04400	1.04300	1.04500	1.04400	1.04500	1.04200	1.04300	1.04300	1.04600	1.04300	1.04300	1.03600
Maine	–	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	1.02500	1.05800	1.04300	1.04200	1.04500	1.04200	1.04600	1.04500	1.04100	1.04300	1.03900	1.04100	1.04100
Massachusetts	1.03900	1.02900	1.02600	1.02900	1.04800	1.05200	1.04100	1.03200	1.03400	1.03700	1.02600	1.03700	1.03300
Michigan	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0	999999999.0
Minnesota	1.00200	0.99900	0.99800	1.00300	1.00500	1.00300	1.00800	1.00800	1.00800	1.00500	1.00600	1.00300	1.00400
Mississippi	1.03900	1.03800	1.02800	1.02600	1.02500	1.03600	1.02500	1.02900	1.02200	1.04300	1.03900	1.03800	1.03600
Missouri	0.99200	0.98300	0.99000	0.99400	1.01600	1.01800	1.01400	1.00800	1.00800	1.00000	1.00600	1.01100	1.00600
Montana	1.20400	1.20100	1.20500	1.20800	1.21300	1.21800	1.19400	1.20600	1.16500	1.05500	1.07300	1.07500	1.07100
Nebraska	0.95700	0.97100	0.97700	0.95400	0.95900	0.94600	0.94200	0.95900	0.97600	0.98700	0.99800	1.00400	0.99800
Nevada	1.06500	1.05300	1.03500	1.02700	1.02700	1.03100	1.02400	1.02500	1.02900	1.03300	1.02900	1.02900	1.02900
New Hampshire	–	–	1.02700	1.02700	1.02700	–	–	1.01800	1.01600	1.01500	1.01800	1.01800	1.01700
New Jersey	1.04600	1.03600	1.03300	1.03300	1.03300	1.03200	1.03200	1.03400	1.03400	1.03500	1.03100	1.02000	1.03700
New Mexico	1.01300	1.04100	1.02600	1.02600	1.03300	1.03400	1.01600	1.01700	1.01600	1.02200	1.01700	1.01200	1.01700
New York	1.03500	1.03600	1.03000	1.03100	1.02800	1.03300	1.03100	1.03000	1.03100	1.03100	1.02600	1.02900	1.02600
North Carolina	1.03300	1.03300	1.03300	1.03300	1.03300	1.03300	1.03200	1.03600	1.03300	1.03800	1.03300	1.03600	1.03700
North Dakota	1.05400	1.05400	1.07200	1.06500	1.05000	1.03800	1.00400	1.03700	1.08000	1.09500	1.06600	1.05900	1.06600
Ohio	1.01400	1.01800	1.00900	1.01200	1.00700	1.00800	1.00700	1.03300	1.03000	1.02900	1.02700	1.02800	1.02400
Oklahoma	1.04400	1.04300	1.04700	1.03900	1.04300	1.04500	1.04000	1.03700	1.03900	1.03400	1.03400	1.02800	1.03200
Oregon	–	0.99000	–	–	1.03500	1.02300	1.01100	1.01100	1.01100	1.01100	1.01200	1.00900	1.01100
Pennsylvania	1.00000	1.02500	1.03100	1.03500	1.02900	1.03200	1.03400	1.03100	1.03000	1.03100	1.03000	1.02800	1.03400
Rhode Island	1.03400	–	1.03100	1.03200	1.03100	1.03300	1.03200	1.03100	1.05100	1.02900	1.02800	1.02800	1.02700
South Carolina	1.02900	1.02300	1.02700	1.03200	1.02300	1.02300	1.02500	1.02200	1.02100	1.02300	1.02400	1.02500	1.02400
South Dakota	1.01000	1.00500	1.01300	1.02000	1.01700	1.01600	1.00600	1.01900	1.01400	0.97200	1.00200	1.01400	1.01800
Tennessee	–	–	–	1.03100	1.03200	1.03500	1.03300	1.03100	1.03500	1.03200	1.03100	1.03200	1.03100
Texas	1.03600	1.03500	1.03500	1.03300	1.03400	1.03500	1.03000	1.02600	1.02600	1.02300	1.02300	1.02300	1.02300
Utah	1.07500	1.08700	1.07800	1.07800	1.07800	1.00000	1.06700	1.07400	1.06300	1.04400	1.05500	1.02100	1.03200
Vermont	1.00000	1.00000	–	–	1.00000	1.00000	0.98800	0.98800	0.99800	0.99600	1.00100	1.01500	1.01200
Virginia	1.04000	1.05300	1.03900	1.05400	1.04100	1.04100	1.04400	1.05000	1.03800	1.03700	1.03100	1.05700	1.04800
Washington	1.03300	1.03300	1.03300	1.03300	1.03300	1.03300	1.05000	1.05000	1.05000	1.05000	1.05000	1.05000	1.04800
West Virginia	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Wisconsin	1.00000	1.00300	0.99200	1.00200	1.00300	1.00700	1.00800	1.00900	1.01200	1.01100	1.00900	1.01000	1.00800
Wyoming	1.04800	1.02200	1.01900	1.02600	1.03600	1.03500	1.05100	1.03900	1.04400	1.03300	1.04300	1.04000	1.04100
U.S. Average	1.03706	1.03311	1.03153	1.02742	1.02720	1.02658	1.02316	1.02297	1.02300	1.02337	1.01779	1.01543	1.01837

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C4. Approximate Heat Content of Natural Gas Consumed by Sectors Other Than Electric Utilities, 1960-1984, Selected Years

(Thousand Btu per Cubic Foot)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	1.03500	1.03400	1.03100	1.02891	1.02782	1.02863	1.02965	1.02608	1.03349	1.03535	1.05159	1.03784	1.03286
Alaska	1.03500	1.01000	1.00500	1.00470	1.00467	1.00475	0.99878	0.99868	1.00231	1.00369	0.99910	1.00140	1.00144
Arizona	1.03500	1.07600	1.05900	1.04957	1.04869	1.05386	1.06502	1.04051	1.04558	1.05486	1.05490	1.04560	1.04594
Arkansas	1.03500	1.00100	1.00400	0.99503	0.99590	1.02007	0.99920	1.01577	0.99415	0.99524	0.99681	1.02070	1.01884
California	1.03500	1.07300	1.05400	1.05594	1.05139	1.05022	1.05157	1.04797	1.04358	1.04419	1.04714	1.04083	1.03782
Colorado	1.03500	0.91200	0.97400	0.89576	0.90136	0.88783	0.86156	0.88005	0.99471	0.99530	1.00099	1.00637	1.00231
Connecticut	1.03500	1.02200	1.01600	1.00500	1.00800	1.01000	1.01300	1.01170	1.02200	1.02500	1.02700	1.02900	1.02903
Delaware	1.03500	1.04300	1.02000	1.01468	1.01779	1.02350	1.02787	1.02801	1.03285	1.03477	1.03300	1.01514	1.01746
District of Columbia	1.03500	1.02400	1.01600	1.01200	1.01200	1.01600	1.01600	1.01600	1.00300	1.01400	1.01700	1.01000	1.01200
Florida	1.03500	1.03700	1.04100	1.07754	1.06174	1.06668	1.06968	1.05369	1.06968	1.10649	1.08246	1.09719	1.10065
Georgia	1.03500	1.04000	1.03100	1.02672	1.02696	1.02702	1.02794	1.03843	1.03196	1.02700	1.03001	1.02601	1.02601
Hawaii	–	–	–	–	–	–	–	–	0.96300	0.95900	0.98900	1.02300	1.02600
Idaho	1.03500	1.06500	1.06100	1.05500	1.05700	1.06006	1.05340	1.04715	1.05301	1.06999	1.07200	1.04700	1.04500
Illinois	1.03500	1.02900	1.02500	1.02590	1.02492	1.02800	1.01811	1.02450	1.02196	1.01996	1.02198	1.04115	1.04005
Indiana	1.03500	0.99900	1.00600	0.98976	0.98990	0.98995	0.98901	0.99034	0.98894	0.99290	1.01608	1.00603	1.00701
Iowa	1.03500	1.01000	1.00900	1.00800	1.00773	1.00359	1.00153	1.00210	1.00287	1.00295	1.00788	1.01381	1.01474
Kansas	1.03500	0.99500	0.99800	0.98159	0.98069	0.98134	0.98107	0.98175	0.99404	0.99267	1.00673	1.00627	0.99365
Kentucky	1.03500	1.02800	1.01700	1.00799	1.01100	1.01097	1.00982	1.00984	1.00886	1.01387	1.01392	1.01998	1.02198
Louisiana	1.03500	1.04200	1.02900	1.03153	1.03299	1.03515	1.04248	1.03433	1.03707	1.03578	1.04731	1.04014	1.04060
Maine	–	–	1.01200	1.02400	1.02400	1.02400	1.02400	1.00000	1.02400	1.02500	1.02500	1.02600	1.03200
Maryland	1.03500	1.02500	1.02200	1.01323	1.01411	1.01604	1.02998	1.04291	1.01990	1.01396	1.01796	1.02095	1.02601
Massachusetts	1.03500	1.01300	1.01200	1.00402	1.00608	1.00714	1.00919	1.00947	1.01646	1.01662	1.02196	1.02077	1.02454
Michigan	1.03500	1.01400	1.01500	1.02420	1.02345	1.01996	1.01668	1.02013	1.01961	1.02596	1.02823	1.03896	1.02283
Minnesota	1.03500	0.99800	1.00200	1.00225	0.99914	0.99745	0.99704	0.99537	0.99709	0.99502	1.00508	1.02314	1.00302
Mississippi	1.03500	1.02900	1.02500	1.02189	1.02438	1.02623	1.02449	1.02946	1.03421	1.02898	1.03068	1.02647	1.03091
Missouri	1.03500	1.02000	1.00700	1.00822	1.00508	1.00419	1.00625	0.97972	1.01577	1.01581	1.01794	1.02735	1.01718
Montana	1.03500	1.00100	1.03200	1.01927	1.01229	1.00677	0.99866	0.98687	1.00926	1.00837	1.00995	1.00662	1.00365
Nebraska	1.03500	0.99100	1.00800	0.99650	0.99652	1.00080	1.00035	0.99737	0.98019	0.97923	0.98099	0.98241	0.98137
Nevada	1.03500	1.06200	1.08200	1.06700	1.06480	1.03695	1.00292	0.96765	1.05209	1.07753	1.07101	1.06689	1.05871
New Hampshire	1.03500	1.01200	1.01000	1.01024	1.01001	1.00000	1.00730	1.04014	1.02000	1.02196	1.02000	1.02099	1.02700
New Jersey	1.03500	1.04500	1.02600	1.03111	1.03416	1.03418	1.03502	1.03549	1.03269	1.03348	1.03058	1.02912	1.02046
New Mexico	1.03500	1.10800	1.08300	1.07555	1.06632	1.06976	1.06047	1.06537	1.04776	1.05393	1.05173	1.04148	1.06146
New York	1.03500	1.02600	1.02100	1.01476	1.01390	1.01088	1.01186	1.01349	1.02277	1.01751	1.02128	1.02607	1.02536
North Carolina	1.03500	1.03300	1.02400	1.01799	1.01800	1.01900	1.02080	1.02186	1.01175	1.01186	1.03300	1.03300	1.03400
North Dakota	1.03500	1.00000	1.03100	1.00077	0.99994	0.99994	0.99997	0.99997	1.05200	1.04199	1.02598	1.04500	1.04900
Ohio	1.03500	1.03300	1.02300	1.02403	1.02606	1.02531	1.02425	1.02592	1.01606	1.02303	1.02902	1.03403	1.03702
Oklahoma	1.03500	1.02600	1.03200	0.99619	0.99240	1.01236	1.00408	1.00543	1.00198	1.02610	1.01036	1.03656	1.01711
Oregon	1.03500	1.07000	1.04500	1.03900	1.03600	1.04200	1.04510	1.04477	1.04620	1.04399	1.04402	1.04100	1.03600
Pennsylvania	1.03500	1.03800	1.03300	1.02505	1.02502	1.02101	1.02151	1.02064	1.02201	1.02203	1.02804	1.02907	1.03413
Rhode Island	1.03500	1.04200	1.02100	1.01399	1.01208	1.01300	1.01290	1.00891	1.02094	1.02200	1.03647	1.03453	1.03000
South Carolina	1.03500	1.04200	1.02800	1.02346	1.02287	1.02189	1.03126	1.01547	1.03312	1.02300	1.03001	1.02701	1.02600
South Dakota	1.03500	0.99700	1.00400	1.00000	0.99910	1.00005	0.99925	0.99566	0.99811	1.00202	0.99906	1.01100	1.01100
Tennessee	1.03500	1.04600	1.02200	1.03100	1.02900	1.03100	1.02800	1.03260	1.01600	1.01600	1.02400	1.02300	1.02400
Texas	1.03500	1.03700	1.02700	1.02966	1.02872	1.02756	1.02542	1.02954	1.03085	1.03308	1.03139	1.03190	1.03950
Utah	1.03500	0.92500	0.93800	0.95023	0.94792	0.95026	0.95656	0.95963	1.09212	1.07740	0.93897	1.07655	1.07511
Vermont	–	–	1.00600	1.00930	1.00814	1.00899	1.01061	1.01151	0.98936	0.99268	0.99282	0.99157	0.99153
Virginia	1.03500	1.03100	1.02600	1.01868	1.01872	1.02124	1.01933	1.01923	1.01471	1.02294	1.02590	1.02962	1.03589
Washington	1.03500	1.07500	1.05500	1.04200	1.04100	1.04500	1.04761	1.04713	1.05216	1.05007	1.05302	1.04300	1.04500
West Virginia	1.03500	1.07100	1.02900	1.03805	1.04369	1.04201	1.03140	1.02371	1.03201	1.04005	1.04705	1.03804	1.05305
Wisconsin	1.03500	1.01800	1.01900	1.02023	1.01712	1.01502	1.01247	1.01308	1.00804	1.00902	1.01200	1.00921	1.00810
Wyoming	1.03500	0.92600	1.02300	0.93453	0.95069	0.93775	0.91433	0.92963	1.06069	1.05932	1.00223	1.05903	1.05301
U.S. Average	1.03500	1.03182	1.02543	1.02232	1.02149	1.02212	1.02040	1.01988	1.02375	1.02575	1.02739	1.03099	1.03023

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C5. Approximate Heat Content of Natural Gas Consumed by Sectors Other Than Electric Utilities, 1985-1997

(Thousand Btu per Cubic Foot)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	1.03770	1.03571	1.03285	1.02889	1.03000	1.02898	1.02708	1.02809	1.03023	1.03026	1.02931	1.03317	1.04132
Alaska	1.00600	1.00960	1.00942	1.00376	0.99821	0.94820	1.00209	1.00216	0.99360	1.00117	1.00630	0.98918	1.00000
Arizona	1.04578	1.03683	1.03659	1.03400	1.04268	1.03153	1.02454	1.03100	1.02822	1.02786	1.03742	1.01024	1.02252
Arkansas	1.01677	1.01334	1.01250	1.00673	1.00426	1.00756	1.01654	1.00681	1.01249	1.02177	1.08374	1.02629	1.01354
California	1.03848	1.03655	1.02602	1.02879	1.03582	1.03168	1.02670	1.02746	1.03785	1.02063	1.01316	1.03328	1.01776
Colorado	0.99923	1.00322	1.00046	1.00681	1.01222	1.00540	1.02976	1.02347	1.01098	1.00433	1.01814	1.02447	1.01231
Connecticut	1.02998	1.02994	1.03100	1.03201	1.03414	1.03300	1.03090	1.02794	1.02697	1.03093	1.02988	1.02880	1.02811
Delaware	1.02197	1.01639	1.00929	1.01777	1.01404	1.01536	1.02464	1.03446	1.03553	1.03544	1.03561	1.03576	1.03500
District of Columbia	1.01500	1.01300	1.01400	1.01100	1.01000	1.00800	1.00600	1.00700	1.00700	1.01100	1.00600	1.00900	1.02100
Florida	1.10911	1.07589	1.09473	1.07984	1.08571	1.08663	1.09834	1.10018	1.09842	1.12409	1.07028	1.10872	1.05429
Georgia	1.02801	1.02706	1.02601	1.02501	1.02600	1.02702	1.02701	1.02500	1.02703	1.03002	1.02604	1.02299	1.02706
Hawaii	1.08200	1.08600	1.06800	1.07800	1.08000	1.07000	1.08000	1.07300	1.06200	1.05100	1.04800	1.05700	1.03000
Idaho	1.04900	1.02100	1.01700	1.02000	1.02700	1.02800	1.03300	1.03000	1.03800	1.03800	1.03000	1.03000	1.03100
Illinois	1.04008	1.02097	1.01496	1.01798	1.02204	1.02201	1.01901	1.01802	1.02108	1.02097	1.02015	1.01898	1.02122
Indiana	1.00801	1.00901	1.00901	1.01510	1.01612	1.01824	1.01429	1.01116	1.01300	1.01282	1.01186	1.01092	1.01092
Iowa	1.01091	1.00995	1.00802	1.00700	1.01104	1.00702	1.00806	1.00400	1.00295	1.00802	1.00500	1.00604	1.00910
Kansas	0.99990	0.98581	1.04899	0.98560	0.99325	0.99975	1.01121	0.98772	0.98770	0.99905	1.00381	0.99756	1.00184
Kentucky	1.03004	1.03804	1.03703	1.03703	1.03903	1.04003	1.04703	1.05805	1.04804	1.06207	1.09629	1.04921	1.05026
Louisiana	1.03819	1.03908	1.03941	1.04137	1.04281	1.04138	1.04801	1.04420	1.03590	1.03877	1.03315	1.04418	1.13446
Maine	1.03500	1.03100	1.04000	1.02700	1.00300	1.00500	1.00600	1.01300	1.01400	1.01400	1.01600	1.01600	1.01400
Maryland	1.03408	1.03568	1.03333	1.03168	1.03054	1.02641	1.02506	1.02684	1.02733	1.03011	1.02460	1.02845	1.03361
Massachusetts	1.02388	1.02574	1.02965	1.03010	1.03559	1.03419	1.03863	1.03775	1.03841	1.02458	1.02600	1.02556	1.02028
Michigan	1.02304	1.03829	1.03126	1.03962	1.05189	1.04510	1.03863	1.03742	1.03457	1.03340	1.04195	1.03617	1.04083
Minnesota	1.00401	0.99900	0.99902	1.00707	1.00601	1.00402	1.01208	1.01105	1.01104	1.01111	1.01317	1.01822	1.01825
Mississippi	1.02459	1.02130	1.01554	1.01533	1.03124	1.03196	1.03033	1.05226	1.02321	1.02829	1.01782	1.02642	1.03320
Missouri	1.01714	1.01114	1.01113	1.00608	1.00796	1.01089	1.00874	1.00194	1.00393	1.00610	1.00705	1.01100	1.01011
Montana	0.99897	0.99799	1.01769	1.02374	1.01857	1.02614	1.02802	1.02211	1.01725	1.02362	1.02971	1.02965	1.03072
Nebraska	0.98226	0.99337	0.98513	0.98349	0.98762	0.98430	0.98538	0.97936	0.97498	0.98495	0.97959	1.00705	0.99800
Nevada	1.06122	1.06045	1.00363	0.99619	1.03172	1.03100	1.03603	1.03432	1.03567	1.03593	1.03527	1.04028	1.02565
New Hampshire	1.02700	1.02700	1.02900	1.02499	1.01899	1.01400	1.00700	1.00865	1.00995	1.01286	1.01011	1.01900	1.01083
New Jersey	1.02214	1.02595	1.02448	1.02502	1.02503	1.02525	1.02508	1.02539	1.03614	1.03931	1.03425	1.03672	1.03490
New Mexico	1.08795	1.08337	1.08057	1.07381	1.05044	1.05639	1.04239	1.04287	1.04238	0.99975	1.02052	1.03166	1.02157
New York	1.02724	1.02743	1.03000	1.02854	1.02927	1.02895	1.02704	1.02872	1.02855	1.02734	1.02855	1.02557	1.02600
North Carolina	1.03400	1.03300	1.03098	1.02998	1.03098	1.03198	1.03200	1.03396	1.03503	1.03599	1.03300	1.03600	1.03598
North Dakota	1.06200	1.04300	1.04800	1.05500	1.04900	1.03200	1.04600	1.04500	1.06000	1.05800	1.05000	1.05100	1.05000
Ohio	1.04403	1.04602	1.04504	1.04003	1.04204	1.04005	1.04416	1.03601	1.03803	1.03703	1.03809	1.03803	1.04508
Oklahoma	1.01970	1.02282	1.03094	1.03757	1.02168	1.02002	1.01312	1.02185	1.02130	1.02581	1.01479	1.02274	1.00602
Oregon	1.03000	1.02200	1.02800	1.02300	1.03500	1.02300	1.03074	1.03817	1.04052	1.04630	1.04423	1.04281	1.04832
Pennsylvania	1.03409	1.03601	1.03602	1.03600	1.03705	1.03702	1.03500	1.03602	1.03709	1.03609	1.03518	1.03406	1.03501
Rhode Island	1.03291	1.02900	1.02748	1.02697	1.02673	1.02710	1.02788	1.01792	1.02889	1.02900	1.02585	1.07392	1.02254
South Carolina	1.02800	1.03010	1.02801	1.02689	1.02607	1.02828	1.02716	1.02707	1.02911	1.03117	1.02714	1.03004	1.03113
South Dakota	1.01000	1.00500	1.01300	1.02000	1.01700	1.01600	1.01808	1.01499	1.01299	1.01020	1.01433	1.01400	1.01800
Tennessee	1.03400	1.03200	1.03200	1.03100	1.03200	1.03500	1.03300	1.03100	1.03500	1.03200	1.03100	1.03200	1.03100
Texas	1.03909	1.04266	1.04233	1.04010	1.03958	1.04194	1.03975	1.04956	1.02880	1.04261	1.04232	1.03652	1.02983
Utah	1.07500	0.94770	1.08001	1.08101	1.08705	1.08869	1.07324	1.07823	1.08081	1.06860	1.06347	1.04255	1.04225
Vermont	0.99185	0.98699	0.98700	0.99000	0.98591	0.98554	0.98800	0.99582	0.99800	0.99600	0.99590	1.01500	1.01200
Virginia	1.03899	1.03992	1.04001	1.04091	1.04100	1.04204	1.04189	1.03836	1.04460	1.03809	1.03100	1.03819	1.04380
Washington	1.04000	1.02900	1.03300	1.02592	1.03195	1.03000	1.03098	1.03244	1.03667	1.04089	1.03970	1.03663	1.04598
West Virginia	1.06707	1.07620	1.07415	1.07705	1.07707	1.07108	1.07309	1.06510	1.06506	1.06411	1.06117	1.06108	1.06809
Wisconsin	1.01004	1.01005	1.00813	1.00805	1.00501	1.00599	1.00699	1.00900	1.01099	1.01201	1.01105	1.01306	1.01112
Wyoming	1.05100	1.05005	1.05704	1.05306	1.05502	1.09905	1.06001	1.05801	1.05601	1.05603	1.06303	1.06102	1.06903
U.S. Average	1.03156	1.03018	1.03127	1.02995	1.03182	1.03076	1.03110	1.03164	1.02884	1.03022	1.03000	1.03064	1.03496

– =Not applicable.
Sources: See source listing at the end of this appendix.

Table C6. Approximate Heat Content of Natural Gas Total Consumption, 1960-1984, Selected Years

(Thousand Btu per Cubic Foot)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	1.03500	1.03400	1.03100	1.02900	1.03000	1.03100	1.03250	1.02840	1.03400	1.03600	1.05200	1.03800	1.03300
Alaska	1.03500	1.01000	1.00500	1.00500	1.00500	1.00500	1.00000	1.00000	1.00300	1.00400	1.00000	1.00200	1.00200
Arizona	1.03500	1.07600	1.05900	1.05200	1.05200	1.05600	1.06470	1.04540	1.04900	1.05300	1.05400	1.04500	1.04700
Arkansas	1.03500	1.00100	1.00400	0.99700	0.99700	1.02100	1.00090	1.01700	1.00100	1.00100	1.00200	1.02300	1.02100
California	1.03500	1.07300	1.05400	1.05700	1.05300	1.05200	1.05320	1.04970	1.04600	1.04800	1.04900	1.04300	1.04200
Colorado	1.03500	0.91200	0.97400	0.91300	0.91400	0.90000	0.87590	0.89240	0.99300	0.99400	1.00000	1.00600	1.00200
Connecticut	1.03500	1.02200	1.01600	1.00500	1.00800	1.01000	1.01300	1.01170	1.02200	1.02500	1.02700	1.02900	1.02900
Delaware	1.03500	1.04300	1.02000	1.02000	1.02500	1.03000	1.03090	1.03110	1.03500	1.03500	1.03300	1.01800	1.02100
District of Columbia	1.03500	1.02400	1.01600	1.01200	1.01200	1.01600	1.01600	1.01600	1.00300	1.01400	1.01700	1.01000	1.01200
Florida	1.03500	1.03700	1.04100	1.04300	1.04100	1.04500	1.04700	1.03730	1.04100	1.05900	1.04400	1.04800	1.04900
Georgia	1.03500	1.04000	1.03100	1.02700	1.02700	1.02700	1.02790	1.03900	1.03200	1.02700	1.03000	1.02600	1.02600
Hawaii	1.03500	–	0.96200	0.94700	0.91100	0.94900	0.95800	0.95000	0.96300	0.95900	0.98900	1.02300	1.02600
Idaho	1.03500	1.06500	1.06100	1.05500	1.05700	1.06000	1.05340	1.04710	1.05300	1.07000	1.07200	1.04700	1.04500
Illinois	1.03500	1.02900	1.02500	1.02600	1.02500	1.02800	1.01830	1.02440	1.02200	1.02000	1.02200	1.04100	1.04000
Indiana	1.03500	0.99900	1.00600	0.99000	0.99000	0.99000	0.98910	0.99040	0.98900	0.99300	1.01600	1.00600	1.00700
Iowa	1.03500	1.01000	1.00900	1.00800	1.00800	1.00400	1.00220	1.00230	1.00300	1.00300	1.00800	1.01400	1.01500
Kansas	1.03500	0.99500	0.99800	0.98400	0.98100	0.98100	0.97810	0.97780	0.98700	0.98700	0.99900	0.99900	0.99200
Kentucky	1.03500	1.02800	1.01700	1.00800	1.01100	1.01100	1.00990	1.00990	1.00900	1.01400	1.01400	1.02000	1.02200
Louisiana	1.03500	1.04200	1.02900	1.03700	1.03800	1.03800	1.04470	1.03690	1.03800	1.03700	1.04700	1.04200	1.04200
Maine	1.03500	–	1.01200	1.02400	1.02400	1.02400	1.02400	1.00000	1.02400	1.02500	1.02500	1.02600	1.03200
Maryland	1.03500	1.02500	1.02200	1.01300	1.01400	1.01600	1.03010	1.04480	1.02000	1.01400	1.01800	1.02100	1.02600
Massachusetts	1.03500	1.01300	1.01200	1.00400	1.00600	1.00700	1.00910	1.00910	1.01600	1.01600	1.02400	1.02500	1.03000
Michigan	1.03500	1.01400	1.01500	1.01200	1.00800	1.00600	1.00550	1.00530	1.01100	1.01700	1.02200	1.02400	1.01700
Minnesota	1.03500	0.99800	1.00200	1.00100	0.99800	0.99700	0.99670	0.99530	0.99700	0.99500	1.00500	1.02300	1.00300
Mississippi	1.03500	1.02900	1.02500	1.02300	1.02300	1.02500	1.02120	1.02430	1.02800	1.02500	1.02800	1.02700	1.03000
Missouri	1.03500	1.02000	1.00700	1.00600	1.00300	1.00200	1.00380	0.97950	1.01400	1.01500	1.01800	1.02700	1.01700
Montana	1.03500	1.00100	1.03200	1.02100	1.01400	1.00900	1.00050	0.99010	1.01200	1.01100	1.01100	1.00800	1.00500
Nebraska	1.03500	0.99100	1.00800	0.99400	0.99400	0.99800	0.99780	0.99380	0.97800	0.97800	0.98100	0.98200	0.98100
Nevada	1.03500	1.06200	1.08200	1.06700	1.06600	1.04900	1.02790	1.01310	1.06100	1.07600	1.07000	1.06600	1.05900
New Hampshire	1.03500	1.01200	1.01000	1.01000	1.01000	1.00000	1.00730	1.04000	1.02000	1.02200	1.02000	1.02100	1.02700
New Jersey	1.03500	1.04500	1.02600	1.03100	1.03400	1.03400	1.03500	1.03590	1.03300	1.03400	1.03100	1.03100	1.02400
New Mexico	1.03500	1.10800	1.08300	1.06400	1.05700	1.05700	1.05500	1.05640	1.04300	1.04700	1.04500	1.03300	1.04900
New York	1.03500	1.02600	1.02100	1.01500	1.01400	1.01100	1.01190	1.01550	1.02500	1.02000	1.02300	1.02700	1.02700
North Carolina	1.03500	1.03300	1.02400	1.01800	1.01800	1.01900	1.02080	1.02190	1.01200	1.01200	1.03300	1.03300	1.03400
North Dakota	1.03500	1.00000	1.03100	1.00100	1.00000	1.00000	1.00000	1.00000	1.05200	1.04200	1.02600	1.04500	1.04900
Ohio	1.03500	1.03300	1.02300	1.02300	1.02500	1.02400	1.02300	1.02490	1.01600	1.02300	1.02900	1.03400	1.03700
Oklahoma	1.03500	1.02600	1.03200	1.01500	1.01400	1.02700	1.02390	1.02350	1.02300	1.03500	1.02300	1.04200	1.02500
Oregon	1.03500	1.07000	1.04500	1.03900	1.03600	1.04200	1.04510	1.04480	1.04600	1.04400	1.04400	1.04100	1.03600
Pennsylvania	1.03500	1.03800	1.03300	1.02500	1.02500	1.02100	1.02150	1.02060	1.02200	1.02200	1.02800	1.02900	1.03400
Rhode Island	1.03500	1.04200	1.02100	1.01400	1.01300	1.01300	1.01290	1.01130	1.02100	1.02200	1.03600	1.03500	1.03000
South Carolina	1.03500	1.04200	1.02800	1.02400	1.02300	1.02200	1.03200	1.01810	1.03300	1.02300	1.03000	1.02700	1.02600
South Dakota	1.03500	0.99700	1.00400	1.00000	0.99900	1.00000	0.99920	0.99560	0.99800	1.00200	0.99900	1.01100	1.01100
Tennessee	1.03500	1.04600	1.02200	1.03100	1.02900	1.03100	1.02800	1.03260	1.01600	1.01600	1.02400	1.02300	1.02400
Texas	1.03500	1.03700	1.02700	1.02600	1.02500	1.02700	1.02810	1.03250	1.03300	1.03200	1.03200	1.02900	1.03600
Utah	1.03500	0.92500	0.93800	0.95000	0.94800	0.95000	0.95620	0.95980	1.08600	1.07300	0.93900	1.07500	1.07500
Vermont	1.03500	–	1.00600	1.00800	1.00800	1.00800	1.01050	1.01010	0.99000	0.99300	0.99300	0.99200	0.99200
Virginia	1.03500	1.03100	1.02600	1.01900	1.01900	1.02300	1.02080	1.02140	1.01600	1.02400	1.02700	1.03000	1.03600
Washington	1.03500	1.07500	1.05500	1.04200	1.04100	1.04500	1.04760	1.04690	1.05200	1.05000	1.05300	1.04300	1.04500
West Virginia	1.03500	1.07100	1.02900	1.03700	1.04300	1.04200	1.03140	1.02370	1.03200	1.04000	1.04700	1.03800	1.05300
Wisconsin	1.03500	1.01800	1.01900	1.02000	1.01700	1.01500	1.01230	1.01290	1.00800	1.00900	1.01200	1.00900	1.00800
Wyoming	1.03500	0.92600	1.02300	0.93400	0.95000	0.93700	0.91370	0.92920	1.06000	1.05900	1.00200	1.05900	1.05300
U.S. Average	1.03500	1.03271	1.02618	1.02249	1.02179	1.02315	1.02243	1.02208	1.02549	1.02703	1.02856	1.03046	1.03077

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C7. Approximate Heat Content of Natural Gas Total Consumption, 1985-1997

(Thousand Btu per Cubic Foot)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	R 1.03800	R 1.03600	R 1.03300	R 1.02900	R 1.03000	R 1.02900	R 1.02700	R 1.02800	R 1.03000	R 1.03000	R 1.02900	R 1.03300	1.04100
Alaska	R 1.00600	R 1.00900	R 1.00900	R 1.00400	R 0.99900	R 0.95400	R 1.00200	R 1.00200	R 0.99400	R 1.00100	R 1.00600	R 0.99000	1.00000
Arizona	R 1.05000	R 1.03900	R 1.03600	R 1.03400	R 1.04000	R 1.03200	R 1.02500	R 1.03100	R 1.02800	R 1.02700	R 1.03500	R 1.01100	1.02100
Arkansas	R 1.01900	R 1.01900	R 1.01600	R 1.00900	R 1.00600	R 1.00900	R 1.01700	R 1.00900	R 1.01400	R 1.02200	R 1.07600	R 1.02600	1.01500
California	R 1.04300	R 1.03900	R 1.03000	R 1.03100	R 1.03700	R 1.03200	R 1.02700	R 1.02900	R 1.03600	R 1.02300	R 1.01600	R 1.03200	1.01800
Colorado	R 0.99900	R 1.00300	R 1.00000	R 1.00600	R 1.01100	R 1.00500	R 1.02900	R 1.02300	R 1.01100	R 1.00500	R 1.01800	R 1.02400	1.01200
Connecticut	R 1.03000	R 1.03000	R 1.03100	R 1.03200	R 1.03400	R 1.03300	R 1.03100	R 1.02800	R 1.02700	R 1.03000	R 1.02800	R 1.02800	1.02700
Delaware	R 1.02500	R 1.01800	R 1.01500	R 1.02300	R 1.02800	R 1.02600	R 1.03400	R 1.03500	R 1.03500	R 1.03600	R 1.03400	R 1.03500	1.03500
District of Columbia	R 1.01500	R 1.01300	R 1.01400	R 1.01100	R 1.01000	R 1.00800	R 1.00600	R 1.00700	R 1.00700	R 1.01100	R 1.00600	R 1.00900	1.02100
Florida	R 1.05300	R 1.03600	R 1.04400	R 1.04200	R 1.04200	R 1.04300	R 1.04900	R 1.04900	R 1.05200	R 1.06800	R 1.03300	R 1.05000	1.04800
Georgia	R 1.02800	R 1.02700	R 1.02600	R 1.02500	R 1.02600	R 1.02700	R 1.02700	R 1.02500	R 1.02700	R 1.03000	R 1.02600	R 1.02300	1.02700
Hawaii	R 1.08200	R 1.08600	R 1.06800	R 1.07800	R 1.08000	R 1.07000	R 1.08000	R 1.07300	R 1.06200	R 1.05100	R 1.04800	R 1.05700	1.03000
Idaho	R 1.04900	R 1.02100	R 1.01700	R 1.02000	R 1.02700	R 1.02800	R 1.03300	R 1.03000	R 1.03800	R 1.03800	R 1.03000	R 1.03000	1.03100
Illinois	R 1.04000	R 1.02100	R 1.01500	R 1.01800	R 1.02200	R 1.02200	R 1.01900	R 1.01800	R 1.02100	R 1.02100	R 1.02000	R 1.01900	1.02100
Indiana	R 1.00800	R 1.00900	R 1.00900	R 1.01500	R 1.01600	R 1.01800	R 1.01400	R 1.01100	R 1.01300	R 1.01300	R 1.01200	R 1.01100	1.01100
Iowa	R 1.01100	R 1.01000	R 1.00800	R 1.00700	R 1.01100	R 1.00700	R 1.00800	R 1.00400	R 1.00300	R 1.00800	R 1.00500	R 1.00600	1.00900
Kansas	R 0.99800	R 0.98500	R 1.04600	R 0.98600	R 0.99200	R 0.99900	R 1.00700	R 0.98700	R 0.98700	R 0.99800	R 1.00200	R 0.99600	1.00000
Kentucky	R 1.03000	R 1.03800	R 1.03700	R 1.03700	R 1.03900	R 1.04000	R 1.04700	R 1.05800	R 1.04800	R 1.06200	R 1.09600	R 1.04900	1.05000
Louisiana	R 1.04000	R 1.04000	R 1.04000	R 1.04200	R 1.04300	R 1.04200	R 1.04700	R 1.04400	R 1.03700	R 1.04000	R 1.03500	R 1.04400	1.11800
Maine	R 1.03500	R 1.03100	R 1.04000	R 1.02700	R 1.00300	R 1.00500	R 1.00600	R 1.01300	R 1.01400	R 1.01400	R 1.01600	R 1.01600	1.01400
Maryland	R 1.03400	R 1.03600	R 1.03400	R 1.03200	R 1.03200	R 1.02800	R 1.02700	R 1.02800	R 1.02800	R 1.03100	R 1.02600	R 1.02900	1.03400
Massachusetts	R 1.02700	R 1.02600	R 1.02900	R 1.03000	R 1.03800	R 1.03800	R 1.03900	R 1.03700	R 1.03800	R 1.02600	R 1.02600	R 1.02700	1.02200
Michigan	R 1.01500	R 1.02700	R 1.02100	R 1.02200	R 1.02900	R 1.02200	R 1.02000	R 1.02000	R 1.02100	R 1.02100	R 1.01700	R 1.01200	1.01600
Minnesota	R 1.00400	R 0.99900	R 0.99900	R 1.00700	R 1.00600	R 1.00400	R 1.01200	R 1.01100	R 1.01100	R 1.01100	R 1.01300	R 1.01800	1.01800
Mississippi	R 1.02800	R 1.02500	R 1.01800	R 1.01700	R 1.03000	R 1.03300	R 1.02900	R 1.04700	R 1.02300	R 1.03300	R 1.02600	R 1.03000	1.03400
Missouri	R 1.01700	R 1.01100	R 1.01100	R 1.00600	R 1.00800	R 1.01100	R 1.00900	R 1.00200	R 1.00400	R 1.00600	R 1.00700	R 1.01100	1.01000
Montana	R 1.00100	R 1.00000	R 1.02000	R 1.02500	R 1.02000	R 1.02800	R 1.02900	R 1.02300	R 1.01800	R 1.02400	R 1.03000	R 1.03000	1.03100
Nebraska	R 0.98200	R 0.99300	R 0.98500	R 0.98300	R 0.98700	R 0.98300	R 0.98400	R 0.97900	R 0.97500	R 0.98500	R 0.98000	R 1.00700	0.99800
Nevada	R 1.06200	R 1.05900	R 1.00900	R 1.00300	R 1.03000	R 1.03100	R 1.03200	R 1.03100	R 1.03400	R 1.03500	R 1.03300	R 1.03600	1.02700
New Hampshire	R 1.02700	R 1.02700	R 1.02900	R 1.02500	R 1.01900	R 1.01400	R 1.00700	R 1.00900	R 1.01000	R 1.01300	R 1.01100	R 1.01900	1.01100
New Jersey	R 1.02600	R 1.02700	R 1.02600	R 1.02600	R 1.02600	R 1.02600	R 1.02600	R 1.02600	R 1.03600	R 1.03900	R 1.03400	R 1.03600	1.03500
New Mexico	R 1.07400	R 1.07700	R 1.07400	R 1.06800	R 1.04800	R 1.05400	R 1.03900	R 1.04000	R 1.03900	R 1.00300	R 1.02000	R 1.02900	1.02100
New York	R 1.02900	R 1.02900	R 1.03000	R 1.02900	R 1.02900	R 1.03000	R 1.02800	R 1.02900	R 1.02900	R 1.02800	R 1.02800	R 1.02600	1.02600
North Carolina	R 1.03400	R 1.03300	R 1.03100	R 1.03000	R 1.03100	R 1.03200	R 1.03200	R 1.03400	R 1.03500	R 1.03600	R 1.03300	R 1.03600	1.03600
North Dakota	R 1.06200	R 1.04300	R 1.04800	R 1.05500	R 1.04900	R 1.03200	R 1.04600	R 1.04500	R 1.06000	R 1.05800	R 1.05000	R 1.05100	1.05000
Ohio	R 1.04400	R 1.04600	R 1.04500	R 1.04000	R 1.04200	R 1.04000	R 1.04400	R 1.03600	R 1.03800	R 1.03700	R 1.03800	R 1.03800	1.04500
Oklahoma	R 1.02800	R 1.03000	R 1.03600	R 1.03800	R 1.02800	R 1.02700	R 1.02100	R 1.02600	R 1.02600	R 1.02800	R 1.02000	R 1.02400	1.01200
Oregon	R 1.03000	R 1.02200	R 1.02800	R 1.02300	R 1.03500	R 1.02300	R 1.02900	R 1.03500	R 1.03700	R 1.04000	R 1.04000	R 1.04000	1.04600
Pennsylvania	R 1.03400	R 1.03600	R 1.03600	R 1.03600	R 1.03700	R 1.03700	R 1.03500	R 1.03600	R 1.03700	R 1.03600	R 1.03500	R 1.03400	1.03500
Rhode Island	R 1.03300	R 1.02900	R 1.02800	R 1.02700	R 1.02700	R 1.02800	R 1.02800	R 1.01800	R 1.02900	R 1.02900	R 1.02600	R 1.06000	1.02400
South Carolina	R 1.02800	R 1.03000	R 1.02800	R 1.02700	R 1.02600	R 1.02800	R 1.02700	R 1.02700	R 1.02900	R 1.03100	R 1.02700	R 1.03000	1.03100
South Dakota	R 1.01000	R 1.00500	R 1.01300	R 1.02000	R 1.01700	R 1.01600	R 1.01800	R 1.01500	R 1.01300	R 1.01000	R 1.01400	R 1.01400	1.01800
Tennessee	R 1.03400	R 1.03200	R 1.03200	R 1.03100	R 1.03200	R 1.03500	R 1.03300	R 1.03100	R 1.03500	R 1.03200	R 1.03100	R 1.03200	1.03100
Texas	R 1.03800	R 1.04000	R 1.04000	R 1.03800	R 1.03800	R 1.04000	R 1.03700	R 1.04300	R 1.02800	R 1.03700	R 1.03700	R 1.03300	1.02800
Utah	R 1.07500	R 0.94800	R 1.08000	R 1.08100	R 1.08700	R 1.08800	R 1.07300	R 1.07800	R 1.08000	R 1.06700	R 1.06300	R 1.04200	1.04200
Vermont	R 0.99200	R 0.98700	R 0.98700	R 0.99000	R 0.98600	R 0.98700	R 0.98800	R 0.99500	R 0.99800	R 0.99600	R 0.99600	R 1.01500	1.01200
Virginia	R 1.03900	R 1.04000	R 1.04000	R 1.04100	R 1.04100	R 1.04200	R 1.04200	R 1.03900	R 1.04400	R 1.03800	R 1.03100	R 1.03900	1.04400
Washington	R 1.04000	R 1.02900	R 1.03300	R 1.02600	R 1.03200	R 1.03000	R 1.03100	R 1.03300	R 1.03700	R 1.04100	R 1.04000	R 1.03700	1.04600
West Virginia	R 1.06700	R 1.07600	R 1.07400	R 1.07700	R 1.07700	R 1.07100	R 1.07300	R 1.06500	R 1.06500	R 1.06400	R 1.06100	R 1.06100	1.06800
Wisconsin	R 1.01000	R 1.01000	R 1.00800	R 1.00800	R 1.00500	R 1.00600	R 1.00700	R 1.00900	R 1.01100	R 1.01200	R 1.01100	R 1.01300	1.01100
Wyoming	R 1.05100	R 1.05000	R 1.05700	R 1.05300	R 1.05500	R 1.09900	R 1.06000	R 1.05800	R 1.05600	R 1.05600	R 1.06300	R 1.06100	1.06900
U.S. Average	R 1.03253	R 1.03065	R 1.03131	R 1.02958	R 1.03113	R 1.03014	R 1.02994	R 1.03041	R 1.02806	R 1.02923	R 1.02819	R 1.02875	1.03272

Sources: See source listing at the end of this appendix.

Table C8. Approximate Heat Content of Bituminous Coal and Lignite Consumed by the Residential and Commercial Sector, 1960-1984, Selected Years

(Million Btu per Short Ton)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	24.90955	24.77905	23.93285	23.51979	23.61816	23.50701	23.94624	24.01274	24.04242	24.22595	24.31358	24.15500	24.30488
Alaska	18.90636	18.80731	18.16504	17.68304	17.73431	17.65792	17.64148	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000
Arizona	–	–	–	–	–	23.13886	23.03907	–	–	19.98524	19.99547	19.86600	19.79000
Arkansas	23.58822	23.46464	22.66333	22.78461	–	23.25776	24.55559	–	23.89952	26.51913	22.89048	22.94800	22.81074
California	23.01295	22.89238	22.11061	21.37302	–	21.42094	22.18359	22.38055	23.10930	23.02922	23.28646	23.09600	23.14219
Colorado	22.95289	22.83264	22.05291	20.82582	21.41799	21.55660	19.87246	21.73459	21.46057	21.33917	21.51570	21.37000	21.55892
Connecticut	25.06247	24.93116	24.07977	–	–	–	22.40550	24.09419	24.45394	24.29057	25.13790	25.92800	–
Delaware	–	–	–	–	–	–	–	–	24.41454	24.28610	24.41599	24.59400	–
District of Columbia	25.10862	24.97707	24.12411	23.24075	23.71388	–	–	24.14581	24.54122	24.30399	24.49389	24.78500	24.81371
Florida	24.33573	24.20824	23.38153	23.49264	–	–	–	24.06838	24.28341	24.32752	22.98457	24.68400	24.75000
Georgia	24.74225	24.61262	23.77210	23.49417	23.84904	23.59090	23.62811	24.09985	24.32123	24.31119	24.36058	24.50100	24.74515
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	24.83140	24.70130	23.85776	22.66294	21.31072	21.63582	20.09020	19.14751	22.29152	21.71739	21.67035	22.12100	22.22887
Illinois	24.04090	23.91495	23.09826	22.52306	22.45631	22.23331	22.26637	22.26385	22.06574	22.06493	22.01927	22.21700	22.27314
Indiana	24.06302	23.93695	23.11951	22.13211	22.47946	22.89893	22.29510	22.38371	21.87750	21.95293	22.06379	22.05200	22.08060
Iowa	21.32126	21.20956	20.48526	18.27722	18.94425	21.89519	19.92939	21.33432	20.22308	20.61051	20.52589	21.64800	20.92480
Kansas	21.78815	21.67400	20.93384	19.74632	–	–	21.09194	20.90868	21.18218	21.18317	22.42143	21.32800	21.43826
Kentucky	24.41023	24.28234	23.45311	23.20915	23.73730	23.44388	23.40679	23.94161	23.86491	23.96212	23.97577	24.00400	24.28360
Louisiana	–	–	–	20.47422	–	–	–	–	21.36502	–	21.42848	–	22.77784
Maine	25.15186	25.02009	24.16566	23.25980	23.71388	23.36163	23.47358	24.18655	24.44110	24.39970	24.50683	24.75000	24.74849
Maryland	25.11916	24.98756	24.13424	23.33369	23.75979	23.57470	23.80769	24.31769	24.46833	24.30977	24.51908	24.60400	24.74104
Massachusetts	25.07336	24.94200	24.09023	23.24075	23.71388	23.33604	23.59895	23.06344	24.50975	24.73845	24.82777	25.01800	24.82431
Michigan	24.75962	24.62990	23.78880	23.47415	23.57719	23.31103	23.06861	24.08615	24.36325	24.24302	24.38544	24.56500	24.38057
Minnesota	21.97087	21.85576	21.10939	19.25676	23.25512	23.22381	20.59904	18.75714	20.82860	18.49710	18.04556	19.19900	18.57345
Mississippi	23.04357	22.92284	22.14003	21.95036	–	–	23.31499	24.09419	22.99343	–	–	23.87900	24.75000
Missouri	22.94167	22.82147	22.04212	21.40447	21.61124	21.51115	21.34634	21.24613	21.80697	21.54143	21.47124	21.66500	21.67702
Montana	21.33557	21.22380	20.49901	20.38911	20.03721	18.94201	18.43165	18.69575	22.04235	17.67068	17.59846	20.40500	17.70690
Nebraska	20.91322	20.80366	20.09322	18.40616	18.41033	18.07395	17.96742	18.44085	18.03826	17.70058	19.19546	20.61600	21.37525
Nevada	25.23114	25.09895	24.24182	23.52145	22.47754	23.07994	18.67965	17.79288	22.33387	22.62540	23.09437	23.09600	21.78448
New Hampshire	24.95798	24.82722	23.97937	–	–	–	–	–	24.45810	–	24.49270	24.75000	24.58800
New Jersey	24.74372	24.61409	23.77352	21.82099	–	–	–	–	24.32119	24.28610	24.88430	24.59400	24.74516
New Mexico	22.99301	22.87255	22.09146	–	–	21.82706	19.97236	20.00716	19.78553	20.01748	20.06988	19.86600	19.79000
New York	24.62410	24.49509	23.65859	23.38572	23.83645	23.38315	23.87414	24.01167	24.36952	24.21078	24.36286	24.66000	24.56787
North Carolina	24.76213	24.63240	23.79120	23.49258	23.86489	23.59213	23.46900	24.09999	24.42236	24.32632	24.49270	24.74900	24.75007
North Dakota	15.55018	15.46871	14.94046	13.75718	13.48724	13.49456	13.28937	13.45096	13.24298	13.22083	13.26253	13.15700	13.00063
Ohio	23.84944	23.72449	22.91430	22.32524	22.92489	22.69671	22.65768	22.97712	23.21312	23.47004	23.57085	23.74600	23.80036
Oklahoma	22.72718	22.60811	21.83605	20.67259	20.96468	21.30529	21.53110	25.72233	23.29143	21.66746	21.84151	21.31800	21.50073
Oregon	24.60503	24.47612	23.64027	22.38275	21.53895	21.41286	20.44651	19.56036	22.72195	20.26182	19.75846	20.24000	21.75434
Pennsylvania	24.79066	24.66078	23.81862	23.49453	23.80811	23.82432	24.03394	24.02308	24.18275	24.12648	24.48508	24.62600	24.64525
Rhode Island	25.87949	25.74390	24.86475	–	–	–	–	–	24.41454	–	–	24.59400	24.58800
South Carolina	24.76172	24.63199	23.79081	23.49264	23.86489	23.59214	23.62799	24.09999	24.41433	24.14642	24.49270	24.75000	24.67873
South Dakota	19.41154	19.30984	18.65041	16.85997	19.54143	19.15533	22.22392	17.79288	18.42630	18.29957	18.03164	19.83900	23.33603
Tennessee	24.71529	24.58580	23.74620	23.48538	23.85462	23.52067	23.32331	23.37282	23.97514	24.15563	24.00493	24.58200	24.27867
Texas	14.95177	14.87344	14.36552	13.10400	–	13.20200	–	–	15.20049	19.31609	17.79300	23.10500	–
Utah	25.89198	25.75633	24.87676	23.74007	22.41031	23.08304	22.96192	23.36462	23.17910	23.13998	23.27931	23.09600	23.14200
Vermont	25.14754	25.01579	24.16151	24.28203	–	–	–	–	–	24.32752	25.16538	24.59400	24.74251
Virginia	24.78594	24.65608	23.81408	23.47257	23.85106	23.58575	23.56409	24.04433	24.43211	24.36232	24.58812	24.84300	24.79707
Washington	22.90924	22.78922	22.01097	19.96772	19.34891	22.16433	21.80682	21.65332	22.77100	22.97649	23.03893	22.74400	22.78786
West Virginia	24.99691	24.86595	24.01679	23.70919	24.02458	23.88573	24.18947	24.14787	24.05881	24.18392	24.71583	24.89700	24.81981
Wisconsin	21.91550	21.80068	21.05619	18.97225	23.53615	23.47004	20.61526	20.48444	24.29637	23.34779	23.42252	23.24900	24.16838
Wyoming	20.62538	20.51732	19.81665	18.57163	18.61369	18.37162	18.05772	17.84923	17.80856	17.90710	17.58366	17.46800	17.91289
U.S. Average	24.05400	23.92800	23.11100	22.25800	22.81900	22.59400	22.07800	21.88400	22.48800	22.01000	22.22600	22.43800	22.40600

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C9. Approximate Heat Content of Bituminous Coal and Lignite Consumed by the Residential and Commercial Sector, 1985-1997

(Million Btu per Short Ton)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	24.40711	24.63975	25.08310	25.79266	24.43388	24.62888	24.64340	24.20326	24.25081	24.43623	24.64589	24.63827	24.64237
Alaska	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.84800
Arizona	19.78800	19.88600	20.38358	19.88400	21.63113	18.69800	18.61200	21.70074	21.38908	–	21.96150	19.28500	19.10307
Arkansas	22.99047	–	21.49000	21.92000	24.24994	24.83400	25.96800	24.96800	23.89800	26.55800	–	–	–
California	23.55520	18.98169	22.68814	23.12753	22.37275	23.18400	23.14011	23.07808	23.20120	23.23636	23.29600	23.28200	23.10055
Colorado	21.21743	21.56464	21.39947	21.95565	21.38168	21.43489	21.57494	20.91578	21.81200	22.14453	22.16939	22.10652	18.70031
Connecticut	24.66397	24.95467	24.95908	25.04400	24.80362	24.95377	25.02600	25.04256	25.18800	25.23600	23.33821	25.23000	25.41000
Delaware	24.66000	24.72400	24.77250	24.98711	24.69741	24.85030	25.02600	25.18400	23.83055	23.80800	–	25.03700	25.17800
District of Columbia	24.88768	24.96200	25.06317	25.10269	24.81697	24.96081	25.03991	24.93954	24.99205	24.95656	25.17800	24.74271	24.57969
Florida	24.88200	24.96195	25.03600	25.04400	24.88400	24.83209	–	23.20460	24.98000	24.94600	24.64400	25.04400	–
Georgia	24.88078	24.96009	25.12917	25.21017	24.65345	25.14236	25.18717	25.19639	25.01321	25.34707	24.98009	25.04400	25.69800
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	22.83215	22.85769	22.57736	22.58220	21.56850	22.47778	22.57314	22.43044	22.43248	22.45583	21.71685	21.72486	22.68311
Illinois	22.26660	22.34029	22.53093	22.45239	22.62147	22.43881	22.55972	22.81144	22.61095	22.44583	22.50579	22.66766	22.80180
Indiana	22.25712	22.39394	22.71158	22.58785	22.29989	22.44825	22.43100	22.44030	22.58687	22.62002	22.24440	22.17831	22.14894
Iowa	21.39008	21.12940	20.63182	20.47464	22.67388	23.94746	24.08615	23.69806	23.40503	23.48865	24.36084	24.52912	23.56166
Kansas	21.14600	21.37600	21.49000	21.92000	23.70114	24.27952	24.17200	24.41040	22.71888	24.51341	23.94481	24.10800	22.52800
Kentucky	24.34440	24.55696	24.57961	24.40565	23.50634	24.44827	24.71214	24.79946	24.87999	24.86187	24.92797	24.35637	23.26357
Louisiana	–	–	–	–	24.88400	–	–	–	–	–	25.07800	–	24.53000
Maine	24.88310	25.11291	25.27582	25.16907	25.20764	24.83202	24.97980	25.08398	24.98302	–	25.27600	–	25.30930
Maryland	24.85439	24.86479	24.83938	24.92307	24.93809	25.05609	25.15721	25.25327	25.32011	25.28911	24.84383	25.09521	25.17919
Massachusetts	25.07917	24.88914	24.99179	25.60034	25.46184	24.95675	24.99377	24.95331	24.96353	24.94911	25.07519	24.98651	24.94094
Michigan	24.47177	24.86180	24.92704	25.02796	24.85836	24.81175	24.88522	24.91553	24.73038	24.47621	24.66145	24.85003	24.59371
Minnesota	19.14210	18.97575	17.94151	18.19799	19.27225	17.89230	17.72586	17.73500	18.34923	19.59694	20.25825	17.54796	18.40250
Mississippi	24.54115	24.96200	24.40747	23.61910	23.28820	24.85200	–	–	–	–	–	–	–
Missouri	22.80191	22.61640	21.77716	22.01127	22.36218	21.93585	21.94880	22.01651	22.43578	22.86555	22.63423	22.66103	22.82506
Montana	17.68025	17.57944	17.57643	17.76117	19.70627	18.78135	18.01546	18.17794	18.88756	18.05498	21.22785	18.18800	17.85986
Nebraska	21.52621	20.80859	20.93504	18.27452	21.37921	21.37396	21.54400	20.43600	21.70581	21.88812	20.32116	17.30000	17.33200
Nevada	23.56200	23.23400	23.41600	23.15000	22.87600	23.18400	23.14800	23.09600	23.20000	23.23600	23.44269	23.28200	23.09600
New Hampshire	–	24.96200	–	24.73200	24.93406	24.86200	25.02600	25.18400	–	–	25.21627	25.23000	25.41000
New Jersey	24.87099	24.72400	24.75000	–	24.66400	24.86200	25.02600	25.18400	25.18800	–	25.17800	25.03108	25.12600
New Mexico	19.81693	19.88600	17.96000	19.89220	22.98538	18.69800	18.63858	19.68776	19.18470	19.32173	19.23183	19.32888	18.92150
New York	24.65957	24.62179	24.81538	24.78285	24.69638	24.53057	24.78691	24.84495	24.97660	25.05627	25.23274	25.02655	25.06754
North Carolina	24.87841	24.96217	25.05752	25.05591	24.88555	25.18700	25.26828	25.03913	25.01686	24.99583	25.16371	24.83876	24.99475
North Dakota	13.13815	13.12892	13.19509	13.09800	13.08417	13.90962	13.89793	14.54945	14.76482	14.92006	15.53547	14.75327	14.93796
Ohio	23.84836	23.98021	24.14433	24.27434	23.87649	24.14209	24.17118	24.36112	24.32488	24.31907	24.43814	23.78173	23.87340
Oklahoma	23.39403	21.89519	22.90130	21.87471	23.17382	24.83400	25.96800	24.96800	23.89800	26.55800	25.89400	26.12800	17.35345
Oregon	22.60723	20.67402	22.83495	24.26966	24.37594	23.18400	23.14800	23.09600	23.20000	23.23600	23.29600	23.28200	23.09600
Pennsylvania	24.84190	24.94691	24.89646	24.99069	25.07618	24.87715	25.01966	25.16609	25.17773	25.11524	25.19002	25.17498	25.29357
Rhode Island	24.66000	24.72400	–	–	–	21.38800	–	–	24.80800	–	–	–	24.53000
South Carolina	24.88200	24.96200	25.03600	25.04400	24.88400	24.85514	25.13802	24.98563	24.98327	24.93865	25.69344	24.71660	24.97200
South Dakota	19.36902	20.80221	17.78380	16.94015	17.32800	18.37453	17.28738	17.26200	17.29400	20.51158	19.07166	21.61937	17.33200
Tennessee	24.38903	24.08855	24.32695	24.71849	24.35723	24.72241	25.10340	24.27660	25.12128	25.16428	25.28058	25.04338	25.02948
Texas	22.51056	24.95990	23.52781	23.44597	23.69531	25.89608	25.72253	21.62533	18.08517	26.55800	–	25.23000	25.51017
Utah	23.56200	23.23400	23.41600	23.04841	22.82872	23.14974	23.14775	23.09571	23.20000	23.23600	23.29600	23.28200	23.09345
Vermont	24.88200	24.99482	24.75000	–	24.66400	24.86200	25.02600	–	25.18800	24.83200	–	25.23000	25.41000
Virginia	24.87725	25.01061	25.07076	25.17455	25.00443	25.08653	25.12406	25.14160	24.99711	24.98384	24.99803	25.10558	24.93091
Washington	23.45190	22.18962	22.47533	22.02189	22.05743	21.73662	22.32965	22.18045	22.50221	22.42899	22.63392	23.09783	22.87154
West Virginia	24.93027	25.21287	25.27135	25.27741	25.22664	25.01710	25.01287	24.98555	24.90895	24.95371	24.83139	24.68019	24.73779
Wisconsin	24.62943	24.59992	24.06919	24.40016	24.67810	24.90557	25.06289	25.06301	24.96835	24.94350	25.07766	25.05235	24.92049
Wyoming	17.26200	17.65003	17.36854	17.83575	17.55041	19.93489	23.14800	18.91636	18.55083	18.45662	18.24057	18.19276	18.03000
U.S. Average	22.56800	22.66900	22.80000	23.13500	22.91700	22.67800	22.63500	22.76800	22.74900	22.68300	22.76700	22.64895	22.04800

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C10. Approximate Heat Content of Bituminous Coal and Lignite Consumed by Other Industrial Users, 1960-1984, Selected Years

(Million Btu per Short Ton)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	25.21478	24.99246	23.54274	22.99662	23.44664	23.46569	23.81664	24.03186	24.11858	24.21881	24.19950	24.14200	24.28378
Alaska	19.42837	19.25707	18.14004	17.68383	17.73431	17.71652	–	–	–	–	–	–	–
Arizona	21.61434	21.42376	20.18105	19.77788	20.06876	20.52769	20.36556	20.23336	20.37305	20.35804	20.32161	20.17200	20.30712
Arkansas	25.42843	25.20422	23.74222	21.33575	21.42189	21.16227	21.38481	21.26347	21.40613	21.48376	21.43682	21.39500	21.54256
California	26.05221	25.82250	24.32464	22.98540	22.10274	22.53203	22.27807	22.45862	22.17313	22.20901	22.12114	21.99800	22.30241
Colorado	23.55826	23.35054	21.99607	21.39183	20.81646	21.03070	21.44647	21.58818	21.81821	21.41732	21.38437	21.38500	21.62012
Connecticut	25.78016	25.55285	24.07063	23.62736	23.86489	24.28112	23.13179	24.37246	24.45810	24.32752	25.03611	24.63900	22.06048
Delaware	25.44489	25.22054	23.75760	23.49264	23.86489	23.78426	24.12927	24.40975	24.48200	24.29050	24.42794	24.59900	24.61639
District of Columbia	25.88358	25.65536	24.16719	23.78591	24.16220	23.96173	24.27625	24.37709	24.35746	24.32752	–	–	–
Florida	25.65932	25.43308	23.95781	23.54145	23.61816	23.50909	23.59896	22.82220	22.89184	23.91138	24.48338	24.68100	24.57895
Georgia	25.42319	25.19903	23.73733	23.50777	23.77935	23.55063	23.69765	24.06854	24.33122	24.31279	24.47558	24.71700	24.72146
Hawaii	–	–	–	–	–	–	–	–	–	–	24.68800	24.68800	24.68800
Idaho	22.54363	22.34486	21.04872	19.93455	19.02890	18.89684	18.40186	18.78585	17.68403	17.67976	17.49468	17.61400	17.59828
Illinois	23.82775	23.61766	22.24769	21.68412	21.83288	21.83742	21.66987	22.08390	22.34991	22.34499	22.47097	22.57300	22.70065
Indiana	24.01079	23.79909	22.41859	21.82403	21.88521	21.87688	21.82879	22.00770	22.25313	22.45291	22.17212	22.24700	22.35404
Iowa	23.49229	23.28515	21.93447	21.29119	20.98514	20.91487	20.97292	21.33605	21.48878	21.66708	21.95357	22.04500	22.34207
Kansas	22.67087	22.47098	21.16753	20.47974	21.06172	21.23720	21.43162	21.16215	21.56793	21.44305	21.40247	21.44300	21.44035
Kentucky	24.73684	24.51873	23.09650	22.94563	23.22292	23.10392	23.28813	23.69344	24.11828	24.04754	24.15263	24.32300	24.40871
Louisiana	24.03617	23.82424	22.44229	21.03356	–	22.54598	21.73372	21.42447	22.15263	21.99870	22.87269	22.60500	23.21779
Maine	25.90485	25.67644	24.18705	24.10633	24.47161	23.61095	23.63873	24.67511	24.47496	24.29991	24.49638	24.66700	24.70565
Maryland	25.90896	25.68051	24.19089	23.66256	24.02590	24.03565	24.26513	24.17525	24.48732	24.25471	24.48312	24.68200	24.67448
Massachusetts	26.15947	25.92882	24.42479	23.83052	23.92185	24.10376	23.91167	24.32701	24.64126	24.42603	24.68320	24.76600	24.82907
Michigan	24.83219	24.61324	23.18553	22.89705	23.39704	23.17567	23.32079	23.68529	24.05295	24.04816	24.24167	24.50300	24.63379
Minnesota	19.52134	19.34921	18.22684	18.91730	18.66561	17.38097	16.78420	17.74574	17.08375	17.80847	16.76763	16.83900	18.34313
Mississippi	25.68109	25.45466	23.97813	23.21260	23.65472	23.21358	22.75569	22.72431	23.44243	22.97063	24.19676	23.75100	23.41970
Missouri	23.59774	23.38967	22.03293	21.42920	21.79111	21.70699	21.65832	21.78163	22.00164	21.95193	21.99374	22.07900	22.35139
Montana	22.82715	22.62588	21.31344	20.87854	19.46858	18.70236	18.18885	19.52277	19.03489	19.40601	19.55212	19.53400	18.98653
Nebraska	21.97456	21.78080	20.51738	19.28537	19.24307	19.04364	18.54137	18.82053	19.19380	18.66559	18.82961	19.69900	19.39072
Nevada	26.61837	26.38367	24.85326	23.45688	22.17008	22.68446	23.03907	23.33191	23.16753	23.14666	23.28646	23.08500	23.15000
New Hampshire	24.43928	24.22379	22.81867	23.62685	–	23.62119	23.89769	24.40709	24.26685	24.24115	24.42698	24.59400	24.65243
New Jersey	25.41947	25.19535	23.73386	23.90927	24.32098	24.02806	23.80699	24.23881	24.62203	24.59997	24.49725	25.25600	25.15405
New Mexico	23.03750	22.83438	21.50984	20.84886	19.87440	20.02211	20.61728	21.64103	21.86701	21.59372	21.73974	21.46000	21.64352
New York	25.78738	25.56001	24.07738	23.71372	24.07562	24.05600	24.08523	24.31275	24.54285	24.36094	24.67995	24.82600	24.76577
North Carolina	25.44614	25.22177	23.75876	23.49028	23.86331	23.59142	23.62761	24.09967	24.41869	24.34556	24.49462	24.75700	24.75049
North Dakota	14.81208	14.68148	13.82987	13.03850	13.13702	13.15361	13.20285	13.20499	13.12013	13.14596	13.19186	13.11100	13.15921
Ohio	24.79041	24.57183	23.14651	22.67857	23.09331	22.87035	22.85510	23.02076	23.34608	23.34324	23.69772	23.96100	24.02854
Oklahoma	25.38348	25.15967	23.70025	23.43863	21.24853	21.13670	21.32772	20.97569	21.21166	21.29758	21.16918	21.59600	21.22483
Oregon	22.67719	22.47724	21.17342	20.34784	19.03680	18.62700	18.42399	18.27389	17.69347	18.85957	17.62852	17.85400	18.79888
Pennsylvania	25.63637	25.41032	23.93637	23.55093	23.91019	23.86696	23.92417	24.10154	24.27132	24.17713	24.43020	24.71100	24.68425
Rhode Island	25.88998	25.66170	24.17316	23.62848	24.02602	–	23.90094	24.09419	24.55884	24.80291	–	24.75000	24.75000
South Carolina	25.44802	25.22364	23.76052	23.49264	23.86447	23.59214	23.62575	24.09992	24.41495	24.32772	24.49270	24.74800	24.74514
South Dakota	19.90924	19.73370	18.58902	18.76511	18.39672	18.31700	18.13422	18.32970	19.21967	18.90864	19.53656	17.49100	17.30716
Tennessee	25.07407	24.85299	23.41137	23.14381	23.60742	23.28270	23.52987	23.89406	24.16031	24.07700	24.21983	24.13900	24.44395
Texas	16.66356	16.51663	15.55857	18.82199	15.35991	15.19524	15.53031	15.97410	16.28985	16.09697	17.14501	15.67900	15.95326
Utah	26.19847	25.96747	24.46120	23.64361	22.29235	22.51964	22.58035	22.85108	22.33114	22.37915	22.74751	22.49900	22.29674
Vermont	26.52519	26.29132	24.76626	24.05572	24.47161	24.25426	24.14397	24.61088	24.88781	24.82061	24.94685	25.29600	24.75000
Virginia	25.46723	25.24268	23.77845	23.47709	23.86786	23.60175	23.64080	24.11594	24.45338	24.30873	24.52204	24.88000	24.78298
Washington	25.95480	25.72596	24.23369	23.54643	21.42615	22.04600	21.84493	22.14239	21.36337	21.14070	20.83484	20.19800	21.42922
West Virginia	25.52388	25.29883	23.83135	23.52495	23.97297	23.89849	23.75104	24.24072	24.35268	24.24070	24.49161	24.69900	24.63634
Wisconsin	24.59672	24.37985	22.96567	21.95711	22.52296	22.55520	22.31512	22.70310	22.73536	22.59751	22.86002	22.76400	22.65053
Wyoming	20.53852	20.35742	19.17657	18.35566	18.41033	18.22728	18.01954	18.11049	17.95474	17.97026	17.82097	17.72300	17.51430
U.S. Average	24.60400	24.38700	22.97300	22.43900	22.52800	22.29000	22.17500	22.43600	22.69000	22.57200	22.69500	22.68000	22.52500

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C11. Approximate Heat Content of Bituminous Coal and Lignite Consumed by Other Industrial Users, 1985-1997

(Million Btu per Short Ton)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	24.38730	24.61848	24.79504	24.64061	24.39340	24.67898	24.58103	24.64284	24.53609	24.65595	24.84816	24.78515	24.67910
Alaska	–	–	–	–	–	–	–	–	15.80000	15.80000	–	15.80000	15.84800
Arizona	20.25740	20.21439	19.87616	20.71750	20.70390	20.07050	19.94197	20.31671	19.99280	20.15568	19.96204	19.78877	19.52533
Arkansas	21.30956	22.44673	22.33706	22.22411	22.39587	22.80790	24.18843	24.00052	23.45036	24.82737	23.95685	23.98664	23.58123
California	23.29923	22.80372	23.24871	23.00565	22.70929	22.52224	22.73094	22.97040	23.20010	23.22941	23.29600	23.28200	23.05469
Colorado	21.56832	21.47479	21.01452	21.29274	20.79333	21.10513	21.08138	20.10740	20.92088	21.49432	21.64981	21.44989	21.51822
Connecticut	24.88200	24.83445	21.64868	24.74529	24.78080	–	24.84324	24.93613	24.80412	25.27560	–	24.62879	24.53000
Delaware	24.72755	24.80786	24.82025	24.76803	24.71851	24.93784	25.07321	25.26267	25.30129	25.25866	25.22011	25.17571	25.23956
District of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	24.78536	24.91018	25.04755	25.12819	24.78882	25.00386	25.13063	25.00227	24.88729	24.92714	25.10990	25.11787	25.05439
Georgia	24.81892	24.93856	25.02236	24.99673	24.79070	25.14817	25.13954	25.14666	25.10259	25.07264	25.19814	25.13735	25.08994
Hawaii	24.68800	24.68800	24.97000	24.83000	24.83000	24.81000	24.85000	24.83000	24.83000	21.50000	21.50000	21.50000	22.49862
Idaho	17.76163	18.12203	17.71016	17.85648	17.70091	17.85823	17.75592	17.52799	18.16027	17.69006	19.03477	18.16585	17.33200
Illinois	22.79768	23.05064	23.04103	22.86002	22.75566	22.55466	21.86176	22.75323	22.85602	22.64953	22.83250	22.84669	23.16804
Indiana	22.43106	22.44890	22.44930	22.46119	22.52258	22.71130	22.92005	22.95050	22.85572	22.63550	23.05468	22.71501	23.18017
Iowa	22.60618	22.67574	22.83502	23.03526	22.90901	22.55246	22.17587	20.55435	20.11837	20.06032	20.92318	21.25463	20.89736
Kansas	21.50635	21.37701	21.74703	21.92655	22.21132	24.22372	24.42437	24.48764	23.55143	23.96144	24.24071	25.47579	24.52319
Kentucky	24.53122	24.62470	24.82229	24.93611	24.74632	24.63025	24.89972	24.89276	24.84423	24.75628	24.84817	24.74611	24.48054
Louisiana	24.05362	24.02294	24.00203	19.27825	20.30941	19.97897	18.36116	18.56416	18.32271	18.37139	17.96874	25.04400	24.89054
Maine	24.88489	24.74816	24.97847	24.85678	24.83842	24.92293	25.01017	25.06970	24.97451	24.96127	25.10225	25.02589	24.98213
Maryland	24.73226	24.74789	24.76853	24.69124	24.73817	25.11786	25.14565	25.20668	25.26208	25.40234	25.32641	25.13270	25.11468
Massachusetts	24.88114	25.05734	25.16054	25.20906	25.15893	24.86533	24.92877	24.89677	24.90752	24.96412	25.17556	24.90749	25.03547
Michigan	24.74502	24.82194	24.86182	24.85242	24.66003	24.45049	24.52137	24.40007	24.20803	24.22411	24.02413	24.34512	24.35386
Minnesota	20.68817	20.99743	20.25035	19.15527	19.58753	18.56250	19.36088	18.52981	18.12766	18.48813	19.04840	19.11958	18.85851
Mississippi	23.39939	23.79343	23.70762	23.66379	23.34870	23.25386	23.26526	23.34142	24.01947	23.89320	24.07263	23.90664	23.67600
Missouri	22.32881	22.56149	23.01241	23.10553	22.94751	22.98843	23.26695	23.43390	23.57752	23.00175	23.17545	23.13412	22.82012
Montana	18.06841	17.73772	17.89376	18.28221	18.48953	18.37578	18.47768	18.78661	18.54933	18.33343	18.09956	18.10811	18.24449
Nebraska	18.59708	18.41177	18.61192	18.72166	19.12737	19.03574	18.90751	18.44837	18.73037	19.09831	19.35912	18.82313	19.07998
Nevada	23.56200	23.23400	23.41600	23.15000	21.18601	23.18400	23.14800	23.09600	23.20000	23.23600	22.66808	22.61981	22.98074
New Hampshire	24.66504	24.72400	24.75000	24.75555	24.87616	24.83592	25.26108	25.31936	24.98000	–	25.21627	–	–
New Jersey	25.18567	25.34722	25.25123	25.30837	25.18493	25.23731	25.26678	25.33398	25.34405	25.07266	22.50200	–	–
New Mexico	21.62540	21.81340	21.38000	21.92000	24.43675	21.38800	21.54400	20.39800	21.70600	21.92600	22.00800	21.97600	21.78800
New York	24.90054	25.15288	25.10523	25.10772	25.05043	25.10695	25.19113	25.16182	25.18280	25.21171	25.12813	25.03732	25.17514
North Carolina	24.88021	24.96369	25.03348	25.04250	24.88239	24.93830	25.10847	25.08579	25.14487	25.10471	25.26890	25.14978	25.06093
North Dakota	13.16040	13.24260	13.37441	13.28101	13.32203	13.48903	13.41305	13.32713	13.32856	13.44957	13.35266	13.38232	13.28668
Ohio	24.18707	24.40010	24.46262	24.51939	24.30903	24.30127	24.44324	24.42126	24.55259	24.54913	24.51123	24.46909	24.43842
Oklahoma	21.43419	21.48813	21.10301	21.25901	21.31431	22.80216	23.80519	22.75512	22.42719	21.08848	22.67545	22.23193	20.88353
Oregon	17.86804	17.83270	17.90776	17.39654	17.66001	17.35230	17.33432	17.88959	18.41864	19.41867	18.49627	20.83590	20.09775
Pennsylvania	24.75865	24.95376	24.99285	24.94624	24.87805	24.90486	25.05394	25.10939	25.11823	25.12576	25.16321	25.08764	25.20190
Rhode Island	24.88200	25.33053	25.03600	25.04400	24.88400	–	–	–	–	–	–	–	–
South Carolina	24.87375	24.96200	25.03642	25.03879	24.88075	25.11758	25.22592	25.19592	25.17505	25.07482	25.19274	25.06364	25.09419
South Dakota	17.26200	17.34693	17.27400	17.41784	17.35218	17.33800	17.46595	17.29575	17.29400	17.26800	17.25800	17.30000	17.41854
Tennessee	24.58220	24.68635	24.81370	24.77826	24.67578	25.13262	25.12430	25.25292	25.16308	25.05633	25.13795	25.02275	25.00474
Texas	15.57497	15.90663	15.15325	14.06793	14.56476	14.78802	15.05199	14.30566	15.18034	15.47725	14.96020	15.34020	15.54805
Utah	22.27355	21.75533	22.08866	22.91453	22.46491	23.18867	23.12437	23.09600	23.49325	22.92070	23.00279	23.28200	23.48478
Vermont	24.88200	–	25.03600	25.04400	24.88400	24.84559	25.74698	25.70000	25.18800	–	–	–	21.78800
Virginia	24.90295	25.00743	25.06726	25.09173	24.97442	25.06917	25.16462	25.19564	25.10255	25.05076	25.08578	25.09909	24.94650
Washington	21.63429	19.84933	19.76416	20.92868	20.75464	22.70686	21.74506	20.69363	20.21833	19.27531	19.00628	19.65817	20.64702
West Virginia	24.85455	25.05416	25.06408	25.10557	24.99539	24.88783	24.99394	24.94784	24.94007	24.97733	24.97866	24.94501	24.97478
Wisconsin	23.32322	23.60191	23.10643	21.87589	22.59549	24.14900	24.30622	24.27108	23.95833	24.16061	24.21811	23.88933	24.13023
Wyoming	17.55529	17.33729	17.46332	17.77149	17.74126	22.17752	22.05079	21.11792	21.28113	21.75576	21.94055	21.89552	21.57904
U.S. Average	22.01300	22.18500	22.36000	22.34100	22.32400	22.44400	22.44800	22.24200	22.11100	22.04600	21.93100	22.08694	22.15700

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C12. Approximate Heat Content of Bituminous Coal and Lignite Consumed by Electric Utilities, 1960-1984, Selected Years

(Million Btu per Short Ton)

State	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	24.12600	23.70400	23.31400	23.16350	23.13570	23.17042	23.63231	23.75441	23.91189	23.99756	24.04115	23.97230	24.05936
Alaska	17.72900	17.85800	17.08000	17.40000	17.40000	17.40000	17.40000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000
Arizona	–	20.85000	21.23800	21.08957	21.10154	21.55725	21.52545	21.22455	21.24312	21.01265	21.08605	21.26936	21.19024
Arkansas	–	–	–	–	–	–	16.79503	16.81367	17.00887	16.96304	17.04517	17.46096	17.18364
California	–	–	–	–	–	–	–	–	–	–	–	–	22.78020
Colorado	20.54600	21.32200	21.53000	19.80780	19.59369	20.19681	20.06857	20.26222	19.99201	20.11977	19.62760	19.46681	19.31025
Connecticut	26.54800	25.90800	23.54800	23.90400	23.90400	23.90400	23.90400	23.90400	–	–	–	–	26.27193
Delaware	25.98200	26.39200	24.18600	24.53412	24.93623	24.17667	24.50155	24.73148	24.92212	24.96266	25.21723	25.59153	25.97302
District of Columbia	27.46000	26.94800	25.92000	25.61888	25.61900	–	–	–	–	–	–	–	–
Florida	24.60600	23.76200	22.74800	23.09252	23.29396	23.12095	23.57892	23.75577	23.68622	23.82572	24.02140	24.36947	24.45588
Georgia	25.04200	24.93200	23.75600	23.75121	23.76698	23.71061	23.74715	23.76535	23.80495	23.90946	23.99180	24.12916	24.25098
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	–	–	–	–
Illinois	21.69400	21.44800	21.00200	20.25912	20.49264	20.59551	20.56480	20.56107	20.59267	20.81535	20.85878	20.80897	21.18724
Indiana	22.64000	22.46600	22.03000	21.22923	21.47196	21.46193	21.35963	21.64839	21.63186	21.64290	21.77556	21.89759	21.57470
Iowa	20.76800	21.21800	20.88800	20.38486	20.25500	20.00208	19.72120	18.89463	18.63318	18.28830	18.27544	18.28866	17.94484
Kansas	23.75400	24.19200	24.10000	19.95680	20.38510	19.04115	18.27252	18.64276	18.36976	18.12214	17.74540	17.55593	17.58032
Kentucky	22.97200	22.89200	21.85200	21.48102	21.89305	22.00190	22.05307	22.52345	22.91705	22.89628	22.80264	22.97313	22.87114
Louisiana	–	16.03800	–	–	–	–	–	–	16.03794	16.18703	16.71399	17.05934	17.01545
Maine	28.58000	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	26.61600	26.37200	24.61200	24.32290	24.54193	24.40737	24.40198	24.57160	24.75727	24.51454	24.82195	25.34179	25.23585
Massachusetts	26.35200	26.07200	23.26000	24.34726	–	–	–	27.00400	26.75129	26.11421	26.30974	26.59218	26.46597
Michigan	24.88400	24.80400	24.20200	23.66213	23.69480	23.56164	23.09854	23.62384	24.02458	23.48699	23.90599	23.35495	23.33954
Minnesota	22.39000	22.17600	20.27400	17.94022	17.80782	17.58357	17.46097	17.64346	17.55670	17.54394	17.61363	17.67612	17.35450
Mississippi	24.85800	24.89000	24.09800	23.16389	23.28381	22.85098	23.70814	23.41259	23.99361	24.10518	24.17577	24.27107	24.23072
Missouri	21.90400	21.55000	21.51800	21.49363	21.68849	21.77477	21.49045	21.47318	21.30576	21.18322	21.39835	21.42307	21.41418
Montana	13.50000	13.14000	15.47400	15.95909	16.67636	16.98389	16.91115	17.05584	17.00328	17.08734	17.01129	16.69349	17.02300
Nebraska	24.78200	24.56800	23.91400	20.95357	20.82335	21.31316	20.57478	19.18090	18.80879	18.01500	17.85122	17.57216	17.79651
Nevada	–	25.48800	25.65400	22.38788	22.23695	22.14854	22.06110	22.09228	22.07779	22.06220	22.09859	22.27924	22.38221
New Hampshire	25.44800	27.90400	27.43200	26.70098	26.91783	26.72821	26.02806	26.85374	26.81635	26.95102	27.04008	27.09411	27.08116
New Jersey	26.77200	26.45800	24.94400	25.40124	26.11872	25.97444	26.12003	26.09810	26.18199	26.22582	26.40196	26.44328	26.42461
New Mexico	25.00000	18.00400	17.96600	17.84874	17.85784	17.91460	18.01263	17.81728	17.69514	18.27875	18.28261	18.19864	18.06930
New York	26.59600	26.67800	24.66400	24.05032	24.49860	24.25853	24.06477	24.50405	24.63519	24.41983	24.84383	24.96993	25.10649
North Carolina	26.24200	25.81400	24.11400	23.78836	24.08088	23.86663	24.05255	24.36301	24.53799	24.44275	24.53774	24.88739	24.95315
North Dakota	13.83600	13.91800	13.66600	13.34445	13.21203	13.28981	13.38652	13.35023	13.23368	13.24692	13.28593	13.18710	13.04344
Ohio	23.77000	23.56400	22.50000	21.91934	22.00498	21.78940	21.82734	22.24000	22.88041	22.70638	23.10614	23.57204	23.51935
Oklahoma	25.94200	24.00000	25.07600	25.07600	16.54801	16.80255	17.08004	17.40878	17.39280	17.11773	17.06022	17.15725	17.20674
Oregon	–	–	–	–	–	–	–	20.05400	16.39258	16.57304	16.61288	16.61300	16.65419
Pennsylvania	24.44600	24.77200	23.74800	23.76856	24.18296	24.14879	24.20162	24.27728	24.32574	24.19477	24.41086	24.66268	24.63148
Rhode Island	28.15200	27.46800	–	–	–	–	–	–	–	–	–	–	–
South Carolina	26.73400	25.82200	24.27400	24.16051	24.35910	23.86756	24.17648	24.73525	24.84295	24.60532	24.76354	25.05966	25.05792
South Dakota	17.16800	17.90400	16.57200	12.61613	12.69515	12.62262	12.45706	12.66039	12.59940	12.62686	12.68694	12.29735	12.20422
Tennessee	24.04000	23.59000	22.59400	21.98283	22.43149	22.19482	22.56593	22.97477	23.25397	23.22690	23.62140	23.55640	23.61027
Texas	–	–	–	13.10305	13.23206	14.07706	14.22569	14.42718	14.79112	14.99738	14.98340	14.85580	14.66297
Utah	24.94000	25.18400	24.81200	23.64976	23.19920	23.28042	23.28369	23.35795	22.90042	22.91941	23.08217	22.86611	22.85458
Vermont	27.76000	27.34000	24.87000	25.74400	25.74400	25.70862	25.70900	25.92600	25.92600	25.09632	25.62833	25.62800	25.62800
Virginia	26.72600	26.47400	24.78200	23.93019	24.52895	24.35599	24.45058	24.74846	25.01317	24.79074	24.97461	25.31446	25.24274
Washington	–	–	–	16.20000	16.20000	16.20000	16.20000	16.20000	16.20000	16.20000	16.20000	16.20000	16.20000
West Virginia	23.90800	23.73600	23.31800	23.22075	23.49564	23.30439	23.46206	23.89989	24.26929	24.20780	24.45099	24.71696	24.66725
Wisconsin	24.20800	24.03600	22.44600	21.23552	21.34361	21.11875	20.90142	20.84450	20.52333	19.76022	20.08694	19.87583	19.90783
Wyoming	14.84600	15.99000	16.53400	16.62585	17.53234	17.62611	17.54996	17.48885	17.59029	17.31142	17.33698	17.42590	17.29186
U.S. Average	24.02900	23.83600	22.60300	21.65900	21.69200	21.52100	21.28400	21.37200	21.30100	21.09100	21.20000	21.14100	21.10800

– =Not applicable.

Sources: See source listing at the end of this appendix.

Table C13. Approximate Heat Content of Bituminous Coal and Lignite Consumed by Electric Utilities, 1985-1997

(Million Btu per Short Ton)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	24.11116	24.34921	24.44506	24.32805	24.04527	24.18828	24.21421	24.12231	24.18379	24.17560	23.72228	23.58782	23.16839
Alaska	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000	15.80000
Arizona	20.98564	21.04448	21.21656	21.29993	21.19271	20.96337	20.71212	20.60673	20.54290	20.56138	20.54809	20.46484	20.31761
Arkansas	17.20748	17.33929	17.36371	17.32804	17.43904	17.47970	17.46879	17.44830	17.32933	17.41418	17.37423	17.40510	17.41407
California	–	–	–	–	–	–	–	–	–	–	–	–	–
Colorado	19.49701	19.54026	19.68454	19.54309	19.69685	19.61551	19.77520	19.83981	19.77533	19.89191	19.79050	19.71663	19.74334
Connecticut	26.31651	26.34394	26.26827	26.27739	26.61558	26.46571	26.47664	26.33450	26.28876	26.18816	26.21972	26.20002	26.26388
Delaware	25.92406	26.00008	26.13094	25.80238	25.88695	26.06988	26.10578	26.12845	26.05318	25.90726	26.17075	26.04029	26.12436
District of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	24.45038	24.55139	24.79878	24.84874	24.76555	24.72855	24.70131	24.73977	24.66394	24.58521	24.59295	24.38601	24.24307
Georgia	24.24094	24.29147	24.34988	24.34509	24.19948	23.78608	23.87269	24.07813	24.29572	23.54887	23.15189	23.16181	23.51077
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	–	–	–	–
Illinois	20.96903	21.07475	21.39665	21.27149	21.41052	21.57798	21.44217	21.33289	20.72305	20.36161	19.94090	19.75506	19.56279
Indiana	21.31356	21.35811	21.75674	21.66827	21.39682	21.12394	21.13900	21.25663	21.07839	21.06908	20.67609	20.71372	20.92237
Iowa	18.19661	18.37163	18.30428	18.42196	17.87940	17.78347	17.78073	17.73343	17.31996	17.56560	17.35696	17.31594	17.32483
Kansas	17.53691	17.45659	17.52886	17.95627	17.75137	17.89698	17.99569	17.79922	17.30731	17.41698	17.46010	17.65448	17.53189
Kentucky	22.76930	23.04657	22.99234	23.05611	22.98604	23.11655	23.10311	23.24019	23.39372	23.36552	23.24978	23.07184	23.14125
Louisiana	16.90673	16.24104	16.32004	16.38486	16.37353	16.38807	16.44601	16.24345	16.18493	16.27256	16.21951	16.34229	16.20350
Maine	–	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	25.32555	25.37716	25.35115	25.44911	25.39531	25.46891	25.59121	25.50566	25.50384	25.64809	25.93085	25.75778	25.82585
Massachusetts	26.56066	26.43708	26.25661	26.21825	26.01748	26.12464	26.28298	26.14010	25.90208	25.62884	25.39576	25.26651	25.14198
Michigan	23.39292	23.44262	23.12783	23.22394	22.55661	22.26254	22.10306	21.99037	21.70619	21.85082	21.35367	21.00751	21.13297
Minnesota	17.45075	17.45061	17.48309	17.47699	17.53444	17.57650	17.60493	17.67522	17.68736	17.64162	17.65591	17.82721	17.78977
Mississippi	24.25244	24.45673	25.34749	25.32763	25.30847	25.08625	25.11010	25.01366	24.67509	22.62320	22.44121	22.04690	20.97206
Missouri	21.28922	21.37715	21.19511	20.80806	20.73534	20.79962	20.59603	20.64120	19.71902	19.43673	18.43195	18.12585	17.98834
Montana	17.30703	17.09975	17.18001	17.03980	17.01785	17.12889	17.04419	17.15114	16.99101	17.00015	17.04023	16.87714	16.85154
Nebraska	17.29876	17.42659	17.20153	17.23870	17.32878	17.12200	17.08328	17.10544	17.12281	17.14137	17.18777	17.19766	17.18964
Nevada	22.76835	22.44442	22.36459	22.15912	22.23307	22.24492	22.24210	22.10266	22.02420	22.58166	22.15036	22.27947	22.33768
New Hampshire	26.90451	26.88676	26.83174	26.66593	26.71818	26.60524	26.49442	26.52056	26.35868	26.06363	26.22105	26.29103	26.10859
New Jersey	26.47525	26.45777	26.47223	26.64705	26.63810	26.85863	26.80446	26.93038	26.79478	26.68271	26.56460	25.98652	26.16773
New Mexico	18.37577	18.21464	18.09713	18.07206	18.25702	18.23411	18.18453	18.02544	17.98299	18.08502	18.06533	18.23235	18.13797
New York	25.20035	25.44420	25.57463	25.62880	25.64752	25.69197	25.84622	25.95997	25.82701	25.91765	26.10186	26.02591	26.21098
North Carolina	24.97487	25.10762	25.09931	25.15052	25.06111	25.08769	25.01190	24.91255	24.92951	24.83219	24.92268	24.84374	24.73536
North Dakota	13.15028	13.15796	13.20282	13.16802	13.15988	13.27219	13.21236	13.11531	13.13958	13.18516	13.16914	13.19349	13.11843
Ohio	23.62539	23.82083	23.80822	23.79040	23.66929	23.76388	23.89059	23.96512	24.09765	24.10449	24.24332	24.11103	23.78207
Oklahoma	17.16768	17.32594	17.70292	17.82347	17.65022	17.78795	17.58356	17.40032	17.24222	17.14643	17.11329	17.20030	17.28203
Oregon	16.58400	–	16.96721	17.05667	17.05668	16.69610	16.85865	19.28329	17.60154	17.87428	17.76458	17.56307	17.51491
Pennsylvania	24.63954	24.66989	24.70677	24.65095	24.66892	24.62435	24.60441	24.89437	24.88653	24.91671	24.85950	24.83063	24.72415
Rhode Island	–	–	–	–	–	–	–	–	–	–	–	–	–
South Carolina	25.13214	25.32515	25.29714	25.35043	25.23524	25.30955	25.44893	25.63409	25.60405	25.54228	25.70337	25.51496	25.71003
South Dakota	12.20986	12.16911	12.12305	12.67660	12.27333	12.19168	12.05040	12.06852	12.11449	12.09793	13.94369	18.06768	17.37335
Tennessee	23.65727	23.81593	23.95699	24.08916	23.78969	23.93271	24.33817	24.36350	24.53656	24.37185	24.26010	24.12411	23.71094
Texas	14.80734	14.58271	14.48383	14.60802	14.57334	14.58137	14.45089	14.46813	14.56804	14.69177	14.69101	14.88092	14.84508
Utah	23.60722	22.97536	23.23687	22.98103	22.64441	22.96536	22.93866	22.76877	22.97756	22.98241	23.09903	23.02688	22.66014
Vermont	25.62800	25.62800	–	–	–	–	–	–	–	–	–	–	–
Virginia	25.62794	25.70845	25.62891	25.59915	25.38617	25.42742	25.53520	25.66017	25.63333	25.55607	25.48669	25.19465	25.10770
Washington	16.20000	16.20000	16.20811	16.41283	16.32236	16.27014	16.02823	16.37826	16.24949	16.80068	16.53312	15.87148	16.08594
West Virginia	24.82719	24.87872	24.87305	24.94550	24.79060	24.90334	25.01093	25.04815	24.97885	24.93653	24.83633	24.75682	24.79556
Wisconsin	19.54733	19.32331	19.25995	19.38606	19.41028	19.28421	19.28565	19.44991	18.98003	19.12997	18.70226	18.44322	18.74990
Wyoming	17.50962	17.41260	17.55502	17.51124	17.57672	17.62122	17.51118	17.68028	17.55731	17.53159	17.47534	17.43285	17.57360
U.S. Average	20.96500	21.09100	21.14300	20.90500	20.85400	20.93500	20.76100	20.79200	20.64400	20.68100	20.50200	20.53200	20.55400

– =Not applicable.

Sources: See source listing at the end of this appendix.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. EIA adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

Aviation Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.048 million Btu per barrel for "Gasoline, Aviation" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

Butane. EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Butane-Propane Mixture. EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See **Butane** and **Propane**.

Crude Oil (Including Lease Condensate) Used Directly. EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950."

Distillate Fuel Oil. EIA adopted the thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950."

Ethane. EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published in the *California Oil World and Petroleum Industry,* First Issue, April 1942.

Ethane-Propane Mixture. EIA calculated 3.308 million Btu per barrel on the basis of an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

Isobutane. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Jet Fuel, Kerosene Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

Jet Fuel, Naphtha Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

Kerosene. EIA adopted the thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Liquefied Petroleum Gases. (LGTCKUS) • 1960 through 1966: EIA adopted the Bureau of Mines thermal conversion factor of 4.011 million Btu per barrel as published in the *Mineral Industry Surveys*, "Crude Petroleum and Petroleum Products, 1956," Table 4 footnote. • 1967 forward:

Calculated annually by EIA as a weighted average by multiplying the quantity consumed of each of the component products by each product's conversion factor and dividing the sum of those heat contents by the sum of the quantities consumed. The component products are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane.

Lubricants. EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Miscellaneous Products. EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.*

Motor Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

Natural Gasoline. EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

Pentanes Plus. EIA assumed the thermal conversion factor to be 4.620 million Btu per barrel, equal to that for natural gasoline. See **Natural Gasoline**.

Petrochemical Feedstocks, Naphtha Less Than 401 ºF. EIA assumed the thermal conversion factor to be 5.248 million Btu per barrel, equal to that for special naphthas. See **Special Naphthas**.

Petrochemical Feedstock, Other Oils Equal to or Greater Than 401 ºF. EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel, equal to that for distillate fuel oil. See **Distillate Fuel Oil**.

Petrochemical Feedstock, Still Gas. Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See **Still Gas**.

Petroleum Coke. EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30,120,000 Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6–1300–M and successor EIA forms.

Petroleum Products, Total Consumption. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed, weighted by the quantity of each petroleum product consumed.

Plant Condensate. EIA estimated 5.418 million Btu per barrel from data provided by McClanahan Consultants, Inc., Houston, Texas.

Propane. EIA adopted the thermal conversion factor of 3.836 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Residual Fuel Oil. EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Road Oil. EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel, equal to that of asphalt and first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970*. See **Asphalt**.

Special Naphthas. EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel, equal to that of total gasoline (aviation and motor) and first published in the *Petroleum Statement, Annual, 1970*.

Still Gas. EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel and first published in the *Petroleum Statement, Annual, 1970*.

Unfinished Oil. EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel, equal to that for distillate fuel oil and first published in the *Annual Report to Congress, Volume 3, 1977*. See **Distillate Fuel Oil**.

Unfractionated Stream. EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel, equal to that for plant condensate and first published in the EIA, *Annual Report to Congress, Volume 2, 1981*. See **Plant Condensate**.

Waxes. EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the EIA, *Petroleum Statement, Annual, 1956*.

Approximate Heat Content of Natural Gas

Natural Gas, Total Consumption. (NGTCKZZ) • 1960 through 1962: EIA adopted the thermal conversion factor of 1,035 Btu per cubic foot as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*. • 1963 through 1979: EIA adopted the thermal conversion factors calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual. • 1980 forward: EIA, *Historical Natural Gas Annual 1930 Through 1997*, Table 16. Data also available via internet for 1980 forward: http://www.eia.doe.gov (select "Natural Gas" then select "Historical Natural Gas Annual 1930 Through 1997," Table 16).

Natural Gas, Consumption by Electric Utilities. (NGEUKZZ) • 1960 through 1971: Assumed by EIA to be equal to the thermal conversion factor for the consumption of natural gas by all users. See **Natural Gas, Total Consumption.** • 1972 forward: Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and quantities received are from Federal Energy Regulatory Commission (FERC) Form 423 and predecessor forms. Data in Btu per cubic foot for are published in EIA, *Cost and Quality of Fuels for Electric Utility Plants*. The 1997 edition is available electronically only via the Internet at ftp://ftp.eia.doe.gov/pub/pdf/electricity/019197.pdf.

Note: For States that reported consumption on Form EIA–759 but were not large enough to report on FERC Form 423, factors were estimated by using previous years' factors or the factor for total natural gas consumption in the State.

Natural Gas, Consumption by Sectors Other Than Electric Utilities. (NGNUKZZ) • 1960 through 1972: Assumed by EIA to be equal to the thermal conversion factor for the consumption of natural gas. See **Natural Gas, Total Consumption.** • 1973 forward: Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed at electric utilities by the quantity of all natural gas consumed less the quantity of electric utility consumption. Data are from FERC Form 423, Forms EIA–176 and EIA–759, and predecessor forms.

Approximate Heat Content of Coal and Coal Coke

Anthracite, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of anthracite consumed by electric utilities and by all other sectors combined by the total quantity of anthracite consumed.

Anthracite, Consumption by Electric Utilities. (ACEUKUS) • 1960 through 1972: EIA assumed that all anthracite consumed at electric utilities was recovered from culm banks and river dredging and was estimated to have an average heat content of 17.500 million Btu per short ton. • 1973 forward: Calculated annually by EIA by dividing the heat content of anthracite received at electric utilities by the quantity of anthracite received at electric utilities, as reported on FERC Form 423 and predecessor forms.

Anthracite, Consumption by Sectors Other Than Electric Utilities. (ACNUKUS) Calculated annually by EIA by dividing the heat content of anthracite produced less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of anthracite consumed by all sectors other than electric utilities less the quantity of anthracite stock changes, losses, and "unaccounted for."

Bituminous Coal and Lignite, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumed by electric utilities, coal coke plants, other industrial plants, the residential and commercial sector, and the transportation sector by the sum of their respective tonnages.

Bituminous Coal and Lignite, Consumption by Coke Plants. Estimated by EIA to be 26.800 million Btu per short ton on the basis of an input-output analysis of coal carbonization.

Bituminous Coal and Lignite, Consumption by Electric Utilities. (BCEUKZZ) • 1960 through 1972: EIA adopted the average thermal conversion factor of the Bureau of Mines, which used the National Coal Association (NCA) average thermal conversion factor for electric utilities calculated from the Federal Power Commission's (FPC) Form 1 and published in *Steam Electric Plant Factors*, an NCA annual report. • 1973 through 1982: The average heat content of coal received at steam electric plants 25 megawatts or greater from FPC Form 423 and published in Btu per pound in EIA, *Cost and Quality of Fuels for Electric Utility Plants*, "Destination and Origin of Coal 'Delivered to' (1973–1979) 'Receipts to' (1980) 'Received at' (1981–1982) Steam-Electric Plants 25–MW or Greater." • 1983 forward: The average heat content of coal received at steam electric plants having 50 megawatts capacity or larger from FERC Form 423 and published in Btu per pound in EIA, *Cost and Quality of Fuels for Electric Utility Plants*. The 1997 edition is also available electronically only via the Internet at ftp://ftp.eia.doe.gov/pub/pdf/electricity/019197.pdf.

Notes: • The State conversion factors for 1960 through 1972 were derived from actual consumption data, while the conversion factors for 1973 to the present were based on receipts of coal. The factors for 1960 through 1972 may also have included some quantities of anthracite. These breaks in the series create some data discrepancies. • Alaska and Hawaii were excluded from the NCA report, FPC Form 423 and FERC Form 423. However, Alaska reported consumption of bituminous coal and lignite at electric utilities for all years. An FPC heat rate for coal at electric utilities in Alaska was used for 1960 through 1978 as published by EIA in *Federal Energy Data System (FEDS) Technical Documentation*, June 1978, Table 21. The 1972 conversion factor (the last year for which a conversion factor was reported for Alaska) was used for 1972 through 1978. According to industry sources, new mines were opened in 1978 and a more representative factor was used for 1979 and following years. • In instances where a State had no receipts for a particular year but did report consumption, it was assumed that the coal received in one year was consumed during the following year and the Btu value of the previous year's receipts was used.

Bituminous Coal and Lignite, Consumption by Other Industrial Users. (BCOCKZZ) • 1960 through 1973: Estimated by EIA by adjusting the 1974 average heat value of bituminous coal and lignite consumed by industrial users other than coke plants by the ratios of 1960 through 1973 national averages for the other industrial users to its 1974 average. • 1974 forward: Calculated by EIA by assuming that the bituminous coal and lignite consumed by industrial users other than coke plants in each State contained heating values equal to those of bituminous coal and lignite received at electric utilities in each State from identified coal-producing districts as reported on FERC Form 423. The average Btu content of coal delivered from each coal-producing district was applied to deliveries to other industrial users in each State and the sum total of the heat content was divided by total tonnages, yielding a weighted average. The coal distribution data by coal-producing district are reported on Form EIA–6 and predecessor Bureau of Mines Form 6–1419–Q.

Bituminous Coal and Lignite, Consumption by Residential and Commercial Users. (BCHCKZZ) • 1960 through 1973: Estimated by EIA by adjusting the 1974 average heat value of bituminous coal and lignite consumed in the residential and commercial sector by the ratios of 1960 through 1973 national averages for the sector to its 1974 average. • 1974 forward: Calculated by EIA by assuming that the bituminous coal and lignite consumed in the residential and commercial sector in each State contained heating values equal to those of bituminous coal and lignite received at electric utilities in each State from identified coal-producing districts as reported on FERC Form 423. The average Btu content of coal delivered from each coal-producing district was applied to deliveries to the residential and commercial sector in each State and the sum total of the heat content was divided by total tonnages, yielding a weighted average. The coal distribution data by coal-producing district are reported on Form EIA-6 and predecessor Bureau of Mines Form 6–1419–Q.

Bituminous Coal and Lignite, Consumption by Transportation Users. Assumed by EIA to be equal to the Btu conversion factor for bituminous coal and lignite consumption by other industrial users. See **Bituminous Coal and Lignite, Consumption by Other Industrial Users**.

Coal Coke, Imports and Exports. EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

Approximate Heat Content of Renewable Energy Sources

Ethanol, Consumption by the Transportation Sector. Ethanol, which is accounted for under motor gasoline, is shown separately in *SEDR* to display the use of renewable energy in the transportation sector. The data in thousand gallons are converted to billion Btu by using the conversion factor of 76,400 Btu per gallon as reported in the EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, page 42.

Solar Energy, Consumption by the Residential and Commercial Sectors. Photovoltaic and solar thermal energy sources consumed by the residential and commercial sectors are estimated in Btu and converted to kilowatthours by using the standard conversion factor for a kilowatthour of electricity produced, regardless of the generation process, of 3,412 Btu per kilowatthour.

Wood, Consumption by the Residential and Commercial Sectors. Estimated by EIA to be 20 million Btu per cord of wood. This rough average factor takes into account a number of variables, such as moisture content and species of wood, as explained in the EIA, *Household Energy Consumption and Expenditures 1993*, page 314.

Approximate Heat Rates for Electricity

Fossil-Fueled Steam-Electric Plant Generation. (FFEOKUS) There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, biomass fuels, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA uses data from Form EIA–767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption, such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. • 1960 through 1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in *Electric Plant Cost and Power Production Expenses 1991*, Table 9. • 1992 forward: Unpublished factors calculated on the basis of data from Form EIA–767.

Geothermal Energy Plant Generation. (GEEOKUS) • 1960 through 1981: Calculated by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on FPC Form 12. • 1982 forward: Estimated annually by EIA based on an informal survey of relevant plants.

Nuclear Steam-Electric Plant Generation. (NUEOKUS) • 1960 through 1991: Calculated annually by EIA by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported on FERC Form 1, Form EIA-–412, and predecessor forms. The factors, beginning with 1982 data, are published in the following EIA reports—1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215; 1983 through 1991: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. • 1992 forward: Unpublished factors calculated annually by EIA by dividing the total heat content of the steam leaving nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in the Nuclear Regulatory Commission, *Licensed Operating Reactors—Status Summary Report*.

Appendix D

Resident Population

The population data used in the Energy Information Administration Combined State Energy Data System (CSEDS) to calculate per capita consumption are shown in Tables D1 and D2. The data are the U.S. Department of Commerce, Bureau of the Census, census of resident population by State conducted every 10 years with estimates of population for intervening years.

Data Sources

TPOPPUS — Resident population of the United States. April 1 census for 1960, 1970, 1980, and 1990, and July 1 estimates for all other years.

- U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections," Series P-25. Specific publication numbers and table numbers:
  - 1960 through 1969: Number 990, Table 4.
  - 1970 through 1979: Number 957, Table 4.
  - 1980 through 1989: Number 1058, Table 3.
  - 1990 forward: Press Release Number CB98-242, December 1998.

Data also available via internet:

- 1990 forward: http://www.census.gov/population/www/estimates/statepop.html

TPOPPZZ — Resident population by State. April 1 census for 1960, 1970, 1980, and 1990, and July 1 estimates for all other years.

- U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections," Series P-25. Specific publication numbers and table numbers:
  - 1960 through 1969: Number 460, Table 1.
  - 1970 through 1979: Number 957, Table 4.
  - 1980 through 1989: Number 1058, Table 3.
  - 1990 forward: Press Release Number CB98-242, December 1998.

Data also available via internet:

- 1990 forward: http://www.census.gov/population/www/estimates/statepop.html

Table D1. Resident Population by State, 1960-1969

(Thousand People)

State	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Alabama	3,267.000	3,316.000	3,323.000	3,358.000	3,395.000	3,443.000	3,464.000	3,458.000	3,446.000	3,440.000
Alaska	226.000	238.000	246.000	256.000	263.000	271.000	271.000	278.000	285.000	296.000
Arizona	1,302.000	1,407.000	1,471.000	1,521.000	1,556.000	1,584.000	1,614.000	1,646.000	1,682.000	1,737.000
Arkansas	1,786.000	1,806.000	1,853.000	1,875.000	1,897.000	1,894.000	1,899.000	1,901.000	1,902.000	1,913.000
California	15,717.000	16,497.000	17,072.000	17,668.000	18,151.000	18,585.000	18,858.000	19,176.000	19,394.000	19,711.000
Colorado	1,754.000	1,844.000	1,899.000	1,936.000	1,970.000	1,985.000	2,007.000	2,053.000	2,120.000	2,166.000
Connecticut	2,535.000	2,586.000	2,647.000	2,727.000	2,798.000	2,857.000	2,903.000	2,935.000	2,964.000	3,000.000
Delaware	446.000	461.000	469.000	483.000	497.000	507.000	516.000	525.000	534.000	540.000
District of Columbia	764.000	778.000	788.000	798.000	798.000	797.000	791.000	791.000	778.000	762.000
Florida	4,952.000	5,243.000	5,458.000	5,628.000	5,781.000	5,954.000	6,104.000	6,242.000	6,433.000	6,641.000
Georgia	3,943.000	4,015.000	4,086.000	4,172.000	4,258.000	4,332.000	4,379.000	4,408.000	4,482.000	4,551.000
Hawaii	633.000	659.000	684.000	682.000	700.000	704.000	710.000	723.000	734.000	750.000
Idaho	667.000	684.000	692.000	683.000	680.000	686.000	689.000	688.000	695.000	707.000
Illinois	10,081.000	10,130.000	10,280.000	10,402.000	10,580.000	10,693.000	10,836.000	10,947.000	10,995.000	11,039.000
Indiana	4,662.000	4,730.000	4,736.000	4,799.000	4,856.000	4,922.000	4,999.000	5,053.000	5,093.000	5,143.000
Iowa	2,758.000	2,756.000	2,750.000	2,747.000	2,746.000	2,742.000	2,762.000	2,793.000	2,803.000	2,805.000
Kansas	2,179.000	2,215.000	2,231.000	2,217.000	2,209.000	2,206.000	2,200.000	2,197.000	2,216.000	2,236.000
Kentucky	3,038.000	3,054.000	3,079.000	3,096.000	3,129.000	3,140.000	3,147.000	3,172.000	3,195.000	3,198.000
Louisiana	3,257.000	3,287.000	3,345.000	3,377.000	3,446.000	3,496.000	3,550.000	3,581.000	3,603.000	3,619.000
Maine	969.000	995.000	994.000	993.000	993.000	997.000	999.000	1,004.000	994.000	992.000
Maryland	3,101.000	3,176.000	3,263.000	3,386.000	3,492.000	3,600.000	3,695.000	3,757.000	3,815.000	3,868.000
Massachusetts	5,149.000	5,219.000	5,263.000	5,344.000	5,448.000	5,502.000	5,535.000	5,594.000	5,618.000	5,650.000
Michigan	7,823.000	7,893.000	7,933.000	8,058.000	8,187.000	8,357.000	8,512.000	8,630.000	8,696.000	8,781.000
Minnesota	3,414.000	3,470.000	3,513.000	3,531.000	3,558.000	3,592.000	3,617.000	3,659.000	3,703.000	3,758.000
Mississippi	2,178.000	2,206.000	2,243.000	2,244.000	2,241.000	2,246.000	2,245.000	2,228.000	2,219.000	2,220.000
Missouri	4,320.000	4,349.000	4,357.000	4,392.000	4,442.000	4,467.000	4,523.000	4,539.000	4,568.000	4,640.000
Montana	675.000	696.000	698.000	703.000	706.000	706.000	707.000	701.000	700.000	694.000
Nebraska	1,411.000	1,446.000	1,464.000	1,476.000	1,482.000	1,471.000	1,456.000	1,457.000	1,467.000	1,474.000
Nevada	285.000	315.000	352.000	397.000	426.000	444.000	446.000	449.000	464.000	480.000
New Hampshire	607.000	618.000	632.000	649.000	663.000	676.000	681.000	697.000	709.000	724.000
New Jersey	6,067.000	6,265.000	6,376.000	6,531.000	6,660.000	6,767.000	6,851.000	6,928.000	7,005.000	7,095.000
New Mexico	951.000	965.000	979.000	989.000	1,006.000	1,012.000	1,007.000	1,000.000	994.000	1,011.000
New York	16,782.000	17,061.000	17,301.000	17,461.000	17,589.000	17,734.000	17,843.000	17,935.000	18,051.000	18,105.000
North Carolina	4,556.000	4,663.000	4,707.000	4,742.000	4,802.000	4,863.000	4,896.000	4,952.000	5,004.000	5,031.000
North Dakota	632.000	641.000	637.000	644.000	649.000	649.000	647.000	626.000	621.000	621.000
Ohio	9,706.000	9,854.000	9,929.000	9,986.000	10,080.000	10,201.000	10,330.000	10,414.000	10,516.000	10,563.000
Oklahoma	2,328.000	2,380.000	2,427.000	2,439.000	2,446.000	2,440.000	2,454.000	2,489.000	2,503.000	2,535.000
Oregon	1,769.000	1,787.000	1,818.000	1,853.000	1,888.000	1,937.000	1,969.000	1,979.000	2,004.000	2,062.000
Pennsylvania	11,319.000	11,392.000	11,355.000	11,424.000	11,519.000	11,620.000	11,664.000	11,681.000	11,741.000	11,741.000
Rhode Island	859.000	858.000	871.000	876.000	885.000	893.000	899.000	909.000	922.000	932.000
South Carolina	2,383.000	2,409.000	2,423.000	2,460.000	2,475.000	2,494.000	2,520.000	2,533.000	2,559.000	2,570.000
South Dakota	681.000	693.000	705.000	708.000	701.000	692.000	683.000	671.000	669.000	668.000
Tennessee	3,567.000	3,622.000	3,673.000	3,718.000	3,771.000	3,798.000	3,822.000	3,859.000	3,878.000	3,897.000
Texas	9,580.000	9,820.000	10,053.000	10,159.000	10,270.000	10,378.000	10,492.000	10,599.000	10,819.000	11,045.000
Utah	891.000	936.000	958.000	974.000	978.000	991.000	1,009.000	1,019.000	1,029.000	1,047.000
Vermont	390.000	390.000	393.000	397.000	399.000	404.000	413.000	423.000	430.000	437.000
Virginia	3,967.000	4,095.000	4,180.000	4,276.000	4,357.000	4,411.000	4,456.000	4,508.000	4,558.000	4,614.000
Washington	2,853.000	2,882.000	2,942.000	2,955.000	2,961.000	2,967.000	3,057.000	3,174.000	3,270.000	3,343.000
West Virginia	1,860.000	1,828.000	1,809.000	1,796.000	1,797.000	1,786.000	1,775.000	1,769.000	1,763.000	1,746.000
Wisconsin	3,952.000	4,009.000	4,049.000	4,112.000	4,165.000	4,232.000	4,274.000	4,303.000	4,345.000	4,378.000
Wyoming	330.000	337.000	333.000	336.000	339.000	332.000	323.000	322.000	324.000	329.000
U.S. Total	R 179,323.000	R 182,973.000	R 185,738.000	R 188,438.000	R 191,085.000	R 193,460.000	R 195,501.000	R 197,374.000	R 199,312.000	R 201,306.000

Source: See first page of this appendix.

Table D2. Resident Population by State, 1970-1979

(Thousand People)

State	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Alabama	R 3,444.354	R 3,497.076	R 3,539.400	R 3,579.780	R 3,626.499	R 3,678.814	R 3,735.139	R 3,780.403	R 3,831.836	R 3,866.248
Alaska	R 302.583	R 315.510	R 324.464	R 330.543	R 341.063	R 376.170	R 400.969	R 403.436	R 404.766	R 402.753
Arizona	R 1,775.399	R 1,895.814	R 2,008.291	R 2,124.438	R 2,223.196	R 2,284.847	R 2,346.157	R 2,425.197	R 2,515.316	R 2,635.571
Arkansas	R 1,923.322	R 1,972.312	R 2,018.638	R 2,059.256	R 2,101.403	R 2,159.526	R 2,170.161	R 2,209.010	R 2,243.127	R 2,271.333
California	R 19,971.069	R 20,345.939	R 20,585.469	R 20,868.728	R 21,173.865	R 21,537.849	R 21,935.909	R 22,352.396	R 22,835.958	R 23,256.880
Colorado	R 2,209.596	R 2,303.524	R 2,404.619	R 2,495.868	R 2,541.406	R 2,586.192	R 2,632.306	R 2,696.140	R 2,766.748	R 2,849.234
Connecticut	R 3,032.217	R 3,060.938	R 3,068.699	R 3,067.814	R 3,074.047	R 3,082.500	R 3,083.335	R 3,085.722	R 3,091.627	R 3,095.917
Delaware	R 548.104	R 564.708	R 572.913	R 577.759	R 581.418	R 586.589	R 590.166	R 591.829	R 594.776	R 594.984
District of Columbia	R 756.668	R 749.781	R 742.241	R 731.488	R 717.947	R 706.871	R 692.295	R 677.228	R 665.052	R 650.016
Florida	R 6,791.418	R 7,158.304	R 7,511.463	R 7,913.696	R 8,298.762	R 8,518.422	R 8,667.379	R 8,856.183	R 9,102.032	R 9,426.159
Georgia	R 4,587.930	R 4,711.550	R 4,809.490	R 4,910.374	R 4,999.419	R 5,064.075	R 5,132.812	R 5,219.697	R 5,295.751	R 5,401.384
Hawaii	R 769.913	R 801.644	R 828.331	R 851.595	R 867.978	R 886.160	R 904.191	R 918.259	R 931.584	R 953.306
Idaho	R 713.015	R 738.753	R 763.237	R 782.074	R 807.990	R 831.982	R 856.983	R 883.469	R 910.690	R 932.627
Illinois	R 11,110.285	R 11,202.397	R 11,251.948	R 11,251.367	R 11,262.145	R 11,291.743	R 11,342.853	R 11,386.316	R 11,412.561	R 11,396.837
Indiana	R 5,195.392	R 5,253.396	R 5,302.435	R 5,338.277	R 5,361.890	R 5,365.766	R 5,389.088	R 5,425.638	R 5,470.214	R 5,501.174
Iowa	R 2,825.368	R 2,851.705	R 2,860.287	R 2,863.715	R 2,867.530	R 2,880.847	R 2,903.082	R 2,913.573	R 2,918.069	R 2,915.739
Kansas	R 2,249.071	R 2,246.600	R 2,256.375	R 2,265.603	R 2,269.499	R 2,280.578	R 2,301.001	R 2,320.647	R 2,335.657	R 2,350.906
Kentucky	R 3,220.711	R 3,298.053	R 3,335.728	R 3,371.024	R 3,416.315	R 3,467.769	R 3,529.257	R 3,573.693	R 3,609.976	R 3,641.804
Louisiana	R 3,644.637	R 3,710.487	R 3,761.646	R 3,788.375	R 3,820.109	R 3,886.104	R 3,950.605	R 4,014.459	R 4,068.579	R 4,137.665
Maine	R 993.722	R 1,015.390	R 1,034.292	R 1,045.655	R 1,059.040	R 1,071.995	R 1,088.412	R 1,103.578	R 1,113.566	R 1,122.563
Maryland	R 3,923.897	R 4,018.324	R 4,073.499	R 4,097.974	R 4,118.815	R 4,139.096	R 4,150.539	R 4,169.595	R 4,183.603	R 4,191.160
Massachusetts	R 5,689.170	R 5,737.580	R 5,760.302	R 5,781.172	R 5,773.548	R 5,757.756	R 5,743.672	R 5,738.199	R 5,736.469	R 5,738.404
Michigan	R 8,881.826	R 8,974.186	R 9,028.944	R 9,077.956	R 9,117.507	R 9,117.668	R 9,129.205	R 9,171.110	R 9,217.761	R 9,266.268
Minnesota	R 3,806.103	R 3,853.486	R 3,869.747	R 3,889.332	R 3,903.925	R 3,932.515	R 3,964.680	R 3,989.364	R 4,015.341	R 4,050.316
Mississippi	R 2,216.994	R 2,265.432	R 2,307.117	R 2,349.546	R 2,378.268	R 2,399.449	R 2,429.756	R 2,459.201	R 2,487.816	R 2,507.069
Missouri	R 4,677.623	R 4,725.764	R 4,758.780	R 4,782.645	R 4,795.930	R 4,808.308	R 4,839.029	R 4,863.173	R 4,889.399	R 4,912.430
Montana	R 694.409	R 710.814	R 718.732	R 726.798	R 736.419	R 748.208	R 757.317	R 769.953	R 782.317	R 787.305
Nebraska	R 1,485.333	R 1,504.604	R 1,519.013	R 1,529.567	R 1,539.191	R 1,543.117	R 1,550.911	R 1,556.842	R 1,563.884	R 1,567.344
Nevada	R 488.738	R 520.018	R 546.789	R 568.991	R 596.822	R 619.972	R 646.975	R 678.333	R 719.436	R 765.367
New Hampshire	R 737.681	R 761.851	R 781.107	R 800.951	R 815.914	R 828.555	R 845.248	R 869.763	R 891.520	R 909.074
New Jersey	R 7,171.112	R 7,281.107	R 7,335.042	R 7,333.083	R 7,332.411	R 7,337.765	R 7,339.745	R 7,337.169	R 7,350.804	R 7,366.512
New Mexico	R 1,017.055	R 1,053.737	R 1,078.697	R 1,105.529	R 1,131.309	R 1,159.944	R 1,189.295	R 1,215.720	R 1,238.034	R 1,284.722
New York	R 18,241.391	R 18,357.982	R 18,339.400	R 18,177.063	R 18,049.775	R 18,003.485	R 17,940.541	R 17,812.602	R 17,680.589	R 17,583.838
North Carolina	R 5,084.411	R 5,203.531	R 5,301.150	R 5,389.852	R 5,470.911	R 5,547.188	R 5,607.964	R 5,685.607	R 5,759.492	R 5,823.491
North Dakota	R 617.792	R 626.760	R 631.119	R 632.675	R 634.559	R 638.886	R 645.797	R 649.769	R 651.301	R 652.896
Ohio	R 10,657.423	R 10,734.818	R 10,746.993	R 10,767.314	R 10,765.759	R 10,770.425	R 10,752.662	R 10,771.394	R 10,795.581	R 10,798.298
Oklahoma	R 2,559.463	R 2,618.601	R 2,658.646	R 2,695.931	R 2,734.768	R 2,774.683	R 2,826.815	R 2,870.014	R 2,917.336	R 2,975.310
Oregon	R 2,091.533	R 2,151.022	R 2,197.297	R 2,241.932	R 2,285.013	R 2,329.661	R 2,378.262	R 2,446.673	R 2,518.298	R 2,588.012
Pennsylvania	R 11,800.766	R 11,886.400	R 11,908.233	R 11,890.527	R 11,870.884	R 11,906.095	R 11,897.378	R 11,893.591	R 11,879.396	R 11,887.975
Rhode Island	R 949.723	R 963.107	R 974.790	R 975.738	R 950.615	R 942.788	R 946.089	R 950.230	R 951.816	R 950.382
South Carolina	R 2,590.713	R 2,662.269	R 2,719.197	R 2,776.605	R 2,844.749	R 2,902.028	R 2,943.657	R 2,991.681	R 3,044.364	R 3,090.267
South Dakota	R 666.257	R 671.297	R 677.234	R 678.715	R 679.585	R 681.042	R 686.390	R 688.480	R 688.580	R 688.335
Tennessee	R 3,926.018	R 4,013.608	R 4,094.611	R 4,147.401	R 4,213.509	R 4,275.566	R 4,346.928	R 4,422.921	R 4,486.314	R 4,560.473
Texas	R 11,198.655	R 11,509.848	R 11,759.148	R 12,019.543	R 12,268.629	R 12,568.843	R 12,904.089	R 13,193.050	R 13,500.429	R 13,888.371
Utah	R 1,059.273	R 1,101.192	R 1,135.449	R 1,170.040	R 1,200.471	R 1,236.030	R 1,274.928	R 1,319.512	R 1,367.510	R 1,420.238
Vermont	R 444.732	R 454.318	R 463.143	R 468.430	R 473.002	R 479.713	R 484.928	R 491.931	R 498.109	R 505.372
Virginia	R 4,651.448	R 4,750.838	R 4,824.472	R 4,901.292	R 4,971.069	R 5,047.395	R 5,121.863	R 5,193.112	R 5,270.240	R 5,307.945
Washington	R 3,413.244	R 3,447.553	R 3,447.885	R 3,478.782	R 3,549.946	R 3,621.339	R 3,693.610	R 3,776.050	R 3,889.073	R 4,017.632
West Virginia	R 1,744.237	R 1,770.657	R 1,797.648	R 1,806.360	R 1,815.447	R 1,842.250	R 1,879.503	R 1,908.088	R 1,923.395	R 1,942.146
Wisconsin	R 4,417.821	R 4,462.155	R 4,502.412	R 4,524.244	R 4,545.782	R 4,578.986	R 4,595.904	R 4,626.514	R 4,646.108	R 4,682.811
Wyoming	R 332.416	R 340.285	R 347.345	R 354.061	R 365.501	R 381.695	R 396.952	R 413.354	R 432.880	R 454.378
U.S. Total	R 203,302.031	R 206,827.026	R 209,283.905	R 211,357.481	R 213,341.554	R 215,465.255	R 217,562.735	R 219,759.869	R 222,095.080	R 224,567.241

Source: See first page of this appendix.

Table D3. Resident Population by State, 1980-1989

(Thousand People)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Alabama	R 3,893.888	R 3,918.531	R 3,925.266	R 3,934.102	R 3,951.820	R 3,972.523	R 3,991.569	R 4,015.264	R 4,023.844	R 4,030.222
Alaska	R 401.851	R 418.491	R 449.606	R 488.417	R 513.702	R 532.495	R 544.268	R 539.309	R 541.983	R 547.159
Arizona	R 2,718.215	R 2,810.107	R 2,889.861	R 2,968.925	R 3,067.135	R 3,183.538	R 3,308.262	R 3,437.103	R 3,535.183	R 3,622.185
Arkansas	R 2,286.435	R 2,293.201	R 2,294.257	R 2,305.761	R 2,319.768	R 2,327.046	R 2,331.984	R 2,342.355	R 2,342.656	R 2,346.358
California	R 23,667.902	R 24,285.933	R 24,820.009	R 25,360.026	R 25,844.393	R 26,441.109	R 27,102.237	R 27,777.158	R 28,464.249	R 29,218.164
Colorado	R 2,889.964	R 2,977.898	R 3,061.564	R 3,133.630	R 3,169.992	R 3,208.723	R 3,237.450	R 3,260.480	R 3,262.281	R 3,275.818
Connecticut	R 3,107.576	R 3,128.836	R 3,139.013	R 3,162.354	R 3,180.014	R 3,201.131	R 3,223.740	R 3,247.291	R 3,271.953	R 3,283.403
Delaware	R 594.338	R 595.975	R 599.148	R 605.458	R 611.565	R 618.280	R 627.559	R 636.947	R 647.622	R 658.273
District of Columbia	R 638.333	R 636.893	R 634.174	R 632.433	R 633.382	R 634.549	R 638.269	R 636.930	R 630.432	R 624.168
Florida	R 9,746.324	R 10,192.774	R 10,471.407	R 10,749.851	R 11,039.925	R 11,351.118	R 11,667.505	R 11,997.283	R 12,306.395	R 12,637.715
Georgia	R 5,463.105	R 5,568.345	R 5,649.792	R 5,728.250	R 5,834.954	R 5,962.661	R 6,084.666	R 6,208.467	R 6,316.142	R 6,411.099
Hawaii	R 964.691	R 978.195	R 993.780	R 1,012.717	R 1,027.922	R 1,039.698	R 1,051.762	R 1,067.918	R 1,079.828	R 1,094.588
Idaho	R 943.935	R 962.204	R 973.721	R 981.869	R 990.839	R 994.051	R 990.224	R 984.997	R 985.664	R 994.416
Illinois	R 11,426.518	R 11,443.458	R 11,423.412	R 11,408.818	R 11,412.132	R 11,399.806	R 11,387.257	R 11,391.178	R 11,390.183	R 11,409.782
Indiana	R 5,490.224	R 5,480.435	R 5,467.922	R 5,450.395	R 5,458.322	R 5,459.211	R 5,454.108	R 5,473.012	R 5,491.735	R 5,523.693
Iowa	R 2,913.808	R 2,907.983	R 2,888.189	R 2,870.543	R 2,858.618	R 2,829.684	R 2,791.970	R 2,767.011	R 2,768.388	R 2,770.592
Kansas	R 2,363.679	R 2,384.849	R 2,401.202	R 2,415.531	R 2,424.086	R 2,427.405	R 2,432.619	R 2,445.367	R 2,461.996	R 2,472.849
Kentucky	R 3,660.777	R 3,670.394	R 3,683.445	R 3,694.484	R 3,695.453	R 3,694.826	R 3,687.809	R 3,683.329	R 3,679.999	R 3,677.306
Louisiana	R 4,205.900	R 4,283.303	R 4,352.608	R 4,395.316	R 4,400.477	R 4,408.118	R 4,406.919	R 4,344.148	R 4,288.863	R 4,252.894
Maine	R 1,124.660	R 1,133.033	R 1,136.684	R 1,144.772	R 1,155.635	R 1,162.936	R 1,170.126	R 1,184.574	R 1,203.840	R 1,219.961
Maryland	R 4,216.975	R 4,261.905	R 4,282.923	R 4,313.327	R 4,365.243	R 4,413.071	R 4,486.957	R 4,565.557	R 4,657.904	R 4,727.301
Massachusetts	R 5,737.037	R 5,768.685	R 5,771.222	R 5,799.407	R 5,840.773	R 5,880.733	R 5,902.678	R 5,935.204	R 5,979.982	R 6,015.478
Michigan	R 9,262.078	R 9,209.287	R 9,115.198	R 9,047.754	R 9,049.452	R 9,076.293	R 9,127.775	R 9,187.481	R 9,217.998	R 9,253.295
Minnesota	R 4,075.970	R 4,111.728	R 4,131.450	R 4,141.456	R 4,157.706	R 4,184.302	R 4,205.212	R 4,235.136	R 4,296.166	R 4,338.057
Mississippi	R 2,520.638	R 2,539.036	R 2,556.777	R 2,567.717	R 2,578.051	R 2,588.102	R 2,593.597	R 2,588.545	R 2,580.352	R 2,574.269
Missouri	R 4,916.686	R 4,932.064	R 4,929.451	R 4,943.733	R 4,975.278	R 5,000.268	R 5,023.068	R 5,056.696	R 5,081.736	R 5,095.830
Montana	R 786.690	R 795.328	R 803.986	R 814.031	R 820.905	R 822.320	R 813.739	R 805.063	R 800.202	R 799.636
Nebraska	R 1,569.825	R 1,578.515	R 1,581.780	R 1,584.293	R 1,588.639	R 1,584.664	R 1,574.333	R 1,566.547	R 1,571.477	R 1,574.864
Nevada	R 800.493	R 847.655	R 881.537	R 901.977	R 924.922	R 951.030	R 980.613	R 1,023.376	R 1,075.022	R 1,137.382
New Hampshire	R 920.610	R 936.621	R 947.719	R 958.134	R 976.864	R 996.753	R 1,025.053	R 1,054.289	R 1,082.577	R 1,104.522
New Jersey	R 7,364.823	R 7,407.472	R 7,430.968	R 7,467.785	R 7,515.473	R 7,565.528	R 7,622.159	R 7,670.742	R 7,712.333	R 7,726.089
New Mexico	R 1,302.894	R 1,332.748	R 1,363.823	R 1,394.361	R 1,416.717	R 1,438.361	R 1,462.729	R 1,478.520	R 1,490.337	R 1,503.901
New York	R 17,558.072	R 17,567.734	R 17,589.738	R 17,686.905	R 17,745.684	R 17,791.672	R 17,833.419	R 17,868.848	R 17,941.309	R 17,983.086
North Carolina	R 5,881.766	R 5,956.653	R 6,019.101	R 6,077.056	R 6,164.006	R 6,253.954	R 6,321.578	R 6,403.700	R 6,480.594	R 6,565.459
North Dakota	R 652.717	R 659.505	R 668.972	R 676.688	R 680.497	R 676.980	R 669.512	R 661.136	R 655.331	R 646.351
Ohio	R 10,797.630	R 10,788.330	R 10,757.087	R 10,737.632	R 10,737.746	R 10,734.926	R 10,730.268	R 10,760.090	R 10,798.552	R 10,829.217
Oklahoma	R 3,025.290	R 3,096.164	R 3,206.123	R 3,290.402	R 3,285.533	R 3,271.332	R 3,252.735	R 3,210.122	R 3,167.057	R 3,150.307
Oregon	R 2,633.105	R 2,667.982	R 2,664.922	R 2,653.066	R 2,666.588	R 2,672.652	R 2,683.528	R 2,700.991	R 2,741.297	R 2,790.575
Pennsylvania	R 11,863.895	R 11,858.567	R 11,845.146	R 11,837.723	R 11,815.172	R 11,770.862	R 11,782.752	R 11,810.866	R 11,845.752	R 11,865.996
Rhode Island	R 947.154	R 953.013	R 954.170	R 956.382	R 961.894	R 968.955	R 977.341	R 989.604	R 996.408	R 1,000.666
South Carolina	R 3,121.820	R 3,179.255	R 3,207.614	R 3,234.066	R 3,271.868	R 3,303.209	R 3,342.758	R 3,380.506	R 3,412.096	R 3,456.775
South Dakota	R 690.768	R 689.584	R 690.597	R 693.008	R 697.249	R 698.402	R 696.034	R 696.036	R 698.165	R 696.701
Tennessee	R 4,591.120	R 4,627.658	R 4,646.041	R 4,659.749	R 4,686.737	R 4,715.296	R 4,738.708	R 4,782.927	R 4,822.437	R 4,854.444
Texas	R 14,229.191	R 14,746.318	R 15,331.415	R 15,751.676	R 16,007.086	R 16,272.734	R 16,561.113	R 16,621.791	R 16,667.022	R 16,806.735
Utah	R 1,461.037	R 1,515.471	R 1,558.314	R 1,594.943	R 1,622.342	R 1,642.910	R 1,662.834	R 1,678.119	R 1,689.372	R 1,705.864
Vermont	R 511.456	R 515.594	R 519.109	R 523.302	R 526.660	R 530.035	R 534.066	R 540.267	R 549.763	R 557.707
Virginia	R 5,346.818	R 5,444.097	R 5,492.783	R 5,564.657	R 5,643.870	R 5,715.153	R 5,811.700	R 5,932.268	R 6,036.909	R 6,120.246
Washington	R 4,132.156	R 4,235.731	R 4,276.552	R 4,300.266	R 4,343.656	R 4,400.098	R 4,452.720	R 4,531.901	R 4,639.893	R 4,746.316
West Virginia	R 1,949.644	R 1,954.124	R 1,949.604	R 1,945.061	R 1,927.697	R 1,906.831	R 1,882.350	R 1,857.585	R 1,830.215	R 1,806.568
Wisconsin	R 4,705.767	R 4,726.343	R 4,728.870	R 4,721.438	R 4,735.563	R 4,747.767	R 4,755.618	R 4,777.919	R 4,822.388	R 4,856.574
Wyoming	R 469.557	R 491.712	R 506.400	R 510.345	R 504.896	R 499.695	R 495.633	R 476.965	R 465.101	R 458.374
U.S. Total	R 226,545.805	R 229,465.714	R 231,664.458	R 233,791.994	R 235,824.902	R 237,923.795	R 240,132.887	R 242,288.918	R 244,498.982	R 246,819.230

Source: See first page of this appendix.

Table D4. Resident Population by State, 1990-1997

(Thousand People)

State	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	R 4,040.389	R 4,089.884	R 4,137.553	R 4,191.879	R 4,239.262	R 4,270.460	R 4,291.110	4,322.113
Alaska	R 550.043	R 569.054	R 586.722	R 596.906	R 600.622	R 601.581	R 605.212	609.655
Arizona	R 3,665.339	R 3,762.229	R 3,867.378	R 3,993.563	R 4,147.761	R 4,307.074	R 4,432.202	4,553.249
Arkansas	R 2,350.624	R 2,370.492	R 2,394.114	R 2,423.980	R 2,450.565	R 2,480.080	R 2,505.073	2,523.186
California	R 29,785.857	R 30,392.926	R 30,854.222	R 31,124.200	R 31,295.495	R 31,472.342	R 31,762.190	32,182.118
Colorado	R 3,294.473	R 3,368.221	R 3,460.644	R 3,562.064	R 3,654.093	R 3,738.237	R 3,813.778	3,892.029
Connecticut	R 3,287.116	R 3,287.237	R 3,272.178	R 3,269.944	R 3,265.152	R 3,261.812	R 3,263.910	3,267.240
Delaware	R 666.168	R 680.474	R 690.101	R 700.112	R 708.925	R 718.700	R 727.113	735.143
District of Columbia	R 606.900	R 593.820	R 584.897	R 577.180	R 565.796	R 552.466	R 539.646	529.895
Florida	R 12,938.071	R 13,289.691	R 13,501.954	R 13,712.052	R 13,953.829	R 14,180.200	R 14,424.868	14,677.181
Georgia	R 6,478.149	R 6,622.926	R 6,760.049	R 6,895.071	R 7,045.888	R 7,188.510	R 7,334.183	7,489.982
Hawaii	R 1,108.229	R 1,132.040	R 1,151.344	R 1,163.835	R 1,176.078	R 1,183.066	R 1,187.283	1,192.057
Idaho	R 1,006.734	R 1,038.505	R 1,065.842	R 1,100.328	R 1,134.269	R 1,163.542	R 1,186.239	1,208.865
Illinois	R 11,430.602	R 11,532.612	R 11,629.713	R 11,718.133	R 11,794.121	R 11,865.976	R 11,933.597	11,989.352
Indiana	R 5,544.156	R 5,600.913	R 5,647.606	R 5,700.920	R 5,740.684	R 5,786.612	R 5,827.423	5,864.847
Iowa	R 2,776.831	R 2,790.942	R 2,806.876	R 2,820.625	R 2,829.270	R 2,840.620	R 2,848.603	2,854.330
Kansas	R 2,477.588	R 2,493.676	R 2,517.896	R 2,538.069	R 2,558.077	R 2,574.567	R 2,584.650	2,601.437
Kentucky	R 3,686.892	R 3,716.390	R 3,758.377	R 3,793.694	R 3,824.117	R 3,856.107	R 3,882.545	3,910.366
Louisiana	R 4,221.826	R 4,241.361	R 4,271.580	R 4,285.622	R 4,306.707	R 4,328.161	R 4,339.871	4,353.646
Maine	R 1,227.928	R 1,234.751	R 1,234.491	R 1,236.178	R 1,234.904	R 1,233.193	R 1,238.003	1,241.895
Maryland	R 4,780.753	R 4,855.948	R 4,902.664	R 4,943.092	R 4,985.453	R 5,023.442	R 5,057.839	5,094.924
Massachusetts	R 6,016.425	R 5,996.961	R 5,992.185	R 6,008.044	R 6,027.190	R 6,057.923	R 6,082.910	6,114.440
Michigan	R 9,295.287	R 9,389.609	R 9,464.558	R 9,523.247	R 9,585.995	R 9,662.881	R 9,733.774	9,779.984
Minnesota	R 4,375.665	R 4,427.703	R 4,471.738	R 4,523.560	R 4,565.781	R 4,604.947	R 4,648.081	4,687.408
Mississippi	R 2,575.475	R 2,591.028	R 2,610.096	R 2,635.647	R 2,663.145	R 2,690.452	R 2,710.022	2,731.644
Missouri	R 5,116.901	R 5,157.655	R 5,193.515	R 5,237.813	R 5,291.215	R 5,337.355	R 5,368.911	5,408.455
Montana	R 799.065	R 807.871	R 822.498	R 840.052	R 854.914	R 868.478	R 876.734	878.730
Nebraska	R 1,578.417	R 1,590.734	R 1,602.444	R 1,612.336	R 1,621.808	R 1,635.414	R 1,648.041	1,657.009
Nevada	R 1,201.675	R 1,285.070	R 1,332.533	R 1,382.223	R 1,457.997	R 1,528.363	R 1,600.345	1,678.691
New Hampshire	R 1,109.252	R 1,106.944	R 1,113.514	R 1,122.141	R 1,133.380	R 1,146.183	R 1,159.546	1,172.140
New Jersey	R 7,747.750	R 7,783.864	R 7,826.254	R 7,873.468	R 7,916.143	R 7,962.255	R 8,007.905	8,058.384
New Mexico	R 1,515.069	R 1,547.141	R 1,580.841	R 1,615.385	R 1,653.777	R 1,683.773	R 1,707.902	1,723.965
New York	R 17,990.778	R 18,028.271	R 18,078.979	R 18,139.051	R 18,151.629	R 18,144.950	R 18,142.162	18,146.200
North Carolina	R 6,632.448	R 6,748.019	R 6,832.832	R 6,948.740	R 7,061.439	R 7,185.920	R 7,308.656	7,430.675
North Dakota	R 638.800	R 634.207	R 635.478	R 637.315	R 639.594	R 641.374	R 642.805	640.965
Ohio	R 10,847.115	R 10,930.648	R 11,002.680	R 11,063.366	R 11,099.679	R 11,137.663	R 11,169.546	11,192.932
Oklahoma	R 3,145.576	R 3,166.450	R 3,204.323	R 3,229.393	R 3,248.257	R 3,271.276	R 3,295.928	3,321.611
Oregon	R 2,842.337	R 2,918.640	R 2,973.972	R 3,034.869	R 3,087.054	R 3,141.180	R 3,195.409	3,243.272
Pennsylvania	R 11,882.842	R 11,942.836	R 11,981.377	R 12,022.460	R 12,039.789	R 12,039.775	R 12,033.856	12,011.278
Rhode Island	R 1,003.464	R 1,003.785	R 1,000.410	R 997.817	R 993.487	R 989.295	R 988.130	987.263
South Carolina	R 3,486.310	R 3,558.707	R 3,599.351	R 3,634.842	R 3,666.760	R 3,699.305	R 3,736.947	3,788.119
South Dakota	R 696.004	R 707.811	R 715.048	R 722.550	R 729.264	R 734.533	R 737.227	737.755
Tennessee	R 4,877.203	R 4,945.855	R 5,012.278	R 5,082.456	R 5,158.055	R 5,235.124	R 5,307.222	5,371.693
Texas	R 16,986.335	R 17,348.540	R 17,661.971	R 18,009.031	R 18,347.571	R 18,694.223	R 19,032.987	19,385.699
Utah	R 1,722.850	R 1,770.581	R 1,818.868	R 1,872.018	R 1,941.966	R 1,991.495	R 2,022.234	2,065.001
Vermont	R 562.758	R 566.906	R 569.898	R 573.837	R 578.703	R 582.442	R 586.333	588.632
Virginia	R 6,189.197	R 6,283.993	R 6,384.245	R 6,466.977	R 6,538.594	R 6,601.639	R 6,667.373	6,737.489
Washington	R 4,866.669	R 5,014.971	R 5,142.553	R 5,248.735	R 5,336.121	R 5,433.068	R 5,518.801	5,614.151
West Virginia	R 1,793.477	R 1,798.196	R 1,805.603	R 1,816.508	R 1,818.619	R 1,821.613	R 1,820.261	1,815.231
Wisconsin	R 4,891.769	R 4,952.546	R 5,004.755	R 5,055.710	R 5,095.349	R 5,136.937	R 5,174.348	5,201.226
Wyoming	R 453.589	R 457.768	R 463.519	R 469.065	R 474.894	R 478.364	R 480.060	480.043
U.S. Total	R 248,765.170	R 252,127.402	R 254,994.517	R 257,746.103	R 260,289.237	R 262,764.948	R 265,189.794	267,743.595

Source: See first page of this appendix.

Appendix E

Metric and Other Physical Conversion Factors

Data presented in the *State Energy Data Report* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94–168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100–418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table E1 can be used to calculate the metric-unit equivalents of values expressed in U.S. customary units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table E2.

The conversion factors presented in Table E3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

Table E1. Metric Conversion Factors

U.S. Unit	*multiplied by*	Conversion Factor	*equals*	Metric Unit
Mass				
short tons (2,000 lb)	x	0.907 184 7	=	metric tons (t)
long tons	x	1.016 047	=	metric tons (t)
pounds (lb)	x	0.453 592 37[a]	=	kilograms (kg)
pounds uranium oxide (lb U_3O_8)	x	0.384 647[b]	=	kilograms uranium (kgU)
ounces, avoirdupois (avdp oz)	x	28.349 52	=	grams (g)
Length				
miles (mi)	x	1.609 344[a]	=	kilometers (km)
yard (yd)	x	0.914 4[a]	=	meters (m)
feet (ft)	x	0.304 8[a]	=	meters (m)
inches (in)	x	2.54[a]	=	centimeters (cm)
Energy				
British Thermal Units (Btu)	x	1,055.055 852 62[a,c]	=	joules (J)
calories (cal)	x	4.186 8[a]	=	joules (J)
kilowatthours (kWh)	x	3.6[a]	=	megajoules (MJ)

U.S. Unit	*multiplied by*	Conversion Factor	*equals*	Metric Unit
Volume				
barrels of oil (bbl)	x	0.158 987 3	=	cubic meters (cm^3)
cubic yards (yd^3)	x	0.764 555	=	cubic meters (cm^3)
cubic feet (ft^3)	x	0.028 316 85	=	cubic meters (cm^3)
U.S. gallons (gal)	x	3.785 412	=	liters (L)
ounces, fluid (fl oz)	x	29.573 53	=	milliliters (mL)
cubic inches (in^3)	x	16.387 06	=	milliliters (mL)
Area				
acres	x	0.404 69	=	hectares (ha)
square miles (mi^2)	x	2.589 988	=	square kilometers (km^2)
square yards (yd^2)	x	0.836 127 4	=	square meters (m^2)
square feet (ft^2)	x	0.092 903 04[a]	=	square meters (m^2)
square inches (in^2)	x	6.451 6[a]	=	square centimeters (cm^2)
Temperature				
degrees Fahrenheit (°F)	x	5/9 (after subtracting 32)[a,d]	=	degrees Celsius (°C)

[a]Exact conversion.

[b]Calculated by the Energy Information Administration.

[c]The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

[d]To convert degrees Celsius (°C) to degrees Fahrenheit (°F) exactly, multiply by 9/5, then add 32.

Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units shown belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, contact Dr. Barry Taylor at Building 221, Room B160, National Institute of Standards and Technology, Gaithersburg, MD 20899, or on telephone number 301–975–4220.

Sources: General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9–11, 13, and 16. National Institute of Standards and Technology, Special Publications 330, 811, and 814. American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268–1992, pp. 28 and 29.

Table E2. Metric Prefixes

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
10^{1}	deka	da	10^{-1}	deci	d
10^{2}	hecto	h	10^{-2}	centi	c
10^{3}	kilo	k	10^{-3}	milli	m
10^{6}	mega	M	10^{-6}	micro	µ
10^{9}	giga	G	10^{-9}	nano	n
10^{12}	tera	T	10^{-12}	pico	p
10^{15}	peta	P	10^{-15}	femto	f
10^{18}	exa	E	10^{-18}	atto	a
10^{21}	zetta	Z	10^{-21}	zepto	z
10^{24}	yotta	Y	10^{-24}	yocto	Y

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *The International System of Units (SI),* NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p. 10.

Table E3. Other Physical Conversion Factors

Energy Source	Original Unit		Conversion Factor		Final Unit
Petroleum	barrels (bbl)	x	42[a]	=	U.S. gallons (gal)
Coal	short tons	x	2,000[a]	=	pounds (lb)
	long tons	x	2,240[a]	=	pounds (lb)
	metric tons (t)	x	1,000[a]	=	kilograms (kg)
Wood	cords (cd)	x	1.25[b]	=	short tons
	cords (cd)	x	128[a]	=	cubic feet (ft^3)

[a]Exact conversion.

[b]Calculated by the Energy Information Administration.

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B-10, C-17, and C-21.

Appendix F

Carbon Dioxide Emission Factors for Coal

The need for accurate estimates of carbon dioxide emissions produced during the combustion of coal has led the Energy Information Administration (EIA) to develop basic emission factors. Basic emission factors reflect the carbon-to-heat-content ratio of coal, a ratio that measures carbon dioxide emissions per unit of energy (pounds per million Btu), assuming complete combustion. These basic factors are derived from 5,426 sample analyses maintained in EIA's Coal Analysis File. Variations in the carbon-to-heat-content of different coals were observed to follow coal rank and geographic origin, leading EIA to develop basic emission factors specific to the rank and the State of origin of the coal.

On the basis of these rank- and State-specific basic emission factors for coal, EIA has also developed emission factors by sector. These sectoral emission factors weight the coal consumed in a given sector by its rank and State of origin. Tables F1 through F5 present the U.S. average carbon dioxide emission factors for coal by sector. Emission factors differ among sectors and within a given sector over time for a number of reasons:

- A higher average emission factor in the residential and commercial sector can be attributed to the steady consumption of bituminous coal and anthracite (presumably for home heating).
- Virtually all of the coal consumed by coke plants comes from only a few States in the Appalachian Coal Basin (West Virginia, Virginia, and eastern Kentucky). Hence, the emission factors for this sector have remained fairly constant.
- Other industrial users of coal (not coke plants) increased consumption of low-rank, high-emission western coals, which has contributed to a rise in their average emission factor.
- Electric utilities, which account for most U.S. coal consumption, have shifted over time away from high-rank, low-emission bituminous coal to low-rank, high-emission subbituminous coal and lignite as reflected in a gradually rising weighted-average carbon dioxide emission factor.

Table F1. Average Carbon Dioxide Emission Factors for Coal Consumed by the Residential and Commercial Sector, 1980-1997

(Pounds of Carbon Dioxide per Million Btu)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	205.4	205.5	205.7	205.2	205.4	205.4	205.4	205.9	205.9	205.7	206.0	205.6	205.5	205.7	205.7	205.7	205.5	205.3
Alaska	–	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0
Arizona	–	209.7	209.7	209.7	209.7	209.7	209.9	212.1	210.8	206.2	208.3	218.3	208.6	212.0	227.4	212.7	206.9	206.8
Arkansas	205.3	211.3	203.4	206.5	202.5	205.4	227.4	201.3	203.8	205.4	205.9	205.9	222.3	209.9	207.2	–	–	227.4
California	204.5	205.3	204.6	204.4	204.1	204.1	209.7	203.7	204.2	203.6	204.1	204.2	204.1	204.1	204.1	204.1	204.1	204.1
Colorado	212.6	212.3	212.4	211.8	212.0	212.4	212.5	212.5	212.5	212.5	212.4	212.4	211.0	212.0	211.2	211.6	211.8	212.2
Connecticut	226.1	225.7	227.2	227.3	227.4	227.2	226.9	226.9	226.5	226.3	226.7	227.3	220.2	226.9	226.3	211.9	226.4	226.6
Delaware	221.8	227.0	211.3	213.8	227.4	214.2	213.9	207.0	207.1	206.4	206.7	206.0	221.1	203.0	203.4	227.4	209.7	209.2
Dist. of Columbia	205.5	204.9	205.0	205.1	205.3	204.9	205.2	205.1	205.3	205.4	206.4	205.5	206.3	206.4	206.5	207.8	207.2	207.2
Florida	205.0	205.3	203.7	204.9	204.8	204.8	204.8	206.9	214.3	215.2	207.5	227.4	205.7	205.1	205.0	207.8	204.8	–
Georgia	204.7	204.8	204.9	205.4	204.8	205.3	205.2	205.0	205.0	205.4	205.1	206.3	204.9	205.1	206.0	205.9	204.8	206.2
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	205.4	205.8	206.0	205.2	205.1	204.8	204.5	205.0	204.7	205.7	204.9	204.7	205.0	204.9	205.0	206.0	205.9	204.6
Illinois	203.9	204.1	203.6	203.7	203.6	203.6	203.6	203.7	203.6	203.7	203.5	203.9	203.9	203.6	203.6	203.6	203.8	204.1
Indiana	203.7	203.9	203.8	203.6	203.6	203.6	203.6	203.7	203.6	203.8	203.7	203.8	203.8	204.1	204.1	204.1	204.1	204.1
Iowa	205.1	202.6	202.8	202.8	202.8	202.9	202.0	205.0	206.9	204.2	204.1	203.7	204.2	204.5	204.6	204.8	–	203.9
Kansas	202.2	202.3	202.8	201.3	201.3	201.3	201.3	201.3	201.5	203.6	203.2	203.8	202.9	203.9	203.6	202.8	202.8	202.8
Kentucky	204.6	204.7	204.4	204.2	204.8	204.2	204.4	204.6	204.3	204.0	204.3	204.3	204.6	205.1	205.0	204.7	205.0	203.2
Louisiana	201.3	–	201.4	–	203.5	–	227.4	–	227.4	204.8	–	227.4	–	227.4	–	204.8	–	207.1
Maine	216.2	224.1	215.1	215.2	214.2	211.9	210.1	213.0	210.9	213.6	212.0	223.9	213.0	212.2	226.8	226.7	227.4	226.2
Maryland	210.6	216.0	208.2	207.0	207.9	207.3	207.1	206.8	207.8	207.5	207.8	208.1	211.7	212.1	208.6	207.9	207.8	208.2
Massachusetts	218.2	220.9	217.0	217.4	214.2	219.1	219.9	223.7	218.1	217.6	213.8	221.5	214.1	217.0	225.8	217.7	214.2	215.9
Michigan	205.0	205.1	204.8	204.8	204.4	204.6	204.7	204.9	204.8	204.8	204.9	204.9	205.0	204.6	204.3	204.3	204.8	204.6
Minnesota	208.6	211.6	212.2	209.9	211.0	210.8	210.8	211.8	211.6	209.5	212.0	212.2	212.3	211.7	209.4	208.6	212.5	211.0
Mississippi	202.6	227.4	227.4	204.6	204.8	205.2	204.8	204.0	202.8	206.2	208.4	227.4	227.4	227.4	–	–	–	227.4
Missouri	202.1	201.9	201.7	202.0	202.0	204.4	203.9	201.9	201.8	203.4	202.7	202.8	203.4	204.1	203.5	203.1	203.3	203.8
Montana	205.6	213.1	213.2	209.7	213.3	213.3	213.1	213.1	213.2	209.3	211.7	213.4	213.3	211.3	213.4	207.2	213.4	211.8
Nebraska	212.6	212.6	212.7	212.9	212.6	212.6	212.7	212.7	212.5	212.7	212.7	217.4	219.2	212.7	212.7	210.1	227.0	212.7
Nevada	208.4	207.7	204.3	204.3	211.9	204.1	204.1	204.1	204.1	204.1	212.3	204.1	204.1	204.1	204.1	204.3	204.1	204.1
New Hampshire	227.2	227.4	225.9	225.8	226.9	227.4	227.2	227.4	226.1	226.6	226.4	226.9	225.4	227.4	227.4	217.7	215.5	223.5
New Jersey	227.2	226.1	227.1	227.3	224.8	225.0	226.7	226.9	227.4	226.1	227.2	226.9	227.1	227.3	227.0	227.3	227.2	227.1
New Mexico	209.8	209.7	209.8	209.6	209.7	209.7	209.7	209.7	209.7	208.1	205.7	205.8	206.3	206.5	206.6	206.6	207.1	206.3
New York	218.9	217.3	215.3	215.2	215.1	216.4	213.3	216.1	214.6	215.5	214.0	215.4	218.0	218.8	214.8	216.0	214.1	213.7
North Carolina	204.9	204.8	204.8	204.9	204.8	205.0	204.8	204.9	204.8	204.9	206.7	206.1	206.2	205.9	206.0	206.4	206.0	205.6
North Dakota	218.5	218.6	218.6	218.6	218.7	218.6	218.6	218.7	218.8	218.8	217.6	217.6	216.8	216.5	216.4	215.7	216.9	216.4
Ohio	203.8	203.8	203.6	203.5	203.7	203.9	203.6	203.8	204.3	203.9	204.2	204.4	205.5	204.2	204.5	204.4	203.4	204.1
Oklahoma	205.7	201.9	202.7	201.4	201.5	205.7	202.6	204.8	212.3	203.0	206.2	205.9	207.0	205.9	206.9	205.9	205.9	212.7
Oregon	205.6	208.4	209.2	207.5	205.7	205.1	207.2	204.7	204.7	204.6	204.1	204.1	204.1	214.2	213.6	204.1	204.1	204.1
Pennsylvania	221.2	222.8	219.8	219.8	220.6	219.3	218.9	218.1	218.7	218.8	219.0	218.2	219.7	218.6	220.1	220.4	220.3	221.7
Rhode Island	223.9	227.4	227.4	224.2	226.7	227.1	225.8	227.4	227.4	227.4	227.3	227.4	227.4	227.2	227.4	227.4	227.4	227.2
South Carolina	204.8	204.5	204.8	204.8	204.8	205.2	204.8	204.8	204.8	204.8	204.9	205.1	205.3	207.0	207.0	209.5	206.8	204.8
South Dakota	212.0	212.3	211.7	209.1	205.9	209.9	208.3	211.9	213.2	212.9	211.6	212.8	212.8	212.7	209.9	212.2	208.9	212.7
Tennessee	204.5	204.6	204.1	204.6	204.2	204.2	203.7	204.0	204.4	204.8	205.4	206.3	204.6	205.1	205.0	205.5	204.8	204.9
Texas	213.7	209.8	215.3	216.3	227.4	207.5	205.4	204.3	204.5	206.8	206.8	207.1	211.0	213.3	227.0	–	213.0	205.9
Utah	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.2	204.2	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1
Vermont	227.4	227.3	227.3	224.3	227.0	210.4	226.1	227.2	227.4	227.1	227.2	227.1	227.4	227.3	227.2	227.4	227.1	227.2
Virginia	205.0	205.1	205.2	205.3	205.4	205.2	205.1	205.2	205.3	205.1	205.9	206.2	206.3	206.0	206.4	206.7	206.5	205.9
Washington	204.3	204.6	204.4	204.4	204.5	204.2	208.5	204.8	205.2	204.8	206.8	207.5	206.9	207.6	209.2	208.1	204.4	204.4
West Virginia	205.0	205.2	205.9	205.6	205.7	206.8	206.1	206.5	205.3	206.3	206.2	207.0	210.2	208.3	207.0	208.4	207.1	207.4
Wisconsin	205.8	203.7	205.1	204.4	205.2	205.6	205.3	203.8	205.3	205.8	211.8	205.0	204.9	204.9	204.9	204.9	204.9	205.1
Wyoming	212.3	211.9	212.5	212.8	212.9	212.7	212.7	212.7	212.7	212.3	212.7	212.7	212.7	212.8	212.8	213.0	212.9	212.8
U.S. Average [a]	210.6	212.0	210.4	209.2	209.5	209.3	209.2	209.4	209.1	209.7	209.5	210.2	211.2	209.9	209.8	210.2	209.5	210.2

[a] Weighted average. The weights used are consumption values by State.
– =Not applicable.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Table F2. Average Carbon Dioxide Emission Factors for Coal Consumed[a] by Coke Plants, 1980-1997

(Pounds of Carbon Dioxide per Million Btu)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	205.5	205.5	205.4	205.4	205.4	205.4	205.5	205.3	205.3	205.4	206.0	206.2	206.1	206.2	206.2	206.2	206.1	206.2
Alaska	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Arizona	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Arkansas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
California	208.7	207.8	207.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colorado	212.6	212.4	212.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Connecticut	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Delaware	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dist. of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Illinois	205.2	205.4	205.6	205.7	205.4	204.6	205.0	204.6	204.7	204.5	205.8	206.4	206.5	206.4	206.8	206.6	206.6	206.7
Indiana	205.0	205.1	204.9	205.0	204.9	205.1	205.0	204.9	204.9	204.9	205.8	206.0	206.0	206.1	206.3	206.4	206.3	206.9
Iowa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kansas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kentucky	204.6	204.3	205.9	205.2	205.1	204.9	204.8	204.8	204.8	205.0	206.7	206.8	206.3	206.4	206.7	206.8	206.5	206.4
Louisiana	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Maine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	205.9	206.1	205.7	205.5	205.5	205.5	205.5	205.5	205.3	205.1	206.2	205.9	–	–	–	–	–	–
Massachusetts	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Michigan	205.5	205.4	205.4	205.3	205.4	205.4	205.5	205.8	205.4	205.3	206.4	206.7	207.8	207.6	205.7	206.0	206.4	206.1
Minnesota	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mississippi	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Missouri	205.2	205.6	205.7	205.1	205.4	205.4	204.9	206.0	205.3	–	–	–	–	–	–	–	–	–
Montana	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nebraska	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nevada	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
New Hampshire	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
New Jersey	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
New Mexico	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
New York	205.5	205.4	205.4	205.4	205.5	205.5	205.5	205.4	205.5	205.6	206.2	206.1	206.1	206.8	206.7	206.7	206.7	206.1
North Carolina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
North Dakota	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ohio	205.4	205.3	205.3	205.3	205.2	205.3	205.2	205.1	205.1	205.1	206.6	206.4	206.4	206.0	206.4	206.6	206.6	206.4
Oklahoma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Oregon	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pennsylvania	205.7	205.6	205.5	205.6	205.6	205.7	205.6	205.6	205.5	205.4	206.2	206.2	206.1	206.2	206.2	206.2	206.3	206.5
Rhode Island	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Carolina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Dakota	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tennessee	210.2	207.1	205.3	205.1	205.3	205.3	205.2	205.1	204.8	204.8	207.6	207.6	206.2	–	204.8	–	–	–
Texas	209.8	212.2	212.3	212.7	212.7	212.7	212.7	–	–	–	–	–	–	–	–	–	–	–
Utah	210.8	210.6	211.3	212.4	211.7	212.5	207.9	208.3	209.7	209.9	208.2	206.0	205.6	205.5	205.8	207.3	208.4	209.0
Vermont	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Virginia	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2	206.2
Washington	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
West Virginia	205.4	205.4	205.6	205.5	205.3	205.3	205.0	205.1	204.9	205.1	206.7	206.8	206.7	206.8	206.8	207.0	206.8	206.8
Wisconsin	205.3	205.3	205.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wyoming	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
U.S. Average[b]	205.8	205.8	205.7	205.5	205.6	205.6	205.4	205.2	205.3	205.3	206.2	206.2	206.2	206.2	206.3	206.4	206.5	206.6

[a] No allowances have been made for carbon retained in non-energy coal chemical byproducts from the coal carbonization process.

[b] Weighted average. The weights used are consumption values by State.

– =Not applicable.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Table F3. Average Carbon Dioxide Emission Factors for Coal Consumed by Other Industrial Users, 1980-1997

(Pounds of Carbon Dioxide per Million Btu)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	205.5	205.5	205.3	205.2	205.5	205.5	205.5	205.4	205.4	205.4	205.5	205.6	205.7	205.4	205.4	205.4	205.4	205.5
Alaska	–	–	–	–	–	–	–	–	–	–	–	–	–	–	227.4	–	–	–
Arizona	209.2	210.4	210.3	210.3	210.0	210.1	209.9	210.1	209.4	209.6	207.5	207.0	206.7	206.9	207.2	206.7	207.0	206.4
Arkansas	201.4	201.4	201.4	201.4	201.5	201.6	203.7	203.2	202.4	203.9	205.3	205.1	205.2	206.0	206.3	205.9	206.0	205.8
California	205.6	205.9	206.1	206.4	205.6	204.7	205.0	204.4	204.6	204.7	204.6	204.6	204.2	204.1	204.1	204.1	204.1	204.3
Colorado	212.6	212.7	212.4	212.7	212.7	212.7	212.7	212.1	212.8	212.6	212.0	212.6	212.5	212.7	213.1	213.0	213.1	213.2
Connecticut	225.4	223.2	213.9	207.6	215.9	209.2	208.2	212.8	207.5	224.8	227.4	205.9	204.7	207.1	207.1	227.4	207.1	–
Delaware	205.9	205.6	205.6	205.8	205.8	205.9	205.9	205.9	205.8	205.9	206.1	206.0	207.4	208.0	207.7	207.6	208.0	208.0
Dist. of Columbia	205.0	204.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	227.4	–
Florida	204.2	204.8	204.8	204.9	204.8	205.0	205.0	205.0	205.2	205.2	205.4	205.2	205.1	205.2	205.1	205.4	205.3	205.2
Georgia	204.9	204.9	204.9	204.8	204.9	204.9	204.9	204.9	204.8	204.8	205.1	205.0	204.9	204.9	205.0	205.0	205.0	205.1
Hawaii	–	–	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.3
Idaho	212.6	212.4	212.5	212.3	212.1	211.9	211.4	212.0	211.8	212.4	212.1	212.1	212.2	211.1	212.1	209.7	211.1	212.7
Illinois	204.2	204.3	204.1	204.1	204.1	204.0	203.9	203.9	203.7	203.7	203.9	205.1	203.7	203.9	203.9	204.0	204.3	204.5
Indiana	203.7	203.9	203.8	203.7	203.8	203.7	203.7	203.7	203.7	203.8	204.2	204.4	204.5	204.2	204.1	204.3	204.1	204.4
Iowa	205.7	205.7	204.5	204.4	204.1	203.6	203.9	203.9	204.1	204.6	205.0	206.1	208.3	208.2	208.6	207.8	204.4	208.3
Kansas	201.9	201.3	201.7	201.4	201.3	201.8	201.3	201.6	201.4	201.8	203.4	205.2	205.3	203.3	203.2	203.6	205.3	205.4
Kentucky	205.4	204.9	204.9	205.0	204.9	204.7	204.9	205.1	205.4	205.2	205.5	205.6	205.4	205.3	205.1	205.1	205.0	205.5
Louisiana	203.9	203.4	204.2	204.4	204.1	204.4	204.3	205.2	209.9	207.5	208.0	211.3	210.9	211.5	211.3	212.3	207.7	206.9
Maine	206.0	205.7	205.1	205.4	205.1	207.9	206.0	206.5	207.0	205.2	207.0	204.9	204.9	204.9	204.8	205.0	205.0	204.8
Maryland	206.1	205.9	206.0	205.9	205.8	205.8	205.5	205.8	205.6	205.9	207.8	207.8	208.4	208.7	208.2	208.6	208.3	208.0
Massachusetts	206.3	207.6	206.9	206.3	206.6	206.4	206.8	207.0	207.1	207.4	208.0	206.7	207.0	206.7	206.6	206.8	206.7	206.9
Michigan	204.8	204.8	204.7	204.9	205.0	205.0	204.9	204.9	204.8	204.8	204.9	204.9	205.3	205.6	205.6	205.9	205.3	205.2
Minnesota	211.6	210.8	212.9	213.0	211.8	208.9	208.9	209.8	210.8	210.3	211.6	211.1	211.8	212.1	211.7	211.2	211.2	211.5
Mississippi	204.0	203.5	205.0	204.5	204.2	204.0	204.4	204.0	204.0	204.0	203.7	204.2	204.6	205.2	205.2	205.2	204.9	204.8
Missouri	203.6	203.3	203.3	203.2	203.5	203.5	203.6	203.8	203.7	203.3	204.1	204.1	204.5	204.6	204.2	204.4	203.9	203.7
Montana	211.2	210.3	209.7	209.7	210.5	212.6	213.4	213.1	211.8	211.6	211.7	211.6	211.4	212.1	212.8	213.4	213.4	212.9
Nebraska	212.3	212.7	212.8	212.7	213.1	213.1	213.2	213.2	213.1	212.9	213.3	213.3	213.1	213.2	212.9	213.2	210.9	211.1
Nevada	204.5	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1	206.7	204.1	204.1	204.1	204.1	204.1	208.2	208.3	204.8
New Hampshire	207.0	217.3	214.2	206.7	206.9	219.5	218.6	218.8	218.6	207.0	216.2	206.8	207.1	204.8	–	227.4	227.4	–
New Jersey	218.3	224.6	213.8	212.9	213.4	217.5	210.8	210.0	209.1	207.9	207.9	207.7	207.3	208.0	210.3	227.3	227.4	227.4
New Mexico	212.0	212.7	212.3	212.7	212.7	212.6	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7
New York	206.9	206.7	207.0	207.1	206.8	206.9	206.9	207.1	207.4	206.9	206.9	206.9	207.0	206.8	207.0	207.2	207.3	207.2
North Carolina	204.8	-	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	205.7	205.4	205.7	205.4	205.6	205.5	205.4	205.4
North Dakota	218.8	218.7	218.7	218.7	218.5	218.6	218.5	218.4	218.5	218.5	218.3	218.3	218.3	218.4	218.2	218.4	218.5	218.5
Ohio	204.0	203.9	204.0	203.9	204.1	204.3	204.3	204.2	204.4	204.3	204.6	204.7	204.5	204.8	204.9	204.5	204.7	204.5
Oklahoma	202.2	201.9	201.8	203.3	201.9	202.4	202.5	202.2	203.1	205.7	207.8	207.5	207.5	207.5	209.1	207.8	208.1	208.0
Oregon	212.7	211.3	211.9	212.0	210.0	211.8	211.9	211.7	212.7	212.2	212.7	212.7	211.5	212.8	210.4	213.0	212.5	212.5
Pennsylvania	207.9	206.9	207.0	207.0	206.8	207.3	207.4	207.1	208.8	208.8	207.8	208.4	208.5	206.4	206.9	207.1	207.0	207.3
Rhode Island	210.0	210.3	–	204.8	204.8	205.7	206.9	219.6	204.8	204.8	227.4	–	–	227.4	–	–	–	–
South Carolina	205.0	205.0	205.0	205.0	204.9	205.0	205.1	205.1	205.1	205.0	205.3	205.3	205.3	205.3	205.5	205.4	205.4	205.5
South Dakota	210.5	210.7	209.6	212.7	212.7	212.7	212.6	212.7	212.7	212.7	212.7	212.6	212.7	212.7	212.7	212.7	212.7	212.6
Tennessee	204.8	204.9	204.7	204.3	204.8	204.7	204.6	204.7	204.7	204.8	205.2	205.2	205.5	205.4	205.2	205.3	205.3	205.1
Texas	212.3	212.9	212.9	212.9	213.0	213.1	213.0	213.2	213.3	213.2	212.5	212.1	212.3	212.1	212.1	212.5	212.0	212.0
Utah	205.2	205.3	204.8	205.0	205.1	205.6	206.0	206.2	204.9	204.6	204.2	204.1	204.1	204.6	206.1	206.0	204.1	204.7
Vermont	207.8	207.0	220.3	223.8	226.7	216.3	227.4	226.6	223.8	218.5	226.3	206.2	212.2	205.7	–	–	–	–
Virginia	205.1	205.0	205.0	205.1	205.1	205.1	205.1	205.1	205.1	205.1	205.9	205.9	206.2	205.9	206.0	206.0	205.9	205.9
Washington	206.3	207.1	207.1	207.6	205.6	206.1	208.7	209.7	208.9	208.7	207.9	206.6	205.8	205.5	206.1	206.4	206.3	205.3
West Virginia	205.4	205.3	205.3	205.1	205.1	205.5	205.8	205.6	205.4	205.4	206.4	206.5	206.6	206.5	206.8	206.9	207.0	207.1
Wisconsin	205.5	204.9	204.9	205.0	204.6	205.0	205.4	205.6	206.3	206.0	206.1	205.9	206.1	206.5	206.0	205.9	206.2	209.7
Wyoming	212.0	212.2	212.5	212.7	212.7	212.7	212.7	212.6	212.4	212.1	212.2	212.3	212.5	212.6	212.6	212.5	212.7	212.7
U.S. Average [a]	205.9	205.9	206.0	205.9	206.2	206.4	206.5	206.4	206.4	206.6	206.8	206.9	207.1	207.0	207.2	207.2	207.0	207.2

[a] Weighted average. The weights used are consumption values by State.
– =Not applicable.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Table F4. Average Carbon Dioxide Emission Factors for Coal Consumed by Electric Utilities, 1980-1997

(Pounds of Carbon Dioxide per Million Btu)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	205.0	204.8	204.9	205.0	205.0	204.9	205.0	204.9	204.9	204.9	205.1	205.3	205.3	205.3	205.3	205.8	205.8	206.2
Alaska	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	–	214.0	214.0	–
Arizona	208.0	208.1	208.0	207.9	207.9	207.8	207.9	208.0	207.8	207.9	207.7	207.7	207.7	207.5	207.5	207.6	207.6	207.5
Arkansas	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	211.0	212.7	212.7	212.7	212.7	212.7	212.7	212.7
California	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colorado	211.5	209.5	209.7	211.0	212.1	212.0	211.9	211.9	210.3	210.3	209.9	209.8	209.8	209.9	209.7	209.8	210.1	209.9
Connecticut	–	–	–	–	204.8	204.8	204.8	204.8	204.8	204.9	204.8	204.8	204.9	205.0	205.0	204.8	204.8	205.2
Delaware	206.0	206.1	206.2	206.4	206.5	206.5	206.1	206.8	206.6	206.7	206.7	206.8	206.9	206.9	207.1	207.3	207.3	206.9
Dist. of Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Florida	204.0	204.1	204.0	204.5	204.4	204.3	204.3	204.4	204.6	204.5	204.5	204.4	204.4	204.5	204.6	204.5	204.6	204.8
Georgia	204.3	204.4	204.4	204.4	204.7	204.7	204.7	204.7	204.8	204.8	205.2	205.2	204.8	205.3	206.2	206.6	206.6	206.4
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Illinois	207.1	207.1	206.5	206.6	205.9	206.6	206.6	206.1	206.3	205.8	205.6	205.9	206.2	206.9	207.3	207.8	207.9	208.0
Indiana	204.0	204.2	204.2	204.2	204.3	204.6	204.7	204.5	204.6	205.0	205.4	205.6	205.6	205.8	206.0	206.5	206.5	206.3
Iowa	207.2	208.2	210.3	210.3	210.8	210.2	210.1	210.4	209.9	210.5	210.7	210.8	211.1	211.9	211.5	211.9	211.9	211.9
Kansas	209.2	209.7	210.8	210.9	210.6	210.5	210.7	210.6	210.7	210.8	210.7	210.6	210.9	211.9	211.4	211.5	211.1	211.4
Kentucky	204.0	204.0	204.0	204.0	204.0	203.9	204.1	204.0	204.1	204.0	204.1	204.3	204.1	204.3	204.3	204.3	204.5	204.6
Louisiana	212.7	212.7	212.7	212.6	212.7	212.7	212.9	212.7	212.7	212.7	212.7	212.8	212.9	212.9	212.9	212.9	212.9	212.9
Maine	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Maryland	206.6	206.7	206.9	207.2	206.9	206.9	207.0	207.1	207.0	207.0	207.2	207.2	207.0	206.8	207.0	207.0	207.0	207.0
Massachusetts	206.4	206.5	206.4	206.5	206.3	206.4	206.5	206.5	206.7	206.4	206.5	206.7	206.8	206.8	206.7	206.6	206.6	206.4
Michigan	206.0	206.6	206.4	207.1	207.1	207.0	207.3	207.8	207.9	208.5	208.7	208.9	208.9	209.1	209.0	209.4	209.8	209.6
Minnesota	212.9	213.0	212.9	213.0	213.3	213.0	212.9	212.9	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0
Mississippi	204.7	204.8	204.7	204.9	205.0	205.2	204.9	204.9	204.6	204.2	204.2	204.5	204.5	204.8	206.9	206.9	207.3	208.9
Missouri	204.5	204.6	204.4	204.2	204.3	204.4	204.4	204.7	205.4	205.5	205.7	206.2	206.2	208.4	208.7	210.6	211.1	211.5
Montana	213.9	213.8	213.8	214.0	213.7	213.6	213.6	213.6	213.5	213.6	213.5	213.5	213.5	213.6	213.5	213.6	213.5	213.5
Nebraska	211.7	212.2	212.4	212.6	212.2	212.4	212.4	212.6	212.6	212.6	212.7	212.7	212.7	212.7	212.6	212.7	212.7	212.7
Nevada	208.2	207.9	208.1	207.8	207.8	206.3	207.6	207.8	208.2	207.9	207.7	208.0	208.4	208.4	208.4	208.1	207.7	207.6
New Hampshire	206.9	207.1	207.1	207.1	207.1	206.8	206.8	207.0	206.9	206.7	206.7	206.2	206.3	206.3	206.1	206.1	206.2	206.2
New Jersey	206.6	206.6	206.7	206.8	206.9	206.9	206.9	206.9	206.8	206.7	206.7	206.7	206.6	206.7	206.5	206.4	206.7	206.6
New Mexico	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.9	205.7	205.7	205.7	205.7	205.7	205.7	205.7
New York	205.7	205.8	205.8	205.8	206.0	206.1	206.1	206.2	206.0	206.1	206.3	206.2	206.1	206.0	206.0	206.3	206.2	206.4
North Carolina	205.6	205.6	205.8	206.0	205.8	205.8	205.8	205.8	205.8	205.7	205.8	205.8	205.8	205.8	205.8	205.8	205.7	205.7
North Dakota	218.8	213.8	218.8	218.8	218.8	218.8	218.8	218.8	218.8	218.8	214.9	218.8	218.8	218.8	218.8	218.8	218.7	218.7
Ohio	204.4	204.3	204.5	204.3	204.3	204.3	204.4	204.4	204.5	204.5	204.5	204.4	204.4	204.5	204.6	205.0	205.0	205.0
Oklahoma	210.5	212.5	212.7	212.7	212.7	212.7	212.5	212.1	212.2	212.2	212.1	212.4	212.6	212.7	212.6	212.6	212.7	212.7
Oregon	212.7	212.7	212.7	212.7	212.7	212.7	–	212.7	212.7	212.7	212.7	212.7	212.9	212.4	212.2	212.7	212.7	212.7
Pennsylvania	206.1	206.0	206.1	206.0	205.9	205.9	205.8	206.0	206.1	206.1	206.2	206.2	206.2	206.0	206.0	206.2	206.2	206.2
Rhode Island	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Carolina	204.9	204.9	205.0	205.0	204.9	204.9	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0
South Dakota	218.1	218.1	218.0	218.8	218.4	218.8	218.8	218.8	218.3	218.8	218.7	218.8	218.8	218.8	218.8	216.9	213.4	213.4
Tennessee	204.0	204.0	204.0	204.0	204.2	204.2	204.0	204.1	204.1	204.2	204.1	204.0	204.0	204.3	204.1	204.0	204.2	204.7
Texas	213.0	212.9	212.8	212.9	212.9	212.9	212.9	212.9	213.1	212.9	212.9	212.9	212.9	212.9	213.1	212.8	212.9	213.0
Utah	204.1	204.1	204.1	204.1	204.1	204.1	204.5	204.3	204.2	204.3	204.3	204.3	204.3	204.3	204.3	204.2	204.3	204.4
Vermont	205.7	205.7	205.7	205.7	205.7	205.7	205.7	–	–	–	–	–	–	–	–	–	–	–
Virginia	205.9	205.7	205.8	206.0	205.7	205.8	206.0	206.0	206.1	205.9	206.0	206.0	206.0	205.9	205.9	205.9	206.0	206.1
Washington	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.8	209.0	209.2	209.0	208.7	209.3	209.4	209.2	209.2	208.8	209.1
West Virginia	206.9	206.9	207.0	207.0	207.0	207.0	207.1	207.1	207.2	207.0	206.9	207.1	207.0	207.1	207.1	207.1	207.0	207.0
Wisconsin	207.0	208.0	207.7	207.8	207.8	208.6	209.3	209.2	209.3	209.5	209.8	209.7	209.9	210.7	210.4	210.8	211.2	210.9
Wyoming	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.6	212.0	212.0	212.0	212.0	211.9	211.9	211.9	211.9
U.S. Average [a]	206.7	206.9	207.0	207.1	207.1	207.3	207.3	207.3	207.6	207.5	207.6	207.7	207.7	207.8	207.9	208.1	208.1	208.2

[a] Weighted average. The weights used are consumption values by State.
– =Not applicable.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Table F5. Average Carbon Dioxide Emission Factors for Total Coal Consumed, 1980-1997

(Pounds of Carbon Dioxide per Million Btu)

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	205.1	205.0	205.0	205.0	205.1	205.0	205.1	205.0	205.0	205.0	205.3	205.4	205.4	205.4	205.4	205.9	205.8	206.2
Alaska	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.1	214.0	214.0	214.0
Arizona	208.1	208.2	208.2	208.2	208.1	208.1	208.2	208.1	207.9	207.9	207.7	207.7	207.6	207.4	207.5	207.6	207.5	207.4
Arkansas	210.7	211.9	212.0	212.1	212.1	212.3	212.4	212.4	209.5	212.4	212.5	212.5	212.5	212.5	212.5	212.5	212.5	212.5
California	207.5	206.8	206.8	206.4	205.6	204.7	205.0	204.4	204.6	204.7	204.6	204.6	204.1	204.1	204.1	204.1	204.1	204.3
Colorado	211.7	209.9	210.0	211.1	212.1	212.0	212.0	211.9	210.4	210.4	210.0	210.0	209.9	210.0	209.9	210.0	210.1	210.1
Connecticut	226.1	225.6	225.6	221.8	221.4	205.7	205.8	205.5	205.2	205.2	205.1	205.1	205.2	205.5	205.3	205.0	204.9	205.3
Delaware	206.0	206.1	206.2	206.4	206.5	206.4	206.5	206.7	206.6	206.7	206.6	206.7	207.0	206.9	207.1	207.3	207.3	207.0
Dist. of Columbia	205.4	204.9	205.0	205.1	205.3	204.9	205.2	205.1	205.3	205.4	206.4	205.5	206.3	206.4	206.5	207.8	207.2	207.2
Florida	204.0	204.1	204.0	204.5	204.4	204.3	204.3	204.4	204.6	204.5	204.5	204.5	204.5	204.5	204.6	204.6	204.6	204.8
Georgia	204.3	204.4	204.4	204.5	204.7	204.7	204.7	204.8	204.8	204.8	205.2	205.2	204.8	205.3	206.1	206.1	206.5	206.3
Hawaii	–	–	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.4	204.3
Idaho	210.7	211.2	211.5	210.9	210.6	211.1	210.7	211.6	210.6	211.2	211.1	211.1	211.3	210.5	211.4	209.3	210.7	211.8
Illinois	206.7	206.8	206.2	206.3	205.7	206.2	206.2	205.7	205.8	205.4	205.4	205.8	205.9	206.5	206.9	207.3	207.4	207.6
Indiana	204.3	204.4	204.3	204.3	204.4	204.6	204.7	204.5	204.6	204.8	205.4	205.5	205.5	205.7	205.9	206.3	206.3	206.2
Iowa	207.0	207.8	209.4	209.4	209.8	209.2	209.1	209.3	209.0	209.4	209.7	209.9	210.7	211.3	211.0	211.2	211.1	211.1
Kansas	209.0	209.3	210.4	210.6	210.4	210.2	210.5	210.4	210.5	210.6	210.6	210.5	210.8	211.8	211.3	211.4	211.0	211.3
Kentucky	204.1	204.1	204.1	204.1	204.1	204.0	204.2	204.1	204.2	204.2	204.3	204.4	204.2	204.4	204.4	204.5	204.6	204.7
Louisiana	212.1	210.3	211.7	212.1	212.1	212.2	212.6	212.3	212.6	212.4	212.4	212.7	212.8	212.8	212.8	212.9	212.8	212.9
Maine	207.9	211.0	207.1	207.1	207.4	208.8	206.7	207.6	207.6	206.0	207.8	205.6	205.3	205.3	205.1	205.2	205.3	205.2
Maryland	206.3	206.5	206.5	206.7	206.5	206.5	206.6	206.7	206.7	206.7	207.1	207.1	207.1	207.0	207.1	207.2	207.1	207.0
Massachusetts	207.6	208.2	206.8	206.9	206.7	206.8	206.8	206.8	206.8	206.6	206.6	206.8	206.9	206.9	206.8	206.6	206.7	206.5
Michigan	205.7	206.2	206.1	206.6	206.6	206.6	206.8	207.4	207.4	208.0	208.2	208.5	208.5	208.7	208.5	208.8	209.2	209.1
Minnesota	212.7	212.8	212.8	212.9	213.1	212.6	212.5	212.7	212.9	212.8	212.9	212.9	212.9	212.9	212.8	212.9	212.9	212.9
Mississippi	204.7	204.8	204.7	204.9	204.9	205.1	204.8	204.8	204.5	204.2	204.2	204.4	204.5	204.8	206.7	206.7	207.2	208.8
Missouri	204.5	204.5	204.4	204.1	204.2	204.4	204.4	204.7	205.3	205.4	205.6	206.0	206.1	208.1	208.5	210.3	210.7	211.1
Montana	213.7	213.5	213.4	213.7	213.5	213.5	213.6	213.6	213.5	213.5	213.5	213.5	213.5	213.5	213.5	213.5	213.5	213.5
Nebraska	211.7	212.2	212.5	212.6	212.2	212.4	212.4	212.6	212.6	212.6	212.6	212.7	212.7	212.7	212.6	212.7	212.7	212.6
Nevada	208.1	207.7	208.0	207.7	207.7	206.2	207.6	207.7	208.1	207.9	207.6	207.9	208.3	208.3	208.3	208.1	207.7	207.6
New Hampshire	207.0	207.3	207.6	207.3	207.3	207.2	207.1	207.2	207.1	206.9	207.1	206.5	206.5	206.3	206.2	206.2	206.2	206.3
New Jersey	207.1	207.3	207.6	207.7	207.6	208.2	207.6	207.3	207.1	206.9	206.9	206.9	206.8	206.8	206.7	206.5	206.8	206.7
New Mexico	205.7	205.8	205.8	205.8	205.8	205.8	205.8	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.8	205.8	205.8	205.8
New York	206.3	206.3	206.5	206.4	206.5	206.6	206.5	206.5	206.4	206.4	206.5	206.5	206.5	206.5	206.4	206.6	206.6	206.6
North Carolina	205.6	205.6	205.7	205.9	205.7	205.7	205.7	205.6	205.6	205.6	205.8	205.8	205.8	205.7	205.8	205.7	205.7	205.7
North Dakota	218.8	214.1	218.8	218.8	218.7	218.7	218.7	218.7	218.7	218.7	218.6	218.6	218.6	218.7	218.6	218.7	218.7	218.7
Ohio	204.5	204.4	204.5	204.4	204.3	204.4	204.5	204.4	204.6	204.5	204.7	204.6	204.6	204.6	204.8	205.0	205.0	205.0
Oklahoma	210.0	211.5	211.9	212.2	212.0	211.9	211.8	211.5	211.8	211.9	211.9	212.1	212.3	212.3	212.5	212.2	212.4	212.5
Oregon	212.5	212.4	212.5	208.3	211.9	212.4	211.9	212.3	212.6	212.4	212.7	212.7	212.8	212.4	212.1	212.8	212.7	212.7
Pennsylvania	206.4	206.4	206.5	206.3	206.3	206.2	206.2	206.3	206.5	206.5	206.6	206.7	206.7	206.4	206.4	206.6	206.5	206.7
Rhode Island	217.2	222.8	227.4	223.0	223.7	217.9	210.1	226.6	205.3	207.5	227.3	227.4	227.4	227.3	227.4	227.4	227.4	227.2
South Carolina	204.9	204.9	205.0	205.0	204.9	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.0	205.1	205.1	205.1	205.0	205.0
South Dakota	217.6	217.3	216.6	218.0	218.0	217.8	217.7	217.1	217.7	217.9	218.0	217.9	217.9	217.7	217.5	216.1	213.3	213.3
Tennessee	204.1	204.1	204.1	204.1	204.3	204.3	204.1	204.2	204.2	204.3	204.3	204.2	204.2	204.5	204.3	204.2	204.3	204.7
Texas	212.8	212.9	212.8	212.9	212.9	212.9	212.9	212.9	213.1	212.9	212.9	212.9	212.9	212.9	213.0	212.8	212.9	212.9
Utah	205.7	205.7	205.2	205.3	205.6	205.6	204.9	204.3	204.8	204.8	204.6	204.4	204.4	204.4	204.5	204.5	204.6	204.8
Vermont	216.0	218.3	213.1	208.4	212.7	209.2	216.6	227.1	226.3	222.7	227.1	215.2	216.8	226.9	227.2	227.4	227.1	227.2
Virginia	205.7	205.5	205.5	205.8	205.5	205.6	205.7	205.8	205.8	205.7	206.0	206.0	206.1	205.9	205.9	206.0	206.0	206.1
Washington	208.3	208.4	208.3	208.4	208.3	208.3	208.7	208.8	208.9	209.1	208.9	208.6	209.1	209.3	209.1	209.0	208.7	208.9
West Virginia	206.6	206.6	206.8	206.8	206.8	206.8	206.9	206.9	206.9	206.7	206.9	207.0	207.0	207.0	207.1	207.0	207.0	207.0
Wisconsin	206.8	207.5	207.2	207.4	207.4	208.1	208.8	208.8	208.9	209.1	209.4	209.3	209.5	210.3	209.9	210.3	210.8	210.8
Wyoming	212.6	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.7	212.6	212.0	212.1	212.1	212.1	212.0	212.0	212.0	212.0
U.S. Average [a]	206.5	206.7	206.9	207.0	207.0	207.1	207.1	207.2	207.3	207.3	207.4	207.5	207.6	207.7	207.8	207.9	208.0	208.0

[a] Weighted average. The weights used are consumption values by sector and State.
– =Not applicable.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Appendix G

Summary of Changes Since the *State Energy Data Report 1996*

Modifications to the Combined State Energy Data System (CSEDS) that are incorporated in this edition of the *State Energy Data Report* (*SEDR*) are summarized in this appendix. The constraint of page size in *SEDR* does not allow for all 38 years of CSEDS data to be included in the published tables. Data for selected years from 1961 through 1984 are not shown in the report tables but are included in the data files and ASCII-formatted tables available via the Internet and are covered by this section of documentation.

Renewable Energy Sources

Biomass

Residential Sector, 1960 through 1996. Estimates of residential wood consumption for 1960 through 1989 have been added in this CSEDS update. The additional data, ranging from a total of 354 trillion Btu to 937 trillion Btu each year, increase U.S. total residential energy consumption by 8 percent in 1960, 7 percent in 1961, 5 percent or 6 percent in 1962 through 1965 and 1979 through 1989, and by 3 percent or 4 percent in the other years, with the exception of a 2-percent increase in 1973. This additional wood consumption causes all States' residential energy consumption to increase by at least 1 percent, with the exception of Hawaii, which is estimated to have no wood consumption, and the District of Columbia, which has very little. The largest impacts of the additional data occur in the southern States in the 1960's. Residential energy consumption estimates in Mississippi, Arkansas, and South Carolina increase by 17 percent to 46 percent in 1960 through 1965 and from 7 percent to 18 percent in 1966 through 1969. The largest residential consumption increases range between 6 percent and 15 percent in the 1970's with some New England States among those with the largest increases. In the 1980's, the additional wood data cause residential consumption to increase by as much as 11 percent. California, Maine, Mississippi, and New York, among other States throughout the country, are most affected by the additional data.

Although the U.S. total estimates of residential wood consumption for 1990 through 1996 are not revised, State values are redistributed due to revisions in the U.S. Department of Commerce, Bureau of the Census Housing Units data used to allocate the U.S. total to the States. All States' revisions are by 1 percent or less with the exception of a 3-percent decrease in wood consumption in Alaska in 1993 through 1996.

Commercial Sector, 1960 through 1984 and 1993 through 1996. Estimates of commercial wood consumption for 1960 through 1984 have been added in this CSEDS update. The additional data increases U.S. total commercial energy consumption by less than 0.3 percent each year. The additional data causes most States' commercial energy consumption to increase by less than 0.5 percent; the largest State increase is by 1.6 percent in Mississippi in 1960.

Although the U.S. total estimates of commercial wood consumption for 1993 through 1996 are not revised, the State values are allocated by a different estimation methodology. The U.S. totals are no longer allocated to the States in proportion to the commercial sector distillate fuel consumption. Commercial sector wood is now allocated in proportion to the State-level residential wood consumption. This revision causes all States' commercial wood consumption to be revised by at least 4 billion Btu, with

the exception of Delaware in 1995 where the revision is too small to be seen in the level of rounding in *SEDR* tables. Commercial wood consumption estimates in Arizona, California, Iowa, Mississippi, Oklahoma, Tennessee, and Washington more than double or triple each year from 1993 through 1996, while many States' estimates are revised by at least 50 percent.

Industrial Sector, 1960 through 1996. Estimates of industrial wood and waste consumption for 1960 through 1989 have been added in this CSEDS update. The additional data increase U.S. total industrial energy consumption by 3 percent or 4 percent in the 1960's, 4 percent in the 1970's, and 5 percent to 7 percent in the 1980's. The additional wood and waste data cause total industrial energy consumption increases in most States, the largest being 17 percent to 46 percent increases in Vermont, Maine, New Hampshire, and Oregon in 1960 through 1979. The 1980's additional wood and waste data cause Maine's industrial consumption to more than double (with the exception of a 88-percent increase in 1982). While a few other States' industrial consumption increase as much as 70 percent, most States' increases are by less than 10 percent. Industrial consumption estimates are not revised in Delaware, the District of Columbia, Nevada, and North Dakota, which are estimated to have no wood consumption in their industrial sectors.

Estimates of industrial sector wood and waste consumption for 1990 through 1996 are revised due to revisions in the nonutility consumption data and a refinement to the estimation methodology for manufacturing use of wood and waste. The allocating data series that distributes the U.S. total manufacturing wood and waste to the States now contains a measure for use of waste in the food products industries, such as sugar cane processing and corn milling. The inclusion of these measures causes estimates of industrial wood and waste consumption for all States to be revised for 1990 through 1996, most significantly in three States (Iowa, Indiana, and Kansas) where it more than doubles.

Transportation Sector, 1989. Estimates of ethanol use in the transportation sector for 1989 have been added to this CSEDS update. This series is for information only and its addition does not change total transportation energy consumption. Quantities of ethanol consumed are included in the motor gasoline data.

Electric Utilities, 1990 through 1992 and 1994 through 1996. Electricity produced from wood and waste sources is converted from kilowatthours to British thermal units (Btu) by use of a conversion factor, the U.S. average heat content of fossil fuels burned at steam-electric power plants, FFEOKUS. Although electricity generation from wood and waste by electric utilities is not revised, the equivalent values in Btu are revised due to changes in the conversion factor. The Btu values in all States for 1990 through 1992 and 1994 through 1996 are revised by the percentages shown in Table G1.

Geothermal Energy

Residential, Commercial, and Industrial Sectors, 1989 through 1996. Estimates of geothermal energy use, both direct use and by use of heat pumps, in the residential, commercial, and industrial sectors for 1989 forward have been added to this CSEDS update. The additional geothermal energy increases U.S. total residential energy consumption by 5 trillion Btu in 1989 to 7 trillion Btu in 1996, which represent less than 0.05 percent of total residential consumption. The additional geothermal data increase U.S. commercial energy consumption by 3 trillion Btu in 1989 to as much as 5 trillion Btu in 1996, which are equivalent to less than 0.05 percent of total commercial energy consumption each year. The additional geothermal data increase U.S. industrial sector total energy consumption by 2 trillion Btu to 3 trillion Btu in 1989 through 1996, which represents 0.01 percent of the industrial consumption. Nevada and Wyoming are the two States noticeably affected by the additional geothermal data; their commercial sector energy consumption increase by 1 percent or 2 percent for most years in 1989 through 1996.

Table G1. Revisions to Fossil-Fueled Steam-Electric Plants Thermal Conversion Factors

Year	Previous (Btu per Kilowatthour)	Current (Btu per Kilowatthour)	Percent Change
1990	10,399	10,402	0.03
1991	10,425	10,436	0.11
1992	10,340	10,342	0.02
1994	10,309	10,316	0.07
1995	10,304	10,312	0.08
1996	10,338	10.335	-0.03

Electric Utilities, 1989. Estimates of electricity generated from geothermal energy and imported from Mexico into California in 1989 are identified separately in this CSEDS update. The data had previously been included in total electricity imports and assumed to be hydroelectricity.

Hydroelectric Power

Industrial Sector, 1989 through 1996. Estimates of hydroelectricity used by nonutility power producers in 1989 have been used in this CSEDS update to replace previous estimates causing the U.S. total industrial hydroelectricity use to more than double. The new data series also causes revisions of 14 percent or more in all 31 States that have estimated industrial hydroelectricity use. For 1990 through 1996 there are small adjustments to the estimates of hydropower used by nonutility power producers. All of the revisions are by 2 percent or less and most are too small to be seen in *SEDR* tables due to the level of rounding.

Electric Utilities, 1989 through 1992 and 1994 through 1996. Imports of electricity generated from hydropower in 1989 are revised in this CSEDS update. In previous versions, it was assumed that all electricity imports for 1960 through 1989 were generated from hydropower. In this version of CSEDS 1989 electricity imports are estimated using the same methodology as the imports for 1990 forward. This methodology breaks out geothermal-based imports from Mexico into California, and nonrenewable-based electricity imports for other States. The change in methodology causes 1989 hydroelectricity imports in California to decrease by 53 percent, Texas hydroelectricity imports to decrease to zero, and hydroelectricity imports into the 16 other affected States to decrease by 21 percent.

Although there are no revisions to 1990 through 1992 and 1994 through 1996 electricity generation by electric utilities from hydropower in kilowatthours or to imports and exports of hydroelectricity in kilowatthours in this edition of CSEDS, the heat rate conversion factor used to convert the kilowatthours to Btu is revised. This factor, FFEOKUS, is the annual average heat rate for fossil-fueled steam-electric power plants. The Btu values for hydroelectric power in all States and the U.S. total for 1990 through 1992 and 1994 through 1996 are revised by the percentages shown in Table G1.

Solar

Residential/Commercial Sector, 1989. Estimates of residential sector (including the commercial sector) use of solar energy for 1989 are added to this CSEDS update increasing 1989 residential energy consumption by 47 trillion Btu (0.3 percent). The largest impact on total residential sector energy consumption occurs in Florida and Hawaii where consumption increases by 3 percent due to the additional solar data.

Industrial Sector, 1989 through 1996. Electricity generation from solar energy by nonutility power producers in California in 1989 is included in this CSEDS update. The 5 trillion Btu represents 0.3 percent of California's total industrial energy use. California's nonutility solar energy estimates for 1990 through 1996 were revised by the EIA originating office and all changes are by less than 1 percent.

Electric Utilities, 1990 through 1992 and 1994 through 1996. Although there are no revisions to electricity generation by electric utilities from solar energy in kilowatthours in this CSEDS update, the heat rate conversion factor used to convert the kilowatthours to Btu is revised. This factor, FFEOKUS, is the annual average heat rate for fossil-fueled steam-electric power plants. Solar energy is used by electric utilities in California and Texas in all years and in Virginia through 1995. The Btu values for solar-based electricity generation in those States and the U.S. total are revised by the percentages shown in Table G1.

Wind

Industrial Sector, 1989 through 1996. Electricity generation from wind energy by nonutility power producers in California and Hawaii in 1989 has been added to this CSEDS update increasing total U.S. industrial energy use by 19 trillion Btu (less than 0.1 percent). California's industrial energy consumption increased by 1 percent while Hawaii's industrial sector increased by 0.3 percent due to the additional wind data. Estimates for industrial wind energy in 1990 through 1996 were revised by the EIA originating office and all State revisions are by less than 1 percent.

Electric Utilities, 1990 through 1992 and 1994 through 1996. Although there are no revisions to electricity generated from wind energy by electric utilities in kilowatthours, the heat rate conversion factor used to convert the kilowatthours to Btu is revised. This factor, FFEOKUS, is the annual

average heat rate for fossil-fueled steam-electric power plants. The Btu values for wind-generated electricity in California, Iowa, Kansas, Minnesota, Montana, and Wisconsin, as well as the U.S. total, are revised by the percentages shown in Table G1.

Electricity Sales

Transportation and Commercial Sectors 1960 through 1996. The methodology for estimating transportation use of electricity by State is revised in this CSEDS update. Previously, a State data series of electricity used by transit systems from the U.S. Department of Transportation was adjusted by a national level series from an EIA publication on financial statistics of major electric utilities. In this update, the Department of Transportation data are used directly without adjustment for 1960 forward. This causes all States' transportation electricity use to be revised by the same percentage, which varies from year to year. The State estimates decrease by as much as 11 percent (in 1961) and increase by as much as 29 percent (in 1995). Commercial use of electricity is revised by the compensating changes, while each State's total electricity consumption remains the same. The commercial sector revisions are by 1 percent or less in all States and years with the exception of New York where commercial sector electricity use increases by 2 percent in 1961 and 1962.

Electrical System Energy Losses, 1989 through 1996

Electrical system energy losses are estimated at the national level and allocated to the States in proportion to electricity sales. Electricity sales are revised in the transportation and commercial sectors for all States in 1960 through 1996. These revisions cause the electrical system energy losses to be revised by the same percentages as the electricity sales (see previous paragraph). The revisions to the fossil-fueled steam-electric power plants factor also affect estimates of electrical system energy losses as can be seen in the small revisions in the residential and industrial sector losses for all States in 1990 through 1992 and 1994 through 1996. These revisions are by 0.03 percent or less for all States and are too small to be seen in the level of rounding in the *SEDR* tables although they may be seen in the data files available from the Internet.

New Interstate Flow of Electricity, 1990 through 1992 and 1994 through 1996

The revisions to the fossil-fueled steam-electric power plants factor (See Table G1) also affect estimates of net interstate flow of electricity between States. States with greater electric utility use of hydropower, wood, waste, wind and solar energy have larger revisions in their estimated electricity interstate flow. Most States' revisions are by less than 1 percent. The exceptions are Delaware in 1991, Iowa in 1994 and 1995, Maine in 1991 and 1996, Michigan in 1996, Oregon in 1991 and 1995, South Dakota in 1990, 1991, and 1992, Texas in 1994 and 1995, and Washington in 1990, 1991, and 1995.

Population, 1991 through 1996

The U.S. Department of Commerce, Bureau of the Census, revised the resident population series for 1991 through 1996. The revisions are by less than 1 percent in all States and years. These population estimates, which are used in the calculation of the data shown in the "Total Energy per Capita" ranking column of Table 9, are shown in Appendix D, and are included in the Internet data files.

Appendix H

State Data in EIA Reports

Many Energy Information Administration (EIA) reports contain tables with State-level data on various subjects. The following is a list of some of those publications.

Multiple Energy Sources

State Energy Data Report, Consumption Estimates, DOE/EIA-0214. Energy consumption estimates by energy sources within consuming sectors from 1960 through 1997; State rankings of consumption by major energy sources and total consumption per capita; thermal conversion factors for bituminous and lignite coal and natural gas; carbon emission factors for coal; resident population.

State Energy Price and Expenditure Report, DOE/EIA-0376. Energy prices and expenditures by energy sources within consuming sectors from 1970 through 1995 based on the consumption values estimated in the *State Energy Data Report;* State rankings of prices and expenditures by major energy sources and total expenditures per capita.

Petroleum

Petroleum Supply Monthly, DOE/EIA-0109. Production of crude oil; refinery, bulk terminal, and natural gas plant stocks of selected petroleum products; and imports of residual fuel by State of entry and sulfur content.

Petroleum Supply Annual, Volume 1, DOE/EIA-0340/1. Annual data on production of crude oil; imports of residual fuel by State of entry and sulfur content; refinery, bulk terminal, and natural gas plant stocks of selected petroleum products. Biannual tables on number, capacity and production capacity of operable refineries.

Petroleum Supply Annual, Volume 2, DOE/EIA-0340/2. Data series as in Volume 1 shown by month for production of crude oil; refinery, bulk terminal, and natural gas plant stocks of selected petroleum products; and imports of residual fuel oil by State of entry and sulfur content.

Petroleum Marketing Monthly, DOE/EIA-0380. Prices of No. 2 distillate to residences; domestic crude oil first purchase price; refiner/reseller sales prices for conventional, oxygenated, reformulated, and unleaded regular, midgrade, premium, and all grades motor gasoline by type of seller; refiner sales prices and volumes to end users and for resale of motor gasoline, aviation gasoline, kerosene-type jet fuel, kerosene, No. 1 distillate, No. 2 distillate, No. 4 fuel oil, and residual fuel; prices of No. 2 distillate for selected States by seller type and end user; prices of No. 2 fuel oil for selected States by end user; residual fuel oil prices for selected States by sulfur content; and prime supplier sales volumes of motor gasoline by grades, aviation gasoline, kerosene-type and naphtha-type jet fuels, propane, residual fuel oil (by sulfur content), kerosene, No. 1 and No. 2 distillates, and No. 4 fuel oil. The explanatory notes contain Federal and State motor fuel taxes.

Petroleum Marketing Annual, DOE/EIA-0487. (Available electronically only via Internet at http://www.eia.doe.gov/oil_gas/petroleum/pet_frame.html) Refiner/reseller sales prices for conventional, oxygenated, reformulated, and unleaded regular, midgrade, premium, and all grades of

motor gasoline by seller type; refiner motor gasoline volumes by grade and formulation; refiner sales prices and volumes to end users and for resale of motor gasoline, aviation gasoline, kerosene-type jet fuels, kerosene, No. 1 distillate, No. 2 distillate, No. 4 fuel oil, and propane (consumer grade); sales prices of No. 2 distillate for selected States by seller type and end user; sales prices of No. 2 diesel for selected States by end user; residual fuel oil prices for selected States by sulfur content; prime supplier sales volumes of motor gasoline by seller type, grade, and formulation, aviation gasoline, kerosene-type and naphtha-type jet fuels, propane, residual fuel oil (by sulfur content), kerosene, distillate fuel oils, and No. 4 fuel oil; prices of No. 2 distillate to residences by PAD district and selected States; domestic crude oil first purchase prices; domestic crude oil first purchase prices for selected crude streams; No. 2 diesel fuel prices by sulphur content, sales type, and PAD district; Explanatory notes contain Federal and State motor fuel taxes.

Fuel Oil and Kerosene Sales, DOE/EIA-0535 (Annual). Sales and adjusted sales of distillate fuel oil, residual fuel oil, and kerosene by the following sectors: residential, commercial, industrial, farm, electric utilities, oil companies, military, off-highway, onhighway, railroad, vessel bunkering, and "all other."

Natural Gas

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, DOE/EIA-0216 (Annual). Crude oil proved reserves and indicated additional reserves, reserves changes, and production; total, nonassociated, and associated-dissolved natural gas proved reserves, reserves changes, and production (wet after lease separation); coalbed methane proved reserves and production; reported reserves of natural gas, wet after lease separation, in nonproducing reservoirs; dry natural gas and natural gas liquids proved reserves, reserves changes, and production; and natural gas plant liquids and lease condensate proved reserves and production. Appendix D contains historic reserves statistics, 1977 forward.

Natural Gas Monthly, DOE/EIA-0130. Marketed production of natural gas; gross withdrawals and marketed production; net withdrawals from underground storage; activities of underground storage operators; deliveries and average prices to residential, commercial, industrial, electric utility consumers; deliveries to all consumers; average city gate prices; and percentage of total deliveries represented by onsystem sales.

Natural Gas Annual, DOE/EIA-0131. Natural gas production, transmission, and consumption balance table; gross withdrawals and marketed production; offshore withdrawals; number of producing wells and gas condensate wells; estimated total dry natural gas proved reserves; wellhead value and marketed production; natural gas processed, liquids extracted, and estimated extraction loss; interstate movements and movements across U.S. borders; additions to and withdrawals from gas storage; underground storage capacity; supplemental gas supplies; consumption of natural gas; number of consumers and quantity of natural gas delivered to consuming sectors, and heat content of total natural gas delivered; natural gas delivered for the account of others to commercial and industrial customers, and electric utilities; firm and interruptible deliveries to consuming sectors; average city gate price; average price of natural gas delivered to consuming sectors, including average firm and interruptible prices; average consumption and annual cost per customer for the residential sector; and extensive summary statistics tables for each State; leading suppliers of natural gas sold to residential customers in the United States; leading suppliers of natural gas sold to commercial consumers in the United States. Appendix A contains a comparison of electric utilities consumption data from forms EIA-176 and EIA-759; volumes of natural gas "unaccounted for;" and natural gas processing plant volumes and composition of liquids extracted, extraction losses, estimated heat content of extraction losses, and estimated dry natural gas proved reserves.

Historical Natural Gas Annual, DOE/EIA-E-0110, (Available electronically only via the Internet at http://www.eia.doe.gov/oil_gas/natural_gas/nat_frame.html) Data for 1967 forward for gross withdrawals and marketed production; number of producing gas and gas condensate wells; average wellhead price, marketed production, and imputed wellhead value; movements of natural gas by state; changes to underground and liquefied natural gas storage; supplemental gas supplies 1980 forward; production, transmission, and consumption balance table; consumption of natural gas; firm and interruptible deliveries to consumers, 1993 forward; quantity and number of consumers of natural gas delivered by sector, and heat content of total natural gas delivered; average price and heat content price of natural gas delivered to consuming sectors; and average consumption and annual cost per consumer in the residential, commercial, and industrial sectors.

Coal

Weekly Coal Production, DOE/EIA-0218. (Available electronically only via the Internet at http://www.eia.doe.gov/fuelcoal.html) Weekly coal production by region and State.

Quarterly Coal Report, DOE/EIA-0121. Coal production; destination of coal received at electric utilities by origin; origin of coal received at electric utilities by destination; coal receipts and average price at other industrial plants; total coal consumption by end use sectors; receipts and consumption by residential and commercial sectors; consumer coal stocks; stocks at electric utilities and other industrial plants; coal receipts; quantity and price of coal receipts, contract coal, and spot coal at electric utilities; average cost of coal receipts at electric utilities; coal receipts and prices by sulfur content at electric utilities; change in electric utility net generation; and cost and quality of all coal received at electric utilities that import coal by origin.

Coal Industry Annual, DOE/EIA-0584. Coal production and number of mines by type of mining, and mine production range; bituminous, subbituminous, lignite, and anthracite production by coal group; acreage, production and royalties from federal and Indian leases; underground production by mining method; production and average mine price and real mine price by type of mining, disposition, coal rank, and productivity range; recoverable coal reserves and average recovery percentage by type of mining; productivity by mine type; weighted average days worked by type and mine production range; average price of coal delivered by end-use sector; average quality of coal received by electric utilities and manufacturing and coke plants; year-end producer and distributor stocks; imports received by electric utilities and manufacturing and coke plants; consumption and stocks by end-use sector; and detailed statistics for major coal-producing States; coal production by mine type, union type, and disposition; production, productive capacity, and capacity utilization of mines by mine type, rank, mining method, and production range; production and capacity utilization by recoverable reserves and union type; receipts of imported coal by country of origin and destination State; average number of miners by mine type, production range, and union type; productivity by mining method and production range; coal carbonized at coke plants; recoverable reserves by sulfur range and mine type; and domestic and foreign distribution by origin, destination, and method of transportation.

State Coal Profiles, (Available electronically only via the Internet at http://www.eia.doe.gov/fuelcoal.html). Coal statistics for the 16 major coal-producing States. Recoverable reserves, productive capacity, production by underground and surface mines, number of miners and productivity by type of mine, producer/distributor stocks, imports, distribution within the State and to other States, to Canada, and overseas. Coal consumption and stocks by consuming sector and prices at underground and surface mines and delivered to consuming sectors. Net generation of electricity by type of fuel. Coal used for electricity generation: average quality and delivered cost, heat, sulfur and ash content, price per million Btu and by short ton. Demonstrated and estimated reserves by sulfur content, recoverable reserves at mines, number of mines, production range in thousand short tons, by type of mine.

Electric Power

Electric Power Monthly, DOE/EIA-0226. Net generation, total and by energy source; consumption of fossil fuels by type of fuel; receipts by type, average cost of coal, total and by type of purchase; receipts by type, average cost of petroleum products, and average cost of petroleum products by type of purchase; receipts and average cost of heavy oil by sulfur content; receipts and average cost of natural gas by type of purchase; estimated sales of electricity to ultimate consumers by sector; revenue from sales to ultimate consumers by sector; estimated average revenue per kilowatthour by sector; and average heat content of fossil-fuel receipts.

Electric Power Annual Volume I, DOE/EIA-0348/1. Number of electricity generators and generating capability, by fuel source and by type of generating unit; net generation by type of generating unit and by energy source; consumption and receipts of fossil fuels; stocks of coal and petroleum; average cost of fossil fuel receipts; and estimated sales, revenue, and average revenue per kilowatthour to ultimate consumers.

Electric Power Annual Volume II, DOE/EIA-0348/2. Sales, number of consumers, revenue, and average revenue per kilowatthour by consuming sectors; sulfur dioxide, nitrogen oxides, and carbon dioxide emissions by type of fossil fuel; number and capacity of generators with environmental equipment by type of equipment for coal-fired generators and for petroleum-and gas-fired generators combined; average quality of fossil fuels burned; average flue gas desulfurization costs; installed capacity at nonutility

generating facilities by energy source and gross generation for nonutility power producers by energy source and by receipts, sales, and facility use; and carbon-emission factors by type of coal.

Cost and Quality of Fuels for Electric Utility Plants, DOE/EIA-0191 (Available electronically only via the Internet at http://www.eia.doe.gov/cneaf/electricity/page/pubs.html). Data for steam-electric plants with a capacity of 50 megawatts or larger: total heating value and cost of fossil fuels; receipts of coal and average cost by sulfur content; receipts by type of coal; petroleum receipts by product type; gas receipts by type of gas; average cost of coal receipts by type of purchase, type of mining, rank, and sulfur content, of petroleum receipts by type of purchase, product, fuel-type, and sulfur content, and of gas receipts by type of purchase and fuel type; coal and petroleum receipts and average cost by sulfur content; average sulfur content of coal shipped to electric utilities by State of origin; origin and destination of coal receipts; destination and origin of coal receipts; quantity, quality, and cost of coal; and average quality of coal by State of origin.

Inventory of Power Plants in the United States, DOE/EIA-0095. Number of generating units, nameplate capacity, new summer and winter capability, and planned capacity additions by energy source; generating units that started operation and retired from service during report year; generating units' capacity, type, energy source, and year of initial operation by company and plant; existing renewable generating units capacity, type, energy source and year of initial operation by company and plant; planned generating unit changes and additions by company and plant; existing capacity of nonutility power producers by owner and facility. Appendix C contains jointly-owned generating units by company and plant.

State Electricity Profiles, DOE/EIA-0629. Capability, generation, and other summary data for the electric power industry; type and net capability of the five largest utility plants; top utilities with largest generating capability by type; generation, generating capability, and consumption by prime energy source; utility delivered fuel prices for fossil fuels; emission estimates by type; retail sales by sector; and number of utilities, customers, retail sales, and revenue from retail sales by ownership type.

Electric Sales and Revenue, DOE/EIA-0540. Electric sales, revenues from sales, average revenue per kilowatthour, and number of consumers by consuming sector and by utility, plant, and class of ownership.

Uranium Industry Annual, DOE/EIA-0478. Employment in the uranium industry; and forward-cost uranium reserves.

Renewable Energy

Renewable Energy Annual, DOE/EIA-0603. Shipments of solar thermal collectors by destination; renewable electric utility net generation by type of energy; nonutility gross generation by type of energy.

Glossary

Anthracite: The highest rank of coal; used primarily for residential and commercial space heating. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980's anthracite refuse or mine waste has been used for steam electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents. It is obtained by petroleum processing. The definition includes crude asphalt, as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL–G–5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excluded are oxygenates (alcohols and ethers), butane, and pentanes plus.

Barrel (petroleum): A unit of volume equal to 42 U.S. gallons.

Barrels per Calendar Day (operable refinery capacity): The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations: the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery (no reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation); the types and grades of inputs to be processed; the types and grades of products to be manufactured; the environmental constraints associated with refinery operations; the reduction of capacity for scheduled downtime, such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and the reduction of capacity for unscheduled downtime, such as mechanical problems, repairs, and slowdowns.

Barrels per Stream Day (operable refinery capacity): The maximum number of barrels of input that can be processed in an atmospheric distillation facility running at full capacity under optimal crude and product slate conditions with no allowance for downtime.

Biomass: Energy sources from recent-term organic (plant and animal) matter. Nonfossil biomass energy sources are essentially unprocessed; they are burned or gasified, as received, to produce thermal energy or electricity. Examples are fuelwood, waste wood, garbage, and crop waste. Biomass-derived fuels, on the other hand, result from the processing of biomass energy sources. They may be byproducts of industrial or agricultural processes or they may be fuels made from biomass feedstocks. Biomass-derived fuels generally have concentrated energy density and are more

easily transported and used. Examples are wood byproducts (such as wood chips and dewatered wood liquors), pellets, briquettes, refuse-derived fuel (made from garbage), ethanol (made from crops, such as corn), and methanol (made from wood). Different mixes of biomass sources are used by each consuming sector. The residential and commercial sectors burn wood and pellets for space heating. The industrial sector's largest biomass source is combustible byproducts used for electricity generation and process steam, followed in importance by wood chips. The transportation sector uses ethanol as an additive to motor gasoline. Some electric utilities use wood, industrial wood waste, and municipal waste as cofiring or primary fuels.

Bituminous Coal: A dense, black coal, often with well-defined bands of bright and dull material; used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). In this report, bituminous coal includes subbituminous coal.

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1° F at or near 39.2° F. See **Heat Content of a Quantity of Fuel, Gross**, and **Heat Content of a Quantity of Fuel, Net**.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

- *Isobutane:* A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
- *Normal Butane:* A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C_4H_8) recovered from refinery processes.

Catalytic Cracking: A refining process that consists of using a catalyst and heat to break down the heavier and more complex hydrocarbon molecules into lighter and simpler molecules.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time. Coals are classified according to their degree of progressive alteration from lignite to anthracite. In the U.S. classification, the ranks of coal include lignite, subbituminous coal, bituminous coal, and anthracite and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

Coal Coke: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000 degrees Fahrenheit so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace.

Coke Plants: Plants where coal is carbonized in slot or beehive ovens for the manufacture of coke.

Commercial Sector: The commercial sector, as defined economically, consists of business establishments that are not engaged in transportation or in manufacturing or other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors can be used to

translate physical units of measure for various fuels into Btu equivalents. See **British Thermal Unit**.

Cord (wood): A cord of wood measures 4 feet by 4 feet by 8 feet or 128 cubic feet.

Crude Oil (Including Lease Condensate): A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Cubic Foot (natural gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

Diesel Fuel: Fuel used for internal combustion in diesel engines; usually that fraction of crude oil that distills after kerosene. See **Distillate Fuel Oil**.

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. It includes diesel fuels and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and electric power generation.

Electrical System Energy Losses: The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

Electricity Production: Net generation of electricity (gross output measured at generator terminals minus power plant use) by publicly and privately owned electric utilities. Excludes industrial generation of electricity (except autogeneration of hydroelectric power).

Electricity Sales: The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy, primarily for use by the public, and that files forms listed in the *Code of Federal Regulations*, Title 18, Part 141. Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act are not considered electric utilities.

Electric Utility Sector: The electric utility sector consists of privately and publicly owned establishments that generate, transmit, distribute, or sell electricity primarily for use by the public and that meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

End-Use Sectors: The residential, commercial, industrial, and transportation sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy Consumption, End-Use: The sum of fossil fuel consumption by the four end-use sectors (residential, commercial, industrial, and transportation) plus electric utility sales to those sectors and generation of hydroelectric power by nonelectric utilities. **Net** end-use energy consumption excludes electrical system energy losses. **Total** end-use energy consumption includes electrical system energy losses.

Energy Consumption, Total: The sum of fossil fuel consumption by the five sectors (residential, commercial, industrial, transportation, and electric utility) plus hydroelectric power, nuclear electric power, net imports of coal coke, and electricity generated for distribution from wood and waste and geothermal, wind, photovoltaic, and solar thermal energy.

Ethane: A normally gaseous straight-chain hydrocarbon (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol: An anhydrous, denatured aliphatic alcohol (C_2H_5OH) intended for motor gasoline blending.

Ethylene: An olefinic hydrocarbon (C_2H_4) recovered from refinery processes or petrochemical processes.

Exports: Shipments of goods from the 50 States and the District of Columbia to foreign countries and to Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

Federal Power Commission (FPC): The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

Fiscal Year: The U.S. Government's fiscal year runs from October 1 through September 30. The fiscal year is designated by the calendar year in which it ends; e.g., fiscal year 1992 begins on October 1, 1991, and ends on September 30, 1992.

Fossil Fuel: Any naturally occurring fuel, such as petroleum, coal, and natural gas, formed in the Earth's crust from long-term organic matter.

Fossil-Fueled Steam-Electric Power Plant: An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Gasohol: A blend of finished motor gasoline containing alcohol (generally ethanol but sometimes methanol) at a concentration of 10 percent or less by volume. Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside carbon monoxide nonattainment areas are included in data on oxygenated gasoline.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the Earth's crust and supplied to steam turbines that drive generators to produce electricity.

Heat Content of a Quantity of Fuel, Gross: The total amount of heat released when a fuel is burned. Coal, crude oil, and natural gas all include chemical compounds of carbon and hydrogen. When those fuels are burned, the carbon and hydrogen combine with oxygen in the air to produce carbon dioxide and water. Some of the energy released in burning goes into transforming the water into steam and is usually lost. The amount of heat spent in transforming the water into steam is counted as part of gross heat content but is not counted as part of net heat content.

Also referred to as the higher heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heat Content of a Quantity of Fuel, Net: The amount of usable heat energy released when a fuel is burned under conditions similar to those in which it is normally used. Also referred to as the lower heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heavy Oil: The fuel oils remaining after the lighter oils have been distilled off during the refining process. Except for start-up and flame stabilization, virtually all petroleum used in steam-electric power plants is heavy oil.

Hydroelectric Power: The production of electricity from the kinetic energy of falling water.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

Imports: Receipts of goods into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Industrial Sector: The industrial sector comprises manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills to small farms to companies assembling electronic components.

Internal Combustion Electric Power Plant: A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

Isopentane: A saturated branched-chain hydrocarbon (C_5H_{12}) obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point and a final maximum boiling point of 572 degrees Fahrenheit and meeting ASTM Specification D 1655 and Military Specifications MIL–T–5624P and MIL–T–83133D (Grades JP–5 and JP–8). It is used for commercial and military turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range having an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F., and meeting Military Specification MIL–T–5624L (Grade JP–4). It is used primarily for military turbojet and turboprop aircraft engines because it has a lower freeze point than other aviation fuels and meets engine requirements at high altitudes and speeds.

Kerosene: A light petroleum distillate that is used in space heaters, cook stoves, and water heaters and is suitable for use as a light source when burned in wick-fed lamps. Kerosene has a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point, a final boiling point of 572 degrees Fahrenheit, and a minimum flash point of 100 degrees Fahrenheit. Included are No. 1-K and No. 2-K, the two grades recognized by ASTM Specification D 3699 as well as all other grades of kerosene called range or stove oil, which have properties similar to those of No. 1 fuel oil. See **Jet Fuel, Kerosene-Type**.

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors), and as fuel in natural gas processing plants.

Lease Condensate: A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

Lignite: The lowest rank of coal, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 14 million Btu per ton, on the

as-received basis (i.e., containing both inherent moisture and mineral matter).

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricants categories are paraffinic and naphthenic.

Methanol: A light, volatile alcohol (CH_3OH) eligible for motor gasoline blending.

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as defined in ASTM Specification D–4814 or Federal Specification VV–G–1690C, is characterized as having a boiling range of 122 to 158 degrees Fahrenheit at the 10-percent recovery point to 365 to 374 degrees Fahrenheit at the 90-percent recovery point. "Motor Gasoline" includes conventional gasoline; all types of oxygenated gasoline, including gasohol; and reformulated gasoline, but excludes aviation gasoline. *Note:* Volumetric data on blending components, such as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

Motor Gasoline Blending Components: Naphthas (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock for oxygenate blending (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus.

Natural Gas: A mixture of hydrocarbons (principally methane) and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gasoline: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas that meets specifications for natural gasoline set by the Gas Processors Association. Natural gasoline includes isopentane.

Net Interstate Flow of Electricity: The difference between the sum of electricity sales and losses within a State and the total amount of electricity generated within that State. A positive number indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

Nonutilities: See **Nonutility Power Producer**.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns electric generating capacity and is not an electric utility. Nonutility power producers include qualifying cogenerators, qualifying small power producers, and other nonutility generators (including independent power producers) without a designated, franchised service area and that do not file forms listed in the *Code of Federal Regulations*, Title 18, Part 141.

N**uclear Electric Power:** Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Pentanes Plus: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Included are isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks: Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphthas Less Than 401° F. Endpoint" and "Other Oils Equal to or Greater Than 401° F. Endpoint."

Petroleum: A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke.

Petroleum Coke, Catalyst: The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

Petroleum Coke, Marketable: Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or further purified by calcining.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

Petroleum Products: Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Products Supplied: See **Petroleum Consumption**.

Photovoltaic and Solar Thermal Energy: Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

Plant Condensate: One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Propane: A normally gaseous straight-chain hydrocarbon (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of –43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD–5 propane.

Propylene: An olefinic hydrocarbon (C_3H_6) recovered from refinery or petrochemical processes.

Refinery (petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residential Sector: The residential sector is considered to consist of all private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.

Residual Fuel Oil: The heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It conforms to ASTM Specifications D396 and D975 and Federal Specification VV-F-815C. No. 5, a residual fuel oil of medium viscosity, is also known as Navy Special and is defined in Military Specification MIL-F-859E, including Amendment 2 (NATO

Symbol F-770). It is used in steam-powered vessels in government service and inshore powerplants. No. 6 fuel oil includes Bunker C fuel oil and is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil, used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

Short Ton (coal): A unit of weight equal to 2,000 pounds.

SIC: See **Standard Industrial Classification**.

Solar Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or electricity.

Special Naphthas: All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. Those products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and Budget which categorizes industries into groups with similar economic activities.

Steam-Electric Power Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Still Gas (refinery gas): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and petrochemical feedstock.

Subbituminous Coal: A coal whose properties range from those of lignite to those of bituminous coal and used primarily as fuel for steam-electric power generation. It may be dull, dark brown or black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end**.** Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). In this report, subbituminous coal is included in bituminous coal.

Supplemental Gaseous Fuels: Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, and air or inert gases added for Btu stabilization.

Transportation Sector: The transportation sector consists of private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.

Unfinished Oils: All oils requiring further refinery processing, except those requiring only mechanical blending. Included are naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

Unfractionated Streams: Mixtures of unsegregated natural gas liquid components, excluding those in plant condensate. This product is extracted from natural gas.

United States: The 50 States and the District of Columbia.

Value Added by Manufacture: A measure of manufacturing activity that is derived by subtracting the cost of materials (which covers materials, supplies, containers, fuel, purchased electricity, and contract work) from the value of shipments. This difference is then adjusted by the net change in finished goods and work-in-progress between the beginning and end-of-year inventories.

Waxes: Solid or semisolid materials derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (i.e., blades rotating from a hub) that drive generators to produce electricity for distribution.

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