U.S. Department of Energy Energy Information Administration Form EIA-920 (2004)	***COMBINED HEAT AND POWER PLANT REPORT INSTRUCTIONS***	**Form Approval** **OMB No. 1905-0129** **Approval Expires 11/30/04**

PURPOSE

Form EIA-920 Combined Heat and Power Plant Report collects information from combined heat and power (CHP) plants in the United States. Data collected on this form include electric power generation, fuel consumption, fuel heat content, and fossil fuel stocks. These data are used to monitor the current status and trends of the electric power industry, and appear in many EIA publications, including: *Electric Power Monthly* and *Annual, Monthly* and *Annual Energy Reviews, Natural Gas Monthly* and *Annual, Quarterly Coal Report,* and the *Renewable Energy Annual*. Further information can be found at http://www.eia.doe.gov/fuelelectric.html.

REQUIRED RESPONDENTS

The Form EIA-920 is a mandatory report for combined heat and power plants with electric generating capacity of 1 megawatt and above. To lessen the reporting burden, a sample of CHP plants is collected on a monthly basis. CHP plants that are not selected to respond monthly must respond annually at the end of the calendar year.

RESPONSE DUE DATE

Monthly data are due to the Energy Information Administration (EIA) by the 10th working day following the close of the calendar month.

Annual data are due to EIA by March 1 following the close of the reporting year.

METHODS OF FILING RESPONSE

Submit your data electronically using EIA's Internet Data Collection system (IDC).

- If you have not registered with EIA's Single Sign-On system, send an e-mail requesting assistance to Channele Carner at : EIA-920@eia.doe.gov.
  Important Note: Even if you used the IDC system in 2003, you will need to register with Single Sign-On for 2004. If you have not done so or are not sure, e-mail EIA as noted immediately above.
- If you have registered with Single Sign-On, log on at https://signon.eia.doe.gov/ssoserver/login
- If you are having a technical problem with logging into the IDC or using the IDC contact the IDC Help Desk for further information. Contact the Help Desk at:
  E-Mail: CNEAFhelpcenter@eia.doe.gov
  Phone: 202-287-1333
- If you need an alternate means of filing your response, contact the Help Desk.

Retain a completed copy of this form for your files.

CONTACTS

Internet System Questions: For questions related to the Internet Data Collection system, see the help contact information immediately above.
Data Questions: For questions about the data requested on Form EIA-920, contact:
Orhan Yildiz
Telephone Number: (202) 287-1586
FAX Number: (202) 287-1943
E-mail: eia-920@eia.doe.gov

GENERAL INSTRUCTIONS

Form Copies. A copy of the Form EIA-920 can be downloaded from the EIA web site at http://www.eia.doe.gov/cneaf/electricity/page/forms.html

Data Revisions. Submit revisions to data previously reported as soon as possible after the error or omission is discovered. Do not wait until the next reporting month's form is due to submit a revision.

- Log on to the IDC system, rekey revised data, and resubmit the data.

Remember to save and RESUBMIT (click on the SUBMIT button).

GENERAL INSTRUCTIONS continued

Correcting Preprinted Information. Much of the information on the form is preprinted by EIA. If you need to correct or add information, take the following actions:

Log on to the IDC system. Corrections or additions to information can be made on-line. Please note that PLANT NAME and PLANT CODE cannot be changed. Contact the survey manager if these items are incorrect.

ITEM-BY-ITEM INSTRUCTIONS

Schedule 1. Identification

Survey Contacts

Verify contact person and the contact person's supervisor name, title, telephone number, fax number, and email address. Corrections may be made by deleting and rekeying the information.

Report For

Verify plant name and address. State codes are two-character postal abbreviations. Provide any missing information and make needed corrections. Note that the plant ID code and plant name cannot be changed. Contact the survey manager to correct these fields.

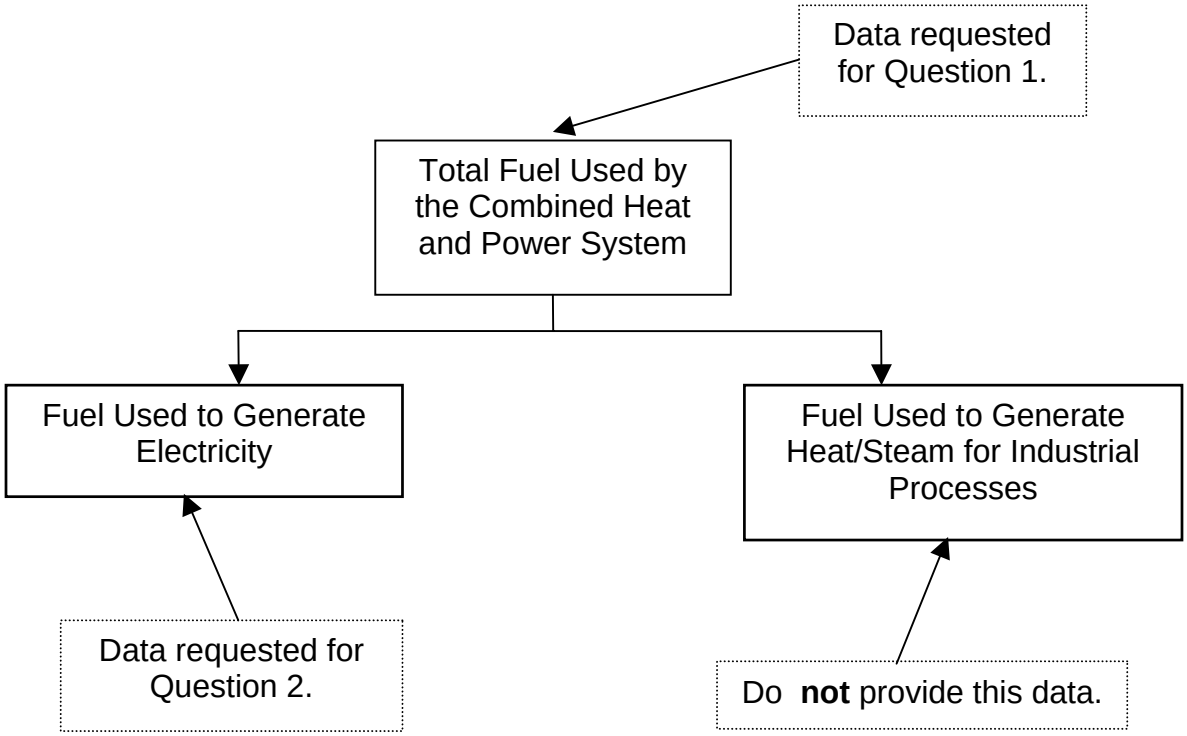
Comment Section

Use this section to provide footnotes or document unusual occurances affecting the reported data. For example:

- A plant began to use several new fuels during the month for which no room is available to record them all in the blank lines provided.
- Unusual occurrences that significantly altered the operations of the plant (e.g., scheduled and unscheduled outages, weather);
- Explanations and revisions from the previous reporting period;
- Transfer of stocks or inventory adjustments; and/or
- Values that had to be estimated due to equipment failure or other factors.

ITEM-BY-ITEM INSTRUCTIONS

Data Schematic for Schedule 2



ITEM-BY-ITEM INSTRUCTIONS

continued

Schedule 2. Fuel Use and Generation

Plant Name, State, Reporting Month and Year

Verify the preprinted information for these three items at the top of the page.

1. Total Fuel Used by the Combined Heat and Power (Cogeneration) System

Energy Source

- If your plant uses an energy source that is not preprinted, add the energy source.
- Energy source codes and descriptions are located on page 6 and 7 of these instructions.
- Include start-up and flame stabilization fuels.

Amount

- Report actual values or, if necessary, report estimated values and state in the Comment Section that the value is an estimate.
- **ENTER ZERO when a fuel source had no consumption for the reporting period**. **Do not leave a cell blank**. A blank cell will be interpreted as a non-response and may trigger a follow-up phone call to you from EIA.

Type of Physical Units

Fuel consumption must be reported in the following units:

- Solids – Tons
- Liquids – Barrels (one barrel equals 42 U.S. gallons)
- Gases – Thousands of cubic feet
- Steam – Thousand pounds of steam

Heat Value per Unit of Fuel

- Enter the gross or higher heating value per unit of fuel as burned. See the glossary (page 8) for the definition of HHV. See the table of typical ranges for heating values for each fuel (page 6 and 7).
- If the reported value falls outside of the range, please provide an explanation in the Comment Section.
- If the fuel heat value cannot be reported "as burned," data may be obtained from the fuel supplier on an "as received" basis. If this is the case, please state so in the Comment Section.

ITEM-BY-ITEM INSTRUCTIONS

continued

2. Fuel Used to Generate Electricity (by each type of prime mover)

Prime movers are devices that convert fuel or heat energy into mechanical energy. Examples include steam turbines, combustion gas turbines, reciprocating engines, and water turbines.

Prime Mover Type

If the preprinted prime mover code is incorrect, delete the code and choose the correct prime mover code from the prime mover table on page 7.

If you need to add a prime mover code, choose a code from the prime mover table on page 7.

Total Electricity Generated

- Report the sum of electricity generated by all prime movers of the same type.
- Data must be reported in megawatthours (MWh), rounded to whole numbers.
- Combined Cycle Units: Report generation for the combustion turbine (CT) and the steam turbine (CA) separately.

Fuel Used to Generate Electricity for Prime Mover During Reporting Period

Energy Source

- If the preprinted fuel type is never used, delete the code and choose the correct code(s).
- Energy source codes and descriptions are located on pages 6 and 7 of these instructions. Use the Comment Section to specify or describe fuels reported as "Other" fuels.
- If you need to add an energy source code, choose a new code from the table on pages 6 and 7.
- Include start-up and flame stabilization fuels.
- Combined Cycle Units: Report fuel consumptions for the combustion turbine (CT) and the steam turbine (CA) separately. Report supplemental firing fuels in duct burners and/or auxiliary boilers under steam turbine code (CA).

Amount

- Report actual values or, if necessary, report estimated values and state in the Comment Section that the value is an estimate.
- **ENTER ZERO when a fuel source had no fuel consumption for the reporting period**. **Do not leave a blank.** A blank will be interpreted as a non-response and may trigger a follow-up phone call to you from EIA.

Type of Physical Units: Fuel consumption must be reported in the following units:

- Solids – Tons
- Liquids – Barrels (one barrel equals 42 U.S. gallons)
- Gases – Thousands of cubic feet
- Steam – Thousand pounds of steam

-

ITEM-BY-ITEM INSTRUCTIONS

continued

Schedule 3. Stocks at End of Calendar Month

3. Stocks at End of Calendar Month

- Report fuel stocks ONLY for the following fuels and ONLY for stocks held for use in the combined heat and power (cogeneration) system:
  - Coal
  - Residual oil (No. 5 and No. 6 fuel oils)
  - Distillate-type oils (including diesel oil, No.2 oil, jet fuel and kerosene)
  - Petroleum coke
- Include back up fuels.
- Include start-up and flame stabilization fuels.
- Do not report stocks for waste coal, natural gas, or wood waste
- Report stocks at the plant level.
- **ENTER ZERO if a plant has no stocks. Do not leave any cell blank.**
- Stocks quantities held off-site that cannot be assigned to an individual plant are to be reported as stocks held at a central storage site. Each central storage site must be reported separately. New sites should be indicated in the Comment Section, located on page 1 of the form.

Energy Source

If a fuel that you stock is not preprinted, add the energy source code from the table on pages 6 and 7.

Amount in Physical Units

Report actual values or, if necessary, report estimated values and state in the Comment Section that the value is an estimate.

Type of Physical Units: Stocks must be reported in the following units:

- Coal and Petroleum Coke – Tons
- Fuel oils – Barrels (one barrel equals 42 U.S. gallons)

ENERGY SOURCE CODES AND HEAT CONTENT

	Energy Source Code	Unit Label	Heating Value Range Million Btu per unit of Fuel Low Value	High Value	Energy Source Description
Fossil Fuels					
Coal and Syncoal	BIT	tons	20	29	Anthracite Coal and Bituminous Coal
	LIG	tons	5.5	16.6	Lignite Coal
	SC	tons	10	35	Coal-based Synfuel (Including briquettes, pellets, or extrusions, which are formed by binding materials or processes that recycle materials)
	SUB	tons	15	20	Subbituminous Coal
	WC	tons	5.5	30	Waste/Other Coal (including anthracite culm, bituminous gob, fine coal, lignite waste, waste coal)
Petroleum Products	DFO	barrels	5.5	6.2	Distillate Fuel Oil (including Diesel, No. 1, No. 2, and No. 4 Fuel Oils)
	JF	barrels	5	6	Jet Fuel
	KER	barrels	5.6	6.1	Kerosene
	PC	tons	24	30	Petroleum Coke
	RFO	barrels	5.8	6.8	Residual Fuel Oil (including No. 5, No. 6 Fuel Oils, and Bunker C Fuel Oil)
	WO	barrels	4	5.8	Waste/Other Oil (including Crude Oil, Liquid Butane, Liquid Propane, Oil Waste, Re-Refined Motor Oil, Sludge Oil, Tar Oil, or other petroleum-based liquid wastes)
Natural Gas and Other Gases	BFG	Mcf	0.07	0.12	Blast Furnace Gas
	NG	Mcf	0.8	1.1	Natural Gas
	OG	Mcf	0.32	3.3	Other Gas Specify in Comment Section
	PG	Mcf	2.5	3.0	Gaseous Propane
Renewable Fuels					
Solid Renewable Fuels	AB	tons	9	18	Agricultural Crop Byproducts/Straw/Energy Crops
	MSW	tons	9	12	Municipal Solid Waste
	OBS	tons	8	25	Other Biomass Solids Specify in Comment Section
	TDF	tons	16	32	Tire-derived Fuels
	SLW	tons	10	16	Sludge Waste
	WDS	tons	7	18	Wood/Wood Waste Solids (Including paper pellets, railroad ties, utility poles, wood chips, bark, & wood waste solids)

ENERGY SOURCE CODES AND HEAT CONTENT

Continued

	Energy Source Code	Unit Label	Heating Value Range Million Btu per unit of Fuel Low Value	High Value	Energy Source Description
			Renewable Fuels continued		
Liquid Renewable (Biomass) Fuels	OBL	barrels	3.5	4	Other Biomass Liquids. Specify in Comment Section
	SLW	Tons	10	16	Sludge Waste
	BLQ	Tons	10	14	Black Liquor
	WDL	barrels	8	14	Wood Waste Liquids excluding Black Liquor (BLW) (Includes red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids)
Gaseous Renewable (Biomass) Fuels	LFG	Mcf	0.3	0.6	Landfill Gas
	OBG	Mcf	0.36	1.6	Other Biomass Gas (Includes digester gas, methane, and other biomass gasses) Specify in Comment Section
All Other Renewable Fuels	SUN	N/A	0	0	Solar
	WND	N/A	0	0	Wind
	GEO	N/A	0	0	Geothermal
	WAT	N/A	0	0	Water at a Conventional Hydroelectrical Turbine
			All Other Fuels		
	PUR	N/A	0	0	Purchased Steam
	WH	N/A	0	0	Waste heat not directly attributed to a fuel source. Note that WH should only be reported where the fuel source for the waste heat is undetermined, and for combined cycle steam turbines that are not supplementary fired
	OTH	N/A	0	0	Specify in Comment Section

PRIME MOVER TYPE CODES

Prime Mover Type	Prime Mover Description
CA	Combined Cycle – Steam Part
CE	Compressed Air Energy Storage
CS	Combined Cycle Single Shaft – Combustion turbine and steam turbine share a single generator
CT	Combined Cycle Combustion – Turbine Part
FC	Fuel Cell
GT	Combustion (Gas) Turbine (Including jet engine design)
HY	Hydraulic Turbine (Including turbines associated with delivery of water by pipeline)
IC	Internal Combustion (diesel, piston) Engine
PS	Hydraulic Turbine – Reversible (pumped storage)
PV	Photovoltaic

	ST_____ Steam Turbine (Including nuclear, geothermal and solar steam, excluding combined cycle) WT_____ Wind Turbine OT_____ Other – Specify in Comment Section.

GLOSSARY

Alternative Energy Source: An energy source that is not normally used, but may be from time to time. Report consumption and heating values for all alternative energy sources actually used. Report zero when the energy source is not used.

Btu: British Thermal Unit. The amount of energy required to raise the temperature of one pound of water by one degree Fahrenheit.

Cogeneration: The production of electrical energy and another form of useful energy (such as heat or steam) through the sequential use of energy, resulting in increased efficiency of fuel use.

Combined Cycle: An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit.

Combined Heat and Power (CHP) System: Simultaneous production of electric power and other useful thermal energy (heat) for an industrial process, heating/cooling, or steam sales. Also referred to as cogeneration.

Combined Heat and Power (CHP) Plant: A plant designed to produce both heat and electricity from a common energy source. *Note:* This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the plants because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of combined heat and power specified in the Public Utility Regulatory Policies Act (PURPA).

Consumption of Fuel: The amount of a combustible fuel consumed at an electric power plant or a combined heat and power plant to generate electric power and/or heat, provide standby service, or use for flame stabilization or start up. Also, for pumped storage facilities, the amount of pumping energy used (megawatthours).

Electric Power: The rate at which electric energy is transferred. Electric power is measured by capacity and is commonly expressed in megawatts (MW).

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electricity Generation: The process of producing electric energy or the amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatthours (kWh) or megawatthours (MWh).

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Energy Source: Any substance or natural phenomenon that can be consumed or transformed to supply heat or power. Examples include petroleum, coal, natural gas, nuclear, biomass, electricity, wind, sunlight, geothermal, water movement, and hydrogen in fuel cells. See the list of energy sources on page 6.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities for delivery of electric energy for use primarily by the public. Included are investor-owned electric utilities, municipal and State utilities, Federal electric utilities, and rural electric cooperatives. A few entities that are tariff based and corporately aligned with companies that own distribution facilities are also included. *Note:* Due to the issuance of FERC Order 888 that required traditional electric utilities to functionally unbundle their generation, transmission, and distribution operations, “electric utility” currently has inconsistent interpretations from State to State.

Gross Generation: The total amount of electric energy produced by generating units and measured at the generating terminal in kilowatthours or megawatthours.

Heat Content: The amount or number of British thermal units (Btu) produced by the combustion of fuel, measured in million Btu per unit of fuel (ton, barrel, or thousand cubic feet).

Heat Rate: A measure of energy efficiency that defines how much energy it takes to generate a kilowatthour of electricity. Commonly expressed as Btu per kilowatthour.

GLOSSARY

continued

Higher (gross) Heating Value (HHV): The amount of heat produced in combustion, assuming the products (carbon dioxide and water) to be cooled to the initial temperature, so that the water is condensed to liquid. The lower heating value (LLV) is the HHV minus the latent heat of vaporization of the water.

Mcf: One thousand cubic feet.

MMBtu: One million Btu.

Net Generation: The amount of gross generation less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Net generation includes electric power consumed at a CHP plant for powering equipment not associated with the electric power plant, i.e., industrial processes. *Note:* Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates plants for electric generation and is not an electric utility. Nonutility power producers include qualifying **cogenerators**, qualifying small power producers, and other nonutility generators (including independent power producers). Nonutility power producers are without a designated franchised service area and do not file forms listed in the Code of Federal Regulations, Title 18, Part 141.

Operable Unit: A unit that is available to provide electric power.

Operating Unit: A unit that is in operation at the beginning of the reporting period.

Prime Mover: The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly (e.g., photovoltaic solar and fuel cells).

Process Steam: Steam used at an industrial combined heat and power plant, such as paper and pulp mills, refineries, and chemical plants for manufacturing processes.

Renewable Energy Resource: Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include: biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.

Self-Generator: A plant whose primary product is not electric power, but does generate electricity for its own use or for sale on the grid; for example, industrial combined heat and power plants.

Start-up/Flame Stabilization Fuels: Any fuel used to initiate or sustain combustion or used to stabilize the height of flames once combustion is underway.

Steam for heating/cooling: Steam produced at a combined heat and power plant for the purpose of heating and/or cooling space, such as district heating systems.

Stocks of Fuel: A supply of fuel accumulated for future use in the electric power plant. This includes coal and fuel oil stocks at the plant site, in coal cars, tanks, or barges at the plant site, or in separate storage sites.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

SANCTIONS

The timely submission of Form EIA-920 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than $2,750 per day for each civil violation, or a fine of not more than $5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. **Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

REPORTING BURDEN

Public reporting burden for this collection of information is estimated to average 1.4 hours per response for monthly respondents and 1.5 hours per response for annual respondents, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Statistics and Methods Group, EI-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, D.C. 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number.

CONFIDENTIALITY

The information contained on this form, Stocks at End of Reporting Period, will be kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The Energy Information Administration (EIA) will protect your information in accordance with its confidentiality and security policies and procedures.

The Federal Energy Administration Act requires the EIA to provide company-specific confidential data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the General Accounting Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the statistical data published from EIA-920 confidential survey information to ensure that the risk of disclosure of identifiable information is very small.

All other Information reported on Form EIA-920 will not be treated as confidential and may be publicly released in identifiable form. In addition to the use of the information by EIA for statistical purposes, the information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.