

Appendix A

Reference Case Projections:

- World Energy Consumption
 - Gross Domestic Product
- Carbon Dioxide Emissions
 - World Population

Table A1. World Total Primary Energy Consumption by Region, Reference Case, 1990-2025
(Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	100.6	118.7	115.6	134.5	144.6	155.0	166.6	1.5
United States ^a	84.6	99.3	97.0	111.8	119.7	127.9	136.5	1.4
Canada	11.0	13.2	12.5	15.4	16.5	17.5	18.4	1.6
Mexico	5.0	6.2	6.0	7.3	8.3	9.6	11.6	2.8
Western Europe	59.9	66.8	68.2	71.2	73.8	76.7	79.7	0.7
United Kingdom	9.3	9.8	9.8	10.3	10.8	11.2	11.7	0.7
France	8.8	10.4	10.5	11.8	12.3	12.9	13.4	1.0
Germany	14.8	14.2	14.4	14.8	15.1	15.5	15.9	0.4
Italy	7.0	8.0	8.1	8.5	8.8	9.2	9.6	0.7
Netherlands	3.4	3.9	4.2	4.4	4.5	4.7	4.9	0.6
Other Western Europe	16.6	20.6	21.1	21.3	22.2	23.2	24.3	0.6
Industrialized Asia	22.3	27.5	27.7	30.6	32.0	33.4	35.1	1.0
Japan	17.9	21.8	21.9	23.9	24.7	25.4	26.3	0.8
Australia/New Zealand	4.4	5.7	5.8	6.7	7.3	7.9	8.8	1.8
Total Industrialized	182.8	213.0	211.5	236.3	250.4	265.1	281.4	1.2
EE/FSU								
Former Soviet Union	60.7	40.8	41.9	46.2	50.6	55.1	59.8	1.5
Russia	39.3	27.4	28.2	31.4	33.8	36.2	38.3	1.3
Other FSU	21.4	13.4	13.7	14.8	16.7	18.9	21.5	1.9
Eastern Europe	15.6	11.3	11.4	12.8	13.8	15.2	15.8	1.4
Total EE/FSU	76.3	52.2	53.3	59.0	64.3	70.3	75.6	1.5
Developing Countries								
Developing Asia	52.5	80.5	85.0	110.6	129.7	150.5	173.4	3.0
China	27.0	37.0	39.7	54.6	65.7	77.7	91.0	3.5
India	7.8	12.7	12.8	16.4	19.5	23.2	27.1	3.2
South Korea	3.8	7.9	8.1	10.1	11.3	12.3	13.3	2.1
Other Asia	13.9	23.0	24.5	29.4	33.3	37.3	42.0	2.3
Middle East	13.1	20.3	20.8	25.0	27.7	30.7	34.1	2.1
Turkey	2.0	3.0	2.9	3.7	4.2	4.6	5.0	2.3
Other Middle East	11.1	17.3	17.9	21.2	23.6	26.1	29.1	2.0
Africa	9.3	11.9	12.4	14.6	16.7	19.0	21.5	2.3
Central and South America	14.4	21.0	20.9	25.4	28.4	32.2	36.9	2.4
Brazil	6.0	9.0	8.8	10.5	12.1	13.8	15.7	2.5
Other Central/South America	8.5	12.0	12.2	14.9	16.3	18.5	21.1	2.3
Total Developing	89.3	133.8	139.2	175.5	202.5	232.4	265.9	2.7
Total World	348.4	398.9	403.9	470.8	517.3	567.8	622.9	1.8

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A1; and System for the Analysis of Global Energy Markets (2004).

Table A2. World Total Energy Consumption by Region and Fuel, Reference Case, 1990-2025
(Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America								
Oil	40.4	46.3	45.9	53.3	58.3	62.1	67.3	1.6
Natural Gas	23.1	28.8	27.6	32.6	35.3	38.7	40.9	1.6
Coal	20.7	24.5	23.9	27.4	28.6	30.7	34.2	1.5
Nuclear	6.9	8.7	8.9	9.6	9.8	10.0	9.7	0.4
Other	9.5	10.6	9.4	11.6	12.7	13.5	14.4	1.8
Total	100.6	118.7	115.6	134.5	144.6	155.0	166.6	1.5
Western Europe								
Oil	25.8	28.5	28.9	30.4	31.2	32.0	32.5	0.5
Natural Gas	9.7	14.9	15.1	16.8	18.6	21.0	24.3	2.0
Coal	12.4	8.4	8.6	7.7	7.4	7.1	7.0	-0.9
Nuclear	7.4	8.8	9.1	9.5	9.4	8.9	7.9	-0.6
Other	4.5	6.0	6.1	6.8	7.2	7.6	8.0	1.1
Total	59.9	66.8	68.2	71.2	73.8	76.7	79.7	0.7
Industrialized Asia								
Oil	12.1	13.2	13.0	14.0	14.3	14.5	15.1	0.6
Natural Gas	2.5	4.0	4.1	4.6	5.1	5.6	6.3	1.8
Coal	4.2	5.7	5.9	6.4	6.7	7.0	7.5	1.0
Nuclear	2.0	3.0	3.2	3.8	4.0	4.4	4.2	1.2
Other	1.6	1.6	1.6	1.8	1.9	1.9	2.0	0.9
Total	22.3	27.5	27.7	30.6	32.0	33.4	35.1	1.0
Total Industrialized								
Oil	78.2	88.1	87.8	97.8	103.8	108.6	114.9	1.1
Natural Gas	35.4	47.7	46.8	54.0	59.0	65.4	71.4	1.8
Coal	37.3	38.6	38.5	41.4	42.7	44.8	48.7	1.0
Nuclear	16.3	20.5	21.2	22.9	23.2	23.3	21.9	0.1
Other	15.6	18.2	17.1	20.2	21.7	23.0	24.4	1.5
Total	182.8	213.0	211.5	236.3	250.4	265.1	281.4	1.2
EE/FSU								
Oil	21.0	10.9	11.0	12.4	14.0	15.9	17.8	2.0
Natural Gas	28.8	23.3	23.8	27.7	31.3	35.8	39.5	2.1
Coal	20.8	12.2	12.4	11.9	11.6	11.3	11.1	-0.5
Nuclear	2.9	3.0	3.1	3.4	3.5	3.2	2.9	-0.3
Other	2.8	3.0	3.2	3.6	4.0	4.1	4.4	1.3
Total	76.3	52.2	53.3	59.0	64.3	70.3	75.6	1.5
Developing Countries								
Developing Asia								
Oil	16.1	30.2	30.7	42.0	49.2	57.4	65.7	3.2
Natural Gas	3.2	6.9	7.9	10.1	12.3	15.1	18.7	3.6
Coal	29.1	37.1	39.4	48.2	55.1	62.8	71.9	2.5
Nuclear	0.9	1.7	1.8	3.1	4.2	4.9	5.1	4.4
Other	3.2	4.5	5.1	7.2	8.9	10.3	11.9	3.6
Total	52.5	80.5	85.0	110.6	129.7	150.5	173.4	3.0

See notes at end of table.

Table A2. World Total Energy Consumption by Region and Fuel, Reference Case, 1990-2025 (Continued)
(Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Developing Countries (Continued)								
Middle East								
Oil	8.0	11.0	11.1	14.1	15.5	17.2	18.7	2.2
Natural Gas	3.9	7.7	8.2	8.9	9.9	11.0	12.6	1.8
Coal	0.8	1.1	1.1	1.3	1.4	1.5	1.6	1.7
Nuclear	0.0	0.0	0.0	0.1	0.1	0.1	0.2	—
Other	0.4	0.5	0.4	0.6	0.7	0.8	1.0	3.7
Total	13.1	20.3	20.8	25.0	27.7	30.7	34.1	2.1
Africa								
Oil	4.2	5.2	5.3	6.4	7.3	8.5	9.6	2.5
Natural Gas	1.5	2.2	2.5	2.9	3.5	4.2	5.0	3.0
Coal	3.0	3.7	3.8	4.1	4.6	5.0	5.4	1.4
Nuclear	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2
Other	0.6	0.7	0.8	1.0	1.1	1.2	1.5	2.7
Total	9.3	11.9	12.4	14.6	16.7	19.0	21.5	2.3
Central and South America								
Oil	7.7	10.6	10.5	12.7	14.2	16.3	18.7	2.4
Natural Gas	2.2	3.6	3.8	4.9	6.0	7.4	9.2	3.8
Coal	0.6	0.9	0.8	1.1	1.2	1.4	1.5	2.7
Nuclear	0.1	0.1	0.2	0.2	0.2	0.2	0.2	-0.7
Other	3.9	5.9	5.6	6.4	6.7	7.0	7.3	1.2
Total	14.4	21.0	20.9	25.4	28.4	32.2	36.9	2.4
Total Developing Countries								
Oil	35.9	56.9	57.6	75.2	86.3	99.3	112.6	2.8
Natural Gas	10.8	20.4	22.4	26.8	31.7	37.6	45.5	3.0
Coal	33.5	42.8	45.1	54.7	62.3	70.7	80.4	2.4
Nuclear	1.1	2.0	2.2	3.5	4.7	5.4	5.7	4.1
Other	8.0	11.6	11.8	15.2	17.5	19.5	21.7	2.5
Total	89.3	133.8	139.2	175.5	202.5	232.4	265.9	2.7
Total World								
Oil	135.1	155.9	156.5	185.4	204.0	223.8	245.3	1.9
Natural Gas	75.0	91.4	93.1	108.5	122.0	138.8	156.5	2.2
Coal	91.6	93.6	95.9	108.0	116.6	126.8	140.2	1.6
Nuclear	20.3	25.5	26.4	29.8	31.4	31.8	30.4	0.6
Other	26.4	32.8	32.2	39.0	43.2	46.6	50.4	1.9
Total	348.4	398.9	403.9	470.8	517.3	567.8	622.9	1.8

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A1; and System for the Analysis of Global Energy Markets (2004).

Table A3. World Gross Domestic Product (GDP) by Region, Reference Case, 1990-2025
(Billion 1997 Dollars)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	7,723	10,573	10,609	14,014	16,228	18,675	21,461	3.0
United States ^a	6,839	9,370	9,394	12,427	14,376	16,503	18,881	3.0
Canada	553	737	751	981	1,121	1,269	1,427	2.7
Mexico	331	465	464	606	731	903	1,153	3.9
Western Europe	7,635	9,356	9,513	11,233	12,495	13,894	15,423	2.0
United Kingdom	1,153	1,461	1,492	1,846	2,093	2,360	2,655	2.4
France	1,300	1,568	1,601	1,888	2,102	2,348	2,629	2.1
Germany	1,917	2,261	2,284	2,582	2,809	3,055	3,313	1.6
Italy	1,063	1,248	1,269	1,470	1,620	1,791	1,971	1.9
Netherlands	317	423	428	490	543	604	674	1.9
Other Western Europe	1,885	2,396	2,440	2,957	3,328	3,736	4,181	2.3
Industrialized Asia	4,189	4,925	4,955	5,800	6,388	7,004	7,661	1.8
Japan	3,808	4,395	4,411	5,085	5,557	6,046	6,563	1.7
Australia/New Zealand	381	530	543	715	831	958	1,098	3.0
Total Industrialized	19,546	24,854	25,077	31,047	35,111	39,574	44,545	2.4
EE/FSU								
Former Soviet Union	929	597	632	970	1,196	1,443	1,710	4.2
Russia	668	449	471	695	840	999	1,165	3.8
Other FSU	261	148	161	276	355	444	545	5.2
Eastern Europe	353	379	389	550	667	810	971	3.9
Total EE/FSU	1,282	976	1,022	1,521	1,863	2,253	2,680	4.1
Developing Countries								
Developing Asia	1,766	3,403	3,536	5,854	7,540	9,464	11,714	5.1
China	428	1,120	1,202	2,228	2,980	3,877	4,976	6.1
India	290	492	520	833	1,078	1,381	1,757	5.2
South Korea	299	544	562	908	1,117	1,310	1,510	4.2
Other Asia	749	1,246	1,253	1,885	2,366	2,896	3,471	4.3
Middle East	409	594	584	821	987	1,176	1,389	3.7
Turkey	139	198	183	278	340	412	492	4.2
Other Middle East	270	396	400	542	646	764	897	3.4
Africa	488	606	626	903	1,101	1,332	1,596	4.0
Central and South America	1,105	1,503	1,510	1,968	2,419	2,967	3,650	3.7
Brazil	655	851	863	1,132	1,390	1,697	2,076	3.7
Other Central/South America	450	652	647	836	1,029	1,269	1,574	3.8
Total Developing	3,767	6,106	6,256	9,545	12,047	14,939	18,349	4.6
Total World	24,596	31,937	32,354	42,113	49,020	56,765	65,574	3.0

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: Global Insight, Inc., *World Economic Outlook*, Vol. 1 (Lexington, MA, Third Quarter 2003), and Energy Information Administration, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A20.

Table A4. World Oil Consumption by Region, Reference Case, 1990-2025
(Million Barrels per Day)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	20.4	23.8	23.5	27.4	29.9	31.9	34.6	1.6
United States ^a	17.0	19.7	19.6	22.7	24.8	26.4	28.3	1.5
Canada	1.7	2.1	1.9	2.3	2.5	2.6	2.8	1.6
Mexico	1.7	2.0	1.9	2.4	2.6	2.9	3.5	2.5
Western Europe	12.5	13.8	14.0	14.7	15.1	15.4	15.7	0.5
United Kingdom	1.8	1.7	1.7	1.9	1.9	2.0	2.2	1.0
France	1.8	2.0	2.0	2.1	2.1	2.1	2.2	0.2
Germany	2.7	2.8	2.8	3.0	3.1	3.2	3.3	0.6
Italy	1.9	1.9	1.9	2.0	2.1	2.1	2.2	0.6
Netherlands	0.7	0.9	0.9	0.9	0.9	0.9	1.0	0.3
Other Western Europe	3.6	4.6	4.7	4.9	5.0	5.0	5.0	0.3
Industrialized Asia	6.0	6.5	6.4	7.0	7.1	7.2	7.5	0.7
Japan	5.1	5.5	5.4	5.7	5.7	5.7	5.8	0.3
Australia/New Zealand	0.8	1.0	1.0	1.3	1.4	1.5	1.7	2.2
Total Industrialized	38.8	44.1	43.9	49.1	52.1	54.6	57.8	1.2
EE/FSU								
Former Soviet Union	8.4	3.8	3.9	4.4	5.0	5.7	6.4	2.1
Russia	5.4	2.6	2.6	2.9	3.3	3.8	4.3	2.1
Other FSU	3.0	1.2	1.3	1.5	1.7	1.9	2.2	2.1
Eastern Europe	1.6	1.4	1.4	1.6	1.7	1.9	2.1	1.7
Total EE/FSU	10.0	5.2	5.3	5.9	6.7	7.6	8.5	2.0
Developing Countries								
Developing Asia	7.6	14.5	14.8	20.2	23.7	27.6	31.6	3.2
China	2.3	4.8	5.0	7.6	9.2	11.0	12.8	4.0
India	1.2	2.1	2.1	2.8	3.5	4.4	5.3	3.9
South Korea	1.0	2.1	2.1	2.5	2.6	2.7	2.9	1.3
Other Asia	3.1	5.5	5.5	7.3	8.4	9.5	10.7	2.8
Middle East	3.8	5.3	5.4	6.8	7.5	8.3	9.1	2.2
Turkey	0.5	0.7	0.6	0.8	0.9	1.0	1.1	2.4
Other Middle East	3.4	4.7	4.7	6.0	6.6	7.3	8.0	2.2
Africa	2.1	2.5	2.6	3.1	3.6	4.1	4.7	2.5
Central and South America	3.7	5.2	5.2	6.3	7.0	8.0	9.2	2.4
Brazil	1.5	2.2	2.2	2.6	2.9	3.3	3.8	2.3
Other Central/South America	2.3	3.0	3.0	3.7	4.1	4.7	5.4	2.5
Total Developing	17.3	27.6	27.9	36.4	41.8	48.1	54.5	2.8
Total World	66.1	76.9	77.1	91.4	100.5	110.3	120.9	1.9

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A21; and System for the Analysis of Global Energy Markets (2004).

Table A5. World Natural Gas Consumption by Region, Reference Case, 1990-2025
(Trillion Cubic Feet)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	22.5	28.1	26.9	31.8	34.4	37.7	39.8	1.6
United States ^a	19.2	23.5	22.6	26.2	28.0	30.4	31.4	1.4
Canada	2.4	3.3	2.9	3.9	4.3	4.6	4.9	2.2
Mexico	0.9	1.4	1.4	1.7	2.1	2.7	3.5	3.9
Western Europe	10.1	14.6	14.8	16.4	18.2	20.6	23.7	2.0
United Kingdom	2.1	3.4	3.3	3.8	4.3	4.8	5.2	2.0
France	1.0	1.4	1.5	1.5	1.6	1.7	1.8	0.8
Germany	2.7	3.2	3.3	3.6	4.1	5.2	5.6	2.2
Italy	1.7	2.5	2.5	2.8	3.1	3.4	3.5	1.4
Netherlands	1.5	1.7	1.8	1.8	2.0	2.1	2.2	1.0
Other Western Europe	1.2	2.3	2.4	2.9	3.1	3.4	5.3	3.3
Industrialized Asia	2.6	3.8	3.9	4.4	4.9	5.3	6.0	1.8
Japan	1.9	2.8	2.8	3.2	3.5	3.8	4.2	1.6
Australia/New Zealand	0.8	1.0	1.1	1.2	1.3	1.5	1.8	2.2
Total Industrialized	35.2	46.4	45.6	52.6	57.4	63.6	69.5	1.8
EE/FSU								
Former Soviet Union	25.0	20.5	20.8	23.4	26.2	29.5	32.8	1.9
Russia	17.3	14.1	14.4	15.8	17.5	19.5	21.2	1.6
Other FSU	7.7	6.4	6.4	7.6	8.6	10.0	11.6	2.5
Eastern Europe	3.1	2.4	2.7	3.9	4.7	5.9	6.1	3.6
Total EE/FSU	28.1	23.0	23.5	27.3	30.9	35.3	39.0	2.1
Developing Countries								
Developing Asia	3.0	6.6	7.5	9.5	11.6	14.1	17.4	3.5
China	0.5	1.0	1.0	1.9	2.6	3.6	5.0	6.9
India	0.4	0.8	0.8	1.2	1.6	2.0	2.5	4.8
South Korea	0.1	0.7	0.7	1.0	1.3	1.5	1.8	3.9
Other Asia	2.0	4.2	4.9	5.4	6.1	7.0	8.1	2.1
Middle East	3.7	7.3	7.9	8.5	9.5	10.5	12.1	1.8
Turkey	0.1	0.5	0.6	0.8	0.9	1.0	1.1	2.9
Other Middle East	3.6	6.8	7.3	7.7	8.6	9.5	10.9	1.7
Africa	1.4	2.0	2.3	2.7	3.3	3.9	4.6	3.0
Central and South America	2.0	3.3	3.5	4.5	5.5	6.8	8.5	3.8
Brazil	0.1	0.3	0.3	0.9	1.6	2.0	2.6	8.8
Other Central/South America	1.9	3.0	3.2	3.6	3.9	4.8	5.9	2.6
Total Developing	10.1	19.3	21.2	25.2	29.8	35.3	42.6	2.9
Total World	73.4	88.7	90.3	105.1	118.1	134.2	151.1	2.2

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A13; and System for the Analysis of Global Energy Markets (2004).

Table A6. World Coal Consumption by Region, Reference Case, 1990-2025
(Million Short Tons)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	971	1,168	1,148	1,325	1,394	1,498	1,680	1.6
United States ^a	903	1,084	1,060	1,229	1,291	1,391	1,567	1.6
Canada	59	69	73	77	81	83	87	0.8
Mexico	9	15	15	19	22	24	26	2.4
Western Europe	894	559	574	513	493	474	463	-0.9
United Kingdom	119	64	71	65	63	56	49	-1.5
France	35	25	21	13	12	12	11	-2.7
Germany	528	264	265	258	242	234	232	-0.5
Italy	25	20	22	21	21	20	20	-0.5
Netherlands	15	14	23	17	16	16	16	-1.7
Other Western Europe	172	172	172	140	140	136	135	-1.0
Industrialized Asia	231	303	312	336	355	373	404	1.1
Japan	125	160	166	178	186	195	202	0.8
Australia/New Zealand	106	143	147	158	169	179	201	1.3
Total Industrialized	2,095	2,029	2,034	2,174	2,242	2,345	2,547	0.9
EE/FSU								
Former Soviet Union	848	421	446	441	442	441	436	-0.1
Russia	497	267	284	298	304	302	297	0.2
Other FSU	352	154	162	143	138	138	138	-0.7
Eastern Europe	528	390	382	348	321	297	289	-1.2
Total EE/FSU	1,376	811	828	788	763	738	724	-0.6
Developing Countries								
Developing Asia	1,590	1,959	2,084	2,553	2,928	3,343	3,834	2.6
China	1,124	1,282	1,383	1,740	2,041	2,371	2,757	2.9
India	242	359	360	430	484	543	611	2.2
South Korea	49	72	76	104	115	119	127	2.2
Other Asia	175	246	265	280	288	310	339	1.0
Middle East	66	94	95	116	125	134	142	1.7
Turkey	60	80	81	96	107	114	122	1.7
Other Middle East	6	14	14	19	19	20	20	1.6
Africa	152	187	191	206	228	249	268	1.4
Central and South America	27	34	32	43	48	54	59	2.7
Brazil	17	21	21	30	32	36	39	2.7
Other Central/South America	10	13	11	14	16	18	20	2.6
Total Developing	1,835	2,275	2,401	2,918	3,330	3,780	4,303	2.5
Total World	5,307	5,115	5,263	5,881	6,335	6,862	7,574	1.5

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country. To convert short tons to metric tons, divide each number in the table by 1.102.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A16; and System for the Analysis of Global Energy Markets (2004).

Table A7. World Nuclear Energy Consumption by Region, Reference Case, 1990-2025
(Billion Kilowatthours)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	649	830	850	912	932	945	925	0.4
United States ^a	577	754	769	794	812	816	816	0.3
Canada	69	69	73	108	110	118	98	1.2
Mexico	3	8	8	10	10	11	11	1.1
Western Europe	703	845	870	906	897	855	760	-0.6
United Kingdom	59	82	86	69	52	47	28	-4.6
France	298	394	401	447	478	520	550	1.3
Germany	145	161	163	137	107	15	0	-100.0
Italy	0	0	0	0	0	0	0	—
Netherlands	3	4	4	4	4	0	0	-100.0
Other Western Europe	198	204	217	248	257	273	182	-0.7
Industrialized Asia	192	294	309	369	394	426	411	1.2
Japan	192	294	309	369	394	426	411	1.2
Australia/New Zealand	0	0	0	0	0	0	0	—
Total Industrialized	1,544	1,969	2,029	2,187	2,223	2,226	2,095	0.1
EE/FSU								
Former Soviet Union	201	204	210	236	236	204	174	-0.8
Russia	115	122	125	141	154	129	99	-1.0
Other FSU	86	81	85	95	82	76	75	-0.5
Eastern Europe	54	67	72	76	80	84	88	0.8
Total EE/FSU	256	270	282	312	316	288	262	-0.3
Developing Countries								
Developing Asia	88	171	178	299	406	473	497	4.4
China	0	16	17	66	129	142	154	9.7
India	6	14	18	46	55	66	66	5.5
South Korea	50	104	107	141	171	209	220	3.1
Other Asia	32	37	36	47	51	55	56	1.8
Middle East	0	0	0	5	14	14	21	—
Turkey	0	0	0	0	0	0	0	—
Other Middle East	0	0	0	5	14	14	21	—
Africa	8	13	11	14	14	14	14	1.2
Central and South America	9	11	21	21	21	18	18	-0.7
Brazil	2	5	14	14	14	14	14	0.0
Other Central/South America	7	6	7	6	6	3	3	-2.8
Total Developing	105	195	209	339	455	518	549	4.1
Total World	1,905	2,434	2,521	2,838	2,994	3,032	2,906	0.6

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A8; and System for the Analysis of Global Energy Markets (2004).

Table A8. World Consumption of Hydroelectricity and Other Renewable Energy by Region, Reference Case, 1990-2025
(Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	9.5	10.6	9.4	11.6	12.7	13.5	14.4	1.8
United States ^a	6.0	6.4	5.5	7.3	7.9	8.5	9.0	2.1
Canada	3.1	3.8	3.5	3.8	4.2	4.4	4.7	1.3
Mexico	0.3	0.5	0.4	0.5	0.5	0.6	0.6	1.7
Western Europe	4.5	6.0	6.1	6.8	7.2	7.6	8.0	1.1
United Kingdom	0.1	0.1	0.1	0.2	0.2	0.2	0.3	5.5
France	0.6	0.7	0.8	0.9	0.9	1.0	1.0	0.8
Germany	0.3	0.4	0.5	0.5	0.6	0.6	0.6	1.3
Italy	0.4	0.6	0.6	0.8	0.9	0.9	0.9	1.7
Netherlands	0.0	0.1	0.1	0.2	0.2	0.2	0.2	6.2
Other Western Europe	3.2	4.1	4.1	4.1	4.5	4.8	4.9	0.8
Industrialized Asia	1.6	1.6	1.6	1.8	1.9	1.9	2.0	0.9
Japan	1.1	1.1	1.1	1.3	1.3	1.3	1.4	0.9
Australia/New Zealand	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7
Total Industrialized	15.6	18.2	17.1	20.2	21.7	23.0	24.4	1.5
EE/FSU								
Former Soviet Union	2.4	2.3	2.5	2.9	3.1	3.2	3.4	1.2
Russia	1.8	1.7	1.8	2.0	2.1	2.2	2.3	1.0
Other FSU	0.6	0.7	0.7	0.9	1.0	1.0	1.0	1.7
Eastern Europe	0.4	0.6	0.6	0.7	0.9	1.0	1.0	1.8
Total EE/FSU	2.8	3.0	3.2	3.6	4.0	4.1	4.4	1.3
Developing Countries								
Developing Asia	3.2	4.5	5.1	7.2	8.9	10.3	11.9	3.6
China	1.3	2.3	2.8	4.2	5.0	5.9	6.8	3.8
India	0.7	0.8	0.8	1.1	1.3	1.5	1.8	3.2
South Korea	0.0	0.0	0.0	0.1	0.1	0.1	0.1	5.9
Other Asia	1.1	1.4	1.5	1.9	2.5	2.9	3.2	3.3
Middle East	0.4	0.5	0.4	0.6	0.7	0.8	1.0	3.7
Turkey	0.2	0.3	0.3	0.4	0.4	0.5	0.6	3.4
Other Middle East	0.1	0.1	0.1	0.2	0.3	0.3	0.4	4.1
Africa	0.6	0.7	0.8	1.0	1.1	1.2	1.5	2.7
Central and South America	3.9	5.9	5.6	6.4	6.7	7.0	7.3	1.2
Brazil	2.2	3.3	2.9	3.4	3.6	3.9	4.1	1.5
Other Central/South America	1.7	2.6	2.7	3.1	3.2	3.2	3.2	0.8
Total Developing	8.0	11.6	11.8	15.2	17.5	19.5	21.7	2.5
Total World	26.4	32.8	32.2	39.0	43.2	46.6	50.4	1.9

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country. U.S. totals include net electricity imports, methanol, and liquid hydrogen.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A1; and System for the Analysis of Global Energy Markets (2004).