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Contacts

The *International Energy Annual* is prepared by the Energy Information Administration (EIA). General direction is provided by W. Calvin Kilgore, Director, Office of Energy Markets and End Use (202/586-1617); with supervision by Louis D. DeMouy, Director, Integrated Energy Statistics Division (202/586-8994).

Questions about this publication, as well as other energy inquiries, may be directed to the **National Energy Information Center at (202) 586-8800 or infoctr@eia.doe.gov**. Questions regarding specific information in the report may be directed as follows:

Project Manager	Michael J. Grillot	(michael.grillot@eia.doe.gov,	202/586-6577)
World Energy Overview	Michael J. Grillot	(michael.grillot@eia.doe.gov,	202/586-6577)
Petroleum			
Crude Oil Reserves and Production of Crude Oil and Natural Gas Plant Liquids	Patricia A. Smith	(patricia.smith@eia.doe.gov,	202/586-6925)
Consumption and Output of Refined Petroleum Products, Imports and Exports of Crude Oil and Refined Petroleum Products, and Crude Oil Refining Capacity	Joel E. Lou	(joel.lou@eia.doe.gov,	202/586-1457)
Natural Gas	Karen F. Griffin	(karen.griffin@eia.doe.gov,	202/586-1357)
Coal[1]	Joel E. Lou	(joel.lou@eia.doe.gov,	202/586-1457)
Electricity	Patricia A. Smith	(patricia.smith@eia.doe.gov,	202/586-6925)
Prices	Joel E. Lou	(joel.lou@eia.doe.gov,	202/586-1457)
Population and Economic Data	Joel E. Lou	(joel.lou@eia.doe.gov,	202/586-1457)
Energy Chronology	Lowell S. Feld	(lowell.feld@eia.doe.gov,	202/586-9502)
World Carbon Dioxide Emissions	Karen F. Griffin	(karen.griffin@eia.doe.gov,	202/586-1357)

[1]Coal data in this report were prepared by H. Vicky McLaine, who served as Coal Analyst for the International Energy Statistics Team from 1990 until her retirement in January 2002.

Preface

The *International Energy Annual 2000* presents an overview of key international energy trends for production, consumption, imports, and exports of primary energy commodities in over 220 countries, dependencies, and areas of special sovereignty. Also included are population and gross domestic product data, as well as prices for crude oil and petroleum products in selected countries. Renewable energy sources reported in the *International Energy Annual 2000* include hydroelectric power and geothermal, solar, wind, and wood and waste electric power. Also included for the United States are geothermal, solar, and wood and waste energy not used for electricity generation.

This report is published to keep the public and other interested parties fully informed of primary energy supplies on a global basis. The data presented have been largely derived from published sources. The data have been converted to units of measurement and thermal values (Appendices E and F) familiar to the American public.

Important Notes: (1) The Energy Information Administration (EIA) reviews its databases each year and important revisions are made to the time series of individual countries during this review. Therefore, data in the *International Energy Annual 2000* may have been substantially revised with respect to previous editions. (2) The methodologies used to impute the gross heat content of hydroelectric, nuclear electric, geothermal electric, and solar, wind, and wood and waste electric power are discussed in the "Note" section at the bottom of Tables C7, C8, C9, and C10, respectively.

Although EIA has mandatory data collection authority for collecting energy information within the United States, it has no authority to require reporting of data from foreign countries. Data for the *International Energy Annual* must be researched and collected from the most authoritative available sources outside EIA. Because EIA does not have access to the statistical surveys of other countries, it is not able to develop error estimates or revision errors such as might be developed in EIA's domestic surveys.

EIA attempts to identify and collect the best data available for foreign countries. The most authoritative sources are usually the official national statistical reports of a country. However, data from official sources are not always available. Therefore, EIA also uses data from reputable secondary sources such as the Asia-Pacific Economic Cooperation forum, the International Energy Agency, the International Monetary Fund, the Latin American Energy Organization, the United Nations, the World Bank, and others. In addition, EIA uses industry reports, academic studies, trade publications, and other sources. Typically these sources are less timely and complete than mandatory survey data for the United States collected by EIA. As a result, it usually takes EIA about two years to prepare complete energy information for all foreign countries.

Electronic Access and Related International (Energy) Web Page

The *International Energy Annual 2000* (*IEA2000*) is also available on EIA's Internet site at:
http://www.eia.doe.gov/iea
The *IEA2000* on EIA's Internet site includes text and tables in HTML and PDF formats and most of the tables are also available there as downloadable spreadsheets, many with data for all countries for all of the years 1980-2000. The entire *IEA2000* publication is also available in PDF format on the EIA FTP site at:
http://www.eia.doe.gov/pub/pdf/international/021900.pdf

Important Note: All of the data contained in the *IEA2000*, as well as additional international energy data, forecasts, and analyses, are available on the **International (Energy) Channel** on EIA's Internet site at: **http://www.eia.doe.gov/international** (If you would like to be notified immediately by Email of any updates to the annual data, go to **http://www.eia.doe.gov/listserv_signup.html** and select the last item**, Annual Statistics**, in the **International** section. Then enter your Email address and select **Save**.)

Many factors beyond EIA's control affect the reliability and integrity of foreign country data. These include a country's level of economic development, commitment to statistical programs, openness with information, and other considerations.

Publication of this report is in keeping with responsibilities given the Energy Information Administration (EIA) in Public Law 95-91/Section 205(a) that states:

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....

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WORLD ENERGY OVERVIEW

The *International Energy Annual* presents information and trends on world energy production and consumption for petroleum, natural gas, coal, and electricity. Production and consumption data are reported in standard units as well as British thermal units (Btu). Trade and reserves are shown for petroleum, natural gas, and coal. Data are provided on crude oil refining capacity and electricity installed capacity by type. Prices are included for selected crude oils and for refined petroleum products in selected countries. Population and Gross Domestic Product data are also provided.

(**Note:** In the discussion that follows, the data for total **production** of primary energy in 1991 and 2000 include production in the United States of 2.3 and 2.7 quadrillion Btu, respectively, of renewable energy not used for electricity generation. This renewable energy production includes ethanol blended into motor gasoline and geothermal, solar, and wood and waste energy not used for electricity generation. Likewise, the data for total **consumption** of primary energy in 1991 and 2000 include consumption in the United States of 2.3 and 2.7 quadrillion Btu, respectively, of renewable energy not used for electricity generation and selected electricity imports. Included are geothermal, solar, and wood and waste energy not used for electricity generation, electricity imports from Mexico that are derived from geothermal energy, and net imports of electricity from nonrenewable sources.)

World Primary Energy Production Trends

Between 1991 and 2000, the world's total output of primary energy--petroleum, natural gas, coal, and electric power (hydro, nuclear, geothermal, solar, wind, and wood and waste)--increased at an average annual rate of 1.4 percent (Table 2.9). World production increased from 351 quadrillion Btu in 1991 to 397 quadrillion Btu in 2000.

In 2000, petroleum (crude oil and natural gas plant liquids) continued to be the world's most important primary energy source, accounting for 39.1 percent, or 155 quadrillion Btu, of world primary energy production (Table 2.9). Between 1991 and 2000, petroleum production increased by 9.3 million barrels per day, or 14.3 percent, rising from 65.0 to 74.3 million barrels per day (Tables 2.2 and 2.3). The Middle East had the largest production gain, followed by Central and South America, and Western Europe. Their combined gains over the period from 1991 to 2000 were 10.0 million barrels per day. In the Eastern Europe and Former U.S.S.R. region, average daily production fell by 2.3 million barrels per day.

Coal ranked second as a primary energy source in 2000, accounting for 23.3 percent of world primary energy production (Table 2.9). World coal production totaled 5.06 billion short tons--93 quadrillion Btu--in 2000, but it was down by 1.1 percent from the 1991 level of 5.12 billion short tons (Tables 2.1 and 2.9).

Dry natural gas ranked third as a primary energy source, accounting for 22.9 percent of world primary energy production in 2000 (Table 2.9). Production of dry natural gas was 88.0 trillion cubic feet, or 91 quadrillion Btu, in 2000 (Tables 2.1 and 2.9). Production increased by 13.3 trillion cubic feet from 74.8 trillion cubic feet in 1991, a gain of 17.7 percent.

Hydro, nuclear, and other (geothermal, solar, wind, and wood and waste) electric power generation ranked fourth, fifth, and sixth, respectively, as primary energy sources in 2000, accounting for 6.9, 6.5, and 0.8 percent, respectively, of world primary energy production (Table 2.9). Together they accounted for a combined total of 5.3 trillion kilowatthours--56 quadrillion Btu--in 2000 (Tables 2.1 and 2.9). Nuclear electric power generation increased significantly between 1991 and 2000, rising from 2.0 trillion kilowatthours to 2.4 trillion kilowatthours, a 22.2-percent increase. Geothermal, solar, wind, and wood and waste electric power generation also increased significantly over the same period, rising from 138 billion kilowatthours to 240 billion kilowatthours, a 74.0-percent increase. Hydroelectric power continued to represent the largest share of primary electric power generation contributing 2.6 trillion kilowatthours in 2000, up 19.9 percent from 2.2 trillion kilowatthours in 1991.

In 2000, United States production of 2.7 quadrillion Btu of renewable energy not used for electricity generation ranked seventh as a primary energy source, accounting for 0.7 percent of world primary energy production.

Major Energy Producers and Consumers

In 2000, three countries--the United States, Russia, and China--were the leading producers and consumers of world energy (Tables F1 and E1). These three countries produced 38 percent and consumed 41 percent of the world's total energy.

The United States, Russia, China, Saudi Arabia, and Canada were the world's five largest producers of energy in 2000, supplying 47.6 percent of the world's total energy (Table F1). The next five leading producers of primary energy were the United Kingdom, Iran, Norway, Australia, and India, and together they supplied an additional 12.8 percent of the world's total energy. The United States supplied 71.6 quadrillion Btu of primary energy, significantly more than the 43.3 quadrillion Btu produced by Russia or the 34.9 quadrillion Btu produced by China.

The United States, China, Russia, Japan, and Germany were the world's five largest consumers of primary energy in 2000, accounting for 50.1 percent of world energy consumption (Table E1). They were followed by Canada, India, France, the United Kingdom, and Brazil, which together accounted for an additional 13.9 percent of world energy consumption. The United States consumed 98.8 quadrillion Btu, more than two and one-half times as much as the 36.7 quadrillion Btu consumed by China, while Russia consumed 28.1 quadrillion Btu.

Regional Energy Production and Consumption

Comparisons of energy production and consumption by region help to highlight key energy trends since 1991. In **North America**, the overall production of energy rose by 6.6 quadrillion Btu between 1991 and 2000 (Table F1). The supply of natural gas increased significantly, by 4.1 quadrillion Btu, while the production of nuclear electric power and coal increased by 1.3 quadrillion Btu and 1.1 quadrillion Btu, respectively (Tables F4, F7, and F5). These increases more than offset a 1.7-quadrillion-Btu decrease in crude oil production (Table F2). Energy consumption in North America increased by 17.8 quadrillion Btu between 1991 and 2000, the second largest increase for any region (Table E1). The largest North American increases occurred in the consumption of petroleum, 6.8 quadrillion Btu, natural gas, 4.8 quadrillion Btu, coal, 3.8 quadrillion Btu, and nuclear electric power, 1.3 quadrillion Btu (Tables E2, E3, E4 and E6).

Overall production of energy in the **Central and South America** region increased by 8.2 quadrillion Btu between 1991 and 2000, led by increases in crude oil production, 4.1 quadrillion Btu, hydroelectric power generation, 1.8 quadrillion Btu, and natural gas production, 1.4 quadrillion Btu (Tables F1, F2, F6, and F4). Energy consumption in the Central and South America region increased by 6.0 quadrillion Btu over the same period (Table E1). The largest increases occurred in the consumption of petroleum, 2.7 quadrillion Btu, hydroelectric power, 1.8 quadrillion Btu, and natural gas, 1.2 quadrillion Btu (Tables E2, E5, and E3).

In 2000, total energy production in **Western Europe** was 5.7 quadrillion Btu higher than in 1991 (Table F1). Gains between 1991 and 2000 were greatest for crude oil, 3.8 quadrillion Btu, natural gas, 2.6 quadrillion Btu, nuclear electric power generation, 1.2 quadrillion Btu, and hydroelectric power generation, 1.0 quadrillion Btu (Tables F2, F4, F7, and F6). These increases more than offset a sharp, 3.8-quadrillion-Btu, drop in coal production (Table F5). Western European energy consumption increased by 6.2 quadrillion Btu between 1991 and 2000 (Table E1). The increase was led by natural gas, 4.4 quadrillion Btu, petroleum, 2.0 quadrillion Btu, nuclear electric power, 1.2 quadrillion Btu, and hydroelectric power, 1.0 quadrillion Btu, which together more than offset a 3.2 quadrillion Btu decrease in coal consumption (Tables E3, E2, E6, E5, and E4).

Between 1991 and 2000, both energy production and energy consumption in the **Eastern Europe and Former U.S.S.R.** region declined by more than 13 quadrillion Btu (Tables F1 and E1). As a result, this was the only region to experience declines in either total energy production or consumption over the period. The 13.2-quadrillion-Btu decline in energy production was concentrated in crude oil, 4.9 quadrillion Btu, coal, 4.8 quadrillion Btu, and natural gas, 3.6 quadrillion Btu (Tables F1, F2, F5, and F4). The 18.3-quadrillion-Btu decline in energy consumption included declines in petroleum, 9.8 quadrillion Btu, natural gas, 4.7 quadrillion Btu, and coal, 3.7 quadrillion Btu (Tables E1, E2, E3, and E4).

Since 1991, energy production in the **Middle East** increased by 16.8 quadrillion Btu, the second largest increase for any region (Table F1). The increase was concentrated in crude oil, 12.4 quadrillion Btu, and

natural gas, 4.0 quadrillion Btu (Tables F2 and F4). The increase in energy consumption in the Middle East between 1991 and 2000 was much smaller, only 5.5 quadrillion Btu (Table E1). The largest consumption increases were in natural gas, 3.2 quadrillion Btu, and petroleum, 2.2 quadrillion Btu (Tables E3 and E2).

Energy production in **Africa** increased by 5.5 quadrillion Btu between 1991 and 2000, led by increases in the production of natural gas, 1.8 quadrillion Btu, coal, 1.7 quadrillion Btu, and crude oil, 1.6 quadrillion Btu (Tables F1, F4, F5, and F2). Energy consumption in Africa grew more slowly over the same period, rising by only 2.1 quadrillion Btu, with petroleum consumption accounting for 0.8 quadrillion Btu of the increase, coal for 0.7 quadrillion Btu, and natural gas for 0.5 quadrillion Btu (Tables E1, E2, E4, and E3).

The largest regional increase in primary energy production between 1991 and 2000 occurred in the **Asia and Oceania** region, where production increased by 17.3 quadrillion Btu (Table F1). Coal production accounted for 8.0 quadrillion Btu, natural gas for 3.9 quadrillion Btu, crude oil for 1.9 quadrillion Btu, nuclear electric power generation for 1.7 quadrillion Btu, and hydroelectric power generation for 1.2 quadrillion Btu (Tables F5, F4, F2, F7, and F6). Consumption in this region increased by 28.8 quadrillion Btu over the same period, also the largest increase for any region (Table E1). 46 percent, or 13.2 quadrillion Btu, of this increase occurred in the consumption of petroleum (Table E2). At the same time, the consumption of coal of increased by 7.9 quadrillion Btu, natural gas by 4.7 quadrillion Btu, nuclear electric power by 1.7 quadrillion Btu, and hydroelectric power by 1.2 quadrillion Btu (Tables E4, E3, E6, and E5).

Petroleum

Global production of petroleum (crude oil and natural gas plant liquids) increased by 9.3 million barrels per day between 1991 and 2000, an average annual rate of growth of 1.5 percent (Tables 2.2 and 2.3). Saudi Arabia, the United States, and Russia were the three largest producers of petroleum in 2000. Together, they produced 31.7 percent of the world's petroleum. Production from Iran and Mexico accounted for an additional 9.7 percent.

In 2000, the United States consumed 19.7 million barrels per day of petroleum—26 percent of world consumption (Table 1.2). Japan ranked a distant second in consumption, with 5.5 million barrels per day, followed by China, Germany, and Russia.

Natural Gas

World production of dry natural gas increased by 13.3 trillion cubic feet, or at an average annual rate of 1.8 percent, over the period from 1991 to 2000 (Table 2.4). Russia was the leading producer in 2000 at 20.6 trillion cubic feet, followed by the United States at 19.0 trillion cubic feet. Together these two countries produced 45 percent of the world total. Canada ranked a distant third in production at 6.5 trillion cubic feet, followed by the United Kingdom and Algeria, with 3.8 and 2.9 trillion cubic feet, respectively. These three countries accounted for 15 percent of the world total.

In 2000, the United States, which was the leading consumer of dry natural gas at 22.5 trillion cubic feet, and Russia, which ranked second at 14.1 trillion cubic feet, together accounted for 42 percent of world consumption (Table 1.3). The United Kingdom ranked a distant third in consumption, with 3.4 trillion cubic feet, followed by Canada and Germany, at 3.3 and 3.1 trillion cubic feet, respectively.

Coal

Coal was the only primary energy source to experience a production decline between 1991 and 2000 (Table 2.1). Production decreased by 57 million short tons over the period. China was the leading producer in 2000 at 1.3 billion short tons--equivalent to 24.3 quadrillion Btu (Tables 2.5 and F5). The United States was the second leading producer in 2000 with 1.1 billion short tons--equivalent to 22.6 quadrillion Btu. India ranked a distant third at 345 million short tons--equivalent to 6.1 quadrillion Btu, followed by Australia, at 337 million short tons--equivalent to 6.6 quadrillion Btu, and South Africa at 326 million short tons--equivalent to 7.0 quadrillion Btu. Together, these five countries accounted for 67 percent of world coal production in 2000 (Table 2.5).

China was also the largest consumer of coal in 2000, using 1.3 billion short tons, followed by the United States, which consumed 1.1 billion short tons, India, Russia, and Germany (Table 1.4). These five countries together accounted for 64 percent of world coal consumption.

Hydroelectric Power

The generation of hydroelectric power increased by 440 billion kilowatthours between 1991 and 2000, or at an average annual rate of 2.0 percent (Table 2.6). Canada, Brazil, the United States, China, and Russia, were the five largest producers of hydroelectric power in 2000. Their combined hydroelectric power generation accounted for 49 percent of the world total. Canada led the world with 353 billion kilowatthours or 3.7 quadrillion Btu (Tables 2.6 and F6). Brazil ranked second with 305 billion kilowatthours or 3.2 quadrillion Btu and the United States was third with 273 billion kilowatthours or 2.8 quadrillion Btu. China was fourth with 220 billion kilowatthours or 2.3 quadrillion Btu, followed by Russia with 158 billion kilowatthours or 1.6 quadrillion Btu.

Nuclear Electric Power

The generation of nuclear electric power increased by 442 billion kilowatthours between 1991 and 2000, or at an average annual rate of 2.3 percent (Table 2.7). The United States led the world in nuclear electric power generation in 2000 with 754 billion kilowatthours or 8.0 quadrillion Btu (Tables 2.7 and F7). France was second with 394 billion kilowatthours or 4.1 quadrillion Btu and Japan ranked third with 294 billion kilowatthours or 3.0 quadrillion Btu. In 2000, these three countries generated 59 percent of the world's nuclear electric power (Table 2.7).

Geothermal, Solar, Wind, and Wood and Waste Electric Power

The generation of geothermal, solar, wind, and wood and waste electric power increased by 102 billion kilowatthours between 1991 and 2000, or at an average annual rate of 6.3 percent (Table 2.8). The United States led the world in geothermal, solar, wind, and wood and waste electric power generation in 2000 with 84.1 billion kilowatthours. Japan was second with 18.5 billion kilowatthours, followed by the Germany with 17.6 billion kilowatthours, Brazil with 12.8 billion kilowatthours, and the Philippines with 9.2 billion kilowatthours. These five countries accounted for 59 percent of the world geothermal, solar, wind, and wood and waste electric power generation in 2000.

Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels

Total world carbon dioxide emissions from the consumption of petroleum, natural gas, and coal, and the flaring of natural gas increased from 5.882 billion metric tons carbon equivalent in 1991 to 6.443 billion metric tons in 2000, or by 9.5 percent (Table H1). The average annual growth rate of carbon dioxide emissions over the period was 1.0 percent. (**Note: Carbon dioxide emissions are measured here in metric tons carbon equivalent. Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667.** One ton carbon equivalent equals 3.667 tons of carbon dioxide gas.) The United States, China, Russia, Japan, and India were the world's five largest sources of carbon dioxide emissions from the consumption and flaring of fossil fuels in 2000, producing 52 percent of the world total. The next five leading producers of carbon dioxide emissions from the consumption and flaring of fossil fuels were Germany, Canada, the United Kingdom, Italy, and South Korea, and together they produced an additional 12 percent of the world total. In 2000, total United States carbon dioxide emissions from the consumption and flaring of fossil fuels were 1.571 billion metric tons carbon equivalent, more than two times as much as the 775 million metric tons produced by China, while Russia produced 451 million metric tons.

In 2000, the consumption of petroleum was the world's primary source of carbon dioxide emissions from the consumption and flaring of fossil fuels, accounting for 42 percent of the total (Tables H2 and H1). Between 1991 and 2000 emissions from the consumption of petroleum increased by 217 million metric tons carbon equivalent, or 8.7 percent, rising from 2.492 to 2.708 billion metric tons. The United States was the largest producer of carbon dioxide from the consumption of petroleum in 2000 and accounted for 24 percent of the world total. Japan was the second largest producer, followed by China, Russia, and Germany, and together these four countries accounted for an additional 20 percent.

Coal ranked second as a source of carbon dioxide emissions from the consumption and flaring of fossil fuels in 2000, accounting for 37 percent of the total (Tables H4 and H1). World carbon dioxide emissions from the consumption of coal totaled 2.387 billion metric tons carbon equivalent in 2000, up 6.9 percent from the 1991 level of 2.233 billion metric tons. China and the United States were the two largest producers of carbon dioxide from the consumption of coal in 2000 and together they accounted for 49 percent of the world total. India, Russia, and Japan accounted for an additional 17 percent.

Carbon dioxide emissions from the consumption and flaring of natural gas accounted for the remaining 21

percent of carbon dioxide emissions from the consumption and flaring of fossil fuels in 2000 (Tables H3 and H1). Emissions from the consumption and flaring of natural gas increased from 1.158 billion metric tons carbon equivalent in 1991 to 1.348 billion metric tons in 2000, or by 16.4 percent. The United States and Russia were the two largest producers of carbon dioxide from the consumption and flaring of natural gas in 2000 and together they accounted for 40 percent of the world total. The United Kingdom, Canada, and Germany accounted for an additional 11 percent.

Section 1

World Energy Consumption, 1991-2000

Table 1.1 World Consumption of Primary Energy by Selected Country Groups, 1991 - 2000

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Petroleum (thousand barrels per day)										
World Total	**66,733**	**66,941**	**67,143**	**68,439**	**70,037**	**71,595**	**73,062**	**73,790**	**75,300**	**76,021**
OECD [2]	41,632	42,637	43,043	44,230	45,008	46,111	46,694	46,955	47,762	47,981
Non OECD	25,100	24,304	24,099	24,209	25,029	25,484	26,368	26,835	27,538	28,039
Other Groups:										
OECD Europe	14,059	14,285	14,201	14,289	14,822	15,030	15,077	15,406	15,237	15,205
OPEC [3]	4,521	4,666	4,914	5,062	5,235	5,294	5,517	5,446	5,528	5,678
EU. [4]	12,443	12,631	12,481	12,577	13,052	13,129	13,137	13,447	13,286	13,239
IEA [5]	38,216	38,936	39,264	40,192	40,878	41,745	42,104	42,577	43,190	43,318
Natural Gas (trillion cubic feet)										
World Total	**74.39**	**74.37**	**76.64**	**76.39**	**78.04**	**81.56**	**81.33**	**81.94**	**84.29**	**87.38**
OECD [2]	37.59	38.23	39.76	40.75	42.72	44.77	44.74	44.64	46.22	48.00
Non OECD	36.81	36.14	36.88	35.63	35.31	36.79	36.58	37.30	38.07	39.38
Other Groups:										
OECD Europe	12.34	12.14	12.72	12.91	13.90	15.05	14.84	15.34	16.05	16.39
OPEC [3]	5.58	6.09	6.43	6.88	7.31	7.97	8.47	8.73	9.01	9.10
EU. [4]	10.73	10.63	11.12	11.32	12.08	13.07	12.79	13.27	13.88	14.22
IEA [5]	35.61	36.32	37.96	38.86	40.67	42.53	42.33	42.16	43.67	45.25
Coal (million short tons)										
World Total	**5,060**	**4,999**	**5,048**	**5,084**	**5,207**	**5,282**	**5,201**	**5,114**	**5,050**	**5,146**
OECD [2]	2,424	2,345	2,334	2,317	2,317	2,355	2,392	2,383	2,354	2,440
Non OECD	2,636	2,654	2,714	2,767	2,890	2,927	2,810	2,730	2,696	2,707
Other Groups:										
OECD Europe	1,170	1,090	1,032	996	968	951	947	918	878	899
OPEC [3]	10	11	12	14	14	19	17	21	17	16
EU. [4]	773	708	654	636	606	605	575	562	540	554
IEA [5]	2,054	1,993	2,060	2,052	2,046	2,109	2,123	2,128	2,109	2,186
Hydroelectric Power (billion kilowatthours)										
World Total	**2,222.8**	**2,226.2**	**2,360.6**	**2,385.4**	**2,501.1**	**2,540.8**	**2,596.6**	**2,586.3**	**2,626.7**	**2,674.8**
OECD [2]	1,202.2	1,195.1	1,269.4	1,231.1	1,314.1	1,353.7	1,373.5	1,333.7	1,346.1	1,350.0
Non OECD	1,020.6	1,031.1	1,091.2	1,154.3	1,187.0	1,187.1	1,223.1	1,252.6	1,280.6	1,324.9
Other Groups:										
OECD Europe	438.4	467.2	486.0	487.3	493.1	473.4	489.8	504.5	508.6	533.8
OPEC [3]	67.6	72.8	71.9	71.1	72.9	75.6	78.6	76.2	77.9	88.5
EU. [4]	264.4	281.4	285.6	293.5	287.2	287.5	292.6	301.7	300.5	311.6
IEA [5]	1,166.4	1,154.7	1,227.4	1,196.1	1,270.5	1,307.1	1,331.3	1,293.0	1,296.9	1,300.1
Nuclear Electric Power (billion kilowatthours)										
World Total	**1,992.0**	**2,011.8**	**2,077.8**	**2,121.3**	**2,206.0**	**2,286.5**	**2,266.1**	**2,316.9**	**2,391.0**	**2,434.2**
OECD [2]	1,716.6	1,741.8	1,806.7	1,866.7	1,939.1	1,990.5	1,967.1	2,023.8	2,090.6	2,112.0
Non OECD	275.4	270.0	271.1	254.6	266.9	295.9	299.0	293.1	300.4	322.2
Other Groups:										
OECD Europe	762.9	776.9	809.6	808.3	824.3	862.9	871.3	872.6	884.3	884.3
OPEC [3]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU. [4]	705.7	718.1	750.7	748.0	764.9	802.1	811.1	811.5	822.1	821.2
IEA [5]	1,636.5	1,661.1	1,735.2	1,795.4	1,856.5	1,901.6	1,873.5	1,918.9	1,970.7	1,987.6

See footnotes at end of table.

Table 1.1 World Consumption of Primary Energy by Selected Country Groups, 1991 - 2000 (Continued)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Geothermal, Solar, Wind, Wood and Waste Electric Power (billion kilowatthours)										
World Total	**138.1**	**157.0**	**165.1**	**174.6**	**181.5**	**188.6**	**199.4**	**206.3**	**228.3**	**240.3**
OECD [2]	122.8	138.4	146.7	153.7	157.5	163.1	170.0	173.6	191.8	200.9
Non OECD	15.3	18.6	18.4	20.9	24.0	25.5	29.5	32.7	36.5	39.4
Other Groups:										
OECD Europe	20.1	28.2	33.5	36.6	41.1	43.3	51.8	61.7	68.5	77.0
OPEC [3]	1.0	1.0	1.0	1.8	2.1	2.2	2.5	3.7	3.9	4.6
EU. [4]	18.5	26.7	31.7	34.2	38.5	40.6	48.6	58.1	64.0	72.3
IEA [5]	116.9	132.3	140.5	147.8	151.5	156.9	163.8	166.7	184.3	192.9

[1] Preliminary.
[2] The Organization for Economic Cooperation and Development (OECD) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, South, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). Refer to Appendix A for a listing of OECD Europe.
[3] The Organization of Petroleum Exporting Countries (OPEC) includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
[4] European Union (EU) includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom.
[5] International Energy Agency (IEA) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). No Czech Republic data for 1991-1992.
Notes: For consistency data reflect 2000 membership (as of December 31, 2000) for all years. The country groups OECD, OECD Europe, EU, and IEA include unified Germany. Data for the Czech Republic are included in the country group IEA beginning in 1993, the year that the country came into existence.
Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Sections 3, 4, 5, and 6.

Table 1.2 World Petroleum Consumption, 1991 - 2000

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	1,622	1,643	1,688	1,727	1,755	1,797	1,923	1,947	2,029	2,073
Mexico	1,695	1,723	1,710	1,795	1,724	1,763	1,855	1,948	2,000	1,992
United States	16,714	17,033	17,237	17,718	17,725	18,309	18,620	18,917	19,519	19,701
Other	6	8	8	8	8	8	8	8	8	8
Total	**20,036**	**20,407**	**20,642**	**21,248**	**21,212**	**21,876**	**22,406**	**22,820**	**23,556**	**23,775**
Central & South America										
Argentina	424	445	468	458	453	479	476	492	496	485
Bolivia	26	26	27	30	33	35	36	40	43	42
Brazil	1,484	1,521	1,580	1,674	1,788	1,904	2,031	2,096	2,130	2,155
Chile	144	151	168	179	197	217	228	239	244	245
Colombia	205	230	240	244	251	278	287	289	277	272
Costa Rica	20	25	27	28	31	30	31	35	39	34
Cuba	204	180	179	183	187	192	164	159	162	164
Dominican Republic	62	64	59	68	72	78	84	86	99	95
Ecuador	104	119	112	120	123	129	135	137	128	133
El Salvador	19	22	22	25	31	30	32	38	38	37
Guatemala	26	31	34	38	41	44	48	58	59	60
Honduras	17	18	18	20	23	25	25	29	31	32
Jamaica	47	51	52	55	60	62	66	67	69	70
Netherlands Antilles	64	63	63	66	69	69	74	74	71	72
Panama	33	41	40	44	43	47	49	52	53	55
Peru	113	119	126	132	143	153	171	172	167	169
Puerto Rico	176	156	162	165	162	156	153	160	154	160
Trinidad and Tobago	21	22	21	24	22	20	22	22	23	24
Uruguay	30	32	35	33	31	34	37	44	48	43
Venezuela	405	414	427	440	448	444	455	457	461	468
Virgin Islands, U.S.	56	55	53	56	90	78	96	127	146	150
Other	113	115	124	129	142	141	152	166	169	166
Total	**3,792**	**3,900**	**4,038**	**4,213**	**4,441**	**4,647**	**4,853**	**5,039**	**5,109**	**5,131**
Western Europe										
Austria	235	228	231	235	234	232	243	248	284	262
Belgium	499	511	499	510	499	564	591	601	568	586
Denmark	194	193	198	210	225	238	235	229	223	215
Finland	227	222	212	220	175	193	219	209	215	202
France	1,935	1,926	1,875	1,833	1,896	1,935	1,957	2,030	2,027	2,021
Germany	2,828	2,843	2,900	2,879	2,875	2,911	2,915	2,921	2,836	2,770
Greece	320	331	339	349	350	368	374	392	384	399
Ireland	99	104	104	113	126	126	133	149	167	169
Italy	1,863	1,937	1,852	1,841	2,048	2,058	1,908	1,945	1,841	1,867
Luxembourg	39	39	39	39	37	38	40	42	46	47
Netherlands	756	766	760	760	790	771	810	813	835	852
Norway	184	183	186	183	196	216	230	230	224	197
Portugal	253	277	268	270	290	277	299	330	333	333
Spain	1,072	1,109	1,056	1,127	1,256	1,175	1,280	1,377	1,429	1,461
Sweden	323	342	332	353	406	398	328	371	360	334
Switzerland	284	287	277	281	257	275	284	272	272	273
Turkey	468	492	564	540	601	633	634	627	625	663
United Kingdom	1,801	1,803	1,815	1,837	1,845	1,845	1,805	1,789	1,739	1,721
Former Yugoslavia	251	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	35	23	20	19	18	18	21	21	21
Croatia	--	65	63	79	88	78	81	90	91	88
Macedonia, TFYR	--	19	21	18	18	23	21	22	20	19
Slovenia	--	35	41	42	47	54	56	60	54	55
Yugoslavia	--	56	33	32	27	49	67	63	58	55
Other	31	42	45	46	46	48	72	53	63	62
Total	**13,660**	**13,847**	**13,735**	**13,819**	**14,351**	**14,524**	**14,601**	**14,885**	**14,712**	**14,672**

See footnotes at end of table.

Table 1.2 World Petroleum Consumption, 1991 - 2000 (Continued)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	18	21	17	13	15	12	10	10	9	9
Bulgaria	121	130	117	126	131	119	107	103	97	92
Former Czechoslovakia	232	213	--	--	--	--	--	--	--	--
Czech Republic	--	--	147	152	158	182	164	171	179	164
Slovakia	--	--	61	63	65	66	68	71	69	65
Hungary	161	171	166	168	160	148	153	159	154	145
Poland	275	297	304	309	318	365	389	412	409	441
Romania	277	250	248	221	244	257	270	250	210	195
Former U.S.S.R.	8,350	--	--	--	--	--	--	--	--	--
Armenia	--	48	25	8	6	3	3	3	4	4
Azerbaijan	--	203	194	187	179	134	129	146	149	140
Belarus	--	375	289	241	228	206	186	190	159	145
Estonia	--	25	28	25	26	27	27	27	24	23
Georgia	--	27	16	7	8	19	21	26	26	27
Kazakhstan	--	404	341	304	281	256	210	201	148	155
Kyrgyzstan	--	33	19	9	12	12	10	14	12	12
Latvia	--	52	41	40	42	47	36	33	25	25
Lithuania	--	84	76	78	73	68	67	73	56	54
Moldova	--	57	40	22	22	17	20	15	9	9
Russia	--	4,423	3,750	3,179	2,976	2,619	2,562	2,489	2,538	2,500
Tajikistan	--	20	17	7	10	27	27	28	29	29
Turkmenistan	--	76	66	63	64	62	66	58	54	50
Ukraine	--	813	570	495	484	388	363	384	374	360
Uzbekistan	--	190	177	168	180	139	140	140	143	130
Total	**9,434**	**7,910**	**6,710**	**5,885**	**5,681**	**5,173**	**5,028**	**5,004**	**4,878**	**4,773**
Middle East										
Bahrain	21	21	20	21	23	24	25	26	24	27
Cyprus	32	38	38	43	43	42	43	46	49	50
Iran	1,075	1,083	1,108	1,130	1,140	1,119	1,222	1,158	1,095	1,080
Iraq	263	341	409	457	474	469	443	447	451	460
Israel	173	201	198	200	210	214	237	247	254	265
Jordan	63	73	72	82	85	92	88	96	96	97
Kuwait	95	120	131	166	173	189	212	238	286	305
Lebanon	53	55	67	76	82	85	97	100	104	106
Oman	39	40	39	40	42	47	49	51	53	54
Qatar	35	38	40	43	47	51	58	61	59	60
Saudi Arabia	1,019	1,039	1,088	1,109	1,168	1,197	1,204	1,216	1,261	1,300
Syria	178	185	209	224	226	229	240	248	256	260
United Arab Emirates	302	305	310	318	316	306	317	322	324	325
Yemen	78	83	69	66	68	68	70	71	62	67
Total	**3,426**	**3,622**	**3,798**	**3,975**	**4,100**	**4,131**	**4,306**	**4,328**	**4,373**	**4,456**

See footnotes at end of table.

Table 1.2 World Petroleum Consumption, 1991 - 2000 (Continued)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Africa										
Algeria	208	210	207	204	205	198	199	206	198	205
Angola	25	26	25	25	27	25	29	26	31	30
Cameroon	25	25	21	23	23	23	23	23	22	22
Congo (Brazzaville)	6	6	6	7	7	7	7	7	4	5
Congo (Kinshasa)	22	24	25	26	24	25	26	25	21	22
Cote d'Ivoire (Ivory Coast)	25	25	28	29	29	30	28	27	30	30
Egypt	456	444	450	448	458	501	531	555	550	540
Ethiopia	16	23	22	14	15	12	12	17	21	20
Gabon	16	16	15	18	19	21	19	17	18	19
Ghana	20	22	23	26	27	27	26	27	31	32
Kenya	37	41	42	44	46	48	44	51	52	53
Libya	166	145	160	166	172	177	187	175	177	180
Morocco	117	130	135	148	142	137	146	144	158	150
Nigeria	259	265	271	252	284	286	277	260	252	260
Senegal	16	19	19	23	25	25	23	25	28	30
South Africa	403	412	402	410	421	428	439	451	466	480
Sudan	36	33	32	28	26	26	27	27	30	31
Tunisia	68	71	74	75	70	73	78	81	79	80
Zimbabwe	23	21	22	23	25	28	30	31	31	32
Other	172	192	195	204	209	211	217	221	231	219
Total	**2,117**	**2,150**	**2,175**	**2,191**	**2,255**	**2,309**	**2,372**	**2,395**	**2,430**	**2,440**
Asia & Oceania										
Australia	706	712	756	790	834	801	827	839	860	859
Bangladesh	38	37	40	46	51	52	56	58	67	70
Brunei	10	7	9	11	11	13	16	14	13	15
Burma	16	16	17	19	18	20	25	30	36	38
China	2,499	2,662	2,959	3,161	3,363	3,610	3,916	4,106	4,364	4,780
Guam	14	17	23	32	24	22	25	20	22	22
Hong Kong	133	152	158	180	186	183	138	184	289	254
India	1,190	1,275	1,311	1,413	1,575	1,681	1,765	1,844	1,959	1,990
Indonesia	695	707	765	778	807	859	942	906	964	1,035
Japan	5,284	5,446	5,401	5,674	5,711	5,867	5,728	5,528	5,587	5,528
Korea, North	76	74	72	70	63	48	49	70	77	80
Korea, South	1,202	1,456	1,690	1,856	2,007	2,155	2,260	1,930	2,075	2,146
Malaysia	282	302	336	378	399	435	469	449	454	459
Mongolia	15	13	13	13	11	12	8	8	9	9
New Zealand	105	111	123	128	154	134	129	133	133	146
Pakistan	221	227	256	282	298	327	333	347	351	365
Papua New Guinea	15	15	15	15	15	15	15	15	15	16
Philippines	235	260	285	303	328	346	365	381	370	355
Singapore	389	420	469	503	512	586	648	668	706	735
Sri Lanka	34	37	41	45	48	53	60	61	66	65
Taiwan	545	557	616	659	737	780	775	808	853	845
Thailand	437	476	545	603	679	749	741	706	731	715
Vietnam	56	61	77	85	94	116	129	135	159	166
Other	71	66	67	68	69	72	74	78	80	81
Total	**14,269**	**15,105**	**16,044**	**17,108**	**17,997**	**18,935**	**19,496**	**19,319**	**20,241**	**20,773**
World Total	**66,733**	**66,941**	**67,143**	**68,439**	**70,037**	**71,595**	**73,062**	**73,790**	**75,300**	**76,021**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 3.

Table 1.3 World Dry Natural Gas Consumption, 1991 - 2000

(Billion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	2,400	2,596	2,736	2,824	2,791	2,917	2,887	2,794	3,105	3,291
Mexico	949	959	977	1,026	1,043	1,103	1,178	1,284	1,262	1,376
United States	19,035	19,544	20,279	20,708	21,581	21,966	21,959	21,277	21,620	22,547
Total	**22,384**	**23,099**	**23,992**	**24,559**	**25,414**	**25,986**	**26,024**	**25,355**	**25,987**	**27,214**
Central & South America										
Argentina	781	787	833	856	953	1,010	1,008	1,077	1,143	1,173
Barbados	1	1	1	1	1	1	1	1	1	1
Bolivia	26	32	30	35	43	37	47	31	32	44
Brazil	119	130	146	152	159	178	195	205	231	333
Chile	52	54	62	69	67	64	99	114	162	184
Colombia	155	151	157	162	161	167	211	221	183	201
Cuba	1	1	1	1	1	2	26	14	18	18
Ecuador	3	4	4	4	4	4	4	4	4	4
Peru	18	18	34	35	33	34	8	14	14	15
Puerto Rico	0	0	0	0	0	0	0	0	0	12
Trinidad and Tobago	201	194	218	250	268	303	328	328	337	354
Uruguay	0	0	0	0	0	0	0	0	1	1
Venezuela	793	763	815	876	890	961	994	1,110	1,016	961
Total	**2,151**	**2,136**	**2,301**	**2,440**	**2,581**	**2,761**	**2,922**	**3,120**	**3,141**	**3,302**
Western Europe										
Austria	228	224	235	242	262	281	271	279	285	272
Belgium	363	374	392	401	443	493	470	518	552	594
Denmark	82	87	98	108	127	148	168	172	179	181
Finland	100	104	108	119	123	129	127	145	145	148
France	1,131	1,146	1,158	1,157	1,183	1,314	1,300	1,313	1,382	1,429
Germany	2,776	2,739	2,830	2,965	3,172	3,163	3,012	3,130	3,151	3,099
Greece	4	4	3	1	1	1	7	30	53	72
Ireland	84	83	94	96	102	114	118	118	125	142
Italy	1,775	1,760	1,801	1,748	1,921	1,984	2,048	2,205	2,396	2,486
Luxembourg	18	19	20	20	22	25	25	25	26	27
Netherlands	1,715	1,669	1,714	1,654	1,701	1,874	1,763	1,752	1,705	1,722
Norway	78	131	90	93	101	102	128	127	155	88
Portugal	0	0	0	0	0	0	4	28	79	83
Spain	216	228	224	239	299	334	437	449	514	552
Sweden	24	27	30	30	30	31	31	30	33	31
Switzerland	79	83	87	86	95	102	99	102	106	105
Turkey	150	164	182	192	248	290	346	366	442	520
United Kingdom	2,218	2,170	2,412	2,542	2,690	3,182	3,013	3,072	3,259	3,384
Former Yugoslavia	247	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	18	14	15	87	5	5	7	7	11
Croatia	--	96	104	91	82	88	99	94	94	98
Macedonia, TFYR	--	9	10	0	0	0	0	1	1	4
Slovenia	--	24	30	29	35	45	32	34	35	36
Yugoslavia	--	72	34	58	39	98	97	104	61	19
Total	**11,288**	**11,231**	**11,671**	**11,886**	**12,761**	**13,805**	**13,600**	**14,099**	**14,785**	**15,103**

See footnotes at end of table.

Table 1.3 World Dry Natural Gas Consumption, 1991 - 2000 (Continued)

(Billion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	5	4	1	1	1	1	1	1	1	1
Bulgaria	200	186	172	168	208	219	182	135	119	193
Former Czechoslovakia	504	411	--	--	--	--	--	--	--	--
Czech Republic	--	--	259	238	285	328	333	333	336	326
Slovakia	--	--	220	208	273	241	245	249	251	252
Hungary	393	349	372	375	407	453	431	433	437	425
Poland	399	373	393	393	416	463	463	462	439	451
Romania	1,040	936	908	851	901	894	830	650	622	622
Former U.S.S.R.	25,014	--	--	--	--	--	--	--	--	--
Armenia	--	66	49	57	57	64	46	49	46	50
Azerbaijan	--	523	388	332	318	328	323	197	212	200
Belarus	--	646	600	498	452	494	533	545	608	692
Estonia	--	53	21	23	26	29	37	57	35	40
Georgia	--	177	85	57	74	64	67	66	41	43
Kazakhstan	--	710	523	530	383	510	494	473	480	491
Kyrgyzstan	--	85	79	64	31	64	68	68	67	67
Latvia	--	57	28	25	39	35	46	46	46	57
Lithuania	--	141	85	81	99	92	102	113	76	92
Moldova	--	78	64	49	49	71	85	82	74	75
Russia	--	16,482	16,185	15,214	14,507	14,504	13,434	14,045	14,013	14,130
Tajikistan	--	67	49	57	29	43	40	40	41	44
Turkmenistan	--	141	145	148	170	170	162	155	198	261
Ukraine	--	3,503	3,871	3,327	2,970	2,935	2,832	2,606	2,755	2,779
Uzbekistan	--	1,095	1,541	1,229	1,349	1,434	1,455	1,409	1,423	1,511
Total	**27,555**	**26,080**	**26,039**	**23,923**	**23,043**	**23,434**	**22,210**	**22,213**	**22,318**	**22,800**
Middle East										
Bahrain	233	188	234	229	229	232	281	293	297	303
Iran	811	883	938	1,123	1,243	1,416	1,663	1,828	2,112	2,221
Iraq	39	101	90	112	112	114	108	104	112	111
Israel	1	1	1	1	1	1	1	1	(s)	(s)
Jordan	5	5	7	10	10	10	10	10	10	10
Kuwait	18	93	191	211	211	328	327	318	305	339
Oman	124	117	140	147	130	128	159	232	182	221
Qatar	328	401	477	477	477	484	513	522	493	532
Saudi Arabia	1,130	1,201	1,268	1,331	1,343	1,460	1,601	1,653	1,632	1,759
Syria	124	127	131	134	104	142	161	203	213	215
United Arab Emirates	790	902	798	765	875	959	1,024	1,073	1,094	970
Total	**3,603**	**4,018**	**4,274**	**4,540**	**4,735**	**5,274**	**5,849**	**6,237**	**6,449**	**6,683**
Africa										
Algeria	775	730	655	690	742	762	712	736	753	726
Angola	20	20	20	18	20	20	20	20	20	20
Cote d'Ivoire (Ivory Coast)	0	0	0	0	1	19	21	28	47	47
Egypt	321	349	399	423	439	473	477	485	518	646
Equatorial Guinea	0	0	0	0	0	0	0	1	1	1
Gabon	4	4	4	4	4	4	4	4	4	4
Libya	175	174	168	173	171	184	192	192	150	184
Morocco	1	1	1	1	1	1	2	2	2	2
Mozambique	0	0	0	0	0	0	0	2	2	2
Nigeria	168	173	178	161	183	193	207	208	219	219
Senegal	0	0	1	1	2	2	1	1	1	1
South Africa	0	1	64	69	69	65	62	51	49	49
Tunisia	41	31	53	69	58	67	91	104	106	109
Total	**1,505**	**1,483**	**1,542**	**1,610**	**1,689**	**1,790**	**1,788**	**1,836**	**1,872**	**2,010**

See footnotes at end of table.

Table 1.3 World Dry Natural Gas Consumption, 1991 - 2000 (Continued)

(Billion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	11	11	11	11	7	8	8	8	8	8
Australia	584	604	630	661	710	719	718	752	751	755
Bangladesh	173	206	216	235	260	269	269	290	320	343
Brunei	15	35	29	25	34	28	31	27	37	39
Burma	36	36	39	51	58	57	53	62	58	66
China	526	533	558	589	601	663	749	784	854	957
Hong Kong	15	16	17	19	20	21	22	22	23	24
India	449	477	532	594	628	696	717	761	752	795
Indonesia	557	673	850	965	1,061	1,108	1,125	983	1,124	1,081
Japan	1,976	2,023	2,034	2,180	2,207	2,390	2,439	2,535	2,646	2,753
Korea, South	124	163	203	270	327	432	525	491	598	670
Malaysia	383	388	458	482	485	563	589	615	653	722
New Zealand	182	195	175	175	166	186	199	175	187	204
Pakistan	534	551	583	627	646	696	699	710	784	856
Papua New Guinea	0	2	3	2	4	5	4	4	4	4
Philippines	0	0	0	0	(s)	(s)	(s)	(s)	(s)	(s)
Singapore	0	39	53	53	53	53	53	53	53	53
Taiwan	105	115	111	141	151	157	187	219	220	240
Thailand	236	249	310	342	368	428	538	569	629	658
Vietnam	2	7	9	9	25	29	8	25	35	41
Total	**5,909**	**6,323**	**6,820**	**7,428**	**7,810**	**8,509**	**8,934**	**9,082**	**9,736**	**10,267**
World Total	**74,395**	**74,369**	**76,638**	**76,387**	**78,035**	**81,558**	**81,327**	**81,941**	**84,288**	**87,378**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 500 million cubic feet.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 4.

Table 1.4 World Coal Consumption, 1991 - 2000

(Million Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	55.78	49.04	54.84	57.68	58.28	59.11	63.42	68.33	65.93	67.01
Mexico	8.22	8.85	9.20	11.30	12.30	13.64	14.07	14.69	13.47	13.41
United States. [2]	899.07	907.38	943.47	950.14	962.04	1,006.31	1,030.14	1,038.29	1,044.54	1,080.86
Total	**963.07**	**965.27**	**1,007.51**	**1,019.12**	**1,032.62**	**1,079.06**	**1,107.63**	**1,121.32**	**1,123.94**	**1,161.28**
Central & South America										
Argentina	1.47	1.41	1.36	2.14	1.85	1.64	1.52	1.49	1.33	1.47
Brazil	19.58	18.76	18.98	18.91	19.57	20.13	20.11	20.05	21.01	23.47
Chile	3.30	2.94	2.97	3.54	3.89	5.34	6.88	6.51	6.78	5.10
Colombia	5.51	6.18	6.35	6.07	5.05	5.27	5.56	5.67	4.38	4.71
Costa Rica	(s)	0.00	0.00	0.00	(s)	0.01	(s)	(s)	(s)	(s)
Cuba	0.13	0.07	0.09	0.12	0.11	0.03	0.03	0.04	0.04	0.04
Dominican Republic	0.21	0.20	0.24	0.07	0.09	0.11	0.12	0.30	0.26	0.10
Guatemala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.24
Haiti	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Honduras	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.06	0.10
Jamaica	0.02	0.07	0.07	0.06	0.06	0.07	0.07	0.08	0.08	0.08
Panama	0.05	0.05	0.06	0.06	0.06	0.11	0.06	0.06	0.07	0.07
Paraguay	0.05	0.08	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07
Peru	0.46	0.53	0.65	0.58	0.61	0.63	0.66	0.73	0.66	1.00
Puerto Rico	0.21	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19
Uruguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Venezuela	(s)	0.01	0.04	0.08	0.01	0.23	0.05	1.46	1.16	0.45
Virgin Islands, U.S.	0.14	0.23	0.25	0.27	0.28	0.28	0.28	0.25	0.25	0.25
Other	(s)	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**31.15**	**30.72**	**31.30**	**32.14**	**31.81**	**34.12**	**35.61**	**36.90**	**36.35**	**37.35**
Western Europe										
Austria	8.60	6.23	5.59	5.67	6.76	6.62	6.85	5.80	5.96	6.24
Belgium	17.04	15.46	14.08	15.08	14.42	13.93	13.53	13.60	11.90	13.33
Denmark	14.95	12.22	13.16	14.47	12.08	16.59	12.32	10.41	8.51	7.40
Finland	6.98	6.08	7.20	8.98	7.51	8.81	8.20	6.22	6.32	6.27
France	36.55	32.39	25.47	25.20	27.32	28.41	24.65	29.48	25.97	25.93
Germany	407.94	362.20	334.98	314.28	297.52	295.81	280.01	268.77	257.09	260.92
Greece	58.54	62.20	62.45	65.51	64.43	65.72	66.15	68.28	69.52	70.45
Iceland	0.11	0.07	0.07	0.11	0.09	0.11	0.09	0.11	0.10	0.16
Ireland	3.58	3.25	3.25	3.03	3.02	3.34	3.23	3.22	2.77	3.06
Italy	23.18	20.37	17.73	18.71	19.97	18.32	18.43	19.26	19.21	20.50
Luxembourg	1.72	1.62	1.67	1.45	0.82	0.77	0.49	0.17	0.17	0.19
Malta	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.35	0.35	0.35
Netherlands	13.61	13.36	13.79	15.02	15.63	15.73	15.68	15.81	13.11	14.17
Norway	1.28	1.25	1.39	1.61	1.67	1.64	1.68	1.75	1.73	1.57
Portugal	5.09	5.20	5.49	5.78	6.25	5.99	6.05	5.50	6.73	6.67
Spain	52.61	52.30	49.08	47.62	47.73	41.55	45.15	43.67	47.79	49.14
Sweden	4.18	3.87	3.96	4.33	4.02	4.56	3.85	3.83	3.66	3.71
Switzerland	0.48	0.33	0.28	0.28	0.31	0.23	0.17	0.14	0.15	0.23
Turkey	63.70	66.20	60.57	65.57	67.34	73.28	80.10	86.27	83.69	90.82
United Kingdom	118.03	110.74	96.14	90.66	78.80	78.77	70.33	68.06	61.52	66.10
Former Yugoslavia	81.07	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	2.20	1.65	1.54	1.81	1.86	1.92	1.98	2.04	1.80
Croatia	--	0.66	0.85	0.57	0.30	0.43	0.49	0.40	0.42	1.02
Macedonia, TFYR	--	7.48	7.62	7.98	8.20	8.08	8.31	9.15	8.49	8.20
Slovenia	--	6.51	6.18	5.59	5.81	5.54	6.20	5.96	5.50	5.41
Yugoslavia	--	44.62	41.82	42.88	44.83	43.11	44.87	48.70	36.90	37.99
Total	**919.57**	**837.17**	**774.80**	**762.26**	**736.97**	**739.54**	**719.12**	**716.90**	**679.62**	**701.60**

See footnotes at end of table.

Table 1.4 World Coal Consumption, 1991 - 2000 (Continued)

(Million Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	1.31	0.85	0.67	0.19	0.18	0.11	0.08	0.05	0.05	0.05
Bulgaria	36.55	37.03	35.77	34.11	36.07	35.66	37.55	37.81	32.71	34.00
Former Czechoslovakia	107.88	101.38	--	--	--	--	--	--	--	--
Czech Republic	--	--	85.80	76.38	76.14	77.88	75.88	69.05	60.32	66.94
Slovakia	--	--	15.93	13.71	13.95	13.56	12.38	11.53	11.91	10.94
Hungary	22.32	21.04	19.86	18.53	18.61	19.22	19.28	18.97	19.09	17.19
Poland	201.68	191.77	193.60	184.10	183.82	159.82	182.24	167.77	161.01	157.07
Romania	43.32	48.62	48.85	49.35	49.85	50.12	42.07	34.57	30.79	37.76
Former U.S.S.R.	672.44	--	--	--	--	--	--	--	--	--
Armenia	--	0.16	(s)	0.04	(s)	0.01	0.01	0.01	(s)	(s)
Azerbaijan	--	0.03	0.01	0.01	0.01	0.01	0.01	(s)	(s)	(s)
Belarus	--	2.05	1.77	1.32	1.24	1.23	0.89	0.93	0.66	0.66
Estonia	--	2.80	2.28	2.02	1.05	1.51	1.79	1.62	2.27	1.73
Georgia	--	0.48	0.35	0.31	0.28	0.20	0.15	0.02	0.03	0.04
Kazakhstan	--	94.16	87.16	88.69	79.71	62.60	54.27	52.85	50.29	67.59
Kyrgyzstan	--	2.73	2.44	2.24	1.30	1.13	0.79	1.34	1.34	1.66
Latvia	--	0.74	0.67	0.47	0.29	0.27	0.23	0.17	0.15	0.15
Lithuania	--	0.73	0.73	0.53	0.41	0.37	0.30	0.26	0.21	0.18
Moldova	--	2.96	2.57	2.52	1.50	1.30	0.70	0.61	0.26	0.26
Russia	--	374.59	361.09	316.46	295.51	317.36	258.19	238.25	276.16	298.32
Tajikistan	--	0.25	0.39	0.23	0.10	0.13	0.13	0.13	0.14	0.13
Turkmenistan	--	0.55	0.44	0.44	0.22	0.11	0.06	0.00	0.00	0.00
Ukraine	--	151.52	135.33	108.84	109.60	94.78	91.77	91.99	98.14	97.20
Uzbekistan	--	6.44	4.80	4.89	3.80	3.69	3.08	3.22	3.19	3.20
Total	**1,085.50**	**1,040.86**	**1,000.53**	**905.39**	**873.64**	**841.08**	**781.84**	**731.16**	**748.75**	**795.07**
Middle East										
Cyprus	0.02	0.03	0.03	0.03	0.02	0.01	0.02	0.03	0.03	0.03
Iran	1.62	1.45	1.28	1.76	1.55	1.68	1.98	2.05	2.15	2.15
Israel	4.48	5.52	6.24	6.61	7.24	8.64	9.53	10.25	10.00	10.00
Lebanon	0.00	0.00	0.12	0.12	0.20	0.23	0.23	0.22	0.22	0.22
Other	0.01	(s)	(s)	(s)	0.01	0.01	(s)	(s)	(s)	(s)
Total	**6.12**	**6.99**	**7.67**	**8.53**	**9.03**	**10.56**	**11.76**	**12.55**	**12.41**	**12.41**
Africa										
Algeria	1.18	1.00	0.96	0.84	1.06	0.67	0.61	0.82	0.90	0.88
Botswana	0.89	1.00	0.99	1.01	1.01	0.86	0.88	1.04	1.05	1.07
Cameroon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.25	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28
Egypt	1.29	1.25	1.63	1.72	1.18	1.75	1.94	2.12	2.15	2.16
Ghana	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kenya	0.15	0.18	0.15	0.12	0.10	0.10	0.10	0.08	0.08	0.08
Libya	0.01	0.01	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Madagascar	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Malawi	0.07	0.07	0.07	0.08	0.08	0.10	0.09	0.08	0.08	0.07
Mauritania	0.01	0.01	0.01	0.01	0.01	0.01	0.01	(s)	0.00	0.00
Mauritius	0.07	0.07	0.06	0.04	0.07	0.07	0.07	0.07	0.07	0.07
Morocco	2.25	1.93	2.21	2.45	2.92	3.49	3.44	3.81	3.73	3.60
Mozambique	0.07	0.07	0.07	0.07	0.06	0.04	0.04	0.00	0.00	0.00
Namibia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.01
Niger	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.16	0.17	0.17
Nigeria	0.12	0.12	0.14	0.15	0.16	0.16	0.16	0.07	0.07	0.07
South Africa	153.13	151.79	156.23	158.09	172.83	165.71	178.13	186.99	174.62	176.30
Swaziland	0.14	0.11	0.06	0.20	0.19	0.14	0.16	0.30	0.32	0.32
Tanzania	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01
Tunisia	0.12	0.13	0.13	0.12	0.11	0.12	0.12	0.10	0.14	0.14
Zambia	0.36	0.45	0.35	0.16	0.16	0.14	0.09	0.21	0.20	0.20
Zimbabwe	5.76	6.09	5.66	6.00	5.94	5.02	4.28	4.39	4.25	4.46
Total	**166.07**	**164.73**	**169.20**	**171.54**	**186.38**	**178.88**	**190.61**	**200.62**	**188.15**	**189.90**

See footnotes at end of table.

Table 1.4 World Coal Consumption, 1991 - 2000 (Continued)

(Million Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.10	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Australia	108.08	111.21	109.06	109.75	112.24	120.43	127.40	137.69	142.08	144.17
Bangladesh	0.20	0.19	0.07	0.06	0.07	0.38	0.70	0.21	0.10	0.10
Bhutan	0.02	0.08	0.07	0.09	0.10	0.09	0.11	0.08	0.08	0.08
Burma	0.10	0.10	0.08	0.07	0.08	0.07	0.08	0.04	0.04	0.04
China	1,164.88	1,199.48	1,275.60	1,389.84	1,497.51	1,516.66	1,450.43	1,392.01	1,340.66	1,269.38
Fiji	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Hong Kong	9.27	11.55	13.33	9.61	10.33	8.24	7.07	8.60	7.05	6.72
India	252.17	273.67	286.12	291.40	311.86	332.50	342.61	339.78	345.36	369.22
Indonesia	6.88	8.24	9.51	11.56	11.53	16.27	14.59	16.19	12.61	12.73
Japan	128.20	126.01	128.42	133.41	139.89	143.42	147.45	143.48	148.68	160.70
Korea, North	105.08	107.31	111.61	110.45	109.32	108.27	107.31	101.68	102.70	103.63
Korea, South	52.16	50.28	54.89	55.75	61.10	58.45	59.46	60.93	58.35	71.73
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Malaysia	2.55	2.76	2.25	2.62	2.67	3.13	2.37	2.62	2.16	3.34
Mongolia	7.71	6.66	6.01	5.52	5.36	5.44	5.21	5.36	5.26	5.50
Nepal	0.09	0.12	0.08	0.14	0.14	0.14	0.14	0.37	0.40	0.40
New Caledonia	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.19	0.19	0.19
New Zealand	2.13	2.52	2.33	2.16	2.31	2.45	2.49	1.97	2.35	2.26
Pakistan	4.25	4.57	4.48	4.75	4.53	5.20	4.84	4.54	4.82	4.86
Papua New Guinea	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	3.10	2.99	3.05	3.39	3.87	5.13	5.93	5.53	7.27	9.50
Singapore	0.02	0.03	0.03	0.06	0.05	(s)	(s)	(s)	0.00	0.00
Sri Lanka	(s)	(s)	(s)	(s)	0.01	(s)	(s)	(s)	(s)	(s)
Taiwan	20.62	24.12	26.65	29.03	33.05	37.28	40.80	42.63	49.49	52.90
Thailand	16.63	17.73	18.54	20.52	22.99	27.68	28.61	24.31	24.38	24.86
Vietnam	3.78	3.79	4.39	4.35	6.94	7.52	6.83	6.04	6.36	6.17
Total	**1,888.23**	**1,953.63**	**2,056.79**	**2,184.74**	**2,336.15**	**2,398.99**	**2,354.65**	**2,294.28**	**2,260.42**	**2,248.51**
World Total	**5,059.70**	**4,999.38**	**5,047.81**	**5,083.71**	**5,206.59**	**5,282.24**	**5,201.21**	**5,113.72**	**5,049.63**	**5,146.12**

[1] Preliminary.
[2] United States coal consumption is from Energy Information Administration, Monthly Energy Review, December 2001, table 6.1.
- -= Not applicable.
(s) = Value less than 5 thousand short tons.
Notes: Sum of components may not equal total due to independent rounding.
See Glossary for definition of apparent coal consumption.
Sources: See sources at the end of Section 5.

Table 1.5 World Net Hydroelectric Power Consumption, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	305.3	313.2	320.3	326.4	332.0	352.4	347.2	328.6	342.0	352.7
Mexico	21.6	25.9	26.0	19.8	27.3	31.1	26.2	24.4	32.5	32.8
United States [2]	298.2	268.3	298.5	286.8	334.9	373.3	378.4	340.5	333.4	298.9
Total	**625.1**	**607.4**	**644.8**	**633.1**	**694.2**	**756.9**	**751.8**	**693.5**	**707.9**	**684.4**
Central & South America										
Argentina	19.3	24.3	29.9	34.0	33.4	28.4	34.8	35.8	21.5	33.7
Bolivia	1.4	1.3	1.4	1.4	1.4	1.5	1.4	1.4	1.5	1.9
Brazil	215.6	221.1	232.7	240.3	251.4	263.1	276.2	288.6	290.0	304.5
Chile	13.0	16.6	17.0	16.8	18.2	16.7	18.2	15.0	13.3	18.3
Colombia	27.2	22.2	27.7	32.0	33.9	34.3	30.9	31.2	33.2	31.7
Costa Rica	3.6	3.5	3.9	3.9	3.5	3.8	4.8	4.7	4.8	5.7
Dominican Republic	0.6	1.9	1.5	1.6	1.7	1.3	1.3	1.4	0.9	1.2
Ecuador	5.0	4.9	5.8	6.6	5.2	6.2	6.4	6.5	7.1	7.8
El Salvador	0.8	1.0	1.2	1.2	1.2	1.1	1.2	1.2	1.5	1.3
Guatemala	2.1	1.8	1.9	2.0	1.9	2.3	2.1	2.1	2.3	2.6
Haiti	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.2
Honduras	2.1	2.2	2.2	2.3	2.1	2.1	1.4	1.9	1.8	2.3
Jamaica	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Nicaragua	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.2
Panama	2.5	2.6	3.0	3.2	2.9	3.3	3.2	3.3	3.2	3.4
Paraguay	29.1	26.8	31.1	36.0	41.7	47.6	50.1	50.3	51.4	53.0
Peru	11.4	9.7	11.7	12.6	13.6	13.2	13.1	13.7	14.4	16.0
Puerto Rico	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Suriname	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	0.9
Uruguay	6.1	7.8	7.2	7.4	5.8	5.7	6.4	9.1	5.4	7.0
Venezuela	44.1	46.8	47.0	50.8	50.9	53.3	56.6	52.5	55.1	62.3
Other	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Total	**386.1**	**396.8**	**427.7**	**454.4**	**471.3**	**486.4**	**510.6**	**521.3**	**510.2**	**554.6**
Western Europe										
Austria	31.1	34.5	36.3	35.3	36.7	33.9	35.6	37.0	40.1	41.4
Belgium	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.5
Finland	13.1	15.0	13.3	11.7	12.8	11.7	12.1	14.9	12.7	14.5
France	56.3	67.2	63.1	76.5	70.6	64.5	61.6	61.4	71.7	66.7
Germany	14.7	17.2	17.7	19.7	21.6	21.7	17.2	17.0	19.2	19.6
Greece	3.1	2.2	2.3	2.6	3.5	4.3	3.8	3.7	4.5	3.3
Iceland	4.2	4.3	4.4	4.5	4.6	4.7	5.2	5.6	6.0	6.3
Ireland	0.7	0.8	0.8	0.9	0.7	0.7	0.7	0.9	0.8	0.8
Italy	41.8	41.8	41.0	44.2	37.4	41.6	41.2	40.8	44.9	44.0
Luxembourg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Norway	109.0	115.5	118.0	110.4	120.1	102.6	108.9	114.2	119.7	140.2
Portugal	9.0	4.6	8.5	10.6	8.3	14.6	13.0	12.9	7.2	11.2
Spain	27.0	18.7	24.1	27.9	22.9	39.4	34.4	33.7	22.6	26.4
Sweden	62.6	73.6	73.9	58.5	67.4	51.2	68.4	73.6	70.9	77.8
Switzerland	31.8	32.4	35.4	38.7	34.8	28.1	33.7	33.1	39.6	36.5
Turkey	22.5	26.3	33.6	30.3	35.2	40.1	39.4	41.8	34.3	30.6
United Kingdom	4.5	5.3	4.2	5.0	4.8	3.3	4.1	5.2	5.3	5.2
Former Yugoslavia	18.9	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	3.0	2.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6
Croatia	--	4.3	4.3	4.9	5.2	7.2	5.2	5.4	6.5	5.8
Macedonia, TFYR	--	0.8	0.5	0.7	0.8	1.4	1.2	1.1	1.1	1.3
Slovenia	--	3.4	3.0	3.3	3.2	3.6	3.0	3.4	3.7	3.8
Yugoslavia	--	11.2	10.0	11.0	11.1	11.4	12.0	12.8	13.2	13.6
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total	**450.8**	**482.6**	**497.0**	**498.6**	**503.7**	**488.0**	**502.9**	**520.7**	**526.4**	**551.3**

See footnotes at end of table.

Table 1.5 World Net Hydroelectric Power Consumption, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	3.5	3.2	3.3	3.7	4.2	5.7	5.0	4.9	5.2	4.6
Bulgaria	2.4	2.0	1.9	1.5	2.3	2.9	2.9	3.3	3.0	2.9
Former Czechoslovakia	3.1	3.6	--	--	--	--	--	--	--	--
Czech Republic	--	--	1.4	1.4	2.0	1.9	1.7	1.4	1.7	1.7
Slovakia	--	--	3.9	4.6	5.2	4.5	4.3	4.3	4.5	4.7
Hungary	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Poland	3.4	3.5	3.5	3.7	3.8	3.9	3.8	2.3	2.1	2.1
Romania	14.1	11.6	12.6	12.9	16.5	15.6	17.3	18.7	18.1	18.4
Former U.S.S.R.	232.7	--	--	--	--	--	--	--	--	--
Armenia	--	3.0	4.2	3.5	1.9	1.6	1.4	1.5	1.9	1.8
Azerbaijan	--	1.7	2.4	1.8	1.5	1.5	1.7	1.9	1.8	1.5
Georgia	--	6.5	7.0	4.7	5.3	6.0	6.0	6.3	6.4	5.9
Kazakhstan	--	6.8	7.6	9.1	8.2	7.3	6.4	6.1	6.1	6.6
Kyrgyzstan	--	9.2	9.0	11.6	11.0	12.1	10.8	9.8	12.0	13.6
Latvia	--	2.5	2.8	3.3	2.9	1.8	2.9	4.3	2.7	2.2
Lithuania	--	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.3
Moldova	--	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3
Russia	--	170.9	172.1	175.2	175.5	153.8	156.8	157.9	159.4	157.8
Tajikistan	--	15.8	16.9	16.5	14.5	14.7	13.6	14.0	15.3	14.0
Ukraine	--	8.0	11.1	12.2	10.0	8.7	9.9	15.8	11.6	11.5
Uzbekistan	--	6.2	7.3	7.1	6.1	6.5	5.7	5.7	5.6	5.8
Other	0.0	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**259.3**	**255.3**	**267.9**	**273.6**	**271.8**	**249.4**	**251.3**	**259.1**	**258.3**	**255.8**
Middle East										
Iran	7.0	9.4	9.7	7.4	7.2	7.3	6.8	7.0	4.9	6.9
Iraq	0.3	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Lebanon	0.5	0.5	0.7	0.8	0.7	0.8	0.9	0.8	0.3	0.3
Syria	6.2	7.3	6.6	6.7	6.9	6.9	7.3	7.9	8.6	7.0
Total	**14.0**	**18.0**	**17.7**	**15.5**	**15.4**	**15.6**	**15.7**	**16.3**	**14.5**	**14.8**
Africa										
Algeria	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.1
Angola	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	0.7
Cameroon	2.6	2.6	2.6	2.7	2.7	2.8	3.1	3.1	3.3	3.5
Congo (Brazzaville)	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
Congo (Kinshasa)	5.2	6.0	5.7	5.4	6.0	6.1	5.8	5.5	5.2	5.3
Cote d'Ivoire (Ivory Coast)	1.2	1.0	1.1	1.0	1.7	1.8	1.8	1.4	1.2	1.0
Egypt	8.5	8.5	10.4	10.6	10.7	11.4	11.9	12.1	15.1	15.9
Ethiopia	1.1	1.1	1.3	1.3	1.4	1.5	1.6	1.6	1.6	1.6
Gabon	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Ghana	6.0	6.0	6.1	6.0	6.1	6.6	6.8	3.8	4.0	4.1
Guinea	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4
Kenya	2.7	2.8	3.0	3.0	3.1	3.2	3.3	3.2	3.2	3.3
Madagascar	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
Malawi	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	0.8
Mali	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Morocco	1.2	1.0	0.4	0.8	0.6	1.9	2.1	1.8	1.5	1.2
Mozambique	0.3	0.3	0.3	0.4	0.4	0.4	1.0	1.5	6.4	6.8
Nigeria	5.9	6.0	5.5	5.5	5.4	5.4	5.5	5.5	5.6	5.7
Reunion	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
South Africa	2.0	0.8	0.1	1.1	0.5	1.3	2.1	1.6	0.7	1.3
Sudan	1.0	1.1	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.0
Swaziland	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tanzania	1.7	1.6	1.7	1.5	1.5	1.7	1.4	2.1	2.2	2.3
Uganda	0.8	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.3	1.6
Zambia	7.7	7.7	7.7	7.7	7.7	7.7	7.9	7.8	7.9	7.8
Zimbabwe	3.5	2.9	1.8	1.6	1.8	2.1	2.1	1.9	2.9	3.0
Other	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.9
Total	**57.2**	**55.8**	**55.3**	**56.2**	**57.4**	**62.1**	**64.5**	**61.0**	**69.1**	**70.7**

See footnotes at end of table.

Table 1.5 World Net Hydroelectric Power Consumption, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.7	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2
Australia	15.7	15.2	16.5	16.2	15.7	15.4	16.6	15.6	16.5	17.2
Bangladesh	0.8	0.8	0.6	0.8	0.6	0.7	0.7	0.9	0.8	1.0
Bhutan	1.6	1.6	1.6	1.7	1.6	2.0	1.8	1.8	1.9	1.9
Burma	1.2	1.5	1.7	1.6	1.6	1.6	1.7	0.9	0.8	0.8
Cambodia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	123.8	130.2	149.2	165.4	184.4	184.9	193.1	202.9	222.8	220.1
Fiji	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
French Polynesia	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
India	72.0	69.2	69.8	81.9	72.0	68.4	74.0	75.5	80.8	75.8
Indonesia	10.0	9.7	8.8	6.8	8.6	8.9	9.0	10.5	11.5	13.0
Japan	96.5	81.7	94.6	66.6	81.3	79.7	88.9	91.6	85.6	86.6
Korea, North	31.4	23.8	23.8	23.3	22.8	22.3	21.8	20.7	20.9	22.5
Korea, South	3.5	3.1	4.2	2.3	2.7	2.4	2.8	4.2	4.1	4.0
Laos	0.9	0.9	0.9	1.1	1.0	1.2	1.2	0.9	0.8	1.0
Malaysia	4.4	4.3	4.8	6.5	6.2	5.1	3.8	4.8	7.4	7.6
Nepal	0.9	0.8	0.9	0.9	1.1	1.2	1.1	1.1	1.1	1.3
New Caledonia	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.4
New Zealand	22.9	20.4	23.1	25.6	27.0	25.7	23.6	24.2	23.3	23.8
Pakistan	18.1	18.5	20.9	19.2	22.6	23.0	20.6	21.8	22.2	22.1
Papua New Guinea	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.8	0.8
Philippines	5.1	4.2	4.9	5.9	6.1	6.9	6.0	5.0	7.8	8.1
Samoa	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Sri Lanka	3.1	2.9	3.8	4.0	4.4	3.2	3.4	3.9	4.1	4.5
Taiwan	5.5	8.3	6.8	8.8	8.3	8.6	8.9	9.9	8.8	8.7
Thailand	4.5	4.2	3.7	4.5	6.6	7.3	7.1	5.1	3.5	6.0
U.S. Pacific Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Vietnam	6.3	7.2	7.9	9.1	10.5	11.9	11.6	11.0	13.6	15.3
Total	**430.3**	**410.3**	**450.2**	**454.1**	**487.3**	**482.4**	**499.7**	**514.4**	**540.4**	**543.2**
World Total	**2,222.8**	**2,226.2**	**2,360.6**	**2,385.4**	**2,501.1**	**2,540.8**	**2,596.6**	**2,586.3**	**2,626.7**	**2,674.8**

[1] Preliminary.
[2] Includes hydroelectric pumped storage.
- - = Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Consumption does not account for thermal equivalent conversion losses.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
Sources: See sources at the end of Section 6.

Table 1.6 World Net Nuclear Electric Power Consumption, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	80.7	76.6	90.1	102.4	93.0	88.1	77.9	67.7	69.8	68.7
Mexico	4.0	3.7	4.7	4.0	8.0	7.5	9.9	8.8	9.5	7.8
United States	612.6	618.8	610.4	640.5	673.4	674.7	628.6	673.7	728.3	753.9
Total	**697.4**	**699.1**	**705.1**	**747.0**	**774.4**	**770.3**	**716.4**	**750.2**	**807.6**	**830.4**
Central & South America										
Argentina	7.7	6.7	7.3	7.8	7.1	6.9	7.5	7.1	6.7	6.0
Brazil	1.4	1.7	0.4	0.1	2.4	2.3	3.0	3.1	3.8	4.9
Total	**9.1**	**8.4**	**7.7**	**7.9**	**9.5**	**9.2**	**10.5**	**10.3**	**10.5**	**10.9**
Western Europe										
Belgium	40.7	41.3	39.8	38.6	39.3	41.2	45.0	43.9	46.6	45.7
Finland	18.5	18.3	18.9	18.5	18.3	18.5	19.0	20.8	21.8	21.3
France	314.8	321.5	349.8	342.0	358.4	377.5	374.3	368.6	375.1	394.4
Germany	140.1	150.9	145.8	143.2	145.4	152.0	161.8	153.6	161.0	161.2
Netherlands	3.2	3.6	3.8	3.8	3.8	4.0	2.3	3.6	3.6	3.7
Spain	52.8	53.0	53.3	52.5	52.7	53.5	52.5	56.0	55.9	58.9
Sweden	72.9	60.4	58.3	69.5	66.4	69.6	66.7	69.9	66.6	54.1
Switzerland	21.7	22.3	22.2	23.1	23.7	23.9	24.0	24.5	23.7	23.7
United Kingdom	62.8	69.1	81.0	80.0	80.6	85.8	89.3	95.1	91.5	81.7
Former Yugoslavia	4.2	--	--	--	--	--	--	--	--	--
Slovenia	--	3.8	3.8	4.3	4.5	4.4	4.8	5.0	4.5	4.5
Total	**731.6**	**744.1**	**776.6**	**775.4**	**793.0**	**830.3**	**839.9**	**841.0**	**850.2**	**849.4**
Eastern Europe & Former U.S.S.R.										
Bulgaria	12.4	11.0	13.3	14.6	16.4	17.8	16.4	16.1	15.0	17.3
Former Czechoslovakia	22.5	23.3	--	--	--	--	--	--	--	--
Czech Republic	--	--	12.0	12.3	11.6	12.2	12.5	12.5	12.7	12.9
Slovakia	--	--	11.6	11.5	10.9	11.3	10.5	10.8	12.5	13.1
Hungary	13.0	13.3	13.1	13.3	13.3	13.5	13.3	13.3	13.4	13.5
Romania	0.0	0.0	0.0	0.0	0.0	0.9	5.1	4.9	4.8	5.2
Former U.S.S.R.	201.5	--	--	--	--	--	--	--	--	--
Armenia	--	0.0	0.0	0.0	0.0	2.1	1.4	1.4	2.1	1.8
Kazakhstan	--	0.5	0.4	0.4	0.1	0.1	0.3	0.1	(s)	0.0
Lithuania	--	13.9	12.3	7.3	10.6	12.7	10.9	12.9	9.9	8.4
Russia	--	113.6	113.2	92.9	94.3	103.3	104.5	98.3	110.9	122.5
Ukraine	--	70.1	71.4	65.4	67.0	76.0	75.4	70.6	67.3	71.1
Total	**249.5**	**245.6**	**247.3**	**217.7**	**224.3**	**249.8**	**250.3**	**240.9**	**248.6**	**265.7**
Africa										
South Africa	9.1	9.3	7.3	9.7	11.3	11.8	12.6	13.6	12.8	13.0
Total	**9.1**	**9.3**	**7.3**	**9.7**	**11.3**	**11.8**	**12.6**	**13.6**	**12.8**	**13.0**
Asia & Oceania										
China	0.0	0.5	2.5	13.5	12.4	13.6	11.4	13.5	14.1	16.0
India	5.2	6.0	5.9	4.7	6.5	7.4	10.5	10.6	11.5	14.1
Japan	202.8	212.1	236.8	255.7	276.7	287.1	306.1	315.7	300.8	293.8
Korea, South	53.5	53.7	55.2	55.7	63.7	70.2	73.2	85.2	97.9	103.5
Pakistan	0.4	0.5	0.4	0.6	0.5	0.3	0.4	0.4	0.1	0.4
Taiwan	33.5	32.5	33.0	33.5	33.9	36.3	34.8	35.4	36.9	37.0
Total	**295.4**	**305.3**	**333.8**	**363.6**	**393.6**	**415.0**	**436.4**	**460.8**	**461.2**	**464.7**
World Total	**1,992.0**	**2,011.8**	**2,077.8**	**2,121.3**	**2,206.0**	**2,286.5**	**2,266.1**	**2,316.9**	**2,391.0**	**2,434.2**

[1] Preliminary.
-- = Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Consumption does not account for thermal equivalent conversion losses.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
No consumption is reported for Middle East.
Sources: See sources at the end of Section 6.

Table 1.7 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Consumption, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	3.7	4.1	4.5	5.4	5.3	5.5	5.9	6.3	7.0	9.0
Mexico	5.2	5.5	5.6	5.3	5.4	5.4	5.2	5.7	5.9	6.2
United States	72.2	76.8	79.3	81.3	78.7	80.5	76.9	75.3	85.1	84.1
Total	**81.1**	**86.5**	**89.4**	**92.0**	**89.3**	**91.4**	**88.0**	**87.2**	**97.9**	**99.3**
Central & South America										
Argentina	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Bolivia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	5.3	6.6	6.7	7.2	7.4	8.5	9.5	9.9	13.0	12.8
Chile	0.3	0.5	0.5	0.5	0.7	0.9	0.8	1.0	1.0	1.0
Colombia	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.4
Costa Rica	(s)	(s)	(s)	0.3	0.5	0.5	0.5	0.5	0.8	1.1
Cuba	1.0	1.0	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.7
Dominican Republic	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
El Salvador	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.8
Guatemala	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Haiti	(s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jamaica	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5
Nicaragua	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2
Panama	(s)	(s)	(s)	(s)	(s)	(s)	0.1	0.1	0.1	0.1
Paraguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.1
Peru	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Trinidad and Tobago	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Uruguay	(s)	0.1	0.1	0.1	(s)	(s)	(s)	(s)	(s)	(s)
Total	**8.4**	**10.0**	**9.8**	**10.6**	**11.1**	**12.8**	**13.9**	**14.7**	**18.0**	**18.5**
Western Europe										
Austria	1.1	1.2	1.2	1.1	1.8	1.5	1.6	1.6	1.7	1.7
Belgium	0.8	0.9	0.9	0.9	1.0	1.0	0.9	1.0	1.2	1.2
Croatia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Denmark	0.8	1.1	1.5	1.8	2.0	2.3	3.1	4.1	4.5	5.7
Faroe Islands	0.0	0.0	0.0	(s)	(s)	(s)	(s)	0.0	0.0	0.0
Finland	0.0	4.7	5.7	6.1	6.3	5.8	7.8	9.3	8.3	8.7
France	2.1	2.1	2.1	2.4	2.5	2.5	2.9	2.9	3.3	3.8
Germany	5.2	5.7	6.1	7.6	8.3	9.2	9.9	12.6	14.2	17.6
Greece	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.9
Iceland	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.6	1.1	1.3
Ireland	0.0	(s)	(s)	(s)	(s)	(s)	0.1	0.2	0.3	0.3
Italy	3.2	3.8	4.0	3.8	4.0	4.5	5.3	6.1	6.9	7.5
Luxembourg	(s)	(s)	(s)	(s)	0.1	(s)	(s)	(s)	0.1	0.1
Netherlands	1.0	1.4	1.6	1.6	2.0	2.6	4.0	4.4	4.5	4.7
Norway	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Portugal	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.4	1.8
Slovenia	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(s)	(s)
Spain	0.7	0.7	0.8	1.0	1.5	1.9	2.8	3.5	5.4	6.1
Sweden	1.7	2.0	2.2	2.2	2.4	2.2	2.9	3.2	3.6	3.9
Switzerland	0.5	0.6	0.5	1.0	1.0	1.1	1.1	1.1	1.5	1.5
Turkey	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.3	0.3	0.3
United Kingdom	1.0	2.0	4.5	4.6	5.4	5.7	6.0	7.7	8.2	8.2
Total	**19.7**	**27.9**	**32.9**	**35.9**	**40.4**	**42.6**	**50.7**	**60.5**	**67.2**	**75.6**
Eastern Europe & Former U.S.S.R.										
Belarus	--	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Bulgaria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(s)	(s)	(s)
Czech Republic	--	--	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.8
Hungary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Poland	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.6	0.5	0.5
Romania	0.0	0.1	0.1	0.0	(s)	0.0	(s)	(s)	0.0	0.0
Former U.S.S.R.	(s)	--	--	--	--	--	--	--	--	--
Estonia	--	0.0	0.0	0.0	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	1.8	1.7	1.6	1.5	1.5	1.5	1.5	2.0	2.7
Total	**0.4**	**2.2**	**2.4**	**2.3**	**2.3**	**2.3**	**2.6**	**2.8**	**3.5**	**4.3**

See footnotes at end of table.

Table 1.7 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Consumption, 1991 - 2000 (Cont.)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Jordan	(s)	(s)	(s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**(s)**	**(s)**	**(s)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Africa										
Ethiopia	0.1	0.1	0.1	0.1	0.1	(s)	0.0	0.0	0.0	0.0
Kenya	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.4
Total	**0.4**	**0.3**	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**	**0.3**	**0.3**	**0.4**
Asia & Oceania										
Australia	0.6	2.6	2.7	2.7	2.7	3.0	3.1	3.9	3.6	3.5
China	0.0	0.0	0.0	0.3	2.8	1.3	2.5	2.2	1.9	1.6
India	(s)	(s)	0.1	0.2	0.1	0.8	0.9	1.0	1.0	1.0
Indonesia	1.0	1.0	1.0	1.8	2.1	2.2	2.5	3.7	3.9	4.6
Japan	18.3	18.4	18.5	19.7	21.8	22.7	24.4	17.8	18.7	18.5
Korea, South	0.0	0.0	0.0	(s)	(s)	(s)	(s)	(s)	0.1	0.1
New Zealand	2.6	2.7	2.6	2.6	2.5	2.6	2.6	3.0	3.0	2.5
Philippines	5.5	5.4	5.4	6.0	5.8	6.2	6.9	8.5	8.3	9.2
Thailand	0.0	0.0	0.0	0.0	0.2	0.2	0.9	0.7	0.9	1.3
Total	**28.1**	**30.2**	**30.3**	**33.5**	**38.1**	**39.1**	**43.8**	**40.7**	**41.4**	**42.2**
World Total	**138.1**	**157.0**	**165.1**	**174.6**	**181.5**	**188.6**	**199.4**	**206.3**	**228.3**	**240.3**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Consumption does not account for thermal equivalent conversion losses.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
Sources: See sources at the end of Section 6.

Table 1.8 World Consumption of Primary Energy by Selected Country Groups (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Petroleum										
World Total	**136.47**	**137.00**	**136.97**	**139.44**	**142.66**	**145.78**	**148.34**	**150.03**	**152.77**	**154.28**
OECD [2]	84.12	86.16	86.69	88.99	90.43	92.66	93.59	94.17	95.58	96.05
Non OECD	52.35	50.84	50.28	50.44	52.23	53.12	54.75	55.86	57.19	58.23
Other Groups:										
OECD Europe	29.15	29.60	29.34	29.49	30.59	31.00	31.12	31.81	31.46	31.37
OPEC [3]	9.39	9.62	10.11	10.40	10.89	11.03	11.35	11.33	11.47	11.78
EU. [4]	25.80	26.18	25.79	25.96	26.95	27.11	27.16	27.82	27.50	27.39
IEA [5]	77.05	78.54	78.92	80.68	81.95	83.68	84.26	85.31	86.35	86.63
Natural Gas										
World Total	**76.03**	**76.16**	**78.49**	**78.37**	**80.33**	**83.99**	**83.82**	**84.59**	**86.99**	**90.15**
OECD [2]	38.16	38.87	40.43	41.55	43.75	45.88	45.88	45.91	47.49	49.31
Non OECD	37.86	37.29	38.06	36.83	36.58	38.11	37.94	38.69	39.49	40.84
Other Groups:										
OECD Europe	12.07	11.91	12.55	12.74	13.99	15.19	15.05	15.58	16.34	16.72
OPEC [3]	6.10	6.63	6.98	7.48	7.94	8.60	9.13	9.42	9.71	9.79
EU. [4]	10.52	10.43	10.97	11.17	12.17	13.20	12.99	13.50	14.16	14.54
IEA [5]	36.13	36.88	38.54	39.53	41.56	43.49	43.35	43.31	44.82	46.43
Coal										
World Total	**88.35**	**88.20**	**88.83**	**89.09**	**91.24**	**92.50**	**94.09**	**92.41**	**92.44**	**94.22**
OECD [2]	43.31	41.69	41.49	41.15	41.09	41.81	43.71	43.31	42.74	44.44
Non OECD	45.04	46.51	47.34	47.94	50.15	50.69	50.38	49.09	49.70	49.78
Other Groups:										
OECD Europe	17.52	15.92	14.76	14.10	13.58	13.33	13.87	13.22	12.49	12.82
OPEC [3]	0.24	0.26	0.30	0.36	0.36	0.46	0.40	0.49	0.40	0.38
EU. [4]	11.35	10.02	9.72	9.41	9.03	8.90	8.86	8.63	8.16	8.34
IEA [5]	36.94	35.54	36.89	36.69	36.63	37.76	39.08	38.92	38.51	39.99
Hydroelectric Power										
World Total	**23.13**	**23.14**	**24.52**	**24.78**	**25.98**	**26.40**	**26.99**	**26.88**	**27.30**	**27.80**
OECD [2]	12.51	12.41	13.17	12.78	13.64	14.06	14.27	13.85	13.98	14.02
Non OECD	10.61	10.72	11.35	12.00	12.34	12.34	12.72	13.03	13.32	13.78
Other Groups:										
OECD Europe	4.56	4.86	5.05	5.07	5.13	4.92	5.09	5.25	5.29	5.55
OPEC [3]	0.70	0.76	0.75	0.74	0.76	0.79	0.82	0.79	0.81	0.92
EU. [4]	2.75	2.93	2.97	3.05	2.99	2.99	3.04	3.14	3.13	3.24
IEA [5]	12.14	11.99	12.74	12.42	13.18	13.57	13.83	13.43	13.47	13.50
Nuclear Electric Power										
World Total	**21.29**	**21.36**	**22.07**	**22.50**	**23.31**	**24.13**	**23.90**	**24.43**	**25.21**	**25.66**
OECD [2]	18.20	18.44	19.13	19.76	20.44	20.94	20.67	21.26	21.96	22.17
Non OECD	3.08	2.92	2.94	2.74	2.87	3.19	3.24	3.17	3.25	3.49
Other Groups:										
OECD Europe	8.04	8.20	8.56	8.54	8.65	9.06	9.15	9.17	9.29	9.27
OPEC [3]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU. [4]	7.40	7.55	7.91	7.87	8.01	8.41	8.50	8.52	8.62	8.59
IEA [5]	17.35	17.57	18.39	19.02	19.59	20.03	19.71	20.19	20.74	20.90

See footnotes at end of table.

Table 1.8 World Consumption of Primary Energy by Selected Country Groups (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Geothermal, Solar, Wind, and Wood and Waste Electric Power										
World Total	**1.82**	**2.02**	**2.11**	**2.22**	**2.28**	**2.38**	**2.50**	**2.61**	**2.85**	**2.99**
OECD [2]	1.58	1.75	1.84	1.91	1.93	2.01	2.08	2.13	2.32	2.41
Non OECD	0.24	0.27	0.27	0.31	0.35	0.37	0.42	0.49	0.53	0.58
Other Groups:										
OECD Europe	0.24	0.33	0.39	0.42	0.47	0.49	0.58	0.69	0.77	0.86
OPEC [3]	0.02	0.02	0.02	0.04	0.04	0.05	0.05	0.08	0.08	0.10
EU. [4]	0.23	0.31	0.37	0.39	0.44	0.46	0.55	0.65	0.71	0.80
IEA [5]	1.46	1.62	1.71	1.79	1.81	1.89	1.96	1.99	2.18	2.25
Total Energy [6]										
World Total	**349.14**	**349.96**	**354.98**	**358.43**	**367.99**	**377.42**	**381.77**	**383.12**	**389.89**	**397.40**
OECD [2]	200.13	201.42	204.82	208.22	213.50	219.68	222.47	222.92	226.49	230.77
Non OECD	149.01	148.54	150.16	150.21	154.49	157.74	159.29	160.19	163.41	166.63
Other Groups:										
OECD Europe	71.76	70.84	70.72	70.43	72.46	74.09	74.97	75.85	75.72	76.66
OPEC [3]	16.44	17.28	18.14	19.00	19.98	20.93	21.76	22.10	22.47	22.97
EU. [4]	58.20	57.59	57.95	58.03	59.77	61.05	61.19	62.39	62.52	63.33
IEA [5]	183.31	184.33	189.26	192.22	196.96	202.74	204.43	205.43	208.51	212.12

[1] Preliminary.

[2] The Organization for Economic Cooperation and Development (OECD) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, South, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). Refer to Appendix A for a listing of OECD Europe.

[3] The Organization of Petroleum Exporting Countries (OPEC) includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

[4] European Union (EU) includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom.

[5] International Energy Agency (IEA) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). No Czech Republic data for 1991-1992.

[6] Total primary energy consumption, as reported here, includes all of the fuel types reported in this table. It also includes for the United States: (1) the consumption of geothermal, solar, and wood and waste energy not used for electricity generation; (2) electricity imports from Mexico that are derived from geothermal energy; and (3) net imports of electricity derived from nonrenewable sources. It has also been adjusted to include total electricity imports and to exclude total electricity exports for all countries, except the United States. This adjustment is necessary because the consumption data for electric power by type, as reported in this table, are not adjusted for electricity imports and exports, except for hydroelectric power in the United States. As a result of these adjustments, total primary energy consumption reported in this table might not be equal to sum of the individual fuel types reported in this table.

(s) = Value less than 5 trillion Btu.

Notes: For consistency data reflect 2000 membership (as of December 31, 2000) for all years. The country groups OECD, OECD Europe, EU, and IEA include unified Germany. Data for the Czech Republic are included in the country group IEA beginning in 1993, the year that the country came into existence.

Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of Sections 3, 4, 5, and 6.

Section 2

World Energy Production, 1991-2000

Table 2.1 World Production of Primary Energy by Selected Country Groups, 1991 - 2000

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Petroleum (thousand barrels per day) [2]										
World Total	**66,617**	**66,941**	**67,340**	**68,253**	**69,876**	**71,405**	**73,665**	**75,131**	**74,168**	**76,740**
OECD [3]	20,697	21,042	21,193	21,894	22,360	23,075	23,442	23,326	22,857	23,183
Non OECD	45,919	45,899	46,147	46,359	47,515	48,330	50,224	51,806	51,311	53,556
Other Groups:										
OECD Europe	4,877	5,274	5,488	6,216	6,632	7,048	7,030	6,998	7,048	6,894
OPEC [4]	24,625	25,818	26,610	27,031	27,566	28,018	29,355	30,492	29,283	30,886
EU. [5]	2,744	2,806	2,900	3,453	3,597	3,678	3,611	3,721	3,787	3,455
IEA [6]	17,539	17,902	18,038	18,693	19,228	19,752	19,926	19,724	19,406	19,633
Natural Gas (trillion cubic feet)										
World Total	**74.78**	**74.84**	**76.36**	**76.93**	**77.96**	**81.65**	**81.52**	**83.03**	**84.91**	**88.03**
OECD [3]	31.76	32.48	33.67	34.96	35.47	37.33	37.15	37.50	37.90	38.53
Non OECD	43.02	42.37	42.69	41.97	42.49	44.32	44.37	45.53	47.01	49.51
Other Groups:										
OECD Europe	8.09	8.16	8.60	8.71	9.04	10.37	9.98	9.88	10.16	10.35
OPEC [4]	8.20	8.64	9.01	9.44	10.08	10.93	11.83	12.26	12.97	13.68
EU. [5]	6.77	6.78	7.25	7.30	7.58	8.55	8.00	7.90	8.06	8.21
IEA [6]	30.69	31.44	32.53	33.80	34.33	36.07	35.79	36.05	36.43	37.01
Coal (million short tons)										
World Total	**5,116**	**5,094**	**5,003**	**5,082**	**5,218**	**5,265**	**5,278**	**5,169**	**5,053**	**5,059**
OECD [3]	2,366	2,301	2,186	2,231	2,227	2,236	2,293	2,290	2,244	2,217
Non OECD	2,751	2,793	2,817	2,852	2,991	3,029	2,985	2,879	2,809	2,842
Other Groups:										
OECD Europe	1,019	950	888	839	818	789	800	748	717	707
OPEC [4]	19	29	36	40	52	61	67	76	80	85
EU. [5]	608	555	501	454	435	428	409	382	369	363
IEA [6]	2,001	1,960	1,945	1,988	1,986	2,022	2,051	2,072	2,036	2,019
Hydroelectric Power (billion kilowatthours)										
World Total	**2,209.6**	**2,206.8**	**2,338.6**	**2,355.4**	**2,474.4**	**2,511.8**	**2,573.0**	**2,564.7**	**2,606.7**	**2,649.1**
OECD [3]	1,189.0	1,175.7	1,247.4	1,201.1	1,287.5	1,324.7	1,349.9	1,312.1	1,326.1	1,324.2
Non OECD	1,020.6	1,031.1	1,091.2	1,154.3	1,187.0	1,187.1	1,223.1	1,252.6	1,280.6	1,324.9
Other Groups:										
OECD Europe	438.4	467.2	486.0	487.3	493.1	473.4	489.8	504.5	508.6	533.8
OPEC [4]	67.6	72.8	71.9	71.1	72.9	75.6	78.6	76.2	77.9	88.5
EU. [5]	264.4	281.4	285.6	293.5	287.2	287.5	292.6	301.7	300.5	311.6
IEA [6]	1,153.2	1,135.3	1,205.4	1,166.2	1,243.9	1,278.1	1,307.7	1,271.4	1,276.9	1,274.3
Nuclear Electric Power (billion kilowatthours)										
World Total	**1,992.0**	**2,011.8**	**2,077.8**	**2,121.3**	**2,206.0**	**2,286.5**	**2,266.1**	**2,316.9**	**2,391.0**	**2,434.2**
OECD [3]	1,716.6	1,741.8	1,806.7	1,866.7	1,939.1	1,990.5	1,967.1	2,023.8	2,090.6	2,112.0
Non OECD	275.4	270.0	271.1	254.6	266.9	295.9	299.0	293.1	300.4	322.2
Other Groups:										
OECD Europe	762.9	776.9	809.6	808.3	824.3	862.9	871.3	872.6	884.3	884.3
OPEC [4]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU. [5]	705.7	718.1	750.7	748.0	764.9	802.1	811.1	811.5	822.1	821.2
IEA [6]	1,636.5	1,661.1	1,735.2	1,795.4	1,856.5	1,901.6	1,873.5	1,918.9	1,970.7	1,987.6

See footnotes at end of table.

Table 2.1 World Production of Primary Energy by Selected Country Groups, 1991 - 2000 (Continued)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Geothermal, Solar, Wind, Wood and Waste Electric Power (billion kilowatthours)										
World Total	**138.1**	**157.0**	**165.1**	**174.6**	**181.5**	**188.6**	**199.4**	**206.3**	**228.3**	**240.3**
OECD [3]	122.8	138.4	146.7	153.7	157.5	163.1	170.0	173.6	191.8	200.9
Non OECD	15.3	18.6	18.4	20.9	24.0	25.5	29.5	32.7	36.5	39.4
Other Groups:										
OECD Europe	20.1	28.2	33.5	36.6	41.1	43.3	51.8	61.7	68.5	77.0
OPEC [4]	1.0	1.0	1.0	1.8	2.1	2.2	2.5	3.7	3.9	4.6
EU. [5]	18.5	26.7	31.7	34.2	38.5	40.6	48.6	58.1	64.0	72.3
IEA [6]	116.9	132.3	140.5	147.8	151.5	156.9	163.8	166.7	184.3	192.9

[1] Preliminary.
[2] Data include the production of crude oil, natural gas plant liquids, refinery gain, and other liquid fuels.
[3] The Organization for Economic Cooperation and Development (OECD) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, South, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). Refer to Appendix A for a listing of OECD Europe.
[4] The Organization of Petroleum Exporting Countries (OPEC) includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
[5] European Union (EU) includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom.
[6] International Energy Agency (IEA) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). No Czech Republic data for 1991-1992.
Notes: For consistency data reflect 2000 membership (as of December 31, 2000) for all years. The country groups OECD, OECD Europe, EU, and IEA include unified Germany. Data for the Czech Republic are included in the country group IEA beginning in 1993, the year that the country came into existence.
Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Sections 3, 4, 5, and 6.

Table 2.2 World Crude Oil Production, 1991 - 2000

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada [2]	1,548	1,605	1,679	1,746	1,805	1,837	1,922	1,981	1,907	1,977
Mexico	2,680	2,669	2,673	2,685	2,618	2,855	3,023	3,070	2,906	3,012
United States	7,417	7,171	6,847	6,662	6,560	6,465	6,452	6,252	5,881	5,822
Total	**11,644**	**11,446**	**11,199**	**11,093**	**10,982**	**11,156**	**11,396**	**11,303**	**10,694**	**10,811**
Central & South America										
Argentina	485	553	594	650	715	756	834	847	802	761
Bolivia	21	21	22	23	28	30	29	35	32	30
Brazil	630	626	643	671	695	795	841	969	1,132	1,269
Chile	17	15	14	12	11	9	7	8	8	7
Colombia	419	433	456	450	585	623	652	733	816	691
Cuba	14	16	20	24	26	30	30	31	38	43
Ecuador	299	321	344	365	392	396	388	375	373	395
Peru	115	116	126	128	130	120	118	116	106	97
Trinidad and Tobago	151	137	135	132	131	130	124	123	125	122
Venezuela	2,375	2,371	2,450	2,588	2,750	2,938	3,280	3,167	2,826	2,949
Other	9	11	13	16	18	21	21	32	35	34
Total	**4,535**	**4,621**	**4,817**	**5,059**	**5,481**	**5,848**	**6,326**	**6,435**	**6,293**	**6,397**
Western Europe										
Austria	26	23	22	21	23	21	19	21	18	19
Denmark	143	163	174	185	186	208	230	238	300	363
France	59	58	55	56	50	43	36	34	30	29
Germany	71	63	61	58	59	60	56	59	55	64
Greece	16	13	11	10	9	8	9	6	(s)	5
Italy	80	83	83	86	93	101	112	107	82	90
Netherlands	74	53	50	78	66	56	53	52	32	29
Norway	1,890	2,229	2,350	2,521	2,768	3,104	3,143	3,017	3,018	3,197
Spain	22	22	18	17	13	11	8	11	6	5
Sweden	(s)	(s)	(s)	(s)	(s)	0	0	0	0	0
Turkey	88	84	76	72	67	67	68	65	59	53
United Kingdom	1,797	1,825	1,915	2,375	2,489	2,568	2,518	2,616	2,684	2,275
Former Yugoslavia	60	--	--	--	--	--	--	--	--	--
Croatia	--	36	36	39	32	30	29	31	25	23
Slovenia	--	0	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Yugoslavia	--	23	23	24	22	22	20	18	18	16
Total	**4,326**	**4,676**	**4,873**	**5,543**	**5,878**	**6,299**	**6,300**	**6,275**	**6,328**	**6,167**
Eastern Europe & Former U.S.S.R.										
Albania	19	11	11	12	10	10	9	6	6	7
Bulgaria	1	1	1	1	1	1	1	1	1	1
Former Czechoslovakia	3	2	--	--	--	--	--	--	--	--
Czech Republic	--	--	2	2	3	4	3	4	4	6
Slovakia	--	--	1	1	1	2	2	1	1	1
Hungary	34	33	34	39	35	32	35	26	24	27
Poland	3	3	5	5	5	5	6	7	9	13
Romania	140	136	133	138	135	135	134	132	125	120
Former U.S.S.R.	9,992	--	--	--	--	--	--	--	--	--
Azerbaijan	--	213	200	184	175	176	173	230	276	280
Belarus	--	40	40	40	38	36	36	36	37	37
Georgia	--	3	2	2	1	1	3	2	2	2
Kazakhstan	--	444	408	352	362	403	466	476	530	599
Kyrgyzstan	--	2	2	2	2	2	2	2	2	2
Lithuania	--	0	2	3	3	3	4	5	5	6
Russia	--	7,632	6,730	6,135	5,995	5,850	5,920	5,854	6,079	6,479
Tajikistan	--	1	1	(s)	1	(s)	1	(s)	(s)	(s)
Turkmenistan	--	98	79	77	70	76	89	110	139	142
Ukraine	--	72	66	64	65	66	58	57	76	74
Uzbekistan	--	36	47	75	115	115	112	116	102	91
Total	**10,191**	**8,727**	**7,764**	**7,131**	**7,017**	**6,917**	**7,054**	**7,066**	**7,416**	**7,888**

See footnotes at end of table.

Table 2.2 World Crude Oil Production, 1991 - 2000 (Continued)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	38	37	41	41	41	35	40	38	37	38
Iran	3,312	3,429	3,540	3,618	3,643	3,686	3,664	3,634	3,557	3,696
Iraq	305	425	512	553	560	579	1,155	2,150	2,508	2,571
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kuwait	190	1,058	1,852	2,025	2,057	2,062	2,007	2,085	1,898	2,126
Oman	700	740	776	810	851	883	904	900	910	940
Qatar	395	423	413	415	442	510	550	696	665	737
Saudi Arabia	8,115	8,332	8,198	8,120	8,231	8,218	8,362	8,389	7,833	8,404
Syria	492	481	554	560	575	582	561	553	538	523
United Arab Emirates	2,386	2,266	2,159	2,193	2,233	2,278	2,316	2,345	2,169	2,368
Yemen	197	182	220	335	345	340	362	388	409	440
Total	**16,130**	**17,373**	**18,265**	**18,669**	**18,979**	**19,174**	**19,923**	**21,178**	**20,525**	**21,844**
Africa										
Algeria	1,230	1,214	1,162	1,180	1,202	1,242	1,277	1,246	1,202	1,244
Angola	500	526	509	536	646	709	714	735	745	746
Benin	4	6	6	6	3	2	1	1	1	1
Cameroon	153	140	127	108	111	108	124	121	100	85
Congo (Brazzaville)	156	174	181	180	188	201	253	265	270	264
Congo (Kinshasa)	28	26	25	26	30	30	28	26	22	25
Cote d'Ivoire (Ivory Coast)	2	2	1	7	8	16	19	20	15	11
Egypt	874	881	890	896	920	922	856	834	852	748
Equatorial Guinea	(s)	2	5	5	5	17	52	83	102	168
Gabon	294	298	313	329	365	368	370	352	331	325
Ghana	0	1	2	1	4	6	5	5	6	7
Libya	1,483	1,433	1,361	1,378	1,390	1,401	1,446	1,390	1,319	1,410
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nigeria	1,892	1,943	1,960	1,931	1,993	2,001	2,132	2,153	2,130	2,144
South Africa	0	0	0	0	0	0	0	18	25	26
Sudan	0	(s)	(s)	(s)	(s)	2	5	10	69	186
Tunisia	104	109	98	92	89	87	84	80	83	79
Total	**6,721**	**6,755**	**6,638**	**6,674**	**6,954**	**7,112**	**7,368**	**7,340**	**7,272**	**7,469**
Asia & Oceania										
Australia	545	535	503	536	562	570	588	544	539	722
Bangladesh	1	1	1	1	1	1	2	2	1	3
Brunei	161	165	165	167	163	155	160	157	182	193
Burma	15	14	14	14	10	8	9	11	9	8
China	2,835	2,845	2,890	2,939	2,990	3,131	3,200	3,198	3,195	3,249
India	615	561	534	590	703	651	675	661	653	646
Indonesia	1,592	1,504	1,511	1,510	1,503	1,547	1,520	1,518	1,472	1,423
Japan	15	17	12	11	11	12	10	9	8	7
Malaysia	646	653	640	645	682	695	700	720	693	690
New Zealand	41	38	41	39	32	37	58	47	42	36
Pakistan	62	61	60	55	57	55	57	55	53	54
Papua New Guinea	(s)	53	126	110	100	103	80	79	97	70
Philippines	3	8	9	6	3	2	1	1	1	1
Taiwan	2	2	1	1	1	1	1	1	1	1
Thailand	46	51	52	56	51	61	72	75	84	110
Vietnam	80	106	120	141	173	175	191	246	290	316
Total	**6,660**	**6,615**	**6,680**	**6,822**	**7,043**	**7,205**	**7,323**	**7,324**	**7,319**	**7,529**
World Total	**60,207**	**60,213**	**60,236**	**60,991**	**62,335**	**63,711**	**65,690**	**66,921**	**65,848**	**68,103**

[1] Preliminary.
[2] Includes oil processed from Athabasca Tar Sands.
- - = Not applicable.
(s) = Value less than 500 barrels per day.
Notes: Sum of components may not equal total due to independent rounding. Crude oil includes lease condensate.
Sources: See sources at the end of Section 3.

Table 2.3 World Natural Gas Plant Liquids Production, 1991 - 2000

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	431	460	506	529	581	596	636	651	653	699
Mexico	457	454	459	461	447	423	388	424	439	438
United States	1,659	1,697	1,736	1,727	1,762	1,830	1,817	1,759	1,850	1,911
Total	**2,548**	**2,611**	**2,701**	**2,717**	**2,789**	**2,849**	**2,841**	**2,834**	**2,942**	**3,048**
Central & South America										
Argentina	30	30	35	44	42	44	48	50	48	48
Bolivia	5	7	7	7	6	7	8	9	10	10
Brazil	22	25	25	35	40	35	30	35	33	36
Chile	11	11	12	12	13	12	7	7	7	7
Colombia	6	6	5	5	8	8	9	8	8	12
Cuba	2	2	2	2	2	2	3	3	3	1
Ecuador	2	3	9	9	9	9	5	4	4	3
Peru	1	1	1	1	1	1	1	1	1	2
Trinidad and Tobago	3	5	6	7	8	9	8	8	10	11
Venezuela	117	113	143	146	149	150	143	145	170	170
Total	**199**	**203**	**245**	**268**	**277**	**276**	**262**	**269**	**294**	**300**
Western Europe										
Austria	1	1	1	1	1	1	1	1	1	1
France	10	13	13	13	12	12	10	5	7	7
Greece	1	1	1	1	1	1	1	1	1	1
Italy	1	1	1	1	1	1	1	1	1	1
Netherlands	10	13	16	25	21	25	24	27	27	26
Norway	94	95	100	103	137	138	139	131	121	120
Spain	11	9	6	4	4	0	0	0	0	0
United Kingdom	141	160	169	218	267	259	233	241	238	233
Former Yugoslavia	8	--	--	--	--	--	--	--	--	--
Croatia	--	6	7	7	8	6	7	7	7	6
Total	**277**	**299**	**313**	**373**	**450**	**443**	**415**	**414**	**402**	**394**
Eastern Europe & Former U.S.S.R.										
Former Czechoslovakia	(s)	(s)	--	--	--	--	--	--	--	--
Czech Republic	--	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Hungary	13	13	11	11	11	10	15	17	17	15
Poland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Romania	8	7	4	4	6	7	6	7	7	5
Former U.S.S.R.	420	--	--	--	--	--	--	--	--	--
Azerbaijan	--	9	8	8	7	6	7	7	7	6
Kazakhstan	--	86	82	63	52	54	55	50	74	108
Kyrgyzstan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	230	220	200	180	185	195	220	231	232
Tajikistan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	12	11	8	11	12	17	17	17	16
Ukraine	--	23	21	21	20	15	26	25	23	14
Uzbekistan	--	30	38	40	45	50	45	45	45	60
Total	**441**	**411**	**395**	**355**	**332**	**339**	**367**	**388**	**421**	**457**
Middle East										
Bahrain	5	7	12	13	10	10	11	10	10	7
Iran	50	50	55	55	60	60	70	75	75	75
Iraq	0	(s)	15	20	25	20	20	15	15	15
Kuwait	0	34	53	85	95	85	109	115	115	115
Oman	8	6	5	6	10	10	6	6	6	4
Qatar	50	55	55	50	55	50	70	85	111	133
Saudi Arabia	680	713	704	698	701	697	712	755	666	705
Syria	2	2	8	8	9	8	10	8	8	5
United Arab Emirates	146	144	146	150	160	160	160	170	160	200
Total	**941**	**1,011**	**1,053**	**1,085**	**1,125**	**1,100**	**1,168**	**1,239**	**1,166**	**1,259**

See footnotes at end of table.

Table 2.3 World Natural Gas Plant Liquids Production, 1991 - 2000 (Continued)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Africa										
Algeria	140	140	145	140	145	150	160	155	190	195
Egypt	45	45	55	58	60	65	71	75	75	102
Libya	40	40	41	41	40	49	60	60	60	60
South Africa	0	2	11	11	11	11	11	11	10	10
Tunisia	5	5	4	4	1	1	1	1	1	3
Total	**230**	**232**	**256**	**254**	**257**	**276**	**303**	**302**	**336**	**370**
Asia & Oceania										
Australia	61	56	55	56	52	62	71	70	72	70
Bangladesh	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Brunei	10	12	13	13	13	11	15	22	22	22
Burma	1	1	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
India	10	28	30	45	47	80	85	90	90	90
Indonesia	76	75	78	80	76	80	85	87	87	90
Japan	(s)	(s)	4	4	4	4	5	5	5	8
Malaysia	12	13	17	17	20	20	50	90	85	65
New Zealand	5	5	5	5	5	5	7	7	7	8
Pakistan	2	3	2	3	5	3	3	3	3	3
Taiwan	1	1	1	1	1	1	1	1	1	(s)
Thailand	13	14	15	22	37	35	50	60	61	60
Total	**192**	**208**	**221**	**246**	**261**	**301**	**372**	**435**	**433**	**417**
World Total	**4,827**	**4,974**	**5,186**	**5,299**	**5,492**	**5,585**	**5,729**	**5,881**	**5,993**	**6,245**

[1] Preliminary.
[2] Does not include China for which data are unavailable.
- - = Not applicable.
(s) = Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 3.

Table 2.4 World Dry Natural Gas Production, 1991 - 2000

(Trillion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	4.06	4.52	4.91	5.27	5.60	5.71	5.76	5.98	6.26	6.47
Mexico	0.90	0.88	0.95	0.97	0.96	1.06	1.17	1.27	1.29	1.33
United States	17.70	17.84	18.10	18.82	18.60	18.85	18.90	19.02	18.83	18.99
Total	**22.65**	**23.24**	**23.95**	**25.06**	**25.16**	**25.63**	**25.83**	**26.27**	**26.38**	**26.79**
Central & South America										
Argentina	0.70	0.71	0.76	0.79	0.88	0.94	0.97	1.04	1.22	1.32
Barbados	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bolivia	0.10	0.11	0.10	0.10	0.11	0.11	0.11	0.11	0.09	0.12
Brazil	0.12	0.13	0.15	0.15	0.16	0.18	0.19	0.20	0.22	0.26
Chile	0.05	0.06	0.06	0.07	0.07	0.06	0.08	0.07	0.04	0.04
Colombia	0.16	0.15	0.16	0.16	0.16	0.17	0.21	0.22	0.18	0.20
Cuba	(s)	(s)	(s)	(s)	(s)	(s)	0.03	0.01	0.02	0.02
Ecuador	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Peru	0.02	0.02	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01
Trinidad and Tobago	0.20	0.19	0.22	0.25	0.27	0.30	0.33	0.33	0.41	0.49
Venezuela	0.79	0.76	0.81	0.88	0.89	0.96	0.99	1.11	0.95	0.96
Total	**2.15**	**2.14**	**2.30**	**2.44**	**2.58**	**2.76**	**2.92**	**3.12**	**3.15**	**3.43**
Western Europe										
Austria	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06
Belgium	(s)	(s)	(s)	(s)	0.00	(s)	0.00	0.00	0.00	(s)
Denmark	0.14	0.15	0.16	0.17	0.19	0.23	0.27	0.27	0.27	0.29
France	0.11	0.11	0.12	0.12	0.12	0.10	0.09	0.08	0.07	0.06
Germany	0.67	0.68	0.68	0.70	0.74	0.80	0.79	0.77	0.82	0.78
Greece	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Ireland	0.08	0.08	0.09	0.10	0.10	0.09	0.08	0.06	0.05	0.04
Italy	0.61	0.64	0.69	0.73	0.72	0.71	0.68	0.67	0.62	0.57
Netherlands	3.04	3.06	3.11	2.95	2.98	3.37	2.99	2.84	2.67	2.57
Norway	0.97	1.04	0.97	1.04	1.08	1.45	1.62	1.63	1.76	1.81
Spain	0.05	0.04	0.02	0.01	0.01	0.02	0.01	(s)	0.01	0.01
Switzerland	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.02
United Kingdom	2.01	1.96	2.31	2.47	2.67	3.18	3.03	3.14	3.49	3.83
Former Yugoslavia	0.09	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	(s)	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Croatia	--	0.06	0.07	0.06	0.07	0.06	0.06	0.06	0.05	0.06
Slovenia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Yugoslavia	--	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02
Total	**7.83**	**7.92**	**8.33**	**8.44**	**8.80**	**10.09**	**9.71**	**9.64**	**9.92**	**10.11**

See footnotes at end of table.

Table 2.4 World Dry Natural Gas Production, 1991 - 2000 (Continued)

(Trillion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bulgaria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Former Czechoslovakia	0.02	0.01	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Slovakia	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Hungary	0.18	0.18	0.18	0.17	0.17	0.16	0.15	0.14	0.12	0.11
Poland	0.15	0.15	0.18	0.17	0.18	0.18	0.18	0.18	0.18	0.18
Romania	0.88	0.78	0.75	0.69	0.68	0.63	0.61	0.52	0.50	0.50
Former U.S.S.R.	28.62	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.28	0.24	0.23	0.23	0.24	0.21	0.20	0.21	0.20
Belarus	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Georgia	--	(s)	0.00	0.00	0.00	0.00	(s)	(s)	(s)	(s)
Kazakhstan	--	0.29	0.24	0.16	0.17	0.15	0.22	0.19	0.16	0.31
Kyrgyzstan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	22.62	21.81	21.45	21.01	21.23	20.17	20.87	20.83	20.63
Tajikistan	--	(s)	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	2.02	2.29	1.26	1.14	1.31	0.90	0.47	0.79	1.64
Ukraine	--	0.74	0.68	0.64	0.62	0.64	0.64	0.64	0.63	0.64
Uzbekistan	--	1.51	1.59	1.67	1.70	1.70	1.74	1.94	1.96	1.99
Total	**29.85**	**28.58**	**27.99**	**26.47**	**25.93**	**26.28**	**24.85**	**25.17**	**25.41**	**26.24**
Middle East										
Bahrain	0.23	0.19	0.23	0.23	0.23	0.23	0.28	0.29	0.30	0.30
Iran	0.92	0.88	0.96	1.12	1.25	1.42	1.66	1.77	2.04	2.13
Iraq	0.04	0.10	0.09	0.11	0.11	0.11	0.11	0.10	0.11	0.11
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Kuwait	0.02	0.09	0.19	0.21	0.21	0.33	0.33	0.32	0.31	0.34
Oman	0.12	0.12	0.14	0.15	0.15	0.15	0.18	0.25	0.20	0.32
Qatar	0.33	0.40	0.48	0.48	0.48	0.48	0.61	0.69	0.78	1.03
Saudi Arabia	1.13	1.20	1.27	1.33	1.34	1.46	1.60	1.65	1.63	1.76
Syria	0.12	0.13	0.13	0.13	0.10	0.14	0.16	0.20	0.21	0.22
United Arab Emirates	0.92	1.02	0.94	0.91	1.11	1.19	1.28	1.31	1.34	1.41
Total	**3.84**	**4.14**	**4.43**	**4.69**	**4.99**	**5.53**	**6.22**	**6.60**	**6.93**	**7.62**
Africa										
Algeria	1.93	1.97	1.90	1.81	2.05	2.19	2.43	2.60	2.88	2.94
Angola	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Cote d'Ivoire (Ivory Coast)	0.00	0.00	0.00	0.00	(s)	0.02	0.02	0.03	0.05	0.05
Egypt	0.32	0.35	0.40	0.42	0.44	0.47	0.48	0.49	0.52	0.65
Equatorial Guinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Gabon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Libya	0.23	0.24	0.22	0.23	0.22	0.23	0.23	0.22	0.18	0.21
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Mozambique	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Nigeria	0.17	0.17	0.18	0.16	0.18	0.19	0.21	0.21	0.25	0.44
Senegal	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
South Africa	0.00	(s)	0.06	0.07	0.07	0.07	0.06	0.05	0.05	0.05
Tunisia	0.01	0.01	0.01	0.01	0.01	0.03	0.06	0.07	0.07	0.07
Total	**2.69**	**2.77**	**2.81**	**2.72**	**3.01**	**3.23**	**3.52**	**3.70**	**4.02**	**4.43**

See footnotes at end of table.

Table 2.4 World Dry Natural Gas Production, 1991 - 2000 (Continued)

(Trillion Cubic Feet)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Australia	0.75	0.80	0.86	0.93	1.03	1.06	1.06	1.10	1.10	1.12
Bangladesh	0.17	0.21	0.22	0.23	0.26	0.27	0.27	0.29	0.32	0.34
Brunei	0.28	0.29	0.29	0.30	0.33	0.33	0.32	0.32	0.33	0.35
Burma	0.04	0.04	0.04	0.05	0.06	0.06	0.05	0.06	0.06	0.12
China	0.53	0.53	0.56	0.59	0.60	0.67	0.75	0.78	0.85	0.96
India	0.45	0.48	0.53	0.59	0.63	0.70	0.72	0.76	0.75	0.79
Indonesia	1.72	1.79	1.97	2.21	2.24	2.35	2.37	2.27	2.51	2.36
Japan	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09
Malaysia	0.75	0.80	0.88	0.92	1.02	1.23	1.36	1.37	1.42	1.50
New Zealand	0.19	0.20	0.18	0.18	0.17	0.19	0.20	0.17	0.19	0.19
Pakistan	0.53	0.55	0.58	0.63	0.65	0.70	0.70	0.71	0.78	0.86
Papua New Guinea	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	0.00	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Taiwan	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Thailand	0.24	0.25	0.31	0.34	0.37	0.43	0.54	0.57	0.63	0.66
Vietnam	(s)	0.01	0.01	0.01	0.03	0.03	0.01	0.02	0.04	0.04
Total	**5.76**	**6.06**	**6.55**	**7.11**	**7.50**	**8.13**	**8.47**	**8.55**	**9.10**	**9.41**
World Total	**74.78**	**74.84**	**76.36**	**76.93**	**77.96**	**81.65**	**81.52**	**83.03**	**84.91**	**88.03**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 billion cubic feet.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 4.

Table 2.5 World Coal Production, 1991 - 2000

(Million Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	78.41	72.32	76.09	80.28	82.57	83.47	86.70	83.09	79.89	76.24
Mexico	7.80	7.24	7.84	10.07	10.26	11.14	11.48	12.38	11.31	10.86
United States. [2]	995.98	997.54	945.42	1,033.50	1,032.97	1,063.86	1,089.93	1,117.54	1,100.43	1,073.61
Total	**1,082.19**	**1,077.11**	**1,029.35**	**1,123.85**	**1,125.80**	**1,158.47**	**1,188.11**	**1,213.00**	**1,191.63**	**1,160.71**
Central & South America										
Argentina	0.32	0.22	0.18	0.38	0.34	0.34	0.28	0.32	0.37	0.33
Brazil	5.72	5.22	5.07	4.91	4.58	4.23	4.88	4.68	4.73	6.80
Chile	2.43	1.79	1.49	1.30	1.14	1.11	1.15	1.04	0.53	0.40
Colombia	22.04	24.15	23.39	24.98	28.37	33.14	35.93	37.20	36.11	42.04
Peru	0.08	0.20	0.13	0.10	0.08	0.05	0.05	0.05	0.06	0.05
Venezuela	2.40	2.70	4.21	4.72	4.48	4.01	5.67	8.22	7.69	9.30
Total	**32.99**	**34.27**	**34.48**	**36.39**	**38.99**	**42.88**	**47.96**	**51.51**	**49.48**	**58.93**
Western Europe										
Austria	2.29	1.95	1.86	1.51	1.43	1.22	1.25	1.26	1.25	1.38
Belgium	2.32	1.32	1.07	0.83	0.70	0.62	0.47	0.34	0.40	0.41
France	14.19	13.04	11.75	10.59	10.91	9.43	8.06	6.74	6.27	5.18
Germany	388.37	346.09	315.23	291.78	274.15	264.99	251.74	233.00	226.12	225.26
Greece	58.09	60.68	60.43	62.47	63.56	65.90	64.86	67.11	68.40	69.48
Ireland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Italy	1.06	0.91	0.69	0.30	0.19	0.15	0.24	0.21	0.13	0.05
Norway	0.36	0.40	0.30	0.33	0.32	0.25	0.43	0.36	0.54	0.55
Portugal	0.30	0.24	0.22	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Spain	37.00	36.90	34.81	32.67	31.28	30.75	29.16	28.74	26.77	25.81
Sweden	0.03	0.04	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	50.98	56.93	53.62	59.93	60.71	62.13	66.06	74.28	73.90	74.19
United Kingdom	104.63	93.58	75.18	53.92	52.48	55.33	53.51	44.14	39.87	35.27
Former Yugoslavia	78.04	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	2.20	1.65	1.54	1.81	1.86	1.92	1.98	2.04	1.80
Croatia	--	0.00	0.13	0.11	0.09	0.07	0.05	0.06	0.02	0.02
Macedonia, TFYR	--	7.69	7.62	7.56	7.99	7.88	8.20	9.01	8.13	7.83
Slovenia	--	6.12	5.64	5.35	5.38	5.25	5.64	5.39	5.03	4.94
Yugoslavia	--	44.21	41.26	42.27	44.10	42.38	44.82	48.59	36.72	37.81
Total	**737.66**	**672.31**	**611.49**	**571.35**	**555.11**	**548.22**	**536.41**	**521.21**	**495.58**	**489.97**
Eastern Europe & Former U.S.S.R.										
Albania	1.20	0.88	0.66	0.19	0.18	0.11	0.08	0.05	0.05	0.05
Bulgaria	31.26	33.25	31.79	31.60	33.89	33.72	32.75	34.14	28.70	29.75
Former Czechoslovakia	109.27	101.90	--	--	--	--	--	--	--	--
Czech Republic	--	--	93.90	84.82	81.94	84.02	81.04	74.44	65.18	71.83
Slovakia	--	--	3.91	4.01	4.14	4.22	4.32	4.36	4.08	3.97
Hungary	18.89	17.45	16.11	15.55	16.08	16.74	17.18	17.05	16.82	15.30
Poland	230.86	218.44	218.43	220.35	220.17	193.08	221.52	196.17	187.57	178.57
Romania	35.72	42.30	43.82	44.70	45.33	46.15	37.27	28.91	25.22	32.19
Former U.S.S.R.	701.66	--	--	--	--	--	--	--	--	--
Georgia	--	0.22	0.13	0.05	0.05	0.03	0.01	0.02	0.02	0.02
Kazakhstan	--	139.49	123.32	115.33	91.88	84.69	80.08	76.91	64.35	82.44
Kyrgyzstan	--	2.37	1.90	0.93	0.51	0.45	0.58	0.48	0.46	0.77
Moldova	--	0.29	0.20	0.12	0.04	0.04	0.02	0.00	0.00	0.00
Russia	--	405.85	364.03	312.72	296.35	304.04	257.89	241.03	259.22	281.42
Tajikistan	--	0.24	0.19	0.12	0.04	0.02	0.02	0.01	0.02	0.02
Ukraine	--	147.33	127.59	104.06	94.60	83.47	84.82	85.07	91.22	90.28
Uzbekistan	--	5.14	4.21	4.24	3.41	3.13	3.25	3.22	3.27	3.27
Total	**1,128.86**	**1,115.14**	**1,030.18**	**938.78**	**888.61**	**853.91**	**820.79**	**761.86**	**746.20**	**789.89**

See footnotes at end of table.

Table 2.5 World Coal Production, 1991 - 2000 (Continued)

(Million Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Iran	0.99	1.07	1.07	1.43	1.25	1.33	1.33	1.29	1.39	1.39
Total	**0.99**	**1.07**	**1.07**	**1.43**	**1.25**	**1.33**	**1.33**	**1.29**	**1.39**	**1.39**
Africa										
Algeria	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02
Botswana	0.86	0.99	0.98	0.99	0.99	0.84	0.86	1.02	1.04	1.06
Cameroon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11
Egypt	0.00	0.00	0.00	0.00	0.00	0.11	0.39	0.41	0.43	0.44
Malawi	0.06	0.05	0.06	0.06	0.06	0.08	0.07	0.06	0.06	0.06
Morocco	0.61	0.63	0.67	0.72	0.72	0.56	0.41	0.30	0.14	0.11
Mozambique	0.05	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02
Niger	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.16	0.17	0.17
Nigeria	0.15	0.11	0.13	0.14	0.15	0.15	0.15	0.07	0.07	0.07
South Africa	256.20	247.28	258.41	272.30	288.39	297.12	324.56	322.00	320.15	326.08
Swaziland	0.14	0.11	0.06	0.20	0.19	0.14	0.16	0.30	0.32	0.32
Tanzania	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01
Zambia	0.38	0.47	0.37	0.18	0.17	0.14	0.09	0.21	0.21	0.21
Zimbabwe	6.19	6.12	5.83	6.03	6.09	5.15	4.41	4.59	4.41	4.63
Total	**264.93**	**256.11**	**266.86**	**280.98**	**297.13**	**304.64**	**331.45**	**329.27**	**327.17**	**333.30**
Asia & Oceania										
Afghanistan	0.10	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Australia	235.93	248.96	247.58	248.46	266.55	272.44	292.08	316.75	322.20	337.15
Bhutan	(s)	0.06	0.05	0.07	0.07	0.07	0.06	0.06	0.06	0.06
Burma	0.08	0.08	0.06	0.06	0.06	0.06	0.07	0.03	0.04	0.04
China	1,198.66	1,228.58	1,303.53	1,403.50	1,536.97	1,545.25	1,507.13	1,428.99	1,364.96	1,314.43
India	252.74	270.25	281.23	279.69	297.77	314.85	326.06	322.17	328.51	344.96
Indonesia	15.59	25.49	30.39	34.19	45.66	55.48	60.20	66.49	71.23	73.88
Japan	9.58	8.62	7.94	8.05	6.96	6.80	4.38	4.08	4.07	3.42
Korea, North	102.51	104.72	109.13	108.03	106.92	105.71	104.72	99.48	100.48	101.41
Korea, South	16.60	13.19	10.41	8.20	6.31	5.46	4.97	4.81	4.63	4.63
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Malaysia	0.20	0.19	0.42	0.15	0.12	0.09	0.11	0.35	0.27	0.22
Mongolia	7.76	6.89	6.18	5.69	5.53	5.63	5.43	5.57	5.47	5.72
Nepal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
New Zealand	2.76	3.05	3.22	3.03	3.59	3.68	3.46	3.35	4.08	3.97
Pakistan	3.18	3.39	3.39	3.54	3.32	4.01	3.92	3.48	3.82	3.86
Philippines	1.46	1.83	1.74	1.60	1.47	1.22	1.20	1.28	1.34	1.49
Taiwan	0.44	0.37	0.36	0.31	0.26	0.11	0.09	0.10	0.09	0.11
Thailand	16.22	16.93	17.14	18.86	20.31	23.92	25.84	22.04	20.13	19.61
Vietnam	4.77	5.28	6.50	6.27	9.20	10.83	12.55	11.80	10.03	10.03
Total	**1,868.61**	**1,937.90**	**2,029.30**	**2,129.72**	**2,311.10**	**2,355.62**	**2,352.27**	**2,290.86**	**2,241.41**	**2,224.98**
World Total	**5,116.23**	**5,093.91**	**5,002.72**	**5,082.49**	**5,218.00**	**5,265.07**	**5,278.33**	**5,169.01**	**5,052.86**	**5,059.16**

[1] Preliminary.
[2] United States coal production is from Energy Information Administration, Monthly Energy Review, December 2001, table 6.1.
- - = Not applicable.
(s) = Value less than 5 thousand short tons.
Notes: Sum of components may not equal total due to independent rounding.
Coal includes anthracite, subanthracite, bituminous, subbituminous, lignite, and brown coal.
Sources: See sources at the end of Section 5.

Table 2.6 World Net Hydroelectric Power Generation, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	305.3	313.2	320.3	326.4	332.0	352.4	347.2	328.6	342.0	352.7
Mexico	21.6	25.9	26.0	19.8	27.3	31.1	26.2	24.4	32.5	32.8
United States [2]	285.0	248.9	276.5	256.8	308.3	344.4	354.9	318.9	313.4	273.1
Total	**611.9**	**588.0**	**622.8**	**603.1**	**667.6**	**727.9**	**728.3**	**671.8**	**687.9**	**658.6**
Central & South America										
Argentina	19.3	24.3	29.9	34.0	33.4	28.4	34.8	35.8	21.5	33.7
Bolivia	1.4	1.3	1.4	1.4	1.4	1.5	1.4	1.4	1.5	1.9
Brazil	215.6	221.1	232.7	240.3	251.4	263.1	276.2	288.6	290.0	304.5
Chile	13.0	16.6	17.0	16.8	18.2	16.7	18.2	15.0	13.3	18.3
Colombia	27.2	22.2	27.7	32.0	33.9	34.3	30.9	31.2	33.2	31.7
Costa Rica	3.6	3.5	3.9	3.9	3.5	3.8	4.8	4.7	4.8	5.7
Dominican Republic	0.6	1.9	1.5	1.6	1.7	1.3	1.3	1.4	0.9	1.2
Ecuador	5.0	4.9	5.8	6.6	5.2	6.2	6.4	6.5	7.1	7.8
El Salvador	0.8	1.0	1.2	1.2	1.2	1.1	1.2	1.2	1.5	1.3
Guatemala	2.1	1.8	1.9	2.0	1.9	2.3	2.1	2.1	2.3	2.6
Haiti	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.2
Honduras	2.1	2.2	2.2	2.3	2.1	2.1	1.4	1.9	1.8	2.3
Jamaica	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Nicaragua	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.2
Panama	2.5	2.6	3.0	3.2	2.9	3.3	3.2	3.3	3.2	3.4
Paraguay	29.1	26.8	31.1	36.0	41.7	47.6	50.1	50.3	51.4	53.0
Peru	11.4	9.7	11.7	12.6	13.6	13.2	13.1	13.7	14.4	16.0
Puerto Rico	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Suriname	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	0.9
Uruguay	6.1	7.8	7.2	7.4	5.8	5.7	6.4	9.1	5.4	7.0
Venezuela	44.1	46.8	47.0	50.8	50.9	53.3	56.6	52.5	55.1	62.3
Other	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Total	**386.1**	**396.8**	**427.7**	**454.4**	**471.3**	**486.4**	**510.6**	**521.3**	**510.2**	**554.6**
Western Europe										
Austria	31.1	34.5	36.3	35.3	36.7	33.9	35.6	37.0	40.1	41.4
Belgium	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.5
Finland	13.1	15.0	13.3	11.7	12.8	11.7	12.1	14.9	12.7	14.5
France	56.3	67.2	63.1	76.5	70.6	64.5	61.6	61.4	71.7	66.7
Germany	14.7	17.2	17.7	19.7	21.6	21.7	17.2	17.0	19.2	19.6
Greece	3.1	2.2	2.3	2.6	3.5	4.3	3.8	3.7	4.5	3.3
Iceland	4.2	4.3	4.4	4.5	4.6	4.7	5.2	5.6	6.0	6.3
Ireland	0.7	0.8	0.8	0.9	0.7	0.7	0.7	0.9	0.8	0.8
Italy	41.8	41.8	41.0	44.2	37.4	41.6	41.2	40.8	44.9	44.0
Luxembourg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Norway	109.0	115.5	118.0	110.4	120.1	102.6	108.9	114.2	119.7	140.2
Portugal	9.0	4.6	8.5	10.6	8.3	14.6	13.0	12.9	7.2	11.2
Spain	27.0	18.7	24.1	27.9	22.9	39.4	34.4	33.7	22.6	26.4
Sweden	62.6	73.6	73.9	58.5	67.4	51.2	68.4	73.6	70.9	77.8
Switzerland	31.8	32.4	35.4	38.7	34.8	28.1	33.7	33.1	39.6	36.5
Turkey	22.5	26.3	33.6	30.3	35.2	40.1	39.4	41.8	34.3	30.6
United Kingdom	4.5	5.3	4.2	5.0	4.8	3.3	4.1	5.2	5.3	5.2
Former Yugoslavia	18.9	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	3.0	2.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6
Croatia	--	4.3	4.3	4.9	5.2	7.2	5.2	5.4	6.5	5.8
Macedonia, TFYR	--	0.8	0.5	0.7	0.8	1.4	1.2	1.1	1.1	1.3
Slovenia	--	3.4	3.0	3.3	3.2	3.6	3.0	3.4	3.7	3.8
Yugoslavia	--	11.2	10.0	11.0	11.1	11.4	12.0	12.8	13.2	13.6
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total	**450.8**	**482.6**	**497.0**	**498.6**	**503.7**	**488.0**	**502.9**	**520.7**	**526.4**	**551.3**

See footnotes at end of table.

Table 2.6 World Net Hydroelectric Power Generation, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	3.5	3.2	3.3	3.7	4.2	5.7	5.0	4.9	5.2	4.6
Bulgaria	2.4	2.0	1.9	1.5	2.3	2.9	2.9	3.3	3.0	2.9
Former Czechoslovakia	3.1	3.6	--	--	--	--	--	--	--	--
Czech Republic	--	--	1.4	1.4	2.0	1.9	1.7	1.4	1.7	1.7
Slovakia	--	--	3.9	4.6	5.2	4.5	4.3	4.3	4.5	4.7
Hungary	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Poland	3.4	3.5	3.5	3.7	3.8	3.9	3.8	2.3	2.1	2.1
Romania	14.1	11.6	12.6	12.9	16.5	15.6	17.3	18.7	18.1	18.4
Former U.S.S.R.	232.7	--	--	--	--	--	--	--	--	--
Armenia	--	3.0	4.2	3.5	1.9	1.6	1.4	1.5	1.9	1.8
Azerbaijan	--	1.7	2.4	1.8	1.5	1.5	1.7	1.9	1.8	1.5
Georgia	--	6.5	7.0	4.7	5.3	6.0	6.0	6.3	6.4	5.9
Kazakhstan	--	6.8	7.6	9.1	8.2	7.3	6.4	6.1	6.1	6.6
Kyrgyzstan	--	9.2	9.0	11.6	11.0	12.1	10.8	9.8	12.0	13.6
Latvia	--	2.5	2.8	3.3	2.9	1.8	2.9	4.3	2.7	2.2
Lithuania	--	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.3
Moldova	--	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3
Russia	--	170.9	172.1	175.2	175.5	153.8	156.8	157.9	159.4	157.8
Tajikistan	--	15.8	16.9	16.5	14.5	14.7	13.6	14.0	15.3	14.0
Ukraine	--	8.0	11.1	12.2	10.0	8.7	9.9	15.8	11.6	11.5
Uzbekistan	--	6.2	7.3	7.1	6.1	6.5	5.7	5.7	5.6	5.8
Other	0.0	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**259.3**	**255.3**	**267.9**	**273.6**	**271.8**	**249.4**	**251.3**	**259.1**	**258.3**	**255.8**
Middle East										
Iran	7.0	9.4	9.7	7.4	7.2	7.3	6.8	7.0	4.9	6.9
Iraq	0.3	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Lebanon	0.5	0.5	0.7	0.8	0.7	0.8	0.9	0.8	0.3	0.3
Syria	6.2	7.3	6.6	6.7	6.9	6.9	7.3	7.9	8.6	7.0
Total	**14.0**	**18.0**	**17.7**	**15.5**	**15.4**	**15.6**	**15.7**	**16.3**	**14.5**	**14.8**
Africa										
Algeria	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.1
Angola	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	0.7
Cameroon	2.6	2.6	2.6	2.7	2.7	2.8	3.1	3.1	3.3	3.5
Congo (Brazzaville)	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
Congo (Kinshasa)	5.2	6.0	5.7	5.4	6.0	6.1	5.8	5.5	5.2	5.3
Cote d'Ivoire (Ivory Coast)	1.2	1.0	1.1	1.0	1.7	1.8	1.8	1.4	1.2	1.0
Egypt	8.5	8.5	10.4	10.6	10.7	11.4	11.9	12.1	15.1	15.9
Ethiopia	1.1	1.1	1.3	1.3	1.4	1.5	1.6	1.6	1.6	1.6
Gabon	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Ghana	6.0	6.0	6.1	6.0	6.1	6.6	6.8	3.8	4.0	4.1
Guinea	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4
Kenya	2.7	2.8	3.0	3.0	3.1	3.2	3.3	3.2	3.2	3.3
Madagascar	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
Malawi	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	0.8
Mali	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Morocco	1.2	1.0	0.4	0.8	0.6	1.9	2.1	1.8	1.5	1.2
Mozambique	0.3	0.3	0.3	0.4	0.4	0.4	1.0	1.5	6.4	6.8
Nigeria	5.9	6.0	5.5	5.5	5.4	5.4	5.5	5.5	5.6	5.7
Reunion	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
South Africa	2.0	0.8	0.1	1.1	0.5	1.3	2.1	1.6	0.7	1.3
Sudan	1.0	1.1	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.0
Swaziland	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tanzania	1.7	1.6	1.7	1.5	1.5	1.7	1.4	2.1	2.2	2.3
Uganda	0.8	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.3	1.6
Zambia	7.7	7.7	7.7	7.7	7.7	7.7	7.9	7.8	7.9	7.8
Zimbabwe	3.5	2.9	1.8	1.6	1.8	2.1	2.1	1.9	2.9	3.0
Other	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.9
Total	**57.2**	**55.8**	**55.3**	**56.2**	**57.4**	**62.1**	**64.5**	**61.0**	**69.1**	**70.7**

See footnotes at end of table.

Table 2.6 World Net Hydroelectric Power Generation, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.7	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2
Australia	15.7	15.2	16.5	16.2	15.7	15.4	16.6	15.6	16.5	17.2
Bangladesh	0.8	0.8	0.6	0.8	0.6	0.7	0.7	0.9	0.8	1.0
Bhutan	1.6	1.6	1.6	1.7	1.6	2.0	1.8	1.8	1.9	1.9
Burma	1.2	1.5	1.7	1.6	1.6	1.6	1.7	0.9	0.8	0.8
Cambodia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	123.8	130.2	149.2	165.4	184.4	184.9	193.1	202.9	222.8	220.1
Fiji	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
French Polynesia	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
India	72.0	69.2	69.8	81.9	72.0	68.4	74.0	75.5	80.8	75.8
Indonesia	10.0	9.7	8.8	6.8	8.6	8.9	9.0	10.5	11.5	13.0
Japan	96.5	81.7	94.6	66.6	81.3	79.7	88.9	91.6	85.6	86.6
Korea, North	31.4	23.8	23.8	23.3	22.8	22.3	21.8	20.7	20.9	22.5
Korea, South	3.5	3.1	4.2	2.3	2.7	2.4	2.8	4.2	4.1	4.0
Laos	0.9	0.9	0.9	1.1	1.0	1.2	1.2	0.9	0.8	1.0
Malaysia	4.4	4.3	4.8	6.5	6.2	5.1	3.8	4.8	7.4	7.6
Nepal	0.9	0.8	0.9	0.9	1.1	1.2	1.1	1.1	1.1	1.3
New Caledonia	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.4
New Zealand	22.9	20.4	23.1	25.6	27.0	25.7	23.6	24.2	23.3	23.8
Pakistan	18.1	18.5	20.9	19.2	22.6	23.0	20.6	21.8	22.2	22.1
Papua New Guinea	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.8	0.8
Philippines	5.1	4.2	4.9	5.9	6.1	6.9	6.0	5.0	7.8	8.1
Samoa	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Sri Lanka	3.1	2.9	3.8	4.0	4.4	3.2	3.4	3.9	4.1	4.5
Taiwan	5.5	8.3	6.8	8.8	8.3	8.6	8.9	9.9	8.8	8.7
Thailand	4.5	4.2	3.7	4.5	6.6	7.3	7.1	5.1	3.5	6.0
U.S. Pacific Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Vietnam	6.3	7.2	7.9	9.1	10.5	11.9	11.6	11.0	13.6	15.3
Total	**430.3**	**410.3**	**450.2**	**454.1**	**487.3**	**482.4**	**499.7**	**514.4**	**540.4**	**543.2**
World Total	**2,209.6**	**2,206.8**	**2,338.6**	**2,355.4**	**2,474.4**	**2,511.8**	**2,573.0**	**2,564.7**	**2,606.7**	**2,649.1**

[1] Preliminary.
[2] Includes hydroelectric pumped storage.
- - = Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit and excludes generation from pumped storage.
Sources: See sources at the end of Section 6.

Table 2.7 World Net Nuclear Electric Power Generation, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	80.7	76.6	90.1	102.4	93.0	88.1	77.9	67.7	69.8	68.7
Mexico	4.0	3.7	4.7	4.0	8.0	7.5	9.9	8.8	9.5	7.8
United States	612.6	618.8	610.4	640.5	673.4	674.7	628.6	673.7	728.3	753.9
Total	**697.4**	**699.1**	**705.1**	**747.0**	**774.4**	**770.3**	**716.4**	**750.2**	**807.6**	**830.4**
Central & South America										
Argentina	7.7	6.7	7.3	7.8	7.1	6.9	7.5	7.1	6.7	6.0
Brazil	1.4	1.7	0.4	0.1	2.4	2.3	3.0	3.1	3.8	4.9
Total	**9.1**	**8.4**	**7.7**	**7.9**	**9.5**	**9.2**	**10.5**	**10.3**	**10.5**	**10.9**
Western Europe										
Belgium	40.7	41.3	39.8	38.6	39.3	41.2	45.0	43.9	46.6	45.7
Finland	18.5	18.3	18.9	18.5	18.3	18.5	19.0	20.8	21.8	21.3
France	314.8	321.5	349.8	342.0	358.4	377.5	374.3	368.6	375.1	394.4
Germany	140.1	150.9	145.8	143.2	145.4	152.0	161.8	153.6	161.0	161.2
Netherlands	3.2	3.6	3.8	3.8	3.8	4.0	2.3	3.6	3.6	3.7
Spain	52.8	53.0	53.3	52.5	52.7	53.5	52.5	56.0	55.9	58.9
Sweden	72.9	60.4	58.3	69.5	66.4	69.6	66.7	69.9	66.6	54.1
Switzerland	21.7	22.3	22.2	23.1	23.7	23.9	24.0	24.5	23.7	23.7
United Kingdom	62.8	69.1	81.0	80.0	80.6	85.8	89.3	95.1	91.5	81.7
Former Yugoslavia	4.2	--	--	--	--	--	--	--	--	--
Slovenia	--	3.8	3.8	4.3	4.5	4.4	4.8	5.0	4.5	4.5
Total	**731.6**	**744.1**	**776.6**	**775.4**	**793.0**	**830.3**	**839.9**	**841.0**	**850.2**	**849.4**
Eastern Europe & Former U.S.S.R.										
Bulgaria	12.4	11.0	13.3	14.6	16.4	17.8	16.4	16.1	15.0	17.3
Former Czechoslovakia	22.5	23.3	--	--	--	--	--	--	--	--
Czech Republic	--	--	12.0	12.3	11.6	12.2	12.5	12.5	12.7	12.9
Slovakia	--	--	11.6	11.5	10.9	11.3	10.5	10.8	12.5	13.1
Hungary	13.0	13.3	13.1	13.3	13.3	13.5	13.3	13.3	13.4	13.5
Romania	0.0	0.0	0.0	0.0	0.0	0.9	5.1	4.9	4.8	5.2
Former U.S.S.R.	201.5	--	--	--	--	--	--	--	--	--
Armenia	--	0.0	0.0	0.0	0.0	2.1	1.4	1.4	2.1	1.8
Kazakhstan	--	0.5	0.4	0.4	0.1	0.1	0.3	0.1	(s)	0.0
Lithuania	--	13.9	12.3	7.3	10.6	12.7	10.9	12.9	9.9	8.4
Russia	--	113.6	113.2	92.9	94.3	103.3	104.5	98.3	110.9	122.5
Ukraine	--	70.1	71.4	65.4	67.0	76.0	75.4	70.6	67.3	71.1
Total	**249.5**	**245.6**	**247.3**	**217.7**	**224.3**	**249.8**	**250.3**	**240.9**	**248.6**	**265.7**
Africa										
South Africa	9.1	9.3	7.3	9.7	11.3	11.8	12.6	13.6	12.8	13.0
Total	**9.1**	**9.3**	**7.3**	**9.7**	**11.3**	**11.8**	**12.6**	**13.6**	**12.8**	**13.0**
Asia & Oceania										
China	0.0	0.5	2.5	13.5	12.4	13.6	11.4	13.5	14.1	16.0
India	5.2	6.0	5.9	4.7	6.5	7.4	10.5	10.6	11.5	14.1
Japan	202.8	212.1	236.8	255.7	276.7	287.1	306.1	315.7	300.8	293.8
Korea, South	53.5	53.7	55.2	55.7	63.7	70.2	73.2	85.2	97.9	103.5
Pakistan	0.4	0.5	0.4	0.6	0.5	0.3	0.4	0.4	0.1	0.4
Taiwan	33.5	32.5	33.0	33.5	33.9	36.3	34.8	35.4	36.9	37.0
Total	**295.4**	**305.3**	**333.8**	**363.6**	**393.6**	**415.0**	**436.4**	**460.8**	**461.2**	**464.7**
World Total	**1,992.0**	**2,011.8**	**2,077.8**	**2,121.3**	**2,206.0**	**2,286.5**	**2,266.1**	**2,316.9**	**2,391.0**	**2,434.2**

[1] Preliminary.
-- = Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit.
No generation is reported for Middle East.
Sources: See sources at the end of Section 6.

Table 2.8 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Generation, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	3.7	4.1	4.5	5.4	5.3	5.5	5.9	6.3	7.0	9.0
Mexico	5.2	5.5	5.6	5.3	5.4	5.4	5.2	5.7	5.9	6.2
United States	72.2	76.8	79.3	81.3	78.7	80.5	76.9	75.3	85.1	84.1
Total	**81.1**	**86.5**	**89.4**	**92.0**	**89.3**	**91.4**	**88.0**	**87.2**	**97.9**	**99.3**
Central & South America										
Argentina	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Bolivia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	5.3	6.6	6.7	7.2	7.4	8.5	9.5	9.9	13.0	12.8
Chile	0.3	0.5	0.5	0.5	0.7	0.9	0.8	1.0	1.0	1.0
Colombia	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.4
Costa Rica	(s)	(s)	(s)	0.3	0.5	0.5	0.5	0.5	0.8	1.1
Cuba	1.0	1.0	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.7
Dominican Republic	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
El Salvador	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.8
Guatemala	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Haiti	(s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jamaica	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5
Nicaragua	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2
Panama	(s)	(s)	(s)	(s)	(s)	(s)	0.1	0.1	0.1	0.1
Paraguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.1
Peru	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Trinidad and Tobago	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Uruguay	(s)	0.1	0.1	0.1	(s)	(s)	(s)	(s)	(s)	(s)
Total	**8.4**	**10.0**	**9.8**	**10.6**	**11.1**	**12.8**	**13.9**	**14.7**	**18.0**	**18.5**
Western Europe										
Austria	1.1	1.2	1.2	1.1	1.8	1.5	1.6	1.6	1.7	1.7
Belgium	0.8	0.9	0.9	0.9	1.0	1.0	0.9	1.0	1.2	1.2
Croatia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Denmark	0.8	1.1	1.5	1.8	2.0	2.3	3.1	4.1	4.5	5.7
Faroe Islands	0.0	0.0	0.0	(s)	(s)	(s)	(s)	0.0	0.0	0.0
Finland	0.0	4.7	5.7	6.1	6.3	5.8	7.8	9.3	8.3	8.7
France	2.1	2.1	2.1	2.4	2.5	2.5	2.9	2.9	3.3	3.8
Germany	5.2	5.7	6.1	7.6	8.3	9.2	9.9	12.6	14.2	17.6
Greece	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.9
Iceland	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.6	1.1	1.3
Ireland	0.0	(s)	(s)	(s)	(s)	(s)	0.1	0.2	0.3	0.3
Italy	3.2	3.8	4.0	3.8	4.0	4.5	5.3	6.1	6.9	7.5
Luxembourg	(s)	(s)	(s)	(s)	0.1	(s)	(s)	(s)	0.1	0.1
Netherlands	1.0	1.4	1.6	1.6	2.0	2.6	4.0	4.4	4.5	4.7
Norway	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Portugal	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.4	1.8
Slovenia	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(s)	(s)
Spain	0.7	0.7	0.8	1.0	1.5	1.9	2.8	3.5	5.4	6.1
Sweden	1.7	2.0	2.2	2.2	2.4	2.2	2.9	3.2	3.6	3.9
Switzerland	0.5	0.6	0.5	1.0	1.0	1.1	1.1	1.1	1.5	1.5
Turkey	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.3	0.3	0.3
United Kingdom	1.0	2.0	4.5	4.6	5.4	5.7	6.0	7.7	8.2	8.2
Total	**19.7**	**27.9**	**32.9**	**35.9**	**40.4**	**42.6**	**50.7**	**60.5**	**67.2**	**75.6**
Eastern Europe & Former U.S.S.R.										
Belarus	--	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Bulgaria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(s)	(s)	(s)
Czech Republic	--	--	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.8
Hungary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Poland	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.6	0.5	0.5
Romania	0.0	0.1	0.1	0.0	(s)	0.0	(s)	(s)	0.0	0.0
Former U.S.S.R.	(s)	--	--	--	--	--	--	--	--	--
Estonia	--	0.0	0.0	0.0	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	1.8	1.7	1.6	1.5	1.5	1.5	1.5	2.0	2.7
Total	**0.4**	**2.2**	**2.4**	**2.3**	**2.3**	**2.3**	**2.6**	**2.8**	**3.5**	**4.3**

See footnotes at end of table.

Table 2.8 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Generation, 1991 - 2000 (Cont.)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Jordan	(s)	(s)	(s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**(s)**	**(s)**	**(s)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Africa										
Ethiopia	0.1	0.1	0.1	0.1	0.1	(s)	0.0	0.0	0.0	0.0
Kenya	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.4
Total	**0.4**	**0.3**	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**	**0.3**	**0.3**	**0.4**
Asia & Oceania										
Australia	0.6	2.6	2.7	2.7	2.7	3.0	3.1	3.9	3.6	3.5
China	0.0	0.0	0.0	0.3	2.8	1.3	2.5	2.2	1.9	1.6
India	(s)	(s)	0.1	0.2	0.1	0.8	0.9	1.0	1.0	1.0
Indonesia	1.0	1.0	1.0	1.8	2.1	2.2	2.5	3.7	3.9	4.6
Japan	18.3	18.4	18.5	19.7	21.8	22.7	24.4	17.8	18.7	18.5
Korea, South	0.0	0.0	0.0	(s)	(s)	(s)	(s)	(s)	0.1	0.1
New Zealand	2.6	2.7	2.6	2.6	2.5	2.6	2.6	3.0	3.0	2.5
Philippines	5.5	5.4	5.4	6.0	5.8	6.2	6.9	8.5	8.3	9.2
Thailand	0.0	0.0	0.0	0.0	0.2	0.2	0.9	0.7	0.9	1.3
Total	**28.1**	**30.2**	**30.3**	**33.5**	**38.1**	**39.1**	**43.8**	**40.7**	**41.4**	**42.2**
World Total	**138.1**	**157.0**	**165.1**	**174.6**	**181.5**	**188.6**	**199.4**	**206.3**	**228.3**	**240.3**

[1] Preliminary.

- - = Not applicable.

(s) = Value less than 50 million kilowatthours.

Notes: Sum of components may not equal total due to independent rounding.

Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit.

Sources: See sources at the end of Section 6.

Table 2.9 World Production of Primary Energy by Selected Country Groups (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Petroleum [2]										
World Total	**135.90**	**136.50**	**136.53**	**138.31**	**141.48**	**144.95**	**149.02**	**151.90**	**149.68**	**155.25**
OECD [3]	39.21	39.70	39.57	40.94	41.66	43.14	43.60	43.22	42.13	42.66
Non OECD	96.70	96.80	96.96	97.37	99.82	101.80	105.43	108.67	107.55	112.60
Other Groups:										
OECD Europe	9.48	10.26	10.67	12.18	13.00	13.90	13.84	13.78	13.87	13.57
OPEC [4]	51.95	54.64	56.17	57.07	58.21	59.35	62.02	64.38	61.77	65.33
EU. [5]	5.15	5.23	5.41	6.56	6.85	7.04	6.89	7.12	7.25	6.56
IEA [6]	32.71	33.22	33.09	34.43	35.32	36.29	36.44	35.91	35.15	35.42
Natural Gas										
World Total	**76.68**	**76.90**	**78.41**	**79.17**	**80.26**	**84.01**	**83.95**	**85.65**	**87.57**	**90.83**
OECD [3]	32.19	33.02	34.18	35.68	36.14	38.07	37.88	38.37	38.73	39.37
Non OECD	44.49	43.88	44.22	43.50	44.12	45.94	46.07	47.28	48.84	51.47
Other Groups:										
OECD Europe	7.79	7.94	8.37	8.54	8.90	10.26	9.92	9.84	10.14	10.37
OPEC [4]	9.05	9.52	9.90	10.36	11.06	11.87	12.84	13.32	14.07	14.82
EU. [5]	6.42	6.50	6.96	7.05	7.36	8.33	7.81	7.76	7.95	8.12
IEA [6]	31.05	31.92	32.97	34.45	34.93	36.71	36.48	36.87	37.23	37.81
Coal										
World Total	**89.70**	**90.20**	**87.74**	**89.39**	**91.84**	**92.60**	**95.78**	**93.97**	**92.66**	**92.51**
OECD [3]	42.18	41.23	38.17	39.55	39.42	39.70	41.71	41.68	40.57	39.88
Non OECD	47.52	48.97	49.57	49.83	52.42	52.90	54.08	52.30	52.09	52.63
Other Groups:										
OECD Europe	13.99	13.01	11.25	10.54	10.09	9.61	10.26	9.21	8.74	8.39
OPEC [4]	0.47	0.72	0.87	0.99	1.29	1.49	1.59	1.80	1.90	2.01
EU. [5]	7.54	6.72	6.01	5.34	5.09	4.87	4.93	4.43	4.22	3.96
IEA [6]	35.92	35.24	34.31	35.66	35.71	36.33	37.71	38.18	37.24	36.72
Hydroelectric Power										
World Total	**22.99**	**22.94**	**24.30**	**24.47**	**25.71**	**26.10**	**26.74**	**26.65**	**27.09**	**27.53**
OECD [3]	12.38	12.21	12.95	12.47	13.36	13.76	14.02	13.63	13.77	13.76
Non OECD	10.61	10.72	11.35	12.00	12.34	12.34	12.72	13.03	13.32	13.78
Other Groups:										
OECD Europe	4.56	4.86	5.05	5.07	5.13	4.92	5.09	5.25	5.29	5.55
OPEC [4]	0.70	0.76	0.75	0.74	0.76	0.79	0.82	0.79	0.81	0.92
EU. [5]	2.75	2.93	2.97	3.05	2.99	2.99	3.04	3.14	3.13	3.24
IEA [6]	12.00	11.79	12.51	12.11	12.91	13.27	13.59	13.21	13.26	13.24
Nuclear Electric Power										
World Total	**21.29**	**21.36**	**22.07**	**22.50**	**23.31**	**24.13**	**23.90**	**24.43**	**25.21**	**25.66**
OECD [3]	18.20	18.44	19.13	19.76	20.44	20.94	20.67	21.26	21.96	22.17
Non OECD	3.08	2.92	2.94	2.74	2.87	3.19	3.24	3.17	3.25	3.49
Other Groups:										
OECD Europe	8.04	8.20	8.56	8.54	8.65	9.06	9.15	9.17	9.29	9.27
OPEC [4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU. [5]	7.40	7.55	7.91	7.87	8.01	8.41	8.50	8.52	8.62	8.59
IEA [6]	17.35	17.57	18.39	19.02	19.59	20.03	19.71	20.19	20.74	20.90

See footnotes at end of table.

Table 2.9 World Production of Primary Energy by Selected Country Groups (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Geothermal, Solar, Wind, and Wood and Waste Electric Power										
World Total	**1.82**	**2.02**	**2.11**	**2.22**	**2.28**	**2.38**	**2.50**	**2.61**	**2.85**	**2.99**
OECD [3]	1.58	1.75	1.84	1.91	1.93	2.01	2.08	2.13	2.32	2.41
Non OECD	0.24	0.27	0.27	0.31	0.35	0.37	0.42	0.49	0.53	0.58
Other Groups:										
OECD Europe	0.24	0.33	0.39	0.42	0.47	0.49	0.58	0.69	0.77	0.86
OPEC [4]	0.02	0.02	0.02	0.04	0.04	0.05	0.05	0.08	0.08	0.10
EU. [5]	0.23	0.31	0.37	0.39	0.44	0.46	0.55	0.65	0.71	0.80
IEA [6]	1.46	1.62	1.71	1.79	1.81	1.89	1.96	1.99	2.18	2.25
Total Energy [7]										
World Total	**350.64**	**352.28**	**353.46**	**358.49**	**367.44**	**376.79**	**384.42**	**387.72**	**387.73**	**397.48**
OECD [3]	147.99	148.71	148.15	152.73	155.52	160.23	162.47	162.79	162.16	162.94
Non OECD	202.65	203.57	205.30	205.76	211.92	216.56	221.95	224.93	225.57	234.54
Other Groups:										
OECD Europe	44.11	44.60	44.29	45.28	46.24	48.25	48.84	47.94	48.11	48.02
OPEC [4]	62.20	65.65	67.72	69.19	71.37	73.54	77.32	80.37	78.63	83.17
EU. [5]	29.49	29.24	29.63	30.26	30.73	32.09	31.73	31.61	31.87	31.28
IEA [6]	132.76	133.73	135.29	139.87	142.82	147.13	148.40	148.85	148.47	149.04

[1] Preliminary.

[2] Data include the production of crude oil and natural gas plant liquids.

[3] The Organization for Economic Cooperation and Development (OECD) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, South, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). Refer to Appendix A for a listing of OECD Europe.

[4] The Organization of Petroleum Exporting Countries (OPEC) includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

[5] European Union (EU) includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom.

[6] International Energy Agency (IEA) includes Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States (including data for Guam, Hawaiian Trade Zone, Puerto Rico, and Virgin Islands, U.S.). No Czech Republic data for 1991-1992.

[7] Total primary energy production, as reported here, includes all of the fuel types reported in this table. It also includes for the United States the production of geothermal, solar, and wood and waste energy not used for electricity generation. As a result, total primary energy production might not be equal to sum of the individual fuel types reported in this table.

Notes: For consistency data reflect 2000 membership (as of December 31, 2000) for all years. The country groups OECD, OECD Europe, EU, and IEA include unified Germany. Data for the Czech Republic are included in the country group IEA beginning in 1993, the year that the country came into existence. Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of Sections 3, 4, 5, and 6.

Section 3

Petroleum

Table 3.1 World Petroleum Supply and Disposition, 1999

(Thousand Barrels per Day)

Region Country	Primary Supply			Disposition			Bunkers	
	Oil Production [1]	Crude Oil Imports	Total Imports of Refined Petroleum Products	Crude Oil Exports	Total Exports of Refined Petroleum Products	Apparent [2] Consumption (Including Bunkers)	Residual Fuel Oil	Distillate Fuel Oil and Other Products
North America								
Canada	2,620	836	178	1,059	754	2,029	18	4
Mexico	3,373	0	364	1,580	149	2,000	2	22
United States	8,993	8,731	2,122	118	822	19,519	213	393
Other	0	0	8	0	(s)	8	0	(s)
Total	**14,986**	**9,567**	**2,671**	**2,757**	**1,725**	**23,556**	**233**	**419**
Central & South America								
Argentina	855	19	33	271	128	496	8	6
Bahamas, The	0	0	61	0	39	22	3	3
Bolivia	43	0	6	(s)	3	43	0	0
Brazil	1,404	483	311	1	134	2,130	24	29
Chile	16	184	43	0	5	244	8	(s)
Colombia	826	4	29	516	72	277	(s)	3
Costa Rica	0	0	41	0	1	39	2	(s)
Cuba	41	15	111	0	0	162	2	6
Dominican Republic	1	40	61	0	0	99	0	0
Ecuador	378	0	32	236	39	128	2	1
El Salvador	0	20	23	0	5	38	0	0
Guatemala	23	18	42	22	0	59	0	2
Honduras	0	0	32	0	(s)	31	0	0
Jamaica	0	13	57	0	0	69	0	2
Netherlands Antilles	6	234	35	0	207	71	28	6
Nicaragua	0	17	7	0	1	24	0	0
Panama	1	49	10	0	7	53	18	1
Paraguay	0	2	25	0	(s)	28	0	(s)
Peru	109	72	28	29	19	167	(s)	1
Puerto Rico	0	20	144	0	17	154	2	1
Trinidad and Tobago	138	82	(s)	68	129	23	1	1
Uruguay	0	33	18	0	3	48	4	3
Venezuela	3,013	0	18	1,923	667	461	8	12
Virgin Islands, U.S.	(s)	420	8	0	289	146	1	2
Other	12	16	84	11	5	95	(s)	15
Total	**6,865**	**1,743**	**1,259**	**3,078**	**1,768**	**5,109**	**113**	**94**
Western Europe								
Austria	21	156	106	1	35	284	0	0
Belgium	12	655	353	0	459	568	70	12
Bosnia and Herzegovina	0	0	21	0	0	21	0	0
Croatia	32	89	10	3	41	91	(s)	2
Denmark	304	97	128	232	81	223	12	12
Finland	0	219	88	0	98	215	7	3
France	80	1,673	577	0	388	2,027	45	9
Germany	132	2,118	873	35	348	2,836	28	11
Greece	4	319	113	2	78	384	43	15
Iceland	0	0	18	0	0	19	0	0
Ireland	1	60	126	0	21	167	1	2
Italy	147	1,628	514	(s)	411	1,841	31	18
Luxembourg	0	0	45	0	(s)	46	0	0
Macedonia, TFYR	0	13	8	0	2	20	0	0
Netherlands	93	1,094	959	6	1,295	835	193	44
Norway	3,142	43	68	2,868	270	224	8	9
Portugal	2	270	100	0	30	333	6	2
Slovenia	(s)	6	54	0	7	54	0	(s)
Spain	20	1,163	369	0	147	1,429	86	24
Sweden	4	405	133	0	191	360	24	4
Switzerland	1	104	163	0	11	272	0	(s)
Turkey	63	464	146	0	49	625	2	3
United Kingdom	2,967	744	370	1,729	644	1,739	21	24
Yugoslavia	18	14	27	0	(s)	58	0	2
Other	0	0	44	0	0	44	14	4
Total	**7,043**	**11,334**	**5,412**	**4,875**	**4,605**	**14,712**	**593**	**201**

See footnotes at end of table.

Table 3.1 World Petroleum Supply and Disposition, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Primary Supply			Disposition			Bunkers	
	Oil Production [1]	Crude Oil Imports	Total Imports of Refined Petroleum Products	Crude Oil Exports	Total Exports of Refined Petroleum Products	Apparent [2] Consumption (Including Bunkers)	Residual Fuel Oil	Distillate Fuel Oil and Other Products
Eastern Europe & Former U.S.S.R.								
Albania	6	(s)	3	0	0	9	0	0
Bulgaria	1	112	12	0	32	97	4	1
Czech Republic	4	120	67	2	24	179	0	2
Hungary	41	114	30	0	41	154	0	4
Poland	9	318	99	0	27	409	4	6
Romania	132	86	31	(s)	45	210	1	3
Slovakia	1	107	13	(s)	55	69	0	0
Armenia	0	0	4	0	0	4	0	0
Azerbaijan	283	0	5	84	48	149	0	11
Belarus	37	198	14	7	83	159	0	0
Estonia	3	0	34	0	14	24	2	1
Georgia	2	0	27	1	(s)	26	0	0
Kazakhstan	604	15	22	463	22	148	0	5
Kyrgyzstan	2	1	8	0	(s)	12	0	0
Latvia	0	0	29	0	4	25	0	0
Lithuania	5	93	12	4	52	56	1	(s)
Moldova	0	0	8	0	0	9	0	0
Russia	6,310	91	17	2,648	1,139	2,538	230	65
Tajikistan	(s)	0	29	(s)	(s)	29	0	0
Turkmenistan	156	12	3	39	77	54	0	0
Ukraine	98	180	126	0	33	374	0	14
Uzbekistan	147	1	1	5	9	143	0	0
Total	**7,840**	**1,447**	**594**	**3,255**	**1,705**	**4,878**	**243**	**115**
Middle East								
Bahrain	48	225	0	0	250	24	1	1
Cyprus	0	24	25	0	0	49	2	7
Iran	3,644	0	121	2,531	181	1,095	13	2
Iraq	2,524	0	0	2,025	30	451	0	0
Israel	(s)	218	78	0	53	254	2	1
Jordan	(s)	70	22	0	0	96	(s)	5
Kuwait	2,017	0	(s)	948	782	286	9	7
Lebanon	0	0	104	0	0	104	0	8
Oman	916	0	5	846	23	53	1	1
Qatar	777	0	0	656	60	59	0	4
Saudi Arabia	8,514	0	0	6,514	762	1,261	35	128
Syria	546	6	29	307	29	256	0	2
United Arab Emirates	2,332	0	222	2,009	210	324	195	10
Yemen	409	0	(s)	320	26	62	1	2
Total	**21,727**	**543**	**606**	**16,154**	**2,406**	**4,373**	**260**	**178**

See footnotes at end of table.

Table 3.1 World Petroleum Supply and Disposition, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Primary Supply			Disposition			Bunkers	
	Oil Production [1]	Crude Oil Imports	Total Imports of Refined Petroleum Products	Crude Oil Exports	Total Exports of Refined Petroleum Products	Apparent [2] Consumption (Including Bunkers)	Residual Fuel Oil	Distillate Fuel Oil and Other Products
Africa								
Algeria	1,393	5	(s)	744	462	198	3	7
Angola	745	0	3	699	16	31	0	5
Cameroon	100	0	3	75	6	22	(s)	2
Congo (Brazzaville)	270	0	4	270	0	4	1	0
Congo (Kinshasa)	22	1	19	21	(s)	21	(s)	2
Cote d'Ivoire (Ivory Coast)	16	72	6	0	65	30	1	(s)
Egypt	928	0	40	284	109	550	44	12
Ethiopia	0	0	22	0	0	21	0	(s)
Gabon	332	0	3	314	2	18	4	2
Ghana	6	16	16	0	5	31	0	1
Kenya	1	36	21	0	5	52	1	(s)
Libya	1,379	0	1	1,069	139	177	2	1
Morocco	1	142	26	0	11	158	0	2
Nigeria	2,135	0	14	1,834	51	252	5	10
Senegal	0	17	12	0	2	28	1	4
South Africa	210	386	22	29	101	466	52	7
Sudan	69	0	20	57	1	30	0	1
Tunisia	84	21	58	69	13	79	(s)	2
Zimbabwe	0	0	32	0	0	31	0	0
Other	103	48	183	103	2	231	8	19
Total	**7,794**	**744**	**505**	**5,569**	**992**	**2,430**	**123**	**77**
Asia & Oceania								
Australia	624	461	108	219	153	860	14	2
Bangladesh	2	24	45	0	0	67	1	(s)
Brunei	204	0	(s)	191	0	13	0	0
Burma	10	14	16	0	1	36	0	(s)
China	3,195	745	632	144	148	4,364	64	9
Guam	0	0	22	0	0	22	1	1
Hong Kong	0	0	355	0	66	289	29	84
India	747	874	326	47	22	1,959	7	26
Indonesia	1,556	230	225	821	218	964	6	16
Japan	79	4,223	1,347	0	107	5,587	94	6
Korea, North	0	44	30	0	(s)	77	0	0
Korea, South	67	2,406	546	0	794	2,075	103	31
Malaysia	779	43	173	398	155	454	6	1
Mongolia	0	0	9	0	0	9	0	0
New Zealand	51	89	36	30	4	133	4	1
Pakistan	57	90	211	9	2	351	(s)	3
Papua New Guinea	97	0	14	96	(s)	15	0	(s)
Philippines	2	325	52	(s)	21	370	3	11
Singapore	4	889	774	(s)	951	706	273	77
Sri Lanka	0	37	29	0	2	66	4	3
Taiwan	3	740	184	0	42	853	66	5
Thailand	146	698	36	16	127	731	13	2
Vietnam	290	0	154	292	0	159	0	0
Other	0	0	83	0	3	80	(s)	14
Total	**7,913**	**11,930**	**5,405**	**2,261**	**2,817**	**20,241**	**687**	**294**
World Total	**74,168**	**37,308**	**16,451**	**37,949**	**16,018**	**75,300**	**2,251**	**1,377**

[1] Oil production includes crude oil, natural gas plant liquids, other liquids, and refinery processing gains.
[2] Apparent consumption includes internal consumption, refinery fuel and loss, and bunkering. Also included, where available, are liquefied petroleum gases sold directly from natural gas processing plants for fuel or chemical uses.
(s)=Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 3.2 World Output of Refined Petroleum Products, 1999

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Output of Refined Petroleum Products	Refinery [3] Fuel and Loss
North America									
Canada	704	103	33	545	117	65	413	1,980	113
Mexico	355	57	1	273	426	31	174	1,317	90
United States	8,111	1,565	67	3,399	698	684	2,643	17,166	935
Other	0	0	0	0	0	0	0	0	0
Total	**9,170**	**1,724**	**101**	**4,218**	**1,241**	**780**	**3,229**	**20,463**	**1,138**
Central & South America									
Argentina	123	34	4	223	54	33	102	573	22
Bahamas, The	0	0	0	0	0	0	0	0	0
Bolivia	10	3	1	8	1	2	16	39	2
Brazil	329	0	66	556	306	128	577	1,962	75
Chile	50	13	5	70	29	13	21	201	8
Colombia	116	18	4	58	61	22	53	333	13
Costa Rica	0	0	0	0	0	0	0	0	0
Cuba	7	0	2	5	11	2	35	61	2
Dominican Republic	7	1	5	7	13	1	1	35	1
Ecuador	16	4	2	23	63	6	19	133	5
El Salvador	3	1	(s)	4	10	1	1	21	1
Guatemala	3	(s)	(s)	6	6	(s)	1	17	1
Honduras	0	0	0	0	0	0	0	0	0
Jamaica	2	1	(s)	3	5	(s)	(s)	12	(s)
Netherlands Antilles	29	19	2	55	76	3	58	243	9
Nicaragua	2	(s)	(s)	4	8	(s)	1	17	1
Panama	7	(s)	2	12	24	1	3	49	2
Paraguay	(s)	(s)	(s)	1	1	(s)	(s)	2	(s)
Peru	34	9	13	38	51	7	8	159	6
Puerto Rico	18	1	1	5	14	(s)	28	67	3
Trinidad and Tobago	32	16	(s)	34	61	4	5	152	6
Uruguay	7	2	1	9	9	2	5	34	1
Venezuela	402	86	1	278	230	102	34	1,133	44
Virgin Islands, U.S.	173	41	0	99	82	5	38	438	18
Other	4	0	3	3	5	1	(s)	16	1
Total	**1,374**	**250**	**112**	**1,501**	**1,120**	**333**	**1,006**	**5,697**	**220**
Western Europe									
Austria	50	11	0	75	23	1	52	211	14
Belgium	140	44	2	240	122	18	175	741	28
Bosnia and Herzegovina	0	0	0	0	0	0	0	0	0
Croatia	28	1	(s)	34	31	7	17	118	5
Denmark	53	11	0	69	29	5	7	174	5
Finland	99	21	0	101	22	7	15	265	11
France	391	141	2	653	175	81	313	1,756	102
Germany	621	91	1	942	211	87	497	2,451	134
Greece	74	41	(s)	99	112	18	43	388	15
Iceland	0	0	0	0	0	0	0	0	0
Ireland	10	1	4	20	17	1	4	58	1
Italy	474	61	37	690	325	71	277	1,936	127
Luxembourg	0	0	0	0	0	0	0	0	0
Macedonia, TFYR	3	(s)	0	4	5	(s)	1	13	1
Netherlands	305	150	4	443	197	123	439	1,662	65
Norway	74	17	3	148	34	11	40	326	15
Portugal	62	21	(s)	87	61	11	42	284	17
Slovenia	1	0	(s)	2	1	(s)	2	6	(s)
Spain	218	89	4	416	250	50	223	1,250	77
Sweden	100	2	0	152	100	9	66	429	9
Switzerland	29	11	0	41	14	7	6	108	5
Turkey	76	24	1	158	148	23	93	523	29
United Kingdom	592	159	78	536	215	77	216	1,874	127
Yugoslavia	6	(s)	1	6	9	1	10	32	1
Other	0	0	0	0	0	0	0	0	0
Total	**3,407**	**896**	**136**	**4,919**	**2,100**	**609**	**2,539**	**14,607**	**789**

See footnotes at end of table.

Table 3.2 World Output of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Output of Refined Petroleum Products	Refinery [3] Fuel and Loss
Eastern Europe & Former U.S.S.R.									
Albania	1	0	2	1	1	(s)	1	6	(s)
Bulgaria	25	3	0	42	25	4	25	123	5
Czech Republic	22	3	0	44	20	5	34	128	2
Hungary	35	5	0	53	24	2	53	173	6
Poland	97	6	(s)	143	56	9	56	366	10
Romania	57	2	2	64	36	9	58	227	9
Slovakia	21	1	(s)	39	23	1	27	112	4
Armenia	0	0	0	0	0	0	0	0	0
Azerbaijan	23	14	11	62	73	5	11	199	8
Belarus	39	15	2	63	81	6	21	229	9
Estonia	0	0	0	(s)	(s)	(s)	3	4	(s)
Georgia	(s)	0	(s)	(s)	(s)	(s)	(s)	1	(s)
Kazakhstan	30	5	4	37	41	1	29	147	6
Kyrgyzstan	2	0	0	1	1	(s)	(s)	4	(s)
Latvia	0	0	0	0	0	0	0	0	0
Lithuania	32	7	0	30	17	6	6	97	4
Moldova	0	0	0	0	0	0	0	0	0
Russia	614	180	1	958	1,058	194	560	3,565	137
Tajikistan	0	0	0	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	26	5	1	39	45	(s)	10	127	5
Ukraine	68	14	(s)	80	86	5	27	281	11
Uzbekistan	38	6	2	45	34	1	20	146	6
Total	**1,131**	**266**	**26**	**1,703**	**1,622**	**247**	**941**	**5,936**	**221**
Middle East									
Bahrain	19	27	23	90	64	1	48	273	11
Cyprus	3	(s)	(s)	8	9	1	2	25	1
Iran	187	3	29	368	404	54	93	1,138	46
Iraq	69	12	21	137	144	32	47	462	18
Israel	43	13	12	58	59	15	32	232	9
Jordan	13	5	4	19	24	4	6	75	3
Kuwait	46	48	109	266	215	104	259	1,048	40
Lebanon	0	0	0	0	0	0	0	0	0
Oman	13	4	(s)	17	42	1	2	79	2
Qatar	14	9	(s)	14	19	2	2	60	2
Saudi Arabia	292	89	77	467	470	41	209	1,644	63
Syria	37	4	4	83	98	9	20	255	10
United Arab Emirates	35	55	3	73	41	85	45	336	13
Yemen	19	6	2	17	27	1	16	88	3
Total	**789**	**275**	**284**	**1,617**	**1,615**	**351**	**782**	**5,714**	**221**

See footnotes at end of table.

Table 3.2 World Output of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Output of Refined Petroleum Products	Refinery [3] Fuel and Loss
Africa									
Algeria	56	29	(s)	132	110	48	101	475	18
Angola	4	7	1	12	14	1	5	44	2
Cameroon	7	1	5	7	3	1	1	27	1
Congo (Brazzaville)	0	0	0	0	0	0	0	0	0
Congo (Kinshasa)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	1	(s)
Cote d'Ivoire (Ivory Coast)	16	3	19	30	14	2	5	89	3
Egypt	120	20	22	126	232	15	43	579	22
Ethiopia	0	0	0	0	0	0	0	0	0
Gabon	1	1	1	5	5	(s)	4	18	1
Ghana	5	1	2	6	6	(s)	1	21	1
Kenya	7	5	2	9	10	1	2	36	1
Libya	47	29	6	89	94	8	46	318	12
Morocco	9	6	2	52	48	9	20	145	6
Nigeria	57	7	19	57	36	5	18	200	8
Senegal	3	1	(s)	8	4	(s)	1	17	1
South Africa	180	38	21	146	105	10	51	551	21
Sudan	1	(s)	(s)	4	6	(s)	(s)	12	(s)
Tunisia	7	0	3	10	12	(s)	6	39	1
Zimbabwe	0	0	0	0	0	0	0	0	0
Other	12	2	3	11	15	2	5	50	2
Total	**532**	**151**	**108**	**704**	**714**	**102**	**310**	**2,622**	**101**
Asia & Oceania									
Australia	330	92	5	229	31	31	89	807	43
Bangladesh	2	(s)	4	4	1	(s)	10	22	1
Brunei	4	2	(s)	3	1	(s)	2	12	(s)
Burma	6	1	0	9	1	(s)	2	20	1
China	874	105	55	1,289	327	240	976	3,866	76
Guam	0	0	0	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0	0	0	0
India	142	50	119	713	227	75	318	1,643	63
Indonesia	205	17	160	275	208	19	66	952	38
Japan	969	178	460	1,245	683	155	688	4,377	223
Korea, North	17	0	4	16	9	(s)	1	47	2
Korea, South	204	144	253	610	628	83	566	2,488	86
Malaysia	68	45	4	135	53	19	61	384	15
Mongolia	0	0	0	0	0	0	0	0	0
New Zealand	32	18	(s)	35	9	0	10	104	6
Pakistan	23	16	7	33	39	2	16	137	5
Papua New Guinea	0	(s)	0	1	(s)	(s)	(s)	1	(s)
Philippines	56	14	13	100	113	16	25	337	13
Singapore	93	138	18	283	185	32	191	939	36
Sri Lanka	4	1	4	12	13	2	4	39	2
Taiwan	119	33	7	137	291	26	199	813	38
Thailand	149	71	6	275	145	80	83	809	31
Vietnam	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Total	**3,297**	**927**	**1,120**	**5,404**	**2,964**	**781**	**3,306**	**17,799**	**680**
World Total	**19,700**	**4,490**	**1,888**	**20,067**	**11,377**	**3,203**	**12,113**	**72,837**	**3,369**

[1] Jet Fuel includes naphtha-type jet fuel and kerosene-type jet fuel.
[2] Includes asphalt, coke, aviation gasoline, naphthas, paraffin wax, petrochemical feedstocks, unfinished oils, white spirits, and blending components.
[3] Refinery fuel and loss reported in this column as a memo item has been included in the output of the individual petroleum products and should not be added to "Total Output of Refined Petroleum Products".
(s)=Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 3.3 World Imports of Refined Petroleum Products, 1999

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Imports of Refined Petroleum Products
North America								
Canada	37	17	(s)	18	49	9	48	178
Mexico	113	0	0	35	92	103	21	364
United States	382	128	1	250	237	223	901	2,122
Other	1	1	(s)	5	(s)	(s)	(s)	8
Total	**532**	**145**	**2**	**309**	**377**	**336**	**970**	**2,671**
Central & South America								
Argentina	2	2	1	20	4	(s)	4	33
Bahamas, The	2	1	1	7	44	(s)	6	61
Bolivia	0	0	0	6	0	0	0	6
Brazil	4	0	17	91	4	92	103	311
Chile	5	(s)	1	15	6	17	0	43
Colombia	29	(s)	(s)	(s)	(s)	(s)	0	29
Costa Rica	13	3	0	14	7	2	1	41
Cuba	3	8	(s)	31	67	1	2	111
Dominican Republic	13	(s)	2	21	9	15	0	61
Ecuador	0	0	0	15	0	14	4	32
El Salvador	5	1	(s)	10	3	4	(s)	23
Guatemala	13	(s)	1	13	9	5	1	42
Honduras	7	1	1	15	6	2	0	32
Jamaica	8	5	2	9	31	2	(s)	57
Netherlands Antilles	7	1	0	7	13	1	6	35
Nicaragua	1	0	0	4	1	1	(s)	7
Panama	2	0	2	(s)	3	2	(s)	10
Paraguay	4	(s)	0	16	1	3	(s)	25
Peru	1	0	0	20	0	4	2	28
Puerto Rico	11	(s)	1	14	4	1	113	144
Trinidad and Tobago	0	0	0	0	0	0	(s)	(s)
Uruguay	1	(s)	0	10	5	1	1	18
Venezuela	0	0	0	0	0	0	18	18
Virgin Islands, U.S.	1	0	0	0	3	0	4	8
Other	17	11	3	27	20	4	3	84
Total	**151**	**33**	**32**	**365**	**238**	**172**	**268**	**1,259**
Western Europe								
Austria	18	(s)	(s)	51	8	5	24	106
Belgium	36	12	2	129	39	11	123	353
Bosnia and Herzegovina	3	1	0	6	2	0	9	21
Croatia	1	1	0	4	1	(s)	2	10
Denmark	22	13	0	43	12	(s)	38	128
Finland	7	0	10	25	17	14	13	88
France	47	18	1	243	59	57	151	577
Germany	172	61	(s)	351	43	24	221	873
Greece	11	7	0	56	5	2	32	113
Iceland	3	3	0	8	2	0	2	18
Ireland	23	11	9	40	39	3	(s)	126
Italy	15	(s)	4	21	192	63	219	514
Luxembourg	13	7	0	23	(s)	1	(s)	45
Macedonia, TFYR	1	1	0	3	1	1	1	8
Netherlands	125	16	14	150	167	209	279	959
Norway	8	5	1	8	21	9	16	68
Portugal	(s)	0	0	6	32	23	39	100
Slovenia	18	(s)	0	28	2	3	3	54
Spain	20	9	0	138	39	40	122	369
Sweden	37	15	0	32	9	23	18	133
Switzerland	61	22	(s)	72	0	1	7	163
Turkey	27	2	0	23	3	83	9	146
United Kingdom	52	57	2	102	7	10	140	370
Yugoslavia	8	4	0	10	4	0	(s)	27
Other	3	4	1	9	25	1	1	44
Total	**731**	**269**	**46**	**1,581**	**729**	**583**	**1,472**	**5,412**

See footnotes at end of table.

Table 3.3 World Imports of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Imports of Refined Petroleum Products
Eastern Europe & Former U.S.S.R.								
Albania	2	0	0	1	0	0	0	3
Bulgaria	1	0	0	3	(s)	(s)	8	12
Czech Republic	24	1	(s)	22	5	4	10	67
Hungary	5	(s)	0	6	11	3	5	30
Poland	38	1	3	20	1	25	11	99
Romania	1	1	(s)	1	24	1	2	31
Slovakia	6	0	0	5	1	1	(s)	13
Armenia	1	(s)	(s)	1	2	(s)	(s)	4
Azerbaijan	0	0	0	(s)	4	0	0	5
Belarus	1	0	(s)	2	6	4	1	14
Estonia	7	(s)	2	11	12	(s)	2	34
Georgia	10	2	2	5	3	3	(s)	27
Kazakhstan	3	2	0	8	6	0	3	22
Kyrgyzstan	4	1	0	2	1	0	1	8
Latvia	8	1	(s)	8	7	1	3	29
Lithuania	2	(s)	0	1	6	2	1	12
Moldova	2	(s)	(s)	3	1	(s)	1	8
Russia	8	0	0	4	5	(s)	0	17
Tajikistan	23	(s)	0	2	1	(s)	3	29
Turkmenistan	0	0	0	0	0	3	0	3
Ukraine	10	(s)	0	25	49	37	5	126
Uzbekistan	0	0	0	0	0	0	1	1
Total	**157**	**10**	**9**	**127**	**146**	**86**	**59**	**594**
Middle East								
Bahrain	0	0	0	0	0	0	0	0
Cyprus	1	6	0	3	11	(s)	3	25
Iran	21	0	0	100	0	0	0	121
Iraq	0	0	0	0	0	0	0	0
Israel	4	2	5	10	44	1	11	78
Jordan	0	0	0	4	14	4	0	22
Kuwait	0	0	0	0	0	0	(s)	(s)
Lebanon	31	3	(s)	36	28	4	2	104
Oman	4	0	0	(s)	0	(s)	(s)	5
Qatar	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0	0	0
Syria	0	1	3	20	0	5	0	29
United Arab Emirates	0	0	0	2	220	0	0	222
Yemen	0	0	0	0	0	0	(s)	(s)
Total	**62**	**12**	**8**	**175**	**316**	**16**	**16**	**606**

See footnotes at end of table.

Table 3.3 World Imports of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Imports of Refined Petroleum Products
Africa								
Algeria	0	0	0	0	0	0	(s)	(s)
Angola	(s)	0	(s)	1	0	1	1	3
Cameroon	1	0	1	1	0	0	0	3
Congo (Brazzaville)	1	(s)	(s)	1	(s)	(s)	(s)	4
Congo (Kinshasa)	3	3	(s)	6	4	(s)	2	19
Cote d'Ivoire (Ivory Coast)	2	0	0	0	3	1	(s)	6
Egypt	0	0	0	21	0	19	1	40
Ethiopia	3	2	4	11	2	(s)	1	22
Gabon	0	(s)	(s)	1	0	(s)	1	3
Ghana	6	(s)	1	5	0	2	2	16
Kenya	4	6	4	4	1	0	1	21
Libya	0	0	0	0	0	0	1	1
Morocco	0	0	0	1	0	25	(s)	26
Nigeria	13	0	1	0	0	(s)	0	14
Senegal	0	3	0	2	4	3	(s)	12
South Africa	14	0	0	(s)	6	0	2	22
Sudan	5	1	1	9	(s)	1	3	20
Tunisia	3	7	1	23	13	8	2	58
Zimbabwe	11	4	1	15	0	(s)	1	32
Other	44	19	13	65	24	5	12	183
Total	**110**	**46**	**27**	**168**	**58**	**65**	**30**	**505**
Asia & Oceania								
Australia	15	2	0	25	12	8	46	108
Bangladesh	2	3	6	26	6	0	2	45
Brunei	(s)	(s)	0	0	0	0	(s)	(s)
Burma	1	0	0	15	0	0	0	16
China	0	0	45	6	1	176	404	632
Guam	4	8	0	7	4	(s)	0	22
Hong Kong	9	66	0	209	68	4	0	355
India	0	(s)	118	136	9	45	17	326
Indonesia	28	7	47	106	37	0	(s)	225
Japan	24	41	66	42	30	564	580	1,347
Korea, North	19	0	1	5	6	0	0	30
Korea, South	1	10	11	7	45	163	310	546
Malaysia	73	2	(s)	31	56	8	2	173
Mongolia	5	(s)	(s)	3	1	0	0	9
New Zealand	21	2	0	5	0	0	8	36
Pakistan	2	0	2	108	97	1	0	211
Papua New Guinea	2	1	(s)	6	5	(s)	(s)	14
Philippines	6	2	2	12	11	18	(s)	52
Singapore	69	44	9	116	498	(s)	37	774
Sri Lanka	1	5	(s)	18	0	4	(s)	29
Taiwan	31	11	0	1	51	27	63	184
Thailand	1	(s)	0	19	16	0	0	36
Vietnam	32	8	6	77	26	2	4	154
Other	11	16	9	27	14	3	2	83
Total	**356**	**228**	**323**	**1,006**	**991**	**1,023**	**1,478**	**5,405**
World Total	**2,100**	**745**	**446**	**3,731**	**2,855**	**2,281**	**4,294**	**16,451**

[1] Jet fuel includes naphtha-type jet fuel and kerosene-type jet fuel.
[2] Includes asphalt, coke, aviation gasoline, naphthas, paraffin wax, petrochemical feedstocks, unfinished oils, white spirits, and blending components.
(s)=Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 3.4 World Exports of Refined Petroleum Products, 1999

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Exports of Refined Petroleum Products [3]
North America								
Canada	101	7	2	117	28	372	127	754
Mexico	11	2	0	14	1	5	116	149
United States	111	29	1	162	129	53	337	822
Other	0	(s)	0	(s)	0	0	0	(s)
Total	**223**	**39**	**2**	**293**	**159**	**429**	**580**	**1,725**
Central & South America								
Argentina	39	1	0	21	7	26	32	128
Bahamas, The	0	0	0	(s)	38	0	0	39
Bolivia	0	0	0	0	0	0	3	3
Brazil	27	0	17	10	68	(s)	11	134
Chile	1	(s)	0	2	0	(s)	1	5
Colombia	0	4	1	12	54	(s)	0	72
Costa Rica	0	(s)	0	1	0	0	0	1
Cuba	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	0	0
Ecuador	0	2	0	(s)	32	0	5	39
El Salvador	0	0	0	(s)	4	(s)	(s)	5
Guatemala	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	(s)	0	0	(s)
Jamaica	0	0	0	0	0	0	0	0
Netherlands Antilles	34	19	0	51	51	2	49	207
Nicaragua	0	0	0	0	(s)	0	(s)	1
Panama	0	0	3	(s)	3	0	(s)	7
Paraguay	(s)	0	0	0	0	0	0	(s)
Peru	1	(s)	0	1	16	0	(s)	19
Puerto Rico	(s)	0	0	1	2	0	14	17
Trinidad and Tobago	25	14	0	24	59	6	1	129
Uruguay	(s)	2	(s)	0	0	0	1	3
Venezuela	222	80	0	162	125	57	21	667
Virgin Islands, U.S.	125	27	0	82	44	0	11	289
Other	1	0	1	1	2	(s)	0	5
Total	**477**	**151**	**23**	**370**	**506**	**92**	**150**	**1,768**
Western Europe								
Austria	19	(s)	0	9	1	1	5	35
Belgium	122	24	(s)	150	49	11	103	459
Bosnia and Herzegovina	0	0	0	0	0	0	0	0
Croatia	12	1	(s)	13	1	7	8	41
Denmark	27	6	0	22	22	3	1	81
Finland	58	8	(s)	26	0	(s)	6	98
France	114	28	(s)	46	75	31	94	388
Germany	102	2	1	88	71	17	67	348
Greece	15	20	0	12	5	4	22	78
Iceland	0	0	0	0	0	0	0	0
Ireland	(s)	0	(s)	(s)	17	(s)	3	21
Italy	64	16	7	183	80	10	50	411
Luxembourg	(s)	0	0	(s)	0	(s)	0	(s)
Macedonia, TFYR	(s)	(s)	0	(s)	(s)	0	(s)	2
Netherlands	260	89	7	405	141	52	340	1,295
Norway	43	4	0	72	29	90	33	270
Portugal	14	5	0	2	3	(s)	6	30
Slovenia	2	0	0	3	(s)	0	2	7
Spain	37	5	(s)	15	25	4	61	147
Sweden	48	(s)	0	75	49	6	13	191
Switzerland	0	0	0	0	9	2	(s)	11
Turkey	1	1	0	14	20	0	13	49
United Kingdom	147	15	5	140	87	145	104	644
Yugoslavia	0	(s)	0	0	0	0	0	(s)
Other	0	0	0	0	0	0	0	0
Total	**1,083**	**226**	**20**	**1,276**	**683**	**385**	**931**	**4,605**

See footnotes at end of table.

Table 3.4 World Exports of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Exports of Refined Petroleum Products [3]
Eastern Europe & Former U.S.S.R.								
Albania	0	0	0	0	0	0	0	0
Bulgaria	8	1	0	19	4	(s)	(s)	32
Czech Republic	2	(s)	0	13	4	1	4	24
Hungary	7	1	0	18	(s)	3	11	41
Poland	0	(s)	0	0	27	0	1	27
Romania	24	(s)	(s)	17	1	1	1	45
Slovakia	15	(s)	(s)	24	15	(s)	0	55
Armenia	0	0	0	0	0	0	0	0
Azerbaijan	4	3	8	33	(s)	0	0	48
Belarus	15	0	2	32	29	1	4	83
Estonia	1	(s)	1	4	7	(s)	1	14
Georgia	(s)	0	0	0	(s)	0	0	(s)
Kazakhstan	1	0	0	5	11	(s)	5	22
Kyrgyzstan	0	(s)	0	(s)	0	0	0	(s)
Latvia	4	0	0	(s)	(s)	0	(s)	4
Lithuania	22	5	0	16	5	3	1	52
Moldova	0	0	0	0	0	0	0	0
Russia	45	0	0	459	412	46	177	1,139
Tajikistan	0	0	0	0	0	0	(s)	(s)
Turkmenistan	15	0	0	32	30	0	0	77
Ukraine	1	(s)	(s)	6	26	0	(s)	33
Uzbekistan	1	0	0	6	0	0	2	9
Total	**166**	**10**	**12**	**683**	**571**	**56**	**207**	**1,705**
Middle East								
Bahrain	10	28	23	86	60	1	43	250
Cyprus	0	0	0	0	0	0	0	0
Iran	0	0	2	47	131	(s)	1	181
Iraq	0	0	1	8	18	3	0	30
Israel	8	4	7	15	12	3	4	53
Jordan	0	0	0	0	0	0	0	0
Kuwait	7	40	109	252	92	93	190	782
Lebanon	0	0	0	0	0	0	0	0
Oman	0	0	0	1	22	0	0	23
Qatar	3	5	0	8	19	5	20	60
Saudi Arabia	170	24	73	122	255	8	109	762
Syria	8	0	0	0	17	0	3	29
United Arab Emirates	0	43	0	49	0	88	30	210
Yemen	0	4	0	1	13	0	8	26
Total	**205**	**149**	**215**	**588**	**640**	**201**	**407**	**2,406**

See footnotes at end of table.

Table 3.4 World Exports of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Exports of Refined Petroleum Products [3]
Africa								
Algeria	9	19	0	59	99	192	84	462
Angola	0	1	0	0	12	0	4	16
Cameroon	1	0	2	1	2	0	0	6
Congo (Brazzaville)	0	0	0	0	0	0	0	0
Congo (Kinshasa)	0	0	0	0	(s)	0	0	(s)
Cote d'Ivoire (Ivory Coast)	14	1	18	18	14	0	0	65
Egypt	67	2	0	0	25	0	16	109
Ethiopia	0	0	0	0	0	0	0	0
Gabon	(s)	0	0	0	0	0	2	2
Ghana	2	0	0	0	3	0	0	5
Kenya	1	1	0	1	2	(s)	(s)	5
Libya	3	23	1	43	27	8	35	139
Morocco	0	0	0	0	0	0	11	11
Nigeria	0	0	0	5	32	4	10	51
Senegal	1	(s)	(s)	(s)	(s)	(s)	(s)	2
South Africa	13	4	3	36	41	0	4	101
Sudan	(s)	0	0	0	1	0	0	1
Tunisia	0	0	0	0	10	0	3	13
Zimbabwe	0	0	0	0	0	0	0	0
Other	(s)	(s)	(s)	(s)	1	0	(s)	2
Total	**111**	**51**	**25**	**164**	**268**	**205**	**169**	**992**
Asia & Oceania								
Australia	28	10	(s)	23	7	44	40	153
Bangladesh	0	0	0	0	0	0	0	0
Brunei	0	0	0	0	0	0	0	0
Burma	0	0	0	0	0	0	1	1
China	97	0	26	12	(s)	2	10	148
Guam	0	0	0	0	0	0	0	0
Hong Kong	1	3	0	22	40	(s)	0	66
India	0	0	0	12	1	1	9	22
Indonesia	1	9	0	1	118	55	33	218
Japan	14	9	7	35	21	4	18	107
Korea, North	0	0	0	0	(s)	0	0	(s)
Korea, South	29	83	42	238	217	37	148	794
Malaysia	1	12	6	35	32	32	39	155
Mongolia	0	0	0	0	0	0	0	0
New Zealand	(s)	0	0	(s)	1	3	0	4
Pakistan	0	0	0	0	0	0	2	2
Papua New Guinea	0	0	0	(s)	0	0	0	(s)
Philippines	1	0	0	2	8	0	11	21
Singapore	146	133	26	318	177	24	127	951
Sri Lanka	0	0	0	0	(s)	0	2	2
Taiwan	0	0	0	29	6	2	6	42
Thailand	29	14	5	34	6	23	15	127
Vietnam	0	0	0	0	0	0	0	0
Other	(s)	1	1	1	0	0	(s)	3
Total	**348**	**273**	**113**	**763**	**633**	**228**	**460**	**2,817**
World Total	**2,612**	**899**	**410**	**4,137**	**3,460**	**1,595**	**2,904**	**16,018**

[1] Jet Fuel includes naphtha-type jet fuel and kerosene-type jet fuel.
[2] Includes asphalt, coke, aviation gasoline, naphthas, paraffin wax, petrochemical feedstocks, unfinished oils, white spirits, and blending components.
[3] Exports of refined products do not include bunker fuels where identifiable.

(s)=Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 3.5 World Apparent Consumption of Refined Petroleum Products, 1999

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Apparent Consumption [3]
North America								
Canada	637	113	32	451	138	307	351	2,029
Mexico	530	54	8	292	540	437	140	2,000
United States	8,431	1,675	73	3,572	830	2,411	2,527	19,519
Other	1	(s)	(s)	5	(s)	(s)	(s)	8
Total	**9,599**	**1,842**	**113**	**4,321**	**1,508**	**3,156**	**3,018**	**23,556**
Central & South America								
Argentina	87	31	5	217	44	58	55	496
Bolivia	10	3	1	15	1	2	13	43
Brazil	311	0	63	612	248	217	679	2,130
Chile	55	13	5	87	35	29	18	244
Colombia	115	14	3	54	10	21	61	277
Costa Rica	13	2	(s)	13	7	2	1	39
Cuba	9	6	3	35	97	3	9	162
Dominican Republic	20	1	7	30	23	17	1	99
Ecuador	30	4	2	38	21	20	14	128
El Salvador	8	2	1	13	9	4	1	38
Guatemala	16	1	1	19	15	6	1	59
Honduras	7	1	1	15	6	1	0	31
Jamaica	10	6	2	12	36	3	1	69
Netherlands Antilles	2	1	2	11	38	2	15	71
Panama	9	0	(s)	13	24	3	3	53
Paraguay	5	(s)	(s)	18	2	3	(s)	28
Peru	27	8	14	60	38	11	9	167
Puerto Rico	29	1	2	18	18	1	85	154
Trinidad and Tobago	7	2	(s)	5	2	3	4	23
Uruguay	8	(s)	(s)	19	12	4	5	48
Venezuela	181	5	1	70	39	72	92	461
Virgin Islands, U.S.	52	13	0	16	32	5	27	146
Other	27	12	5	43	44	6	4	141
Total	**1,041**	**127**	**120**	**1,431**	**798**	**494**	**1,098**	**5,109**
Western Europe								
Austria	47	11	(s)	118	31	5	72	284
Belgium	55	33	3	232	111	16	118	568
Bosnia and Herzegovina	3	1	0	6	2	0	9	21
Croatia	18	2	(s)	27	30	1	13	91
Denmark	46	19	(s)	91	23	3	41	223
Finland	43	16	0	85	36	9	26	215
France	299	133	1	962	160	118	354	2,027
Germany	623	147	1	1,202	145	84	634	2,836
Greece	74	27	(s)	140	102	15	25	384
Iceland	3	3	0	8	2	(s)	2	19
Ireland	33	11	14	61	37	4	7	167
Italy	381	75	6	542	454	105	277	1,841
Luxembourg	13	7	(s)	24	(s)	1	(s)	46
Macedonia, TFYR	4	1	0	7	5	1	2	20
Netherlands	96	71	2	179	200	65	222	835
Norway	39	17	3	87	12	31	34	224
Portugal	48	15	(s)	91	80	34	65	333
Slovenia	18	(s)	(s)	26	3	3	3	54
Spain	207	88	(s)	497	255	82	301	1,429
Sweden	93	20	0	122	76	25	24	360
Switzerland	92	33	(s)	123	5	6	13	272
Turkey	98	25	1	169	136	107	89	625
United Kingdom	498	208	77	490	96	141	229	1,739
Yugoslavia	14	4	1	14	13	1	11	58
Other	3	4	1	9	25	1	1	44
Total	**2,852**	**969**	**112**	**5,311**	**2,040**	**855**	**2,574**	**14,712**

See footnotes at end of table.

Table 3.5 World Apparent Consumption of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Apparent Consumption [3]
Eastern Europe & Former U.S.S.R.								
Albania	3	0	2	2	1	(s)	1	9
Bulgaria	18	3	0	27	22	4	24	97
Czech Republic	45	4	1	54	23	9	44	179
Hungary	32	4	(s)	39	40	14	25	154
Poland	118	3	(s)	154	41	36	57	409
Romania	36	2	2	50	61	9	49	210
Slovakia	13	(s)	0	17	9	1	27	69
Armenia	1	(s)	(s)	1	2	(s)	(s)	4
Azerbaijan	19	11	3	25	76	5	11	149
Belarus	26	15	(s)	35	55	9	18	159
Estonia	5	(s)	2	7	7	(s)	3	24
Georgia	10	2	2	5	3	3	1	26
Kazakhstan	31	7	4	40	38	1	26	148
Kyrgyzstan	5	1	0	3	2	(s)	1	12
Latvia	5	1	(s)	8	8	1	3	25
Lithuania	12	1	0	14	18	5	6	56
Moldova	3	(s)	(s)	4	1	1	(s)	9
Russia	568	180	1	491	667	147	483	2,538
Tajikistan	23	(s)	0	2	1	(s)	3	29
Turkmenistan	11	5	1	7	15	3	11	54
Ukraine	77	14	(s)	100	108	42	32	374
Uzbekistan	37	6	2	39	34	1	23	143
Total	**1,099**	**262**	**22**	**1,124**	**1,232**	**290**	**850**	**4,878**
Middle East								
Bahrain	8	7	1	3	3	1	1	24
Cyprus	5	6	(s)	12	19	1	5	49
Iran	248	3	26	391	231	54	141	1,095
Iraq	69	12	20	139	135	29	47	451
Israel	41	11	7	53	89	14	40	254
Jordan	13	5	4	23	37	8	6	96
Kuwait	39	8	1	13	123	33	69	286
Lebanon	31	3	(s)	36	28	4	2	104
Oman	17	4	(s)	16	13	2	2	53
Qatar	11	4	(s)	5	1	35	3	59
Saudi Arabia	226	64	4	345	215	33	375	1,261
Syria	28	6	6	102	81	15	17	256
United Arab Emirates	35	11	3	24	232	3	16	324
Yemen	19	2	2	16	13	1	8	62
Total	**789**	**145**	**76**	**1,177**	**1,220**	**233**	**733**	**4,373**

See footnotes at end of table.

Table 3.5 World Apparent Consumption of Refined Petroleum Products, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Motor Gasoline	Jet Fuel [1]	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Liquefied Petroleum Gases	Other [2]	Total Apparent Consumption [3]
Africa								
Algeria	44	7	(s)	64	9	55	18	198
Angola	4	6	1	14	2	2	3	31
Cameroon	6	1	3	6	1	1	3	22
Congo (Brazzaville)	1	(s)	(s)	1	(s)	(s)	(s)	4
Congo (Kinshasa)	4	3	(s)	7	4	(s)	3	21
Cote d'Ivoire (Ivory Coast)	4	2	1	12	4	3	5	30
Egypt	53	10	22	157	207	40	61	550
Ethiopia	3	2	3	11	2	(s)	1	21
Gabon	1	2	1	6	5	1	3	18
Ghana	8	1	3	13	1	2	3	31
Kenya	10	10	7	12	9	1	3	52
Libya	44	7	4	46	65	(s)	11	177
Morocco	9	6	2	52	45	34	9	158
Nigeria	70	9	20	52	32	1	68	252
Senegal	2	4	(s)	9	8	3	1	28
South Africa	183	34	18	103	67	10	50	466
Sudan	6	1	1	11	6	1	3	30
Tunisia	7	7	4	32	15	9	5	79
Zimbabwe	10	4	1	15	0	(s)	1	31
Other	56	21	17	76	39	6	17	231
Total	**523**	**137**	**110**	**700**	**524**	**168**	**268**	**2,430**
Asia & Oceania								
Australia	314	84	2	228	42	81	109	860
Bangladesh	6	3	12	30	6	(s)	9	67
Brunei	5	2	(s)	3	1	1	2	13
Burma	7	1	(s)	24	3	(s)	1	36
China	788	105	73	1,265	702	362	1,070	4,364
Guam	4	8	0	7	4	(s)	0	22
Hong Kong	8	63	0	187	27	4	0	289
India	136	47	227	833	231	191	295	1,959
Indonesia	208	16	206	359	123	20	33	964
Japan	977	205	509	1,254	698	660	1,284	5,587
Korea, North	36	0	4	21	15	(s)	1	77
Korea, South	168	70	205	375	447	202	607	2,075
Malaysia	140	32	4	136	75	45	21	454
Mongolia	5	(s)	(s)	3	1	0	0	9
New Zealand	50	18	(s)	35	7	10	14	133
Pakistan	27	16	11	140	139	3	14	351
Papua New Guinea	2	1	(s)	6	5	(s)	(s)	15
Philippines	62	17	14	112	116	34	15	370
Singapore	16	49	1	81	452	8	101	706
Sri Lanka	5	7	4	30	12	6	2	66
Taiwan	161	48	7	102	267	51	216	853
Thailand	121	57	1	264	147	59	82	731
Vietnam	32	8	6	77	26	7	4	159
Other	10	15	9	26	14	3	2	80
Total	**3,287**	**872**	**1,294**	**5,599**	**3,559**	**1,747**	**3,884**	**20,241**
World Total	**19,190**	**4,353**	**1,846**	**19,661**	**10,881**	**6,943**	**12,426**	**75,300**

[1] Jet Fuel includes naphtha-type jet fuel and kerosene-type jet fuel.
[2] Includes asphalt, coke, aviation gasoline, naphthas, paraffin wax, petrochemical feedstocks, unfinished oils, white spirits, and blending components.
[3] Apparent consumption includes internal consumption, refinery fuel and loss, and bunkering. Also included, where available, are liquefied petroleum gases sold directly from natural gas processing plants for fuel or chemical uses.
(s)=Value less than 500 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 3.6 World Crude Oil Refining Capacity, January 1, 2001

Region Country	Number of Refineries	Thousand Barrels per Day [1]			
		Crude Oil Distillation	Catalytic Cracking	Thermal Cracking	Reforming
North America					
Canada	21	1,906	415	137	350
Mexico	6	1,525	368	100	226
United States. [2]	155	16,595	5,751	2,158	3,598
Total	**182**	**20,027**	**6,534**	**2,395**	**4,174**
Central & South America					
Argentina	10	639	167	38	59
Aruba	1	280	0	48	0
Bolivia	3	63	0	0	13
Brazil	13	1,918	424	12	24
Chile	3	205	46	21	16
Colombia	5	286	90	52	0
Costa Rica	1	15	0	7	1
Cuba	4	301	15	0	20
Dominican Republic	2	49	0	0	8
Ecuador	3	176	18	32	13
El Salvador	1	21	0	0	3
Guatemala	2	22	0	0	3
Jamaica	1	34	0	0	3
Martinique	1	17	0	0	3
Netherlands Antilles	1	320	50	80	20
Nicaragua	1	20	0	0	3
Panama	1	60	0	27	11
Paraguay	1	8	0	0	0
Peru	5	182	23	0	0
Puerto Rico	3	87	0	0	46
Suriname	1	7	0	3	0
Trinidad and Tobago	1	160	27	29	19
Uruguay	1	37	9	7	3
Venezuela	5	1,282	232	0	50
Virgin Islands, U.S.	1	495	132	80	108
Total	**71**	**6,685**	**1,232**	**435**	**426**
Western Europe					
Austria	1	209	26	17	33
Belgium	5	768	113	63	96
Croatia	3	253	52	23	55
Denmark	2	176	0	53	22
Finland	2	200	45	35	43
France	13	1,895	371	154	263
Germany	17	2,259	344	218	383
Greece	4	407	69	46	80
Ireland	1	71	0	0	11
Italy	17	2,359	305	417	271
Macedonia, TFYR	1	51	0	0	11
Netherlands	6	1,204	101	121	172
Norway	2	305	54	30	38
Portugal	2	304	32	23	51
Slovenia	1	14	0	0	0
Spain	9	1,294	180	156	195
Sweden	5	423	30	60	70
Switzerland	2	132	0	20	28
Turkey	6	694	38	24	65
United Kingdom	11	1,771	444	95	330
Yugoslavia	2	158	19	20	20
Total	**112**	**14,947**	**2,222**	**1,576**	**2,235**

See footnotes at end of table.

Table 3.6 World Crude Oil Refining Capacity, January 1, 2001 (Continued)

Region Country	Number of Refineries	Thousand Barrels per Day [1]			
		Crude Oil Distillation	Catalytic Cracking	Thermal Cracking	Reforming
Eastern Europe & Former U.S.S.R.					
Albania	2	26	0	0	4
Bulgaria	1	115	23	21	4
Czech Republic	4	198	0	14	28
Hungary	3	232	24	14	30
Poland	4	382	46	0	39
Romania	10	504	103	32	63
Slovakia	1	115	0	0	22
Azerbaijan	2	442	58	0	24
Belarus	2	493	0	0	92
Georgia	1	106	0	0	10
Kazakhstan	3	427	38	30	59
Kyrgyzstan	1	10	0	0	0
Lithuania	1	263	44	30	26
Russia	42	5,435	331	347	774
Turkmenistan	2	237	15	0	53
Ukraine	6	1,026	69	17	100
Uzbekistan	3	222	0	10	23
Total	**88**	**10,236**	**752**	**514**	**1,352**
Middle East					
Bahrain	1	249	41	20	15
Cyprus	1	27	0	0	5
Iran	9	1,484	30	157	161
Iraq	8	418	0	0	44
Israel	2	220	50	66	27
Jordan	1	90	4	0	11
Kuwait	3	764	41	0	14
Lebanon	2	38	7	0	7
Oman	1	85	0	0	16
Qatar	1	58	0	0	12
Saudi Arabia	8	1,745	104	138	193
Syria	2	242	0	25	26
United Arab Emirates	4	444	19	0	14
Yemen	2	130	0	0	15
Total	**45**	**5,992**	**296**	**406**	**558**

See footnotes at end of table.

Table 3.6 World Crude Oil Refining Capacity, January 1, 2001 (Continued)

Region Country	Number of Refineries	Thousand Barrels per Day [1]			
		Crude Oil Distillation	Catalytic Cracking	Thermal Cracking	Reforming
Africa					
Algeria	4	503	0	0	88
Angola	1	39	0	0	2
Cameroon	1	42	0	0	7
Congo (Brazzaville)	1	21	0	0	2
Congo (Kinshasa)	1	15	0	0	4
Cote d'Ivoire (Ivory Coast)	1	65	0	0	13
Egypt	9	726	0	0	34
Eritrea	1	18	0	0	2
Gabon	1	17	0	7	1
Ghana	1	45	0	0	6
Kenya	1	90	0	0	9
Liberia	1	15	0	0	2
Libya	3	343	0	0	20
Madagascar	1	15	0	6	2
Morocco	2	157	6	0	25
Nigeria	4	439	83	0	70
Senegal	1	27	0	0	2
Sierra Leone	1	10	0	0	0
Somalia	1	10	0	0	0
South Africa	4	474	102	72	79
Sudan	3	122	0	0	2
Tanzania	1	15	0	3	3
Tunisia	1	34	0	0	3
Zambia	1	24	0	0	5
Total	**46**	**3,265**	**191**	**88**	**381**
Asia & Oceania					
Australia	10	847	230	0	197
Bangladesh	1	33	0	10	2
Brunei	1	9	0	0	6
Burma	2	32	0	0	0
China	97	4,347	892	0	157
India	17	2,113	167	93	43
Indonesia	8	993	101	59	93
Japan	35	4,962	799	0	720
Korea, North	2	71	0	0	7
Korea, South	6	2,560	168	0	231
Malaysia	6	514	0	0	75
New Zealand	1	106	0	0	28
Pakistan	3	239	0	0	12
Philippines	4	420	25	22	62
Singapore	3	1,270	65	208	140
Sri Lanka	1	50	0	13	5
Taiwan	4	920	98	0	115
Thailand	4	682	81	17	82
Total	**205**	**20,166**	**2,626**	**423**	**1,975**
World Total	**749**	**81,316**	**13,852**	**5,836**	**11,100**

[1] Calendar day basis.

[2] United States data are as of January 1, 2001. Refinery cracking and reforming data for the United States are available only on a stream day basis. These figures have been converted to calendar days by reducing the stream day data by 5.2 percent. Thus, the United States cracking and reforming data are estimated.

- - = Not applicable.

Note: Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of this Section.

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Section 4

Natural Gas

Table 4.1 World Natural Gas Production, 1999

(Billion Cubic Feet)

Region Country	Gross Production	Vented, Flared	Reinjected	Marketed Production	Dry Gas Production
North America					
Canada	7,444	87	445	6,912	6,264
Mexico	1,491	168	37	1,287	1,287
United States	23,823	110	3,293	19,805	18,832
Total	**32,759**	**365**	**3,775**	**28,004**	**26,383**
Central & South America					
Argentina	1,498	32	106	1,361	1,221
Barbados	1	0	0	1	1
Bolivia	176	13	70	93	87
Brazil	420	80	76	264	218
Chile	105	4	56	45	42
Colombia	534	21	318	195	183
Cuba	24	4	0	21	18
Ecuador	38	28	6	4	4
Peru	32	6	12	14	14
Trinidad and Tobago	500	86	0	414	414
Venezuela	2,015	131	696	1,189	946
Total	**5,344**	**404**	**1,339**	**3,601**	**3,148**
Western Europe					
Austria	61	0	0	61	61
Croatia	55	0	0	55	55
Denmark	407	14	118	274	274
France	73	0	0	73	73
Germany	838	15	0	823	823
Greece	(s)	0	0	(s)	(s)
Ireland	48	0	0	48	48
Italy	617	0	0	617	617
Netherlands	2,673	4	0	2,668	2,668
Norway	2,888	23	1,010	1,855	1,762
Spain	5	(s)	0	5	5
Turkey	30	4	0	26	26
United Kingdom	3,783	74	96	3,613	3,486
Yugoslavia	24	0	0	24	24
Total	**11,503**	**135**	**1,224**	**10,143**	**9,923**
Eastern Europe & Former U.S.S.R.					
Albania	1	0	1	1	1
Bulgaria	1	0	0	1	1
Czech Republic	8	0	0	8	8
Hungary	120	0	0	120	120
Poland	176	0	0	176	176
Romania	510	0	0	510	501
Slovakia	8	0	0	8	8
Azerbaijan	474	251	0	224	212
Belarus	7	0	0	7	7
Georgia	2	0	0	2	2
Kazakhstan	162	0	0	162	162
Kyrgyzstan	(s)	0	0	(s)	(s)
Russia	20,825	0	0	20,825	20,825
Tajikistan	2	0	0	2	2
Turkmenistan	788	0	0	788	788
Ukraine	632	0	0	632	632
Uzbekistan	1,964	0	0	1,964	1,964
Total	**25,680**	**251**	**1**	**25,429**	**25,409**

See footnotes at end of table.

Table 4.1 World Natural Gas Production, 1999 (Continued)

(Billion Cubic Feet)

Region Country	Gross Production	Vented, Flared	Reinjected	Marketed Production	Dry Gas Production
Middle East					
Bahrain	406	0	100	306	297
Iran	3,623	371	1,059	2,193	2,041
Iraq	155	34	0	121	112
Israel	(s)	0	0	(s)	(s)
Jordan	10	0	0	10	10
Kuwait	358	18	0	340	305
Oman	408	47	119	242	197
Qatar	1,035	0	141	893	779
Saudi Arabia	1,719	11	2	1,707	1,632
Syria	278	14	17	247	213
United Arab Emirates	1,776	51	263	1,462	1,343
Yemen	583	0	571	12	0
Total	**10,352**	**546**	**2,273**	**7,533**	**6,930**
Africa					
Algeria	5,347	238	2,055	3,054	2,876
Angola	258	152	81	25	20
Cameroon	73	73	0	0	0
Congo (Brazzaville)	134	49	81	4	0
Cote d'Ivoire (Ivory Coast)	47	0	0	47	47
Egypt	694	32	32	629	518
Equatorial Guinea	41	32	0	8	1
Gabon	91	63	21	7	4
Libya	325	46	74	205	184
Morocco	2	0	0	2	2
Mozambique	2	0	0	2	2
Nigeria	1,084	666	141	277	245
Senegal	1	0	0	1	1
South Africa	55	6	0	49	49
Tunisia	84	12	0	72	67
Total	**8,239**	**1,369**	**2,486**	**4,383**	**4,016**
Asia & Oceania					
Afghanistan	8	0	0	8	8
Australia	1,106	8	0	1,097	1,097
Bangladesh	320	0	0	320	320
Brunei	401	0	60	341	334
Burma	68	7	0	61	61
China	854	0	0	854	854
India	867	86	4	778	752
Indonesia	3,068	170	229	2,669	2,506
Japan	81	0	0	81	81
Malaysia	1,443	0	0	1,443	1,422
New Zealand	219	2	0	200	187
Pakistan	784	0	0	784	784
Papua New Guinea	4	0	(s)	4	4
Philippines	(s)	0	0	(s)	(s)
Taiwan	31	0	0	31	31
Thailand	677	0	0	677	625
Vietnam	48	12	0	35	35
Total	**9,980**	**285**	**293**	**9,384**	**9,102**
World Total	**103,856**	**3,355**	**11,391**	**88,478**	**84,911**

(s) = Value less than 500 million cubic feet.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 4.2 World Dry Natural Gas Supply and Disposition, 1999

(Billion Cubic Feet)

Region Country	Dry Gas Production	Imports [1]	Exports [1]	Apparent Consumption [2]
North America				
Canada	6,264	28	3,359	3,105
Mexico	1,287	52	49	1,262
United States	18,832	3,586	163	21,620
Total	**26,383**	**3,667**	**3,571**	**25,987**
Central & South America				
Argentina	1,221	42	120	1,143
Barbados	1	0	0	1
Bolivia	87	0	55	32
Brazil	218	13	0	231
Chile	42	120	0	162
Colombia	183	0	0	183
Cuba	18	0	0	18
Ecuador	4	0	0	4
Peru	14	0	0	14
Trinidad and Tobago	414	0	77	337
Venezuela	946	0	0	1,016
Total	**3,148**	**175**	**253**	**3,141**
Western Europe				
Austria	61	216	0	285
Belgium	0	558	0	552
Bosnia and Herzegovina	0	7	0	7
Croatia	55	39	0	94
Denmark	274	0	96	179
Finland	0	145	0	145
France	73	1,435	26	1,382
Germany	823	2,711	194	3,151
Greece	(s)	53	0	53
Ireland	48	76	0	125
Italy	617	1,748	2	2,396
Luxembourg	0	26	0	26
Macedonia, TFYR	0	1	0	1
Netherlands	2,668	382	1,346	1,705
Norway	1,762	0	1,606	155
Portugal	0	80	0	79
Slovenia	0	35	0	35
Spain	5	538	0	514
Sweden	0	32	0	33
Switzerland	0	106	0	106
Turkey	26	425	0	442
United Kingdom	3,486	48	275	3,259
Yugoslavia	24	37	0	61
Total	**9,923**	**8,698**	**3,545**	**14,785**

See footnotes at end of table.

Table 4.2 World Dry Natural Gas Supply and Disposition, 1999 (Continued)

(Billion Cubic Feet)

Region Country	Dry Gas Production	Imports [1]	Exports [1]	Apparent Consumption [2]
Eastern Europe & Former U.S.S.R.				
Albania	1	0	0	1
Bulgaria	1	118	0	119
Czech Republic	8	323	0	336
Hungary	120	318	(s)	437
Poland	176	256	1	439
Romania	501	120	0	622
Slovakia	8	229	0	251
Armenia	0	46	0	46
Azerbaijan	212	0	0	212
Belarus	7	600	0	608
Estonia	0	35	0	35
Georgia	2	39	0	41
Kazakhstan	162	388	71	480
Kyrgyzstan	(s)	67	0	67
Latvia	0	46	0	46
Lithuania	0	76	0	76
Moldova	0	74	0	74
Russia	20,825	441	7,254	14,013
Tajikistan	2	39	0	41
Turkmenistan	788	0	590	198
Ukraine	632	2,122	0	2,755
Uzbekistan	1,964	0	540	1,423
Total	**25,409**	**5,339**	**8,456**	**22,318**
Middle East				
Bahrain	297	0	0	297
Iran	2,041	71	0	2,112
Iraq	112	0	0	112
Israel	(s)	0	0	(s)
Jordan	10	0	0	10
Kuwait	305	0	0	305
Oman	197	0	16	182
Qatar	779	0	286	493
Saudi Arabia	1,632	0	0	1,632
Syria	213	0	0	213
United Arab Emirates	1,343	16	266	1,094
Total	**6,930**	**87**	**568**	**6,449**
Africa				
Algeria	2,876	0	2,123	753
Angola	20	0	0	20
Cote d'Ivoire (Ivory Coast)	47	0	0	47
Egypt	518	0	0	518
Equatorial Guinea	1	0	0	1
Gabon	4	0	0	4
Libya	184	0	34	150
Morocco	2	0	0	2
Mozambique	2	0	0	2
Nigeria	245	0	26	219
Senegal	1	0	0	1
South Africa	49	0	0	49
Tunisia	67	39	0	106
Total	**4,016**	**39**	**2,183**	**1,872**

See footnotes at end of table.

Table 4.2 World Dry Natural Gas Supply and Disposition, 1999 (Continued)

(Billion Cubic Feet)

Region Country	Dry Gas Production	Imports [1]	Exports [1]	Apparent Consumption [2]
Asia & Oceania				
Afghanistan	8	0	0	8
Australia	1,097	0	346	751
Bangladesh	320	0	0	320
Brunei	334	0	297	37
Burma	61	0	3	58
China	854	0	0	854
Hong Kong	0	22	0	23
India	752	0	0	752
Indonesia	2,506	0	1,382	1,124
Japan	81	2,548	0	2,646
Korea, South	0	598	0	598
Malaysia	1,422	0	769	653
New Zealand	187	0	0	187
Pakistan	784	0	0	784
Papua New Guinea	4	0	0	4
Philippines	(s)	0	0	(s)
Singapore	0	53	0	53
Taiwan	31	189	0	220
Thailand	625	3	0	629
Vietnam	35	0	0	35
Total	**9,102**	**3,414**	**2,797**	**9,736**
World Total	**84,911**	**21,419**	**21,373**	**84,288**

[1] Includes liquefied natural gas.
[2] Includes stock changes.
(s) = Value less than 500 million cubic feet.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

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Section 5

Coal

Table 5.1 World Coal Production, 1999

(Thousand Short Tons)

Region Country	Primary [1]			Secondary [2]		
	Anthracite	Bituminous	Lignite	Metallurgical Coke	Anthracite and Bituminous Briquets	Lignite Briquets
North America						
Canada	0	67,035	12,852	3,645	0	0
Mexico	0	11,309	0	2,523	0	0
United States	4,768	1,008,446	87,218	20,016	0	0
Total	**4,768**	**1,086,789**	**100,070**	**26,185**	**0**	**0**
Central & South America						
Argentina	0	370	0	356	0	0
Brazil	0	4,726	0	9,071	0	0
Chile	0	535	0	726	0	0
Colombia	0	36,105	0	489	0	0
Cuba	0	0	0	15	0	0
Peru	28	28	0	36	0	0
Venezuela	0	7,693	0	0	0	0
Total	**28**	**49,457**	**0**	**10,694**	**0**	**0**
Western Europe						
Austria	0	0	1,254	1,776	62	0
Belgium	0	401	0	3,458	11	0
Bosnia and Herzegovina	0	0	2,037	0	0	0
Croatia	0	17	0	0	0	0
Finland	0	0	0	992	0	0
France	465	5,190	617	5,972	214	0
Germany	4,351	43,987	177,783	9,445	204	6,174
Greece	0	0	68,400	0	0	85
Ireland	0	0	0	0	0	291
Italy	0	0	127	5,501	0	0
Macedonia, TFYR	0	0	8,130	0	0	0
Netherlands	0	0	0	2,565	0	0
Norway	0	539	0	0	0	0
Portugal	0	0	0	400	0	0
Slovenia	0	836	4,193	0	0	0
Spain	5,084	11,948	9,736	2,569	0	0
Sweden	0	0	0	1,262	0	0
Turkey	0	2,226	71,671	3,089	0	2
United Kingdom	409	39,464	0	6,471	0	0
Yugoslavia	0	54	36,664	0	0	0
Total	**10,308**	**104,661**	**380,612**	**43,499**	**491**	**6,552**
Eastern Europe & Former U.S.S.R.						
Albania	0	0	50	0	0	0
Belarus	0	0	0	0	0	1,385
Bulgaria	28	3,439	25,235	826	0	1,390
Czech Republic	0	64,619	564	3,673	0	358
Hungary	0	789	16,035	1,012	0	166
Poland	317	120,189	67,064	9,224	0	54
Romania	0	1,209	24,014	1,892	0	0
Slovakia	0	0	4,079	1,781	0	0
Estonia	0	0	0	19	0	117
Georgia	0	18	0	0	0	0
Kazakhstan	0	62,410	1,940	935	0	0
Kyrgyzstan	0	107	353	0	0	0
Latvia	0	0	0	0	0	7
Lithuania	0	0	0	0	0	17
Russia	15,554	152,462	91,203	29,187	0	294
Tajikistan	0	22	0	0	0	0
Ukraine	19,676	69,882	1,666	17,906	2,528	540
Uzbekistan	0	76	3,198	0	17	17
Total	**35,576**	**475,221**	**235,399**	**66,454**	**2,544**	**4,344**

See footnotes at end of table.

Table 5.1 World Coal Production, 1999 (Continued)

(Thousand Short Tons)

Region Country	Primary [1]			Secondary [2]		
	Anthracite	Bituminous	Lignite	Metallurgical Coke	Anthracite and Bituminous Briquets	Lignite Briquets
Middle East						
Iran	0	1,389	0	335	0	0
Total	**0**	**1,389**	**0**	**335**	**0**	**0**
Africa						
Algeria	0	24	0	588	0	0
Botswana	0	1,042	0	0	0	0
Cameroon	0	1	0	0	0	0
Congo (Kinshasa)	0	111	0	0	0	0
Egypt	0	433	0	2,269	0	0
Malawi	0	64	0	0	0	0
Morocco	142	0	0	0	0	0
Mozambique	0	20	0	0	0	0
Niger	0	170	0	0	0	0
Nigeria	0	66	0	0	0	0
South Africa	2,718	317,437	0	1,965	0	0
Swaziland	21	298	0	0	0	0
Tanzania	0	6	0	0	0	0
Zambia	0	208	0	36	0	0
Zimbabwe	0	4,414	0	496	0	0
Total	**2,881**	**324,294**	**0**	**5,354**	**0**	**0**
Asia & Oceania						
Afghanistan	0	1	0	0	0	0
Australia	0	248,031	74,165	4,842	0	606
Bhutan	0	56	0	0	0	0
Burma	0	14	23	0	0	0
China	237,786	1,067,559	59,615	133,090	10,180	0
India	0	302,441	26,065	13,842	0	289
Indonesia	0	71,212	20	0	0	22
Japan	64	4,004	0	40,816	64	0
Korea, North	45,769	54,710	0	3,596	0	0
Korea, South	4,626	0	0	13,135	1,323	0
Malaysia	0	273	0	0	0	0
Mongolia	0	455	5,017	0	0	0
Nepal	0	0	10	0	0	0
New Zealand	681	3,122	281	0	0	0
Pakistan	0	3,815	0	702	0	0
Philippines	0	1,335	3	0	0	0
Taiwan	0	92	0	4,578	0	0
Thailand	1	0	20,130	0	0	0
Vietnam	10,034	0	0	0	0	0
Total	**298,961**	**1,757,120**	**185,329**	**214,601**	**11,567**	**917**
World Total	**352,522**	**3,798,932**	**901,410**	**367,122**	**14,601**	**11,813**

[1] Primary coal includes all coal mined and, when necessary, washed and sorted.
[2] Secondary coal (e.g. coke, briquets), is derived from primary coal.
(s) = Value less than 500 Short tons.

Note: Sum of components may not equal total due to independent rounding.

Sources: United States primary coal production is from Energy Information Administration, Annual Energy Review 2000, table 7.2. Bituminous production is the sum of bituminous coal and subbituminous coal from table 7.2. Sources for other countries are listed at the end of this Section.

Table 5.2 World Anthracite Coal Production, 1991 - 2000

(Thousand Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
United States [2]	3,445	3,483	4,322	4,646	4,711	4,768	4,692	5,251	4,768	4,572
Total	**3,445**	**3,483**	**4,322**	**4,646**	**4,711**	**4,768**	**4,692**	**5,251**	**4,768**	**4,572**
Central & South America										
Peru	12	89	34	24	19	23	24	23	28	28
Total	**12**	**89**	**34**	**24**	**19**	**23**	**24**	**23**	**28**	**28**
Western Europe										
France	1,451	1,358	842	735	770	703	570	487	465	399
Germany	7,217	7,546	6,650	6,028	5,551	5,274	5,081	4,497	4,351	3,708
Spain	7,503	8,009	7,846	7,862	7,571	7,099	7,361	6,263	5,084	4,904
United Kingdom	1,907	1,714	1,111	1,049	1,169	735	535	443	409	353
Total	**18,078**	**18,628**	**16,448**	**15,674**	**15,061**	**13,810**	**13,546**	**11,691**	**10,308**	**9,364**
Eastern Europe & Former U.S.S.R.										
Bulgaria	42	84	79	90	121	25	17	29	28	17
Poland	0	0	174	243	304	309	320	320	317	301
Former U.S.S.R.	61,399	--	--	--	--	--	--	--	--	--
Russia	--	27,836	25,207	22,384	21,667	21,104	20,217	14,462	15,554	16,885
Ukraine	--	31,010	26,466	22,141	15,543	17,968	18,188	18,409	19,676	19,566
Total	**61,441**	**58,930**	**51,927**	**44,857**	**37,635**	**39,405**	**38,742**	**33,219**	**35,576**	**36,769**
Africa										
Morocco	607	635	666	717	717	558	414	297	142	110
South Africa	4,903	6,077	5,719	4,449	3,595	3,917	4,413	2,902	2,718	3,411
Swaziland	51	41	21	75	71	53	22	20	21	21
Total	**5,561**	**6,753**	**6,406**	**5,240**	**4,383**	**4,528**	**4,849**	**3,218**	**2,881**	**3,542**
Asia & Oceania										
China	239,753	243,567	251,048	270,516	296,878	321,227	274,719	266,965	237,786	236,598
Japan	247	239	219	187	179	183	87	65	64	64
Korea, North	46,475	46,826	47,179	47,536	47,177	46,821	46,467	46,117	45,769	46,297
Korea, South	16,599	13,195	10,409	8,199	6,305	5,458	4,974	4,807	4,626	4,626
New Zealand	141	188	101	195	228	265	290	463	681	772
Thailand	24	24	18	13	6	6	1	1	1	1
Vietnam	4,772	5,282	6,503	6,272	9,204	10,828	12,553	11,804	10,034	10,034
Total	**308,011**	**309,322**	**315,477**	**332,918**	**359,977**	**384,786**	**339,091**	**330,222**	**298,961**	**298,392**
World Total	**396,548**	**397,205**	**394,614**	**403,360**	**421,786**	**447,321**	**400,945**	**383,625**	**352,522**	**352,666**

[1] Preliminary.
[2] United States anthracite coal production is from Energy Information Administration. 1991-1999 -- Annual Energy Review 2000, table 7.2. 2000 --Coal Industry Annual 2000, table 9.
- - = Not applicable.
Notes: Sum of components may not equal total due to independent rounding.
No production is reported for Middle East.
Sources: See sources at the end of this Section.

Table 5.3 World Bituminous Coal Production, 1991 - 2000

(Thousand Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	68,506	61,270	65,015	68,497	70,732	71,507	73,859	70,092	67,035	63,907
Mexico	7,798	7,242	7,840	10,071	10,257	11,141	11,475	12,379	11,309	10,856
United States [2]	906,025	904,000	851,553	940,777	941,763	971,032	998,899	1,026,517	1,008,446	983,479
Total	**982,329**	**972,512**	**924,408**	**1,019,344**	**1,022,752**	**1,053,680**	**1,084,233**	**1,108,988**	**1,086,789**	**1,058,242**
Central & South America										
Argentina	322	223	184	384	336	343	276	319	370	327
Brazil	5,719	5,215	5,065	4,905	4,579	4,226	4,879	4,682	4,726	6,805
Chile	2,434	1,792	1,494	1,303	1,144	1,107	1,151	1,036	535	403
Colombia	22,037	24,146	23,394	24,984	28,373	33,141	35,927	37,204	36,105	42,044
Peru	69	108	100	75	62	27	28	28	28	22
Venezuela	2,398	2,700	4,205	4,715	4,480	4,011	5,673	8,219	7,693	9,297
Total	**32,979**	**34,184**	**34,442**	**36,366**	**38,975**	**42,855**	**47,932**	**51,487**	**49,457**	**58,898**
Western Europe										
Belgium	2,323	1,319	1,070	830	702	617	471	344	401	413
France	10,575	9,939	9,068	8,204	8,594	7,845	6,359	5,438	5,190	4,451
Germany	72,970	71,989	64,091	57,491	56,126	53,322	51,371	45,476	43,987	36,703
Ireland	1	1	1	(s)	1	1	1	1	0	0
Italy	23	122	11	6	0	0	0	0	0	0
Norway	364	396	295	332	322	254	425	362	539	551
Portugal	298	244	217	162	0	0	0	0	0	0
Spain	12,381	12,595	12,256	12,281	11,827	13,063	12,473	11,732	11,948	11,520
Sweden	31	41	4	1	0	0	0	0	0	0
Turkey	3,198	3,354	3,169	3,128	2,478	2,691	2,771	2,402	2,226	2,535
United Kingdom	102,726	91,870	74,066	52,873	51,313	54,598	52,972	43,700	39,464	34,921
Former Yugoslavia	11,309	--	--	--	--	--	--	--	--	--
Croatia	--	0	115	106	83	71	54	62	17	17
Slovenia	--	1,458	1,324	1,189	1,066	915	895	913	836	812
Yugoslavia	--	112	80	90	78	86	103	116	54	110
Total	**216,197**	**193,442**	**165,769**	**136,692**	**132,589**	**133,463**	**127,894**	**110,544**	**104,661**	**92,035**
Eastern Europe & Former U.S.S.R.										
Bulgaria	3,408	3,695	3,769	3,478	3,513	3,373	3,929	4,080	3,439	3,663
Former Czechoslovakia	105,867	99,912	--	--	--	--	--	--	--	--
Czech Republic	--	--	92,504	83,811	81,073	83,027	80,213	73,719	64,619	71,193
Hungary	2,029	1,426	1,048	1,136	944	972	941	896	789	689
Moldova	--	287	197	122	35	40	17	0	0	0
Poland	154,353	144,748	143,178	146,505	149,820	122,392	151,566	126,606	120,189	112,698
Romania	4,220	4,517	1,349	1,505	1,265	1,458	1,931	1,550	1,209	1,433
Former U.S.S.R.	472,671	--	--	--	--	--	--	--	--	--
Georgia	--	220	132	49	47	25	6	15	18	22
Kazakhstan	--	134,913	118,172	110,023	87,761	80,733	77,354	75,021	62,410	79,576
Kyrgyzstan	--	1,146	811	442	202	151	356	120	107	441
Russia	--	238,209	214,510	185,299	179,897	183,535	146,542	140,447	152,462	165,529
Tajikistan	--	236	192	117	37	22	15	11	22	22
Ukraine	--	109,946	96,551	78,500	76,531	63,749	65,052	65,110	69,882	69,501
Uzbekistan	--	198	177	159	130	82	65	75	76	78
Total	**742,549**	**739,456**	**672,592**	**611,145**	**581,255**	**539,559**	**527,987**	**487,651**	**475,221**	**504,845**

See footnotes at end of table.

Table 5.3 World Bituminous Coal Production, 1991 - 2000 (Continued)

(Thousand Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Iran	988	1,070	1,068	1,425	1,254	1,335	1,334	1,289	1,389	1,389
Total	**988**	**1,070**	**1,068**	**1,425**	**1,254**	**1,335**	**1,334**	**1,289**	**1,389**	**1,389**
Africa										
Algeria	17	17	22	22	24	24	25	24	24	24
Botswana	864	994	981	992	990	841	856	1,023	1,042	1,058
Cameroon	1	1	1	1	1	1	1	1	1	1
Congo (Kinshasa)	88	94	101	104	105	105	103	111	111	110
Egypt	0	0	0	0	0	110	386	408	433	441
Malawi	59	54	55	57	60	77	70	60	64	55
Mozambique	46	44	44	44	42	22	20	20	20	20
Niger	190	187	190	190	191	191	192	160	170	166
Nigeria	152	110	132	143	154	154	154	65	66	66
South Africa	251,294	241,200	252,694	267,847	284,794	293,199	320,144	319,096	317,437	322,671
Swaziland	85	69	34	125	118	89	139	280	298	298
Tanzania	4	4	4	4	6	6	6	6	6	6
Zambia	381	465	367	180	167	141	87	214	208	208
Zimbabwe	6,191	6,116	5,826	6,029	6,095	5,152	4,415	4,588	4,414	4,630
Total	**259,372**	**249,355**	**260,453**	**275,738**	**292,747**	**300,113**	**326,597**	**326,055**	**324,294**	**329,754**
Asia & Oceania										
Afghanistan	104	9	8	7	6	3	2	1	1	1
Australia	181,489	193,048	195,060	194,723	210,602	213,228	227,975	243,712	248,031	262,410
Bhutan	2	62	51	71	75	71	60	55	56	57
Burma	40	37	36	34	39	34	34	11	14	14
China	909,539	932,908	989,315	1,066,032	1,169,920	1,162,695	1,167,390	1,102,754	1,067,559	1,025,260
India	235,134	252,820	262,910	258,371	273,362	290,007	300,655	296,632	302,441	317,359
Indonesia	15,590	25,487	30,390	34,185	45,660	55,482	60,195	66,493	71,212	73,855
Japan	9,335	8,379	7,717	7,867	6,785	6,614	4,289	4,011	4,004	3,353
Korea, North	56,040	57,894	61,949	60,491	59,747	58,891	58,252	53,367	54,710	55,116
Laos	1	1	1	1	1	1	1	1	0	0
Malaysia	198	194	415	148	123	91	110	347	273	220
Mongolia	645	572	514	473	460	468	451	464	455	193
New Zealand	2,428	2,666	2,929	2,554	3,146	3,175	2,913	2,571	3,122	2,962
Pakistan	3,183	3,388	3,389	3,543	3,318	4,010	3,917	3,482	3,815	3,858
Philippines	1,457	1,828	1,741	1,594	1,465	1,218	1,199	1,275	1,335	1,488
Taiwan	444	369	362	314	259	109	87	101	92	110
Total	**1,415,630**	**1,479,660**	**1,556,786**	**1,630,408**	**1,774,967**	**1,796,097**	**1,827,530**	**1,775,278**	**1,757,120**	**1,746,256**
World Total	**3,650,044**	**3,669,679**	**3,615,518**	**3,711,118**	**3,844,540**	**3,867,103**	**3,943,508**	**3,861,291**	**3,798,932**	**3,791,419**

[1] Preliminary.
[2] United States bituminous coal production is from Energy Information Administration. 1991-1999 -- Annual Energy Review 2000, table 7.2. 2000 -- Coal Industry Annual 2000, table 9. It is the sum of bituminous coal and subbituminous coal from table 7.2 or table 9.
- - = Not applicable.
(s) = Value less than 500 short tons.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of this Section.

Table 5.4 World Lignite Coal Production, 1991 - 2000

(Thousand Short Tons)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	9,899	11,053	11,074	11,779	11,838	11,964	12,845	12,997	12,852	12,335
United States [2]	86,514	90,062	89,549	88,081	86,500	88,056	86,341	85,767	87,218	85,561
Total	**96,413**	**101,115**	**100,623**	**99,860**	**98,337**	**100,020**	**99,186**	**98,764**	**100,070**	**97,896**
Western Europe										
Austria	2,294	1,952	1,864	1,509	1,431	1,222	1,247	1,258	1,254	1,377
France	2,167	1,739	1,843	1,655	1,544	880	1,135	812	617	326
Germany	308,182	266,552	244,494	228,263	212,477	206,396	195,285	183,022	177,783	184,848
Greece	58,086	60,683	60,425	62,470	63,561	65,897	64,864	67,113	68,400	69,475
Italy	1,036	787	683	294	190	151	238	208	127	50
Spain	17,111	16,291	14,713	12,524	11,879	10,587	9,329	10,748	9,736	9,388
Turkey	47,781	53,573	50,454	56,805	58,230	59,439	63,290	71,875	71,671	71,657
Former Yugoslavia	66,727	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	2,205	1,653	1,543	1,808	1,863	1,919	1,978	2,037	1,802
Croatia	--	0	12	8	8	2	0	0	0	0
Macedonia, TFYR	--	7,692	7,625	7,562	7,991	7,876	8,205	9,012	8,130	7,826
Slovenia	--	4,666	4,321	4,161	4,318	4,340	4,745	4,480	4,193	4,126
Yugoslavia	--	44,096	41,182	42,184	44,025	42,292	44,713	48,470	36,664	37,699
Total	**503,385**	**460,237**	**429,269**	**418,980**	**407,461**	**400,945**	**394,971**	**398,976**	**380,612**	**388,575**
Eastern Europe & Former U.S.S.R.										
Albania	1,198	882	661	186	180	111	77	54	50	53
Bulgaria	27,812	29,470	27,944	28,031	30,257	30,317	28,801	30,033	25,235	26,071
Former Czechoslovakia	3,403	1,987	--	--	--	--	--	--	--	--
Czech Republic	--	--	1,392	1,005	864	994	823	719	564	634
Slovakia	--	--	3,910	4,006	4,144	4,221	4,316	4,355	4,079	3,968
Hungary	16,859	16,024	15,063	14,418	15,137	15,772	16,243	16,149	16,035	14,611
Poland	76,507	73,692	75,073	73,601	70,049	70,377	69,632	69,247	67,064	65,573
Romania	31,502	37,778	42,469	43,191	44,063	44,694	35,335	27,365	24,014	30,754
Former U.S.S.R.	167,585	--	--	--	--	--	--	--	--	--
Kazakhstan	--	4,577	5,147	5,307	4,123	3,958	2,726	1,890	1,940	2,866
Kyrgyzstan	--	1,225	1,086	493	309	301	220	356	353	331
Russia	--	139,808	124,316	105,041	94,781	99,405	91,126	86,126	91,203	99,005
Ukraine	--	6,370	4,572	3,417	2,531	1,749	1,583	1,553	1,666	1,213
Uzbekistan	--	4,939	4,029	4,080	3,285	3,046	3,183	3,147	3,198	3,197
Total	**324,866**	**316,754**	**305,662**	**282,776**	**269,721**	**274,946**	**254,065**	**240,994**	**235,399**	**248,276**
Asia & Oceania										
Australia	54,439	55,913	52,523	53,740	55,945	59,207	64,106	73,038	74,165	74,737
Burma	43	43	28	24	25	24	31	23	23	23
China	49,373	52,106	63,167	66,957	70,171	61,332	65,018	59,273	59,615	52,577
India	17,604	17,429	18,318	21,319	24,405	24,846	25,408	25,541	26,065	27,596
Indonesia	0	0	0	3	(s)	(s)	1	2	20	22
Mongolia	7,112	6,314	5,669	5,213	5,074	5,165	4,977	5,110	5,017	5,523
Nepal	13	11	12	13	13	13	13	11	10	11
New Zealand	191	197	194	278	213	236	256	312	281	235
Philippines	3	3	3	3	3	3	3	3	3	3
Thailand	16,192	16,904	17,119	18,844	20,305	23,910	25,837	22,042	20,130	19,605
Total	**144,970**	**148,920**	**157,033**	**166,393**	**176,154**	**174,737**	**185,650**	**185,356**	**185,329**	**180,332**
World Total	**1,069,634**	**1,027,026**	**992,587**	**968,009**	**951,673**	**950,648**	**933,872**	**924,090**	**901,410**	**915,079**

[1] Preliminary.

[2] United States lignite coal production is from Energy Information Administration. 1991-1999 -- Annual Energy Review 2000, table 7.2. 2000 -- Coal Industry Annual 2000, table 9.

-- = Not applicable.

(s) = Value less than 500 short tons.

Notes: Sum of components may not equal total due to independent rounding.

No production is reprted for Central & South America. No production is reported for Middle East. No production is reported for Africa.

Sources: See sources at the end of this Section.

Table 5.5 World Coal Supply and Disposition, 1999

(Trillion Btu)

Region Country	Production	Imports [1]	Exports [1]	Apparent Consumption [2]
North America				
Canada	1,907	496	969	1,478
Mexico	192	44	2	247
United States [3]	23,186	307	1,547	21,735
Total	**25,286**	**847**	**2,518**	**23,459**
Central & South America				
Argentina	8	34	8	35
Brazil	68	431	0	515
Chile	14	145	0	174
Colombia	887	0	813	108
Peru	1	18	0	17
Venezuela	212	0	208	32
Other	0	25	0	24
Total	**1,191**	**654**	**1,029**	**905**
Western Europe				
Austria	12	112	(s)	125
Belgium	8	346	40	311
Bosnia and Herzegovina	16	0	0	16
Croatia	(s)	9	(s)	10
Denmark	0	179	5	193
Finland	0	106	0	147
France	146	476	15	600
Germany	2,498	712	8	3,211
Greece	345	33	2	373
Italy	1	468	4	461
Luxembourg	0	4	0	4
Macedonia, TFYR	65	6	0	72
Netherlands	0	477	201	287
Norway	14	38	8	44
Portugal	0	156	2	157
Slovenia	51	12	(s)	60
Spain	304	442	12	724
Sweden	0	88	2	89
Turkey	546	264	0	813
United Kingdom	906	546	29	1,410
Yugoslavia	295	5	1	299
Other	0	79	(s)	82
Total	**5,209**	**4,557**	**329**	**9,490**
Eastern Europe & Former U.S.S.R.				
Bulgaria	236	88	1	332
Czech Republic	768	34	200	639
Hungary	131	35	5	167
Poland	3,019	61	627	2,464
Romania	190	53	2	262
Slovakia	45	148	1	199
Belarus	0	18	(s)	15
Estonia	0	14	1	18
Kazakhstan	851	34	300	618
Kyrgyzstan	6	15	(s)	21
Latvia	0	3	0	3
Lithuania	0	4	0	5
Moldova	0	4	0	4
Russia	4,765	1,129	720	5,269
Tajikistan	(s)	2	0	2
Ukraine	1,767	215	49	1,934
Uzbekistan	44	(s)	(s)	43
Other	1	(s)	0	1
Total	**11,824**	**1,855**	**1,907**	**11,998**

See footnotes at end of table.

Table 5.5 World Coal Supply and Disposition, 1999 (Continued)

(Trillion Btu)

Region Country	Production	Imports [1]	Exports [1]	Apparent Consumption [2]
Middle East				
Iran	32	18	(s)	50
Israel	0	250	0	237
Other	0	6	0	6
Total	**32**	**274**	**0**	**293**
Africa				
Algeria	1	21	0	21
Botswana	24	(s)	0	24
Congo (Kinshasa)	3	4	0	7
Egypt	10	51	11	49
Kenya	0	2	0	2
Malawi	2	(s)	0	2
Mauritius	0	2	0	2
Morocco	3	91	0	93
Mozambique	(s)	0	(s)	0
Niger	4	0	0	4
Nigeria	2	(s)	0	2
South Africa	6,820	56	1,852	3,435
Swaziland	7	0	0	7
Tunisia	0	3	0	3
Zambia	5	0	(s)	4
Zimbabwe	108	(s)	5	103
Other	(s)	1	0	1
Total	**6,988**	**232**	**1,868**	**3,759**
Asia & Oceania				
Afghanistan	(s)	0	0	(s)
Australia	6,298	0	4,339	2,126
Bangladesh	0	2	0	2
Bhutan	1	1	(s)	2
Burma	1	(s)	0	1
China	25,209	36	1,118	24,654
Hong Kong	0	164	0	164
India	5,806	464	16	6,215
Indonesia	1,655	13	1,397	293
Japan	85	3,270	80	3,294
Korea, North	2,336	61	9	2,388
Korea, South	79	1,306	0	1,319
Malaysia	7	55	(s)	57
Mongolia	49	3	2	49
Nepal	(s)	9	0	9
New Caledonia	0	4	0	4
New Zealand	81	0	38	36
Pakistan	65	25	0	89
Philippines	24	135	0	159
Taiwan	2	1,242	0	1,225
Thailand	221	86	0	314
Vietnam	212	0	76	135
Other	0	1	0	1
Total	**42,130**	**6,876**	**7,075**	**42,535**
World Total	**92,659**	**15,294**	**14,725**	**92,439**

[1] Includes coke.

[2] Sum of production plus imports minus exports (from this Table) minus stock change.

[3] United States coal production and apparent coal consumption are from Energy Information Administration, Monthly Energy Review, December 2001. Production is from table 1.3. Consumption is from tables 1.4 and 1.5. It is the sum of (consumption of) coal from table 1.4 and (net imports of) coal coke from table 1.5.

(s) = Value less than 0.5 trillion btu.

Note: Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of this Section.

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Section 6

Electricity

Table 6.1 World Net Conventional Thermal Electricity Generation, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	107.7	116.5	102.7	112.1	121.3	120.5	131.7	148.5	148.3	145.8
Mexico	89.7	88.7	93.1	110.5	104.2	110.4	124.8	133.7	135.2	147.5
United States	2,101.5	2,138.8	2,230.8	2,275.2	2,297.5	2,347.4	2,433.7	2,550.0	2,577.9	2,688.9
Other	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
Total	**2,299.6**	**2,344.7**	**2,427.3**	**2,498.6**	**2,523.8**	**2,579.1**	**2,691.1**	**2,833.0**	**2,862.2**	**2,983.1**
Central & South America										
Argentina	25.0	26.4	25.7	24.6	31.0	36.8	34.0	37.5	46.5	42.9
Bahamas, The	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.5	1.5
Bolivia	0.9	1.1	1.1	1.1	1.6	1.7	1.7	2.0	2.1	1.9
Brazil	9.0	9.1	8.8	9.1	10.6	13.1	14.7	15.5	20.3	20.0
Chile	5.9	5.2	6.3	7.7	7.1	10.4	12.7	16.6	23.2	20.3
Colombia	8.9	10.6	9.8	8.8	10.3	7.9	12.9	13.6	9.7	11.2
Costa Rica	0.2	0.6	0.4	0.8	0.8	0.4	0.2	0.4	0.1	0.1
Cuba	11.0	9.5	9.0	10.0	11.1	11.7	12.5	12.5	13.5	14.1
Dominican Republic	3.1	3.4	4.0	4.2	4.4	5.2	5.6	5.7	6.4	8.3
Ecuador	1.8	2.1	1.5	1.5	3.1	2.8	3.0	3.2	3.0	2.6
Guadeloupe	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.4
Guatemala	0.3	0.6	0.7	0.7	1.1	1.0	1.0	2.0	2.1	3.0
Jamaica	1.9	2.0	3.3	4.2	5.1	5.3	5.4	5.5	5.6	6.0
Martinique	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.1
Nicaragua	0.6	0.8	0.7	0.9	1.0	1.1	1.1	1.6	1.5	1.8
Panama	0.9	1.0	1.0	1.2	1.1	0.8	1.2	1.3	1.6	1.4
Peru	2.4	3.0	2.7	1.8	3.6	3.6	4.3	4.4	4.1	3.5
Puerto Rico	14.7	15.3	16.1	16.8	17.3	17.7	18.6	19.1	19.9	20.3
Trinidad and Tobago	3.5	3.7	3.6	3.8	4.0	4.3	4.7	4.8	4.9	5.1
Venezuela	17.7	19.0	20.6	18.7	20.7	20.4	19.6	21.6	18.8	18.5
Virgin Islands, U.S.	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Other	5.2	5.3	5.4	5.5	6.5	7.1	7.9	8.3	8.0	8.6
Total	**116.4**	**122.1**	**124.4**	**125.3**	**144.6**	**155.7**	**165.7**	**180.3**	**196.4**	**194.7**
Western Europe										
Austria	18.4	15.1	13.7	15.4	17.0	18.1	18.4	17.6	17.5	17.2
Belgium	26.4	26.0	26.2	28.6	30.0	29.7	28.4	33.4	32.0	32.0
Denmark	33.4	28.1	30.7	36.6	33.4	49.2	39.8	36.0	33.7	30.0
Finland	23.8	22.0	26.0	32.3	29.8	35.7	33.9	31.2	31.6	30.8
France	58.2	48.8	33.9	33.2	37.8	42.3	38.5	53.0	49.4	49.1
Germany	351.1	335.7	329.6	331.9	334.9	344.6	335.8	346.8	334.9	338.9
Greece	30.7	32.9	33.7	35.5	35.5	35.7	37.0	39.9	42.0	45.4
Ireland	13.3	14.1	14.5	14.9	15.9	17.1	17.8	18.6	19.5	21.1
Italy	162.6	166.1	163.8	169.5	184.0	181.6	188.2	194.8	195.9	206.0
Malta	1.3	1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.7	1.8
Netherlands	66.5	68.8	68.4	70.8	71.7	75.3	78.5	81.2	77.0	79.4
Portugal	19.4	23.5	21.1	19.4	23.3	18.4	19.7	24.2	33.3	30.3
Spain	67.6	77.0	70.4	72.5	81.6	72.2	92.6	93.2	114.5	120.2
Sweden	6.5	7.5	8.6	9.7	9.5	13.6	9.6	9.4	9.4	8.8
Switzerland	1.4	1.5	1.2	2.0	2.1	2.0	2.0	2.3	2.5	2.5
Turkey	35.2	38.3	37.4	44.8	47.6	51.0	59.6	64.6	76.8	88.3
United Kingdom	230.7	222.8	214.1	216.0	224.0	232.5	226.5	238.9	245.7	260.6
Former Yugoslavia	52.1	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	8.6	9.1	0.6	0.8	0.9	0.9	0.9	1.0	1.0
Croatia	--	4.3	4.7	3.1	3.4	3.1	4.1	5.1	5.3	4.7
Macedonia, TFYR	--	4.9	4.4	4.8	4.9	4.7	5.0	5.4	5.3	5.1
Slovenia	--	4.4	4.2	4.1	4.3	4.0	4.5	4.7	4.3	4.5
Yugoslavia	--	23.6	22.0	22.0	24.4	25.0	26.5	23.4	18.8	19.4
Other	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.1	1.2	1.2
Total	**1,199.9**	**1,176.6**	**1,140.4**	**1,170.8**	**1,218.6**	**1,259.7**	**1,269.9**	**1,327.3**	**1,353.2**	**1,398.1**

See footnotes at end of table.

Table 6.1 World Net Conventional Thermal Electricity Generation, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Bulgaria	21.9	20.7	20.8	20.1	20.9	20.4	20.8	20.2	18.3	18.6
Former Czechoslovakia	52.9	51.2	--	--	--	--	--	--	--	--
Czech Republic	--	--	42.0	41.3	43.6	45.8	46.6	47.0	46.2	54.1
Slovakia	--	--	8.0	7.6	9.1	8.9	8.8	8.9	9.3	9.7
Hungary	15.1	16.5	17.8	18.1	18.6	19.5	19.9	21.7	21.5	19.7
Poland	123.4	121.4	122.5	123.7	127.0	130.9	130.6	130.2	129.6	132.6
Romania	39.7	39.9	40.1	39.6	40.0	41.6	32.2	27.5	25.6	26.2
Former U.S.S.R.	1,173.0	--	--	--	--	--	--	--	--	--
Armenia	--	5.6	1.9	2.0	3.1	2.2	2.9	2.9	2.3	2.1
Azerbaijan	--	16.9	15.7	14.8	14.6	14.6	14.2	15.1	15.7	16.0
Belarus	--	35.3	31.3	29.5	23.4	22.3	24.5	22.0	24.8	24.5
Estonia	--	11.1	8.6	8.6	8.2	8.6	8.7	8.0	7.8	7.0
Georgia	--	4.7	2.9	2.0	1.5	1.1	1.1	1.6	1.5	1.6
Kazakhstan	--	71.3	65.6	53.8	54.8	48.6	42.8	40.4	38.9	42.1
Kyrgyzstan	--	2.5	2.1	1.1	1.2	1.4	1.6	1.6	1.0	1.1
Latvia	--	1.2	1.0	1.1	1.0	1.2	1.5	1.4	1.3	1.1
Lithuania	--	3.5	1.4	1.5	1.3	1.9	1.9	3.0	2.6	2.2
Moldova	--	10.3	9.3	7.5	5.4	5.4	4.6	4.2	3.5	3.0
Russia	--	679.6	627.9	540.4	546.0	547.8	533.2	530.1	528.8	552.6
Tajikistan	--	0.8	0.6	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Turkmenistan	--	12.4	11.9	9.9	9.2	9.5	8.9	8.8	8.3	9.3
Ukraine	--	160.5	134.9	114.4	106.5	88.9	83.2	76.8	83.0	81.0
Uzbekistan	--	42.0	39.3	38.2	38.8	36.6	37.9	37.7	37.2	38.3
Total	**1,426.2**	**1,307.6**	**1,205.6**	**1,075.4**	**1,074.5**	**1,057.4**	**1,026.2**	**1,009.5**	**1,007.4**	**1,043.3**
Middle East										
Bahrain	3.3	3.7	4.0	4.3	4.3	4.7	4.7	5.4	5.6	5.8
Cyprus	2.0	2.3	2.4	2.5	2.3	2.4	2.5	2.8	3.0	3.1
Iran	53.6	55.5	62.2	70.1	73.0	78.5	85.4	90.6	101.2	113.4
Iraq	18.7	23.1	24.2	25.8	26.7	26.9	27.2	28.0	27.4	26.8
Israel	20.2	23.2	24.4	26.6	28.5	30.5	33.0	35.7	36.7	38.8
Jordan	3.5	4.1	4.5	4.8	5.3	5.7	5.9	6.3	6.6	6.9
Kuwait	10.1	15.8	19.0	21.4	22.3	23.9	25.1	28.2	29.7	31.2
Lebanon	2.3	2.9	3.8	4.1	4.3	5.8	7.2	7.1	7.4	7.7
Oman	5.2	4.8	5.5	5.8	6.1	6.4	6.9	7.7	7.9	8.1
Qatar	4.4	4.8	5.2	5.5	5.6	6.2	6.5	7.6	8.4	9.2
Saudi Arabia	69.2	74.0	82.2	91.0	97.8	101.1	107.5	114.6	119.0	123.5
Syria	5.6	4.9	5.6	7.9	7.9	9.3	9.9	10.8	11.7	12.7
United Arab Emirates	16.2	16.4	16.5	17.7	23.5	25.0	26.8	31.4	34.9	38.7
Yemen	1.7	1.8	1.9	2.0	2.2	2.2	2.4	2.4	2.8	3.2
Total	**216.0**	**237.3**	**261.3**	**289.5**	**309.9**	**328.6**	**351.0**	**378.6**	**402.2**	**429.1**
Africa										
Algeria	16.0	17.0	17.9	18.5	17.9	19.0	19.9	21.5	22.4	23.5
Angola	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Botswana	0.9	1.1	1.0	1.0	1.0	0.8	0.9	0.7	0.6	0.5
Cote d'Ivoire (Ivory Coast)	0.6	0.6	1.0	1.2	1.2	1.4	2.0	2.5	3.5	4.0
Egypt	34.0	35.0	37.4	39.4	41.4	40.3	43.0	47.1	49.5	53.7
Libya	15.9	15.9	16.0	16.7	16.9	17.2	17.8	18.3	18.8	19.4
Mauritius	0.7	0.8	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.2
Morocco	7.5	8.2	8.9	9.5	11.5	10.4	11.1	11.6	12.3	13.0
Nigeria	7.7	8.2	8.4	9.4	8.4	8.9	9.2	9.5	9.9	10.2
Reunion	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Senegal	0.9	1.0	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3
South Africa	147.8	147.1	155.9	160.0	164.2	173.9	181.1	176.5	173.3	180.0
Tunisia	5.3	5.7	5.9	6.3	6.8	7.4	7.9	8.5	9.3	10.2
Zimbabwe	5.4	4.8	5.6	4.7	5.6	4.9	4.9	4.4	3.9	3.4
Other	4.4	4.4	4.8	5.0	5.4	5.8	6.0	6.9	7.8	8.8
Total	**248.0**	**250.8**	**265.6**	**274.7**	**283.5**	**293.1**	**307.1**	**311.0**	**314.9**	**330.2**

See footnotes at end of table.

Table 6.1 World Net Conventional Thermal Electricity Generation, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
American Samoa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Australia	132.3	135.2	137.9	141.8	147.7	151.8	156.0	169.0	175.1	182.0
Bangladesh	7.6	8.2	8.7	9.2	10.6	11.0	11.4	10.8	11.3	12.5
Bhutan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Brunei	1.3	1.3	1.5	1.6	1.8	2.0	2.3	2.4	2.3	2.2
Burma	1.4	1.4	1.6	1.9	2.3	2.2	2.6	2.9	3.8	4.0
Cambodia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	519.3	585.3	644.0	701.2	756.1	805.3	863.4	880.2	936.5	1,070.0
Cook Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Fiji	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
French Polynesia	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Guam	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Hong Kong	29.9	32.8	33.8	25.1	26.2	26.7	27.2	29.5	27.7	29.4
India	223.1	240.7	263.6	279.3	317.2	336.1	355.8	337.2	361.0	456.3
Indonesia	37.8	38.7	34.5	40.9	45.9	48.2	59.5	58.6	66.4	75.0
Japan	533.2	545.8	517.2	580.4	568.0	577.2	577.7	571.3	611.4	615.9
Kiribati	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Korea, North	20.4	13.2	13.2	12.7	12.2	11.8	11.0	10.4	9.9	10.9
Korea, South	53.8	65.4	75.5	113.3	123.2	138.4	154.3	136.1	148.2	165.7
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Malaysia	22.5	23.4	28.1	30.6	36.9	43.4	50.7	52.5	54.1	55.5
Macau	0.8	0.9	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4
Maldives	(s)	(s)	(s)	(s)	0.1	0.1	0.1	0.1	0.1	0.1
Mongolia	3.0	2.8	2.4	2.6	2.5	2.5	2.5	2.5	2.7	2.8
Nauru	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nepal	(s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
New Caledonia	0.8	0.8	0.8	0.8	1.2	1.0	1.1	1.2	1.2	1.2
New Zealand	7.6	8.5	7.8	6.8	5.8	8.2	10.2	10.2	11.3	9.5
Niue	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Pakistan	21.0	24.8	25.5	28.9	28.4	31.3	35.6	37.3	40.1	40.2
Papua New Guinea	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.0	0.9
Philippines	13.0	13.2	13.2	17.1	19.9	21.8	25.0	26.0	21.5	23.4
Samoa	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.1	0.1	0.1
Singapore	15.9	16.6	17.8	19.6	20.9	22.1	24.6	26.0	27.0	27.9
Solomon Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Sri Lanka	0.2	0.3	0.2	0.3	0.3	1.2	1.6	1.7	1.9	2.1
Taiwan	51.9	56.1	65.9	72.0	71.0	75.1	83.1	91.7	93.9	104.1
Thailand	42.9	49.7	56.1	62.7	68.7	75.1	78.9	76.8	81.5	87.0
Tonga	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
U.S. Pacific Islands	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Vanuatu	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Vietnam	2.8	2.3	2.6	2.9	3.8	4.6	7.0	9.9	9.2	10.5
Total	**1,745.8**	**1,870.6**	**1,956.1**	**2,156.0**	**2,275.1**	**2,401.4**	**2,546.0**	**2,548.9**	**2,702.6**	**2,992.4**
World Total	**7,251.8**	**7,309.9**	**7,380.6**	**7,590.3**	**7,829.9**	**8,075.0**	**8,357.0**	**8,588.6**	**8,838.9**	**9,371.0**

[1] Preliminary.

--= Not applicable.

(s) = Value less than 50 million kilowatthours.

Notes: Sum of components may not equal total due to independent rounding.

Thermal generation consist of electricity generated from coal, oil, and gas.

Generation data consist of both utility and nonutility sources.

Sources: See sources at the end of this Section.

Table 6.2 World Total Net Electricity Consumption, 1991 - 2000

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	444.4	450.3	454.7	464.2	474.8	486.6	487.7	484.8	497.4	499.8
Mexico	110.5	114.1	119.2	128.9	133.7	143.7	156.0	161.5	171.2	182.8
United States	2,873.0	2,885.1	2,988.4	3,075.5	3,162.4	3,250.1	3,294.6	3,424.0	3,500.9	3,621.0
Other	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
Total	**3,428.7**	**3,450.2**	**3,562.9**	**3,669.4**	**3,771.6**	**3,881.1**	**3,939.1**	**4,071.1**	**4,170.4**	**4,304.4**
Central & South America										
Argentina	49.6	56.7	60.5	63.1	68.7	70.6	76.1	82.8	75.1	80.8
Bolivia	2.2	2.4	2.4	2.4	2.9	2.9	2.9	3.2	3.4	3.6
Brazil	242.1	246.3	259.4	271.7	288.2	307.2	322.7	334.3	344.0	360.6
Chile	17.8	20.7	22.1	23.3	24.1	26.0	29.5	30.4	35.1	37.9
Colombia	34.0	31.1	35.4	38.5	41.8	39.9	41.3	42.2	40.4	40.3
Costa Rica	3.6	3.8	4.1	4.7	4.3	4.5	5.1	5.1	5.3	5.9
Cuba	11.3	9.9	9.0	10.0	10.9	11.6	12.4	12.4	13.4	13.8
Dominican Republic	3.4	5.0	5.2	5.5	5.8	6.0	6.5	6.7	6.8	8.8
Ecuador	6.3	6.5	6.8	7.5	7.7	8.4	8.7	9.0	9.4	9.7
El Salvador	1.8	1.9	2.3	2.7	2.8	2.4	3.1	3.1	3.6	4.1
Guatemala	2.5	2.5	2.6	2.7	3.0	3.2	3.0	4.0	4.2	4.8
Honduras	2.1	2.2	2.3	2.5	2.5	2.9	2.3	3.1	2.8	3.6
Jamaica	1.9	2.0	3.3	4.2	5.1	5.3	5.5	5.7	5.8	6.3
Nicaragua	1.4	1.4	1.4	1.5	1.6	1.7	1.9	2.3	2.0	2.2
Panama	3.3	3.5	3.9	4.2	3.9	3.8	4.1	4.4	4.5	4.7
Peru	12.9	11.9	13.5	13.5	16.1	15.7	16.3	16.9	17.4	18.3
Puerto Rico	13.8	14.4	15.0	15.7	16.2	16.6	17.4	17.9	18.7	19.1
Suriname	1.6	1.6	1.6	1.6	1.7	1.7	1.9	1.9	1.8	1.3
Trinidad and Tobago	3.3	3.5	3.3	3.6	3.8	4.0	4.4	4.5	4.6	4.8
Uruguay	4.6	4.8	5.1	5.4	5.8	6.0	6.4	6.6	5.8	7.4
Venezuela	57.2	60.8	62.5	64.3	66.5	68.4	70.8	68.9	68.8	75.1
Virgin Islands, U.S.	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Other	5.9	6.2	6.9	7.0	7.7	7.7	8.5	9.5	10.2	10.4
Total	**483.4**	**499.7**	**529.7**	**556.4**	**591.9**	**617.6**	**651.6**	**675.7**	**683.6**	**724.3**
Western Europe										
Austria	47.9	47.8	47.0	47.4	49.2	50.7	51.0	52.1	53.2	54.8
Belgium	61.5	63.8	64.7	67.7	69.8	71.3	72.7	74.6	75.3	78.1
Denmark	29.9	30.9	31.2	30.9	32.2	32.5	32.7	32.9	33.2	33.9
Finland	58.8	64.1	67.1	70.4	69.5	70.5	75.4	80.2	80.3	82.0
France	348.3	354.8	356.0	359.2	366.6	383.9	378.5	394.4	401.4	408.5
Germany	474.8	468.4	465.2	469.6	479.3	485.4	485.6	492.3	493.4	501.7
Greece	32.0	33.4	34.3	35.9	37.2	38.7	40.4	42.3	43.7	46.1
Iceland	4.1	4.2	4.3	4.4	4.6	4.7	5.1	5.8	6.6	7.0
Ireland	13.1	13.8	14.2	14.8	15.4	16.4	17.3	18.5	19.5	20.8
Italy	228.2	232.1	233.7	239.9	247.1	249.2	257.0	265.5	272.4	283.7
Luxembourg	4.8	4.6	4.7	5.1	5.5	5.3	5.6	5.8	5.9	6.2
Netherlands	75.0	77.5	78.9	81.6	83.6	86.8	91.6	94.8	97.7	100.7
Norway	99.2	99.3	102.6	103.4	106.0	105.4	106.0	110.8	110.5	112.5
Portugal	27.2	28.3	28.5	29.7	31.2	32.7	34.3	35.8	38.1	41.1
Spain	137.1	139.6	139.4	145.1	152.0	156.4	166.5	176.7	190.3	201.2
Sweden	132.4	131.3	132.4	130.5	133.9	133.2	134.5	134.5	132.4	139.2
Switzerland	48.6	48.4	48.0	48.5	50.1	50.3	49.8	50.8	52.3	52.6
Turkey	54.0	60.0	65.8	69.4	76.6	84.9	94.6	102.2	105.6	114.2
United Kingdom	294.5	295.0	299.3	301.1	309.1	321.1	319.7	335.1	340.3	345.0
Former Yugoslavia	65.5	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	10.9	10.9	1.9	2.3	2.4	2.4	2.5	2.6	2.6
Croatia	--	10.9	10.7	11.1	11.5	12.1	12.7	14.1	13.4	12.6
Macedonia, TFYR	--	5.6	5.2	5.3	5.3	5.7	5.8	6.0	5.8	5.9
Slovenia	--	8.9	8.8	11.1	9.4	9.5	9.8	10.4	10.3	10.6
Yugoslavia	--	33.6	29.7	30.7	33.0	33.7	35.8	33.6	31.6	31.5
Other	1.5	1.6	1.5	1.6	1.7	1.7	1.7	1.7	1.8	1.9
Total	**2,238.4**	**2,268.6**	**2,284.1**	**2,316.2**	**2,381.9**	**2,444.4**	**2,486.6**	**2,573.5**	**2,617.7**	**2,694.5**

See footnotes at end of table.

Table 6.2 World Total Net Electricity Consumption, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	2.7	2.6	3.1	3.6	4.1	5.6	5.0	5.1	5.3	5.4
Bulgaria	36.3	33.9	33.6	33.5	36.7	37.7	33.8	33.1	31.8	34.4
Former Czechoslovakia	76.4	70.9	--	--	--	--	--	--	--	--
Czech Republic	--	--	49.6	51.2	54.0	56.1	55.8	54.8	53.7	54.7
Slovakia	--	--	23.9	24.3	24.8	26.5	26.0	25.7	24.6	25.2
Hungary	33.7	31.2	31.4	31.5	32.3	33.0	33.2	33.5	33.8	35.1
Poland	115.7	112.3	115.1	116.2	119.3	122.6	123.4	120.2	118.0	119.3
Romania	55.2	52.1	51.0	49.6	52.9	54.8	51.0	48.0	44.4	45.7
Former U.S.S.R.	1,475.3	--	--	--	--	--	--	--	--	--
Armenia	--	8.3	5.7	5.1	4.7	5.4	5.3	5.4	5.6	4.9
Azerbaijan	--	16.7	16.9	15.7	15.4	15.2	15.8	16.1	17.0	16.7
Belarus	--	39.3	35.2	31.4	29.4	28.9	30.6	28.1	30.3	26.8
Estonia	--	7.1	6.6	6.9	6.8	7.1	7.1	7.1	6.6	5.4
Georgia	--	11.3	9.9	7.1	7.0	6.7	6.7	7.3	7.4	7.9
Kazakhstan	--	86.2	83.4	64.9	64.3	57.2	49.5	47.2	44.8	48.3
Kyrgyzstan	--	8.8	9.3	9.4	12.6	10.6	9.9	10.0	10.0	9.8
Latvia	--	7.5	6.1	5.9	5.9	6.0	5.9	5.8	5.5	5.2
Lithuania	--	11.2	10.3	9.8	9.7	8.2	8.8	9.2	9.4	6.9
Moldova	--	9.8	6.9	7.8	7.2	6.9	6.6	6.2	5.0	3.7
Russia	--	881.5	832.2	732.9	740.5	730.5	720.6	714.6	730.8	767.1
Tajikistan	--	16.3	15.1	14.8	14.3	14.1	13.9	13.9	14.2	12.5
Turkmenistan	--	8.6	7.9	6.6	6.5	6.0	6.6	5.2	6.3	7.7
Ukraine	--	216.7	200.6	178.1	168.8	159.5	156.7	151.2	147.1	151.7
Uzbekistan	--	44.2	40.4	43.7	40.5	44.0	41.5	41.6	41.9	41.9
Total	**1,795.3**	**1,676.4**	**1,594.1**	**1,450.0**	**1,457.5**	**1,442.6**	**1,413.6**	**1,389.4**	**1,393.5**	**1,436.2**
Middle East										
Bahrain	3.1	3.4	3.7	4.0	4.0	4.4	4.4	5.0	5.2	5.4
Cyprus	1.8	2.1	2.3	2.3	2.2	2.3	2.4	2.6	2.7	2.9
Iran	56.4	60.4	66.9	72.0	74.6	79.8	85.8	90.8	98.7	111.9
Iraq	17.7	22.1	23.0	24.5	25.4	25.5	25.9	26.6	26.0	25.4
Israel	18.4	21.2	22.4	24.4	25.7	27.4	29.6	32.1	32.9	34.9
Jordan	3.4	4.0	4.3	4.6	5.5	5.6	5.9	6.3	6.8	7.1
Kuwait	9.4	14.7	17.6	19.9	20.7	22.3	23.4	26.2	27.6	29.0
Lebanon	2.7	3.3	4.2	4.7	5.0	6.8	8.1	8.0	8.4	8.6
Oman	4.8	4.5	5.1	5.4	5.6	5.9	6.4	7.2	7.4	7.5
Qatar	4.1	4.5	4.8	5.1	5.2	5.7	6.0	7.1	7.8	8.6
Saudi Arabia	64.4	68.8	76.4	84.6	91.0	94.0	100.0	106.6	110.7	114.9
Syria	11.0	11.4	11.4	13.7	13.7	15.1	16.0	17.4	18.2	17.7
United Arab Emirates	15.1	15.3	15.4	16.5	21.8	23.2	24.9	29.2	32.5	36.0
Yemen	1.6	1.7	1.8	1.9	2.1	2.0	2.2	2.2	2.6	3.0
Total	**213.9**	**237.5**	**259.5**	**283.7**	**302.5**	**320.2**	**341.0**	**367.2**	**387.5**	**412.8**
Africa										
Algeria	14.5	15.1	15.8	16.3	16.5	17.6	18.6	20.1	20.9	21.8
Angola	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.4	1.1
Cameroon	2.5	2.5	2.5	2.5	2.6	2.7	2.9	2.9	3.2	3.4
Congo (Kinshasa)	4.7	5.4	4.1	4.1	5.5	5.9	5.7	4.8	4.4	4.6
Cote d'Ivoire (Ivory Coast)	1.7	1.5	2.0	2.0	2.7	2.9	3.6	3.0	3.1	3.6
Egypt	39.6	40.5	44.4	46.6	48.4	48.1	51.0	55.1	60.2	64.7
Ghana	5.4	5.4	5.4	5.3	5.3	5.7	6.0	4.7	4.7	5.5
Kenya	3.1	3.1	3.4	3.5	3.6	3.8	4.0	4.1	4.2	4.4
Libya	14.8	14.8	14.9	15.6	15.7	16.0	16.6	17.0	17.5	18.0
Morocco	8.7	9.5	10.0	10.8	11.5	11.7	12.4	13.2	13.8	14.3
Nigeria	12.6	13.1	12.8	13.7	12.9	13.4	13.7	14.0	14.4	14.8
South Africa	146.1	144.6	149.4	156.2	160.9	168.3	175.6	175.8	176.0	181.5
Tunisia	5.0	5.4	5.5	5.9	6.5	7.1	7.6	7.9	8.7	9.6
Zambia	5.7	5.7	5.7	5.7	5.7	5.9	6.2	6.1	5.6	5.8
Zimbabwe	9.7	8.6	8.8	7.6	7.9	8.8	9.9	7.4	10.6	10.5
Other	17.2	17.7	19.4	19.7	20.3	21.7	22.4	21.9	22.3	23.0
Total	**293.0**	**294.6**	**305.6**	**317.1**	**327.8**	**341.5**	**357.8**	**359.9**	**371.0**	**386.6**

See footnotes at end of table.

Table 6.2 World Total Net Electricity Consumption, 1991 - 2000 (Continued)

(Billion Kilowatthours)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	1.0	0.8	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5
American Samoa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Australia	138.2	142.3	146.1	149.5	154.5	158.4	163.3	175.3	181.5	188.5
Bangladesh	7.8	8.4	8.7	9.3	10.5	10.9	11.2	10.8	11.3	12.5
Bhutan	0.1	0.1	0.1	0.1	(s)	0.3	0.4	0.2	0.4	0.4
Brunei	1.2	1.2	1.4	1.5	1.7	1.9	2.1	2.2	2.1	2.1
Burma	2.4	2.7	3.0	3.2	3.6	3.5	4.0	3.6	4.2	4.4
Cambodia	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
China	600.9	670.6	744.1	816.5	883.4	927.2	987.5	1,014.8	1,083.7	1,206.3
Fiji	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
French Polynesia	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
Guam	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
Hong Kong	24.7	25.6	27.3	25.4	28.8	31.9	32.6	33.9	34.1	35.4
India	280.6	295.1	316.9	341.9	369.7	385.4	411.7	395.9	423.4	509.9
Indonesia	45.4	46.0	41.2	46.0	52.6	55.1	66.0	67.6	76.1	86.1
Japan	791.3	797.9	806.4	857.9	881.4	899.0	927.3	926.7	945.4	943.7
Korea, North	48.2	34.3	34.3	33.4	32.5	31.6	30.4	28.9	28.6	31.1
Korea, South	103.0	113.6	125.4	159.4	176.3	196.3	214.2	209.8	232.8	254.1
Laos	0.2	0.2	0.3	0.5	0.3	0.4	0.4	0.3	0.5	0.7
Malaysia	24.9	25.8	30.6	34.5	40.1	45.1	50.8	53.2	57.2	58.6
Macau	0.9	1.0	1.1	1.2	1.5	1.4	1.4	1.4	1.4	1.5
Mongolia	2.9	2.7	2.3	2.5	2.7	2.7	2.7	2.6	2.6	2.7
Nepal	0.8	0.9	0.9	1.0	1.2	1.2	1.1	1.3	1.3	1.4
New Caledonia	1.0	1.0	1.0	1.1	1.5	1.4	1.5	1.5	1.4	1.5
New Zealand	30.8	29.4	31.2	32.6	32.9	34.0	33.9	34.8	35.0	33.3
Pakistan	36.8	40.7	43.5	45.3	47.9	50.8	52.7	55.4	58.1	58.3
Papua New Guinea	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.5
Philippines	22.0	21.2	21.9	27.0	29.6	32.5	35.2	36.7	34.9	37.8
Samoa	(s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Singapore	14.8	15.5	16.5	18.1	19.4	20.5	22.9	24.2	25.1	25.9
Sri Lanka	3.1	2.9	3.7	4.0	4.4	4.1	4.7	5.2	5.6	6.2
Taiwan	84.6	90.2	98.3	106.2	105.3	111.6	118.0	127.4	129.9	139.3
Thailand	44.7	50.7	56.1	63.0	70.9	77.4	81.5	77.6	81.0	90.3
U.S. Pacific Islands	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Vietnam	8.4	8.8	9.7	11.2	13.3	15.4	17.3	19.5	21.2	24.0
Other	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Total	**2,324.5**	**2,433.2**	**2,576.3**	**2,796.6**	**2,970.6**	**3,104.4**	**3,279.2**	**3,315.4**	**3,483.5**	**3,760.2**
World Total	**10,777.2**	**10,860.3**	**11,112.2**	**11,389.4**	**11,803.9**	**12,151.7**	**12,468.8**	**12,752.1**	**13,107.3**	**13,719.1**

[1] Preliminary.
--= Not applicable.
(s) = Value less than 50 million kilowatthours.
Notes: Sum of components may not equal total due to independent rounding.
Consumption equals generation plus imports minus exports minus distribution losses.
Sources: See sources at the end of this Section.

Table 6.3 World Net Electricity Generation by Type, 1999

(Billion Kilowatthours)

Region Country	Thermal [1]	Hydro	Nuclear	Geothermal and Other [2]	Total
North America					
Canada	148.3	342.0	69.8	7.0	567.1
Mexico	135.2	32.5	9.5	5.9	183.0
United States	2,577.9	313.4	728.3	85.1	3,704.5
Other	0.8	0.0	0.0	0.0	0.8
Total	**2,862.2**	**687.9**	**807.6**	**97.9**	**4,455.5**
Central & South America					
Argentina	46.5	21.5	6.7	0.2	74.9
Bolivia	2.1	1.5	0.0	0.1	3.6
Brazil	20.3	290.0	3.8	13.0	327.0
Chile	23.2	13.3	0.0	1.0	37.6
Colombia	9.7	33.2	0.0	0.5	43.4
Costa Rica	0.1	4.8	0.0	0.8	5.8
Cuba	13.5	0.1	0.0	0.7	14.4
Dominican Republic	6.4	0.9	0.0	(s)	7.3
Ecuador	3.0	7.1	0.0	0.0	10.1
El Salvador	1.7	1.5	0.0	0.5	3.6
Guadeloupe	1.3	0.0	0.0	0.0	1.3
Guatemala	2.1	2.3	0.0	0.3	4.7
Honduras	1.0	1.8	0.0	0.0	2.9
Jamaica	5.6	0.1	0.0	0.5	6.2
Nicaragua	1.5	0.4	0.0	0.2	2.1
Panama	1.6	3.2	0.0	0.1	4.9
Paraguay	(s)	51.4	0.0	(s)	51.5
Peru	4.1	14.4	0.0	0.1	18.7
Puerto Rico	19.9	0.2	0.0	0.0	20.1
Suriname	0.5	1.4	0.0	0.0	1.9
Trinidad and Tobago	4.9	0.0	0.0	(s)	4.9
Uruguay	0.2	5.4	0.0	(s)	5.7
Venezuela	18.8	55.1	0.0	0.0	73.9
Virgin Islands, U.S.	1.0	0.0	0.0	0.0	1.0
Other	7.1	0.5	0.0	0.0	7.6
Total	**196.4**	**510.2**	**10.5**	**18.0**	**735.1**
Western Europe					
Austria	17.5	40.1	0.0	1.7	59.3
Belgium	32.0	0.3	46.6	1.2	80.0
Bosnia and Herzegovina	1.0	1.6	0.0	0.0	2.5
Croatia	5.3	6.5	0.0	(s)	11.8
Denmark	33.7	(s)	0.0	4.5	38.2
Finland	31.6	12.7	21.8	8.3	74.4
France	49.4	71.7	375.1	3.3	499.5
Germany	334.9	19.2	161.0	14.2	529.5
Greece	42.0	4.5	0.0	0.3	46.8
Iceland	(s)	6.0	0.0	1.1	7.1
Ireland	19.5	0.8	0.0	0.3	20.7
Italy	195.9	44.9	0.0	6.9	247.7
Macedonia, TFYR	5.3	1.1	0.0	0.0	6.4
Malta	1.7	0.0	0.0	0.0	1.7
Netherlands	77.0	0.1	3.6	4.5	85.3
Norway	0.8	119.7	0.0	0.3	120.8
Portugal	33.3	7.2	0.0	1.4	41.9
Slovenia	4.3	3.7	4.5	(s)	12.5
Spain	114.5	22.6	55.9	5.4	198.5
Sweden	9.4	70.9	66.6	3.6	150.5
Switzerland	2.5	39.6	23.7	1.5	67.2
Turkey	76.8	34.3	0.0	0.3	111.4
United Kingdom	245.7	5.3	91.5	8.2	350.6
Yugoslavia	18.8	13.2	0.0	0.0	32.0
Other	0.4	0.2	0.0	0.1	0.7
Total	**1,353.2**	**526.4**	**850.2**	**67.2**	**2,797.0**

See footnotes at end of table.

Table 6.3 World Net Electricity Generation by Type, 1999 (Continued)

(Billion Kilowatthours)

Region Country	Thermal [1]	Hydro	Nuclear	Geothermal and Other [2]	Total
Eastern Europe & Former U.S.S.R.					
Albania	0.1	5.2	0.0	0.0	5.3
Bulgaria	18.3	3.0	15.0	(s)	36.3
Czech Republic	46.2	1.7	12.7	0.8	61.3
Hungary	21.5	0.2	13.4	0.1	35.2
Poland	129.6	2.1	0.0	0.5	132.2
Romania	25.6	18.1	4.8	0.0	48.5
Slovakia	9.3	4.5	12.5	0.0	26.2
Armenia	2.3	1.9	2.1	0.0	6.3
Azerbaijan	15.7	1.8	0.0	0.0	17.5
Belarus	24.8	(s)	0.0	0.1	24.9
Estonia	7.8	(s)	0.0	(s)	7.8
Georgia	1.5	6.4	0.0	0.0	7.9
Kazakhstan	38.9	6.1	(s)	0.0	45.0
Kyrgyzstan	1.0	12.0	0.0	0.0	13.0
Latvia	1.3	2.7	0.0	0.0	4.0
Lithuania	2.6	0.5	9.9	0.0	13.0
Moldova	3.5	0.3	0.0	0.0	3.8
Russia	528.8	159.4	110.9	2.0	801.1
Tajikistan	0.3	15.3	0.0	0.0	15.6
Turkmenistan	8.3	(s)	0.0	0.0	8.3
Ukraine	83.0	11.6	67.3	0.0	162.0
Uzbekistan	37.2	5.6	0.0	0.0	42.9
Total	**1,007.4**	**258.3**	**248.6**	**3.5**	**1,517.9**
Middle East					
Bahrain	5.6	0.0	0.0	0.0	5.6
Cyprus	3.0	0.0	0.0	0.0	3.0
Iran	101.2	4.9	0.0	0.0	106.1
Iraq	27.4	0.6	0.0	0.0	27.9
Israel	36.7	(s)	0.0	0.0	36.7
Jordan	6.6	(s)	0.0	0.0	6.7
Kuwait	29.7	0.0	0.0	0.0	29.7
Lebanon	7.4	0.3	0.0	0.0	7.7
Oman	7.9	0.0	0.0	0.0	7.9
Qatar	8.4	0.0	0.0	0.0	8.4
Saudi Arabia	119.0	0.0	0.0	0.0	119.0
Syria	11.7	8.6	0.0	0.0	20.3
United Arab Emirates	34.9	0.0	0.0	0.0	34.9
Yemen	2.8	0.0	0.0	0.0	2.8
Total	**402.2**	**14.5**	**0.0**	**0.0**	**416.7**
Africa					
Algeria	22.4	0.2	0.0	0.0	22.6
Angola	0.5	1.0	0.0	0.0	1.5
Botswana	0.6	0.0	0.0	0.0	0.6
Cameroon	0.1	3.3	0.0	0.0	3.4
Congo (Kinshasa)	0.1	5.2	0.0	0.0	5.3
Cote d'Ivoire (Ivory Coast)	3.5	1.2	0.0	0.0	4.6
Egypt	49.5	15.1	0.0	0.0	64.7
Ethiopia	(s)	1.6	0.0	0.0	1.6
Ghana	1.2	4.0	0.0	0.0	5.1
Kenya	0.8	3.2	0.0	0.3	4.4
Libya	18.8	0.0	0.0	0.0	18.8
Morocco	12.3	1.5	0.0	0.0	13.8
Nigeria	9.9	5.6	0.0	0.0	15.5
Reunion	0.6	0.5	0.0	0.0	1.1
South Africa	173.3	0.7	12.8	0.0	186.9
Sudan	0.9	1.1	0.0	0.0	2.0
Tunisia	9.3	0.1	0.0	0.0	9.4
Zambia	(s)	7.9	0.0	0.0	8.0
Zimbabwe	3.9	2.9	0.0	0.0	6.8
Other	7.1	14.0	0.0	0.0	21.1
Total	**314.9**	**69.1**	**12.8**	**0.3**	**397.1**

See footnotes at end of table.

Table 6.3 World Net Electricity Generation by Type, 1999 (Continued)

(Billion Kilowatthours)

Region Country	Thermal [1]	Hydro	Nuclear	Geothermal and Other [2]	Total
Asia & Oceania					
Afghanistan	0.2	0.3	0.0	0.0	0.4
American Samoa	0.1	0.0	0.0	0.0	0.1
Australia	175.1	16.5	0.0	3.6	195.2
Bangladesh	11.3	0.8	0.0	0.0	12.1
Bhutan	(s)	1.9	0.0	0.0	1.9
Brunei	2.3	0.0	0.0	0.0	2.3
Burma	3.8	0.8	0.0	0.0	4.5
Cambodia	0.1	0.1	0.0	0.0	0.1
China	936.5	222.8	14.1	1.9	1,175.2
Cook Islands	(s)	0.0	0.0	0.0	(s)
Fiji	0.1	0.4	0.0	0.0	0.5
French Polynesia	0.2	0.2	0.0	0.0	0.4
Guam	0.8	0.0	0.0	0.0	0.8
Hong Kong	27.7	0.0	0.0	0.0	27.7
India	361.0	80.8	11.5	1.0	454.2
Indonesia	66.4	11.5	0.0	3.9	81.8
Japan	611.4	85.6	300.8	18.7	1,016.5
Kiribati	(s)	0.0	0.0	0.0	(s)
Korea, North	9.9	20.9	0.0	0.0	30.8
Korea, South	148.2	4.1	97.9	0.1	250.3
Laos	(s)	0.8	0.0	0.0	0.8
Macau	1.4	0.0	0.0	0.0	1.4
Malaysia	54.1	7.4	0.0	0.0	61.5
Maldives	0.1	0.0	0.0	0.0	0.1
Mongolia	2.7	0.0	0.0	0.0	2.7
Nauru	(s)	0.0	0.0	0.0	(s)
Nepal	0.1	1.1	0.0	0.0	1.2
New Caledonia	1.2	0.3	0.0	0.0	1.5
New Zealand	11.3	23.3	0.0	3.0	37.6
Niue	(s)	0.0	0.0	0.0	(s)
Pakistan	40.1	22.2	0.1	0.0	62.4
Papua New Guinea	1.0	0.8	0.0	0.0	1.8
Philippines	21.5	7.8	0.0	8.3	37.5
Samoa	0.1	(s)	0.0	0.0	0.1
Singapore	27.0	0.0	0.0	0.0	27.0
Solomon Islands	(s)	0.0	0.0	0.0	(s)
Sri Lanka	1.9	4.1	0.0	0.0	6.0
Taiwan	93.9	8.8	36.9	0.0	139.7
Thailand	81.5	3.5	0.0	0.9	86.0
Tonga	(s)	0.0	0.0	0.0	(s)
U.S. Pacific Islands	0.2	(s)	0.0	0.0	0.2
Vanuatu	(s)	0.0	0.0	0.0	(s)
Vietnam	9.2	13.6	0.0	0.0	22.8
Total	**2,702.6**	**540.4**	**461.2**	**41.4**	**3,745.6**
World Total	**8,838.9**	**2,606.7**	**2,391.0**	**228.3**	**14,064.9**

[1] Thermal generation consists of electricity generated from coal, oil, and gas.

[2] Geothermal and Other consists of geothermal, solar, wind, and wood and waste generation.

(s)=Value less than 50 million kilowatthours.

Notes: Generation data consist of both utility and nonutility sources. Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of this Section.

Table 6.4 World Electricity Installed Capacity by Type, January 1, 2000

(Million Kilowatts)

Region Country	Thermal [1]	Hydro	Nuclear	Geothermal and Other [2]	Total
North America					
Canada	33	67	11	(s)	111
Mexico	27	10	1	1	39
United States	581	99	98	17	795
Other	(s)	0	0	0	(s)
Total	**642**	**176**	**109**	**18**	**945**
Central & South America					
Argentina	13	10	1	0	24
Brazil	6	59	1	3	69
Chile	6	4	0	0	10
Colombia	5	9	0	0	13
Cuba	4	(s)	0	0	4
Paraguay	(s)	7	0	0	7
Peru	3	3	0	0	6
Puerto Rico	5	(s)	0	0	5
Venezuela	8	13	0	0	21
Other	14	8	0	(s)	22
Total	**64**	**112**	**2**	**3**	**181**
Western Europe					
Austria	6	8	0	(s)	14
Belgium	8	(s)	6	(s)	14
Croatia	2	2	0	0	4
Denmark	11	(s)	0	2	13
Finland	11	3	3	(s)	16
France	26	21	63	(s)	110
Germany	79	3	22	4	109
Greece	8	2	0	(s)	10
Ireland	4	(s)	0	(s)	4
Italy	52	13	0	1	67
Netherlands	20	(s)	(s)	(s)	21
Norway	(s)	27	0	(s)	27
Portugal	6	5	0	(s)	11
Spain	26	12	7	1	46
Sweden	7	16	10	(s)	34
Switzerland	1	10	3	(s)	14
Turkey	16	11	0	(s)	26
United Kingdom	58	1	13	(s)	72
Yugoslavia	8	3	0	0	11
Other	5	4	1	(s)	10
Total	**353**	**142**	**128**	**10**	**633**
Eastern Europe & Former U.S.S.R.					
Bulgaria	7	2	4	0	12
Czech Republic	11	1	2	(s)	14
Hungary	6	(s)	2	0	8
Poland	29	2	0	(s)	31
Romania	16	6	1	0	22
Slovakia	3	2	2	0	8
Armenia	1	1	(s)	0	3
Azerbaijan	4	1	0	0	5
Belarus	7	(s)	0	0	7
Estonia	3	(s)	0	0	3
Georgia	2	3	0	0	4
Kazakhstan	15	2	0	0	17
Kyrgyzstan	1	3	0	0	4
Lithuania	3	(s)	3	0	6
Russia	138	43	21	(s)	203
Tajikistan	(s)	4	0	0	4
Turkmenistan	4	(s)	0	0	4
Ukraine	36	5	13	0	54
Uzbekistan	10	2	0	0	12
Other	2	3	0	0	5
Total	**298**	**80**	**48**	**(s)**	**426**

See footnotes at end of table.

Table 6.4 World Electricity Installed Capacity by Type, January 1, 2000 (Continued)

(Million Kilowatts)

Region Country	Thermal [1]	Hydro	Nuclear	Geothermal and Other [2]	Total
Middle East					
Bahrain	1	0	0	0	1
Cyprus	1	0	0	0	1
Iran	29	2	0	0	31
Iraq	9	1	0	0	10
Israel	9	(s)	0	0	9
Jordan	1	(s)	0	0	1
Kuwait	7	0	0	0	7
Lebanon	1	(s)	0	0	1
Oman	2	0	0	0	2
Qatar	1	0	0	0	1
Saudi Arabia	23	0	0	0	23
Syria	4	1	0	0	5
United Arab Emirates	6	0	0	0	6
Yemen	1	0	0	0	1
Total	**94**	**4**	**0**	**0**	**99**
Africa					
Algeria	6	(s)	0	0	6
Angola	(s)	(s)	0	0	1
Cameroon	(s)	1	0	0	1
Congo (Kinshasa)	(s)	2	0	0	2
Cote d'Ivoire (Ivory Coast)	(s)	1	0	0	1
Egypt	11	3	0	0	13
Ghana	(s)	1	0	0	1
Kenya	(s)	1	0	(s)	1
Libya	5	0	0	0	5
Morocco	3	1	0	0	4
Mozambique	(s)	2	0	0	2
Nigeria	4	2	0	0	6
South Africa	37	1	2	0	40
Sudan	(s)	(s)	0	0	1
Tanzania	(s)	(s)	0	0	1
Tunisia	2	(s)	0	0	2
Zambia	(s)	2	0	0	2
Zimbabwe	1	1	0	0	2
Other	3	2	0	0	5
Total	**73**	**20**	**2**	**(s)**	**95**
Asia & Oceania					
Australia	36	6	0	(s)	43
Bangladesh	3	(s)	0	0	4
Burma	1	(s)	0	0	1
China	222	70	2	0	294
Hong Kong	11	0	0	0	11
India	80	25	2	1	108
Indonesia	17	3	0	(s)	21
Japan	162	22	45	1	229
Korea, North	5	5	0	0	10
Korea, South	35	2	14	0	50
Malaysia	11	2	0	0	13
New Zealand	3	5	0	(s)	8
Pakistan	12	5	(s)	0	17
Philippines	8	2	0	2	12
Singapore	7	0	0	0	7
Sri Lanka	(s)	1	0	0	2
Taiwan	16	4	5	0	26
Thailand	16	3	0	(s)	19
Vietnam	2	3	0	0	5
Other	3	2	0	0	5
Total	**651**	**160**	**69**	**4**	**883**
World Total	**2,175**	**694**	**358**	**36**	**3,262**

[1] Thermal capacity consists of coal, oil, and gas.

[2] Geothermal and Other Capacity consists of geothermal, solar, wind, and wood and waste sources.

(s)=Value less than 500 thousand kilowatts.

Notes: Capacity data consist of both utility and nonutlilty sources. Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of this Section.

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Section 7

Prices

Table 7.1 Selected Crude Oil Prices, 1991 -2001

(U.S. Dollars per Barrel)

Region / Country	Crude (API Gravity)	Sulfur Weight[1]	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
North America													
Canada	Lloydminster (22)	2.2	19.27	11.38	15.95	11.58	16.44	18.24	24.44	13.36	7.90	28.13	23.62
Mexico	Isthmus (33)	1.3	24.80	15.80	17.25	11.86	15.92	18.53	23.82	15.80	9.37	24.75	22.03
Mexico	Maya (22)	3.4	20.00	10.75	12.50	9.01	13.77	15.79	19.33	10.81	6.38	20.20	15.82
United States	West Texas Inter. (39)	0.3	27.20	18.70	19.75	14.20	17.60	19.80	25.50	17.80	11.50	26.30	26.15
United States	U S Refiner Acquisition Cost of Imported Crude Oil	--	22.30	16.10	16.80	12.93	16.56	17.48	23.02	14.33	10.16	25.29	24.49
Central & South America													
Colombia	Cano Limon (31)	0.5	24.95	15.73	16.58	11.72	16.02	18.49	23.94	15.65	9.05	25.08	22.71
Ecuador	Oriente (30)	0.9	22.87	13.94	15.62	11.60	16.17	18.20	22.85	14.90	8.50	28.58	19.38
Venezuela	Tia Juana Light(31)	1.2	28.62	19.67	17.97	12.97	16.57	18.52	26.62	15.93	9.45	24.85	22.13
Venezuela	Bachaquero (24)	1.6	27.89	13.94	14.88	11.12	15.25	17.64	24.74	--	--	--	--
Venezuela	Bachaquero (17)	2.4	24.45	10.45	12.75	9.25	14.10	15.70	20.45	--	--	--	--
Western Europe													
Norway	Ekofisk Blend (42)	0.2	27.25	18.00	18.15	13.20	15.95	19.45	24.30	16.50	10.60	25.60	21.95
United Kingdom	Brent Blend (38)	0.4	27.20	17.75	17.90	13.15	16.15	19.37	24.05	15.89	10.44	25.10	22.50
Eastern Europe & Former U.S.S.R.													
Russia	Urals (33)	1.3	26.05	16.55	16.30	12.35	16.40	19.47	22.85	15.79	10.09	24.71	21.40
Middle East													
Iran	Iranian Light (34)	1.4	23.65	15.50	16.70	12.40	16.18	17.73	22.63	14.93	9.83	24.63	20.20
Iraq	Kirkuk Blend (35)	2.0	--	--	--	--	--	--	--	--	8.79	20.72	22.70 [2]
Kuwait	Kuwait Blend (31)	2.5	--	--	15.30	11.10	15.58	17.40	21.83	14.90	9.38	23.98	19.25
Oman	Oman (34)	1.2	23.65	15.20	16.65	12.70	16.35	17.80	22.30	15.35	9.95	24.00	20.60
Qatar	Dukhan (42)	1.3	24.40	16.05	17.35	13.53	16.93	18.22	23.24	15.78	10.50	24.39	21.60
Saudi Arabia	Arabian Light (33)	1.8	24.00	15.90	16.80	12.40	16.63	18.20	22.98	15.50	10.03	24.78	20.30
Saudi Arabia	Arabian Medium (29)	2.9	22.00	14.25	15.40	11.20	15.73	17.40	21.93	14.90	9.63	24.13	19.45
Saudi Arabia	Arabian Heavy (27)	2.8	20.00	13.15	14.40	10.10	15.13	17.05	21.08	14.00	9.28	23.48	18.45
United Arab Emirates	Murban (41)	0.8	24.65	16.80	18.15	14.09	17.31	18.81	24.06	16.27	10.50	25.04	21.29
Africa													
Algeria	Saharan Blend (44)	0.1	28.85	18.80	18.60	13.80	16.30	19.79	24.75	16.90	10.78	25.90	22.60
Angola	Cabinda (32)	0.1	25.35	16.65	17.35	12.28	15.42	18.67	23.70	16.05	9.90	24.80	22.00
Egypt	Suez Blend (32)	1.5	24.25	15.20	14.75	10.55	14.60	17.65	21.80	15.05	9.00	23.45	18.65
Gabon	Mandji (31)	1.1	23.25	14.55	15.60	11.10	14.75	17.80	22.30	14.45	9.13	24.20	--
Libya	Es Sider (37)	0.5	26.90	17.20	17.55	12.55	16.05	19.20	24.10	16.72	10.65	25.85	22.40
Nigeria	Bonny Light (36)	0.1	27.80	18.20	18.50	13.50	16.15	19.70	24.65	16.50	10.60	25.55	22.00
Nigeria	Forcados (31)	0.2	27.30	18.10	17.95	13.60	16.15	19.70	24.75	16.50	10.40	25.50	21.95
Asia & Oceania													
Australia	Gippsland (42)	--	26.75	21.35	18.60	14.40	16.90	19.40	24.95	16.95	10.60	24.80	25.15
Brunei	Seria Light (37)	0.1	27.25	21.15	19.40	15.60	18.05	20.85	24.80	--	--	--	--
China	Daqing (33)	0.1	26.10	18.50	19.00	13.20	16.90	19.95	25.00	16.60	9.85	24.05	22.60
Indonesia	Minas (34)	0.1	26.50	18.65	19.10	14.15	16.95	20.05	24.95	16.50	9.95	24.15	22.80
Malaysia	Tapis Blend (44)	0.1	27.60	21.45	19.50	15.70	17.60	20.89	25.70	16.00	12.40	24.36	26.18

[1] Percentage of sulfur contained by gross weight.

[2] Netback price at U.S. Gulf.

--=Not applicable.

(s)=No significant volume of exports.

Note: Most crude oil prices are for the available date that is closest to January 1 of the year. The prices for crude oils from Brunei, Malaysia, and the United States refiner acquisition cost of imported crude oil (IRAC) are averages for the month of January. The foreign crude oils are free on board (f.o.b.) at the port of lading. The United States IRAC includes all charges associated with the acquisition, transportation, and storage of imported crude oil up to the time that the oil is booked into the U.S. refineries.

Sources: Bloomberg L.P., Bloomberg Oil Buyers' Guide, various issues. Dow Jones & Co., The Wall Street Journal, various issues. Energy Information Administration, Weekly Petroleum Status Report, DOE/EIA-0208, various issues. The McGraw-Hill Companies, Inc., Platt's Oilgram Price Report, various issues. PennWell Publishing Co., Oil & Gas Journal, various issues. Petroleum and Energy Intelligence Weekly, Inc., Petroleum Intelligence Weekly and Oil Market Intelligence, various issues. Petroleum Intelligence Group, Petroleum Market Intelligence, various issues.

Table 7.2 World Survey of Recent Selected Petroleum Product Prices (Including Taxes)

Region / Country	Date[1]	Automotive Fuels		Residual Fuels			Industrial Fuels	
		Premium Gasoline	Diesel Fuel	Light Fuel Oil	Kerosene	LPG[2]	Light Fuel Oil	Heavy Fuel Oil
		U.S. Dollars per Gallon					U.S. Dollars per Barrel	
North America								
Canada	1Q/2001	2.01	1.80	--	--	--	37.70	29.39
Mexico	1Q/2001	2.34	1.72	--	--	--	41.90	16.54
United States	1/2001	1.63	1.52	1.39	1.26	0.82	41.83	26.00
Central & South America								
Argentina	1/2001	4.10	2.01	0.69	2.00	2.08	--	--
Barbados	1/2001	3.13	2.43	0.79	1.37	2.75	--	--
Bolivia	1/2001	2.96	1.85	1.56	1.37	0.68	--	--
Brazil	1/2001	3.10	1.35	0.76	--	1.67	--	--
Chile	1/2001	2.56	1.67	0.74	1.54	2.09	--	--
Colombia	1/2001	1.82	0.93	0.57	1.09	0.67	--	--
Costa Rica	1/2001	2.36	1.62	0.64	1.66	1.58	--	--
Cuba	1/2001	1.89	1.02	0.63	0.32	0.50	--	--
Dominican Republic	1/2001	2.53	1.45	0.88	1.49	0.48	--	--
Ecuador	1/2001	1.36	0.78	0.53	--	0.28	--	--
El Salvador	1/2001	3.67	1.85	1.22	1.85	0.84	--	--
Grenada	1/2001	2.03	1.54	--	1.14	2.03	--	--
Guatemala	1/2001	1.89	1.48	0.75	1.63	1.39	--	--
Guyana	1/2001	1.30	1.24	0.75	1.17	2.19	--	--
Haiti	1/2001	2.24	1.22	0.47	1.04	1.48	--	--
Honduras	1/2001	2.36	1.80	1.09	1.55	1.92	--	--
Jamaica	1/2001	2.05	1.85	0.66	1.70	1.57	--	--
Nicaragua	1/2001	2.38	2.05	0.38	1.87	1.45	--	--
Panama	1/2001	1.85	1.50	0.81	1.27	1.76	--	--
Paraguay	1/2001	2.66	1.25	0.93	0.93	1.52	--	--
Peru	1/2001	2.80	1.96	0.74	1.89	1.92	--	--
Suriname	1/2001	2.11	1.55	0.25	1.36	1.50	--	--
Trinidad and Tobago	1/2001	1.47	0.77	0.51	0.69	0.63	--	--
Uruguay	1/2001	4.43	1.96	0.68	2.02	1.72	--	--
Venezuela	1/2001	0.43	0.26	0.24	0.83	0.67	--	--
Western Europe								
Austria	1Q/2001	3.39	2.21	1.45	--	--	--	--
Belgium	1Q/2001	3.75	2.82	1.07	--	--	37.02	27.34
Denmark	1Q/2001	3.91	3.18	2.65	--	--	58.07	37.05
Finland	1Q/2001	3.92	2.89	1.44	--	--	49.42	33.88
France	1Q/2001	3.68	2.80	1.47	--	--	43.36	27.25
Germany	1Q/2001	3.74	2.91	1.28	--	--	46.48	24.65
Greece	1Q/2001	2.59	2.21	1.42	--	--	50.66	32.78
Ireland	1Q/2001	3.91	3.28	1.50	--	--	46.59	28.07
Italy	1Q/2001	3.65	3.09	2.86	--	--	100.14	29.11
Luxembourg	1Q/2001	2.91	2.29	1.11	--	--	41.63	25.21
Netherlands	1Q/2001	4.21	2.81	2.15	--	--	--	31.34
Norway	1Q/2001	4.31	3.87	2.32	--	--	78.12	61.96
Portugal	1Q/2001	3.33	2.45	--	--	--	--	37.20
Spain	1Q/2001	2.80	2.46	1.37	--	--	49.66	37.20
Sweden	1Q/2001	3.80	3.35	2.32	--	--	46.78	--
Switzerland	1Q/2001	3.16	3.16	1.00	--	--	37.68	--
Turkey	1Q/2000	3.75	2.80	2.95	--	--	--	31.74
United Kingdom	1Q/2001	4.63	4.42	1.13	--	--	41.83	26.57

See footnotes at end of table.

Table 7.2 World Survey of Recent Selected Petroleum Product Prices (Including Taxes) (Continued)

Region / Country	Date[1]	Automotive Fuels		Residual Fuels			Industrial Fuels	
		Premium Gasoline	Diesel Fuel	Light Fuel Oil	Kerosene	LPG[2]	Light Fuel Oil	Heavy Fuel Oil
		U.S. Dollars per Gallon					U.S. Dollars per Barrel	
Eastern Europe & Former U.S.S.R.								
Czech	1Q/2001	2.97	2.49	1.34	--	--	39.80	20.04
Hungary	1Q/2001	3.12	2.82	--	--	--	94.68	22.43
Kazakhstan	2000	1.06	--	0.75	--	--	30.92	11.37
Poland	1Q/2001	3.07	2.37	1.42	--	--	46.52	14.73
Romania	2000	1.99	1.48	--	--	--	--	--
Russia	12/2000	0.56	0.52	0.22	--	--	--	--
Slovakia	1Q/2001	2.66	2.42	0.89	--	--	34.11	17.55
Middle East								
Iran	2000	1.06	0.25	0.13	0.25	--	--	--
Kuwait	2000	0.07	0.06	0.02	0.06	--	--	--
Qatar	2000	0.70	0.62	--	0.42	--	--	--
Saudi Arabia	2000	0.91	0.37	0.15	0.44	--	--	--
United Arab Emirates	2000	0.91	0.95	0.58	0.82	--	--	--
Africa								
Algeria	2000	1.34	0.78	0.65	0.29	--	--	--
Libya	2000	1.01	0.90	0.10	0.59	--	--	--
Nigeria	2000	0.82	0.78	0.45	0.63	--	--	--
Zimbabwe	8/2000	3.07	2.74	--	--	--	--	--
Asia & Oceania								
Australia	1Q/2001	1.89	1.76	--	--	--	--	--
China	2000	1.21	1.27	--	--	--	--	--
Hong Kong	1Q/2001	5.19	2.83	1.06	2.11	2.47	87.46	44.44
India	1999	2.48	1.15	--	--	--	29.06	19.61
Indonesia	2000	0.47	0.25	0.16	0.16	--	--	--
Japan	1Q/2001	3.80	2.70	1.62	--	--	45.27	45.98
Korea, South	1Q/2001	3.83	1.96	1.82	--	--	--	38.31
New Zealand	1Q/2001	1.79	1.10	--	--	--	35.79	36.60
Taiwan	2000	2.40	1.54	--	--	--	41.91	30.74
Thailand	1999	1.04	0.83	1.10	--	--	--	22.99

[1]Data are for the available time period that is closest to January 1, 2001. Daily, monthly, quarterly, and annual data are averages. (1Q=first quarter)

[2]Liquefied petroleum gas (LPG) prices refer to residential propane or a mixture of propane and butane.

--=Not applicable.

Note: Comparisons between prices and price trends in different countries require care. They are of limited validity because of fluctuations in exchange rates; differences in product quality, marketing practices, and market structures; and the extent to which the standard categories of sales are representative of total national sales for a given period.

Sources: Energy Information Administration, *Monthly Energy Review*, September 2001, and *Petroleum Marketing Monthly*, October 2001. International Energy Agency, *Energy Prices and Taxes*, 3rd Quarter 2001. Latin American Energy Organization, *Energy-Economic Information System*, various versions. Organization of Petroleum Exporting Countries, *Annual Statistical Bulletin 2000*. Census and Statistics Department, *Hong Kong Energy Statistics*, First Quarter, 2001. Eastern Bloc Research Ltd., *CIS and East European Energy Databook, 2001*.

Section 8

Energy Reserves

Table 8.1 World Crude Oil and Natural Gas Reserves, January 1, 2001

Region Country	Crude Oil (Billion Barrels) Oil and Gas Journal	Crude Oil (Billion Barrels) World Oil	Natural Gas (Trillion Cubic Feet) Oil and Gas Journal	Natural Gas (Trillion Cubic Feet) World Oil
North America				
Canada	4.7	5.6	61.0	62.2
Mexico	28.3	26.9	30.4	41.4
United States [1]	22.0	22.0	177.4	177.4
Total	**55.0**	**54.6**	**268.8**	**281.0**
Central & South America				
Argentina	3.1	3.0	26.4	27.4
Barbados	(s)	NA	(s)	NA
Bolivia	0.4	0.2	18.3	6.6
Brazil	8.1	8.5	8.2	7.8
Chile	0.2	(s)	3.5	1.3
Colombia	2.0	2.6	6.9	6.9
Cuba	0.3	0.3	0.6	0.5
Ecuador	2.1	3.1	3.7	4.2
Guatemala	0.5	NA	0.1	NA
Peru	0.3	0.9	8.7	8.7
Suriname	0.1	NA	0.0	NA
Trinidad and Tobago	0.7	0.7	21.4	23.5
Venezuela	76.9	47.6	146.8	147.6
Other	0.0	0.7	0.0	(s)
Total	**94.5**	**67.5**	**244.6**	**234.4**
Western Europe				
Austria	0.1	0.1	0.9	0.9
Croatia	0.1	0.1	1.2	1.2
Denmark	1.1	1.1	3.4	2.6
France	0.1	0.1	0.5	0.4
Germany	0.4	0.3	11.5	9.3
Greece	(s)	NA	(s)	NA
Ireland	0.0	NA	0.7	NA
Italy	0.6	0.6	8.1	7.0
Netherlands	0.1	0.1	62.5	58.4
Norway	9.4	10.1	44.0	41.8
Spain	(s)	NA	(s)	NA
Turkey	0.3	0.3	0.3	0.3
United Kingdom	5.0	4.7	26.8	26.0
Yugoslavia	0.1	NA	1.7	NA
Other	0.0	0.1	0.0	2.0
Total	**17.4**	**17.6**	**161.8**	**150.0**
Eastern Europe & Former U.S.S.R.				
Albania	0.2	NA	0.1	NA
Bulgaria	(s)	(s)	0.2	(s)
Czech Republic	(s)	(s)	0.1	0.1
Slovakia	(s)	NA	0.5	NA
Hungary	0.1	0.1	2.9	1.1
Poland	0.1	0.1	5.1	5.8
Romania	1.4	1.2	13.2	4.9
Azerbaijan	1.2	NA	4.4	NA
Kazakhstan	5.4	NA	65.0	NA
Russia	48.6	54.3	1,700.0	1,695.0
Turkmenistan	0.5	NA	101.0	NA
Ukraine	0.4	NA	39.6	NA
Uzbekistan	0.6	NA	66.2	NA
Other	0.3	10.5	0.8	237.1
Total	**58.9**	**66.1**	**1,999.2**	**1,944.0**

See footnotes at end of table.

Table 8.1 World Crude Oil and Natural Gas Reserves, January 1, 2001 (Continued)

Region Country	Crude Oil (Billion Barrels)		Natural Gas (Trillion Cubic Feet)	
	Oil and Gas Journal	World Oil	Oil and Gas Journal	World Oil
Middle East				
Bahrain	0.1	NA	3.9	NA
Iran	89.7	96.4	812.3	929.1
Iraq	112.5	115.0	109.8	112.6
Israel	(s)	NA	1.5	NA
Jordan	(s)	NA	0.2	NA
Kuwait. [2]	96.5	98.8	52.7	56.6
Oman	5.5	5.8	29.3	30.3
Qatar	13.2	5.6	393.8	400.0
Saudi Arabia [2]	261.7	265.3	213.8	214.0
Syria	2.5	2.2	8.5	8.4
United Arab Emirates	97.8	62.8	212.1	204.1
Yemen	4.0	2.1	16.9	17.0
Other	0.0	0.5	0.0	13.2
Total	**683.5**	**654.6**	**1,854.8**	**1,985.3**
Africa				
Algeria	9.2	12.7	159.7	155.6
Angola	5.4	9.0	1.6	4.0
Benin	(s)	NA	(s)	NA
Cameroon	0.4	NA	3.9	NA
Congo (Brazzaville)	1.5	1.7	3.2	4.2
Congo (Kinshasa)	0.2	NA	(s)	NA
Cote d'Ivoire (Ivory Coast)	0.1	NA	1.1	NA
Egypt	2.9	3.6	35.2	50.6
Equatorial Guinea	(s)	0.6	1.3	1.7
Ethiopia	(s)	NA	0.9	NA
Gabon	2.5	2.4	1.2	3.5
Ghana	(s)	NA	0.8	NA
Libya	29.5	30.0	46.4	46.4
Madagascar	0.0	NA	0.1	NA
Morocco	(s)	NA	(s)	NA
Mozambique	0.0	NA	2.0	NA
Namibia	0.0	NA	3.0	NA
Nigeria	22.5	24.1	124.0	125.0
Rwanda	0.0	NA	2.0	NA
Somalia	0.0	NA	0.2	NA
South Africa	(s)	NA	0.8	NA
Sudan	0.3	0.6	3.0	4.0
Tanzania	0.0	NA	1.0	NA
Tunisia	0.3	0.3	2.8	2.8
Other	0.0	1.5	0.0	16.0
Total	**74.9**	**86.4**	**394.2**	**413.7**

See footnotes at end of table.

Table 8.1 World Crude Oil and Natural Gas Reserves, January 1, 2001 (Continued)

Region Country	Crude Oil (Billion Barrels) Oil and Gas Journal	Crude Oil (Billion Barrels) World Oil	Natural Gas (Trillion Cubic Feet) Oil and Gas Journal	Natural Gas (Trillion Cubic Feet) World Oil
Asia & Oceania				
Afghanistan	0.0	NA	3.5	NA
Australia	2.9	2.8	44.6	44.0
Bangladesh	0.1	NA	10.6	NA
Brunei	1.4	1.2	13.8	8.8
Burma	0.1	0.2	10.0	12.4
China	24.0	30.6	48.3	42.0
India	4.7	3.3	22.8	15.9
Indonesia	5.0	9.7	72.3	146.9
Japan	0.1	NA	1.4	NA
Malaysia	3.9	5.1	81.7	81.7
New Zealand	0.1	0.2	2.5	3.0
Pakistan	0.2	0.3	21.6	25.1
Papua New Guinea	0.4	0.6	7.9	16.9
Philippines	0.3	0.3	2.8	4.1
Taiwan	(s)	NA	2.7	NA
Thailand	0.4	0.5	11.8	12.7
Vietnam	0.6	1.8	6.8	6.6
Other	0.0	0.5	0.0	21.6
Total	**44.0**	**57.2**	**365.1**	**441.8**
World Total	**1,028.1**	**1,004.1**	**5,288.5**	**5,450.2**

[1] Data for the United States are from the Energy Information Administration.

[2] Includes one-half of the reserves in the Neutral Zone.

NA = Not Available

(s) = Value less than 50 million barrels of crude oil or less than 50 billion cubic feet of natural gas.

Notes: Sum of components may not equal total due to independent rounding. All reserve data except those for the Former U.S.S.R. and natural gas reserves in Canada are proved reserves. Former U.S.S.R. data are "explored reserves," which are understood to be proved, and some probable. World Oil only reported disaggregated data for the Former U.S.S.R. Republic of Russia. Aggregated data for the other Republics of the Former U.S.S.R. were reported as 10.2 billion barrels of crude oil and 234.4 trillion cubic feet of natural gas.

Sources: PennWell Publishing Co., Oil and Gas Journal. Vol 98, No. 51, (December 2000). Gulf Publishing Co., World Oil. Vol 222, No. 8, (August 2001). Energy Information Administration, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2000 Annual Report, DOE/EIA-0216(2000) (December 2001).

Table 8.2 World Estimated Recoverable Coal

(Million Short Tons)

Region Country	Recoverable Anthracite and Bituminous [1]	Recoverable Lignite and Subbituminous [1]	Total Recoverable Coal [1]
North America			
Canada	3,826	3,425	7,251
Greenland	0	202	202
Mexico	948	387	1,335
United States [2]	126,804	146,852	273,656
Total	**131,579**	**150,866**	**282,444**
Central & South America			
Argentina	0	474	474
Bolivia	1	0	1
Brazil	0	13,149	13,149
Chile	34	1,268	1,302
Colombia	6,908	420	7,328
Ecuador	0	26	26
Peru	1,058	110	1,168
Venezuela	528	0	528
Total	**8,530**	**15,448**	**23,977**
Western Europe			
Austria	0	28	28
Croatia	7	36	43
France	24	15	40
Germany	25,353	47,399	72,753
Greece	0	3,168	3,168
Ireland	15	0	15
Italy	0	37	37
Netherlands	548	0	548
Norway	0	1	1
Portugal	3	36	40
Slovenia	0	303	303
Spain	220	507	728
Sweden	0	1	1
Turkey	306	3,760	4,066
United Kingdom	1,102	551	1,653
Yugoslavia	71	17,849	17,919
Total	**27,650**	**73,693**	**101,343**
Eastern Europe & Former U.S.S.R.			
Bulgaria	14	2,974	2,988
Czech Republic	2,330	3,929	6,259
Hungary	0	1,209	1,209
Kazakhstan	34,172	3,307	37,479
Kyrgyzstan	0	895	895
Poland	22,377	2,050	24,427
Romania	1	1,605	1,606
Russia	54,110	118,964	173,074
Slovakia	0	190	190
Ukraine	17,939	19,708	37,647
Uzbekistan	1,102	3,307	4,409
Total	**132,046**	**158,138**	**290,183**
Middle East			
Iran	1,885	0	1,885
Total	**1,885**	**0**	**1,885**

See footnotes at end of table.

Table 8.2 World Estimated Recoverable Coal (Continued)

(Million Short Tons)

Region Country	Recoverable Anthracite and Bituminous [1]	Recoverable Lignite and Subbituminous [1]	Total Recoverable Coal [1]
Africa			
Algeria	44	0	44
Botswana	4,740	0	4,740
Central African Republic	0	3	3
Congo (Kinshasa)	97	0	97
Egypt	0	24	24
Malawi	0	2	2
Mozambique	234	0	234
Niger	77	0	77
Nigeria	23	186	209
South Africa	54,586	0	54,586
Swaziland	229	0	229
Tanzania	220	0	220
Zambia	11	0	11
Zimbabwe	553	0	553
Total	**60,816**	**216**	**61,032**
Asia & Oceania			
Afghanistan	73	0	73
Australia	46,903	43,585	90,489
Burma	2	0	2
China	68,564	57,651	126,215
India	90,826	2,205	93,031
Indonesia	871	5,049	5,919
Japan	852	0	852
Korea, North	331	331	661
Korea, South	86	0	86
Malaysia	4	0	4
Nepal	2	0	2
New Caledonia	2	0	2
New Zealand	36	594	631
Pakistan	0	2,497	2,497
Philippines	0	366	366
Taiwan	1	0	1
Thailand	0	1,398	1,398
Vietnam	165	0	165
Total	**208,719**	**113,675**	**322,394**
World Total	**571,224**	**512,035**	**1,083,259**

[1] World Energy Council definition of "Proved Recoverable Reserves": Proved Recoverable Reserves are the tonnage within the Proved Amount in Place that can be recovered (extracted from the earth in raw form) under present and expected local economic conditions with existing available technology.

[2] Data represent both measured and indicated tonnage, as of January 1, 2001 (equated to December 31, 2000). The U.S. term "measured" approximates the term "proved" used by the World Energy Council. The U.S. "measured and indicated" data have been combined prior to depletion adjustments and cannot be recaptured as "measured alone."

-- = Not applicable

Notes: Formerly entitled "World Estimated Recoverable Reserves of Coal." The estimates in this table are dependent on the judgment of each reporting country to interpret local economic conditions and its own mineral assessment criteria in terms of specified standards of the World Energy Council. Consequently, the data may not all meet the same standards of reliability and some data, including the Energy Information Administration's (EIA)'s, may not represent reserves of coal that are known to be recoverable under current economic conditions and regulations. Some data, including the EIA's, represent estimated recovery rates for highly reliable estimates of coal quantities in the ground that have physical characteristics like those of coals currently being profitably mined. U.S. coal rank approximations are based partly on Btu and may not match precisely borderline geologic ranks. Further, data in this table may represent different base years. Data for the U.S. represent recoverable coal estimates as of December 31, 2000. Data for other countries are as of December 31, 1999, the most recent period for which they are available. The Energy Information Administration does not certify the international reserves data but reproduces the information as a matter of convenience for the reader. Sum of components may not equal total due to independent rounding.

Sources: World Energy Council, Survey of Energy Resources 2001, October 2001. United States: Energy Information Administration. Unpublished file data of the Coal Reserves Data Base (February 2002).

Appendix A

Geographical and Organizational Definitions

Appendix A

Geographical and Organizational Definitions

North America

Bermuda
Canada
Greenland
Mexico
Saint Pierre and Miquelon
United States

Central and South America

Antarctica
Antigua and Barbuda
Argentina
Aruba
Bahamas, The
Barbados
Belize
Bolivia
Brazil
Cayman Islands
Chile
Colombia
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guiana
Grenada
Guadeloupe
Guatemala
Guyana
Haiti
Honduras
Jamaica
Martinique
Montserrat
Netherlands Antilles
Nicaragua
Panama
Paraguay
Peru
Puerto Rico
Saint Kitts and Nevis
Saint Lucia
Saint Vincent/Grenadines
Suriname
Trinidad and Tobago
Turks and Caicos Islands
Uruguay
Venezuela
Virgin Islands, British
Virgin Islands, U.S.

Western Europe

Austria
Belgium
Denmark
Faroe Islands
Finland
France (includes Monaco)
Germany
Gibraltar
Greece
Iceland
Ireland
Italy[1]
Luxembourg
Malta
Netherlands
Norway
Portugal[2]
Spain[3]
Sweden
Switzerland[4]
Turkey
United Kingdom
Former Yugoslavia[5]
Bosnia and Herzegovina
Croatia
Macedonia, The Former Yugoslav Republic of (TFYR)
Slovenia
Yugoslavia[6]

[1]Includes the Holy See (also known as the Vatican) and San Marino.
[2]Includes the Azores and Madeira.
[3]Includes the Canary Islands.
[4]Includes Liechtenstein.
[5]1991 data are reported for the Socialist Federal Republic of Yugoslavia that dissolved into the five successor countries listed below.
[6]Federal Republic of Yugoslavia - formerly listed as Serbia and Montenegro.

Eastern Europe and Former U.S.S.R.

Albania
Bulgaria
Former Czechoslovakia[1]
Czech Republic
Slovakia
Hungary
Poland
Romania
Former U.S.S.R.[2]
Armenia
Azerbaijan
Belarus
Estonia
Georgia
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Moldova
Russia
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

Middle East

Bahrain
Cyprus
Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates
Yemen

Africa

Algeria
Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo (Brazzaville)
Congo (Kinshasa)
Cote d'Ivoire (Ivory Coast)
Djibouti
Egypt
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia, The
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Libya
Madagascar
Malawi
Mali
Mauritania
Mauritius
Morocco
Mozambique
Namibia
Niger
Nigeria
Reunion
Rwanda
Saint Helena
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Sudan
Swaziland
Tanzania
Togo
Tunisia
Uganda
Western Sahara
Zambia
Zimbabwe

[1]1991 and 1992 data are reported for the country of Czechoslovakia. Data for the two successor countries, the Czech Republic and Slovakia, are reported beginning in 1993.
[2]1991 data are reported for the Union of Soviet Socialist Republics (U.S.S.R.). Data for the fifteen successor countries listed below are reported beginning in 1992.

Asia and Oceania

Afghanistan
American Samoa
Australia
Bangladesh
Bhutan
Brunei
Burma
Cambodia
China
Cook Islands
Fiji
French Polynesia
Guam
Hong Kong[1]
India
Indonesia
Japan (includes Okinawa)
Kiribati
Korea, North
Korea, South
Laos
Macau[2]
Malaysia
Maldives
Mongolia
Nauru
Nepal
New Caledonia
New Zealand
Niue
Pakistan
Papua New Guinea
Philippines
Samoa
Singapore
Solomon Islands
Sri Lanka
Taiwan
Thailand
Tonga
U.S. Pacific Islands[3]
Vanuatu
Vietnam
Wake Island

Organization for Economic Cooperation and Development (OECD)[4]

Australia
Austria
Belgium
Canada
Czech Republic[5]
Denmark
Finland
France
Germany
Greece
Guam[6]
Hungary
Iceland
Ireland
Italy
Japan
Korea, South
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Puerto Rico[6]
Slovakia[5]
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States
Virgin Islands, U.S.[6]

OECD Europe

Austria
Belgium
Czech Republic[5]
Denmark
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Luxembourg
Netherlands
Norway
Poland
Portugal
Slovakia[5]
Spain
Sweden
Switzerland
Turkey
United Kingdom

[1]Under a Sino-British declaration of September 1984, Hong Kong reverted to Chinese control on July 1, 1997. It is now a semi-autonomous entity that exists pursuant to international agreement and maintains its own government apart from the People's Republic of China.
[2]Under the Sino-Portuguese Joint Declaration on the Question of Macau signed in 1987, Macau reverted to Chinese control on December 20, 1999. It is now a semi-autonomous entity that exists pursuant to international agreement and maintains its own government apart from the People's Republic of China.
[3]Includes data for three independent countries - Federated States of Micronesia, Republic of the Marshall Islands, and Republic of Palau - and a United States territory, Commonwealth of the Northern Mariana Islands.
[4]Membership is as of December 31, 2000.
[5]1991 and 1992 data for (Former) Czechoslovakia, that separated into the Czech Republic and Slovakia in 1993, are included in the OECD and OECD Europe totals reported in Tables 1.1, 1.8, 2.1, and 2.9.
[6]Data reported separately in this publication for this United States territory are included with the United States by the OECD. These data are included in the OECD totals reported in Tables 1.1, 1.8, 2.1, and 2.9.

International Energy Agency (IEA)[1]

Australia
Austria
Belgium
Canada
Czech Republic[2]
Denmark
Finland
France
Germany
Greece
Guam[3]
Hungary
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Puerto Rico[3]
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States
Virgin Islands, U.S.[3]

European Union (EU)[1]

Austria
Belgium
Denmark
Finland
France
Germany
Greece
Ireland
Italy
Luxembourg
Netherlands
Portugal
Spain
Sweden
United Kingdom

Former U.S.S.R.

Armenia
Azerbaijan
Belarus
Estonia
Georgia
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Moldova
Russia
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

Organization of Petroleum Exporting Countries (OPEC)[1]

Algeria
Indonesia
Iran
Iraq
Kuwait
Libya
Nigeria
Qatar
Saudi Arabia
United Arab Emirates
Venezuela

[1]Membership is as of December 31, 2000.
[2]The Czech Republic came into existence as a country in 1993. Data are not available for 1991 and 1992.
[3]Data reported separately in this publication for this United States territory are included with the United States by the IEA. These data are included in the IEA totals reported in Tables 1.1, 1.8, 2.1, and 2.9.

Appendix B

World Population and Gross Domestic Product, 1991-2000

Table B1 World Population, 1991 - 2000

(Millions)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Bermuda	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Canada	28.03	28.38	28.70	29.04	29.35	29.67	29.99	30.25	30.49	30.75
Greenland	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Mexico	84.07	84.90	86.61	88.40	90.20	92.16	93.94	95.68	97.22	98.86
Saint Pierre and Miquelon	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
United States	252.15	255.03	257.78	260.33	262.80	265.23	267.78	270.25	272.69	281.42
Total	**364.38**	**368.44**	**373.22**	**377.89**	**382.48**	**387.19**	**391.84**	**396.31**	**400.52**	**411.16**
Central & South America										
Antigua and Barbuda	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Argentina	32.97	33.42	33.87	34.32	34.77	35.22	35.67	36.12	36.58	37.03
Aruba	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.10
Bahamas, The	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.30
Barbados	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27
Belize	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.24	0.24	0.25
Bolivia	6.73	6.90	7.07	7.24	7.41	7.59	7.77	7.95	8.14	8.33
Brazil	147.07	149.36	151.57	153.73	155.82	157.87	159.64	161.79	165.37	167.72
Cayman Islands	0.28	0.29	0.30	0.32	0.33	0.35	0.36	0.38	0.35	0.35
Chile	13.32	13.54	13.77	13.99	14.20	14.42	14.62	14.82	15.02	15.21
Colombia	35.69	36.41	37.13	37.85	38.54	39.30	40.06	40.83	41.39	42.32
Costa Rica	3.07	3.14	3.20	3.27	3.33	3.40	3.46	3.53	3.59	3.82
Cuba	10.74	10.83	10.90	10.95	10.98	11.02	11.07	11.12	11.14	11.18
Dominica	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Dominican Republic	7.32	7.47	7.62	7.77	7.83	7.97	8.10	8.21	8.33	8.52
Ecuador	10.50	10.74	10.98	11.22	11.46	11.70	11.94	12.17	12.41	12.65
El Salvador	5.35	5.43	5.52	5.64	5.73	5.82	5.91	6.03	6.15	6.28
Falkland Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
French Guiana	0.12	0.13	0.13	0.14	0.15	0.15	0.16	0.17	0.17	0.17
Grenada	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.09	0.09	0.10
Guadeloupe	0.40	0.41	0.41	0.42	0.42	0.43	0.44	0.44	0.44	0.45
Guatemala	8.98	9.22	9.47	9.72	9.98	10.24	10.52	10.80	11.09	11.39
Guyana	0.73	0.73	0.74	0.74	0.74	0.75	0.75	0.75	0.76	0.76
Haiti	6.62	6.76	6.90	7.04	7.18	7.34	7.49	7.65	7.80	7.96
Honduras	4.92	5.08	5.25	5.42	5.60	5.79	5.98	6.18	6.39	6.42
Jamaica	2.41	2.42	2.43	2.46	2.49	2.52	2.54	2.56	2.59	2.63
Martinique	0.38	0.38	0.39	0.39	0.39	0.40	0.40	0.41	0.41	0.42
Montserrat	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Netherlands Antilles	0.19	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.21	0.22
Nicaragua	4.00	4.13	4.26	4.40	4.43	4.55	4.67	4.80	4.94	5.07
Panama	2.44	2.49	2.53	2.58	2.63	2.67	2.72	2.76	2.81	2.86
Paraguay	4.33	4.45	4.57	4.70	4.83	4.96	5.09	5.22	5.36	5.50
Peru	22.00	22.45	22.74	23.13	23.53	23.95	24.37	24.80	25.23	25.66
Puerto Rico	3.55	3.58	3.62	3.65	3.69	3.73	3.77	3.81	3.92	3.94
Saint Kitts and Nevis	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Saint Lucia	0.13	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.15
Saint Vincent/Grenadines	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Suriname	0.40	0.40	0.40	0.40	0.41	0.41	0.42	0.41	0.42	0.43
Trinidad and Tobago	1.23	1.24	1.25	1.25	1.26	1.26	1.27	1.28	1.29	1.29
Turks and Caicos Islands	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Uruguay	3.13	3.15	3.17	3.20	3.22	3.24	3.27	3.29	3.31	3.33
Venezuela	19.97	20.44	20.91	21.38	21.84	22.31	22.78	23.44	23.71	24.17
Virgin Islands, British	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Virgin Islands, U.S.	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12
Total	**360.26**	**366.63**	**372.77**	**379.01**	**384.91**	**391.11**	**397.02**	**403.51**	**410.92**	**417.72**

See footnotes at end of table.

Table B1 World Population, 1991 - 2000 (Continued)

(Millions)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Western Europe										
Austria	7.81	7.91	7.99	8.03	8.05	8.06	8.07	8.08	8.09	8.10
Belgium	9.98	10.06	10.08	10.12	10.14	10.16	10.18	10.21	10.23	10.25
Denmark	5.15	5.17	5.19	5.20	5.23	5.26	5.28	5.30	5.33	5.34
Faroe Islands	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.05
Finland	5.01	5.04	5.07	5.09	5.11	5.12	5.14	5.15	5.17	5.18
France	57.05	57.37	57.65	57.90	58.14	58.37	58.61	58.85	59.10	58.89
Germany	79.98	80.57	81.19	81.42	81.66	81.90	82.06	82.02	82.09	82.02
Gibraltar	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Greece	10.25	10.32	10.38	10.43	10.45	10.48	10.50	10.52	10.55	10.58
Iceland	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.28	0.28
Ireland	3.53	3.55	3.57	3.59	3.60	3.63	3.66	3.70	3.75	3.79
Italy	56.80	56.86	57.05	57.20	57.30	57.33	57.37	57.44	57.52	57.53
Luxembourg	0.39	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.43	0.44
Malta	0.36	0.36	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39
Netherlands	15.07	15.18	15.29	15.38	15.46	15.53	15.60	15.71	15.81	15.86
Norway	4.26	4.29	4.31	4.33	4.36	4.38	4.41	4.43	4.46	4.49
Portugal	9.87	9.86	9.88	9.90	9.92	9.93	9.94	9.97	9.98	10.01
Spain	38.92	39.01	39.09	39.15	39.21	39.27	39.32	39.37	39.42	39.47
Sweden	8.62	8.67	8.72	8.78	8.83	8.84	8.85	8.85	8.86	8.87
Switzerland	6.80	6.88	6.94	6.99	7.04	7.07	7.09	7.11	7.13	7.17
Turkey	57.06	57.93	58.51	59.71	60.61	61.53	62.46	63.39	64.34	67.38
United Kingdom	57.81	58.01	58.19	58.39	58.61	58.80	59.01	59.24	59.40	59.50
Former Yugoslavia	23.93	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	4.41	4.28	4.22	4.18	4.17	3.70	3.80	3.84	3.98
Croatia	--	4.47	4.64	4.65	4.67	4.49	4.57	4.50	4.55	4.65
Macedonia, TFYR	--	2.06	2.07	1.95	1.97	1.98	2.00	2.01	2.00	2.00
Slovenia	--	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.99
Yugoslavia	--	10.45	10.48	10.52	10.55	10.58	10.60	10.62	10.66	10.68
Total	**458.98**	**461.16**	**463.66**	**466.05**	**468.20**	**470.00**	**471.54**	**473.40**	**475.44**	**478.92**
Eastern Europe & Former U.S.S.R.										
Albania	3.32	3.36	3.49	3.55	3.61	3.67	3.73	3.79	3.13	3.13
Bulgaria	8.91	8.87	8.49	8.45	8.40	8.36	8.31	8.25	8.22	8.15
Former Czechoslovakia	15.68	15.67	--	--	--	--	--	--	--	--
Czech Republic	--	--	10.33	10.34	10.33	10.32	10.30	10.29	10.28	10.27
Slovakia	--	--	5.32	5.35	5.36	5.37	5.38	5.39	5.40	5.40
Hungary	10.35	10.32	10.29	10.26	10.23	10.19	10.15	10.11	10.07	10.02
Poland	38.24	38.37	38.46	38.54	38.59	38.62	38.65	38.67	38.65	38.61
Romania	23.19	22.79	22.76	22.73	22.68	22.61	22.55	22.50	22.46	22.44
Former U.S.S.R.	292.05	--	--	--	--	--	--	--	--	--
Armenia	--	3.69	3.73	3.75	3.76	3.77	3.79	3.79	3.80	3.80
Azerbaijan	--	7.38	7.49	7.60	7.68	7.76	7.84	7.91	7.98	8.05
Belarus	--	10.31	10.36	10.31	10.28	10.25	10.22	10.19	10.04	10.19
Estonia	--	1.54	1.52	1.50	1.48	1.47	1.46	1.43	1.41	1.39
Georgia	--	5.45	5.44	5.43	5.42	5.42	5.31	5.30	5.29	5.27
Kazakhstan	--	16.52	16.48	16.30	16.07	15.92	15.75	15.07	14.93	14.87
Kyrgyzstan	--	4.55	4.54	4.54	4.59	4.66	4.72	4.76	4.83	4.90
Latvia	--	2.63	2.59	2.55	2.51	2.49	2.47	2.45	2.43	2.43
Lithuania	--	3.74	3.73	3.72	3.71	3.71	3.71	3.70	3.66	3.69
Moldova	--	4.36	4.35	4.35	4.35	4.33	4.36	4.36	4.37	4.38
Russia	--	148.31	148.15	147.97	148.14	147.74	147.10	146.54	145.56	145.49
Tajikistan	--	5.57	5.64	5.74	5.84	5.92	6.05	6.10	6.14	6.58
Turkmenistan	--	4.03	4.31	4.41	4.51	4.57	4.64	4.70	4.77	4.85
Ukraine	--	52.06	52.24	52.11	51.73	51.33	50.89	50.50	50.11	49.57
Uzbekistan	--	21.21	21.70	22.19	22.56	23.01	23.56	24.05	24.76	25.16
Total	**391.74**	**390.73**	**391.41**	**391.69**	**391.83**	**391.49**	**390.94**	**389.85**	**388.29**	**388.63**

See footnotes at end of table.

Table B1 World Population, 1991 - 2000 (Continued)

(Millions)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	0.51	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.67	0.69
Cyprus	0.69	0.71	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.76
Iran	55.84	56.66	57.49	58.33	59.19	60.06	60.94	61.84	62.75	63.66
Iraq	17.77	18.31	18.89	19.47	20.04	20.62	21.18	21.75	22.34	22.95
Israel	4.95	5.12	5.26	5.40	5.54	5.70	5.83	5.97	6.10	6.04
Jordan	4.80	5.02	5.26	5.51	5.73	5.94	6.13	6.30	6.48	6.66
Kuwait	2.09	1.42	1.46	1.62	1.80	1.89	1.98	2.03	2.11	2.19
Lebanon	2.78	2.87	2.97	3.08	3.17	3.25	3.33	3.38	3.44	3.50
Oman	1.76	1.88	2.00	2.05	2.13	2.21	2.26	2.36	2.46	2.54
Qatar	0.50	0.53	0.56	0.59	0.61	0.62	0.63	0.64	0.66	0.67
Saudi Arabia	15.81	16.11	16.38	16.89	17.09	17.61	18.24	18.93	19.90	20.35
Syria	12.53	12.96	13.39	13.84	14.15	14.62	15.10	15.60	16.11	16.32
United Arab Emirates	1.98	2.04	2.10	2.19	2.31	2.44	2.62	2.78	2.94	3.10
Yemen	11.61	11.95	12.30	12.67	13.05	13.50	13.98	14.45	14.97	15.60
Total	**133.62**	**136.10**	**139.32**	**142.93**	**146.12**	**149.80**	**153.58**	**157.42**	**161.68**	**165.03**
Africa										
Algeria	25.64	26.27	26.89	27.50	28.06	28.57	29.05	29.51	30.77	31.29
Angola	10.33	10.61	10.80	10.97	11.34	11.70	12.05	12.40	12.76	13.13
Benin	4.89	4.92	5.08	5.24	5.41	5.59	5.64	5.82	5.99	6.17
Botswana	1.33	1.36	1.39	1.42	1.46	1.50	1.53	1.57	1.61	1.65
Burkina Faso	9.19	9.43	9.68	9.89	10.20	10.78	11.09	11.27	11.62	11.70
Burundi	5.62	5.74	5.81	5.90	5.98	6.09	6.19	6.30	6.48	6.66
Cameroon	11.85	12.18	12.52	12.87	13.28	13.56	14.30	14.44	14.69	14.88
Cape Verde	0.35	0.37	0.38	0.40	0.41	0.42	0.42	0.43	0.43	0.44
Central African Republic	3.04	3.08	3.15	3.22	3.29	3.35	3.41	3.56	3.65	3.72
Chad	5.82	5.96	6.10	6.21	6.71	6.90	7.09	7.27	7.46	7.89
Comoros	0.54	0.56	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71
Congo (Brazzaville)	2.30	2.37	2.44	2.52	2.60	2.68	2.76	2.85	2.93	3.02
Congo (Kinshasa)	36.67	38.94	41.77	43.37	44.83	46.12	47.33	48.39	49.58	50.95
Cote d'Ivoire (Ivory Coast)	12.19	12.67	13.18	13.70	14.23	14.78	15.04	15.37	15.69	16.40
Djibouti	0.53	0.53	0.53	0.54	0.55	0.56	0.58	0.60	0.62	0.63
Egypt	52.99	54.08	55.20	56.34	57.51	59.31	60.07	61.34	62.65	63.98
Equatorial Guinea	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.46
Eritrea	--	--	--	3.22	3.32	3.43	3.59	3.71	3.90	4.30
Ethiopia	49.95	51.57	53.24	53.48	54.65	56.37	58.12	59.88	61.67	63.49
Gabon	0.96	0.99	1.02	1.05	1.08	1.11	1.14	1.15	1.18	1.21
Gambia, The	0.96	0.99	1.04	1.08	1.12	1.15	1.19	1.23	1.27	1.39
Ghana	15.56	16.00	16.44	16.88	17.30	17.71	18.10	18.49	18.89	19.41
Guinea	6.36	6.60	6.86	7.11	7.33	7.53	7.71	7.81	8.02	8.15
Guinea-Bissau	0.99	1.01	1.03	1.05	1.08	1.10	1.13	1.15	1.17	1.19
Kenya	25.91	26.98	28.11	29.29	30.52	31.80	33.14	33.78	34.41	35.67
Lesotho	1.76	1.80	1.84	1.88	1.93	1.97	2.11	2.06	2.02	2.04
Liberia	2.52	2.58	2.64	2.70	2.76	2.81	2.88	2.93	2.99	3.11
Libya	4.33	4.51	4.70	4.90	4.76	4.85	4.96	5.06	5.18	5.29
Madagascar	11.49	12.65	13.02	13.40	13.79	14.20	14.62	15.06	15.51	15.97
Malawi	8.56	8.82	9.13	9.46	9.79	10.14	10.44	10.74	11.03	11.31
Mali	9.00	9.22	9.45	9.68	9.93	10.19	10.46	10.74	11.04	11.35
Mauritania	2.04	2.10	2.15	2.21	2.28	2.35	2.42	2.50	2.58	2.67
Mauritius	1.04	1.05	1.06	1.08	1.09	1.13	1.15	1.16	1.17	1.18
Morocco	24.65	25.12	25.58	26.07	26.39	26.85	27.31	27.78	28.24	28.71
Mozambique	14.47	14.80	15.13	15.47	15.82	16.18	16.54	16.92	17.30	17.69
Namibia	1.42	1.47	1.50	1.55	1.59	1.62	1.66	1.69	1.72	1.82
Niger	7.96	8.23	8.36	8.81	9.11	9.43	9.75	10.10	10.46	10.83
Nigeria	88.52	91.13	93.79	96.51	98.95	101.41	104.96	107.88	110.85	115.22
Reunion	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.70	0.72
Rwanda	6.67	6.20	5.68	5.30	5.18	5.40	5.88	6.60	7.24	7.61
Saint Helena	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sao Tome and Principe	0.12	0.12	0.12	0.12	0.13	0.14	0.14	0.14	0.14	0.14
Senegal	7.50	7.70	7.91	8.13	8.57	8.80	9.04	9.28	9.40	9.52
Seychelles	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08
Sierra Leone	4.04	4.06	4.08	4.10	4.13	4.18	4.23	4.27	4.37	4.46
Somalia	8.78	8.86	8.95	9.08	9.25	9.47	9.82	10.24	10.60	10.96
South Africa	38.01	38.82	39.63	39.48	40.24	40.34	41.23	42.13	43.05	43.69
Sudan	26.53	27.32	28.13	28.95	29.71	30.29	30.90	31.81	32.47	33.10

Table B1 World Population, 1991 - 2000 (Continued)

(Millions)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Swaziland	0.80	0.83	0.85	0.88	0.91	0.94	0.97	0.98	0.99	1.01
Tanzania	26.36	27.30	28.25	29.17	30.34	30.80	31.51	32.26	32.79	34.12
Togo	3.62	3.73	3.84	3.93	4.06	4.17	4.28	4.40	4.51	4.53
Tunisia	8.32	8.48	8.66	8.81	8.96	9.09	9.21	9.33	9.46	9.56
Uganda	16.90	17.34	17.88	18.41	19.26	19.85	20.44	21.03	21.62	22.21
Western Sahara	0.24	0.25	0.26	0.27	0.28	0.28	0.28	0.29	0.30	0.30
Zambia	8.12	8.19	8.46	8.76	9.11	9.45	9.78	10.10	10.41	10.72
Zimbabwe	10.14	10.41	10.78	11.15	11.53	11.91	12.29	12.68	13.08	13.63
Total	**628.92**	**647.37**	**666.15**	**685.21**	**703.85**	**722.14**	**741.76**	**760.34**	**779.88**	**802.05**
Asia & Oceania										
Afghanistan	16.43	16.79	17.32	18.47	19.66	20.88	22.13	23.11	24.50	26.81
American Samoa	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07
Australia	17.28	17.49	17.67	17.85	18.07	18.31	18.52	18.73	18.97	19.16
Bangladesh	111.50	115.42	116.84	117.70	119.90	122.10	124.30	131.80	134.58	137.44
Bhutan	1.57	1.58	1.60	1.61	1.64	1.81	1.86	2.00	2.06	2.09
Brunei	0.26	0.27	0.28	0.28	0.29	0.30	0.31	0.31	0.34	0.34
Burma	41.55	42.33	43.12	43.92	44.35	45.07	45.78	46.45	47.11	47.75
Cambodia	8.78	9.00	9.23	9.46	9.69	9.94	10.18	11.44	12.77	13.10
China	1,170.10	1,183.60	1,196.40	1,208.80	1,220.52	1,232.46	1,244.20	1,256.50	1,268.90	1,273.00
Cook Islands	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Fiji	0.74	0.75	0.77	0.78	0.80	0.78	0.79	0.80	0.81	0.81
French Polynesia	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	0.25	0.25
Guam	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.15	0.15	0.16
Hong Kong	5.75	5.80	5.90	6.04	6.16	6.48	6.56	6.64	6.72	6.80
India	851.66	867.82	886.25	903.94	921.99	939.54	955.22	970.93	986.61	1,002.14
Indonesia	182.94	186.04	189.13	192.22	195.28	198.34	201.39	204.42	207.44	210.49
Japan	123.96	124.42	124.83	125.18	125.47	125.76	126.07	126.41	126.65	126.87
Kiribati	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09
Korea, North	20.80	21.15	21.51	21.87	22.24	22.61	22.98	23.20	22.69	21.97
Korea, South	43.30	43.75	44.19	44.64	45.09	45.54	45.99	46.43	46.86	47.27
Laos	4.24	4.35	4.46	4.57	4.69	4.80	4.92	5.03	5.16	5.28
Macau	0.35	0.37	0.38	0.40	0.41	0.42	0.42	0.43	0.45	0.45
Malaysia	18.55	19.04	19.56	20.11	20.67	21.17	21.66	22.18	22.71	23.26
Maldives	0.22	0.23	0.24	0.25	0.25	0.26	0.27	0.27	0.28	0.29
Mongolia	2.17	2.20	2.23	2.27	2.30	2.34	2.37	2.40	2.50	2.53
Nauru	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Nepal	18.68	19.06	19.39	19.86	20.34	20.83	21.33	21.84	22.37	22.90
New Caledonia	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.20	0.20	0.20
New Zealand	3.48	3.51	3.55	3.60	3.66	3.71	3.76	3.79	3.81	3.83
Niue	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Pakistan	115.77	119.23	122.79	126.47	130.25	134.15	138.16	141.58	144.51	147.50
Papua New Guinea	3.77	3.85	3.92	4.00	4.07	4.40	4.50	4.60	4.70	4.81
Philippines	63.69	65.34	66.98	68.62	70.27	71.90	73.53	75.15	76.50	77.32
Samoa	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17
Singapore	3.14	3.23	3.32	3.42	3.53	3.67	3.79	3.92	3.95	4.02
Solomon Islands	0.33	0.34	0.35	0.37	0.38	0.39	0.40	0.42	0.43	0.45
Sri Lanka	17.27	17.43	17.65	17.89	18.14	18.32	18.55	18.77	19.04	19.36
Taiwan	20.56	20.75	20.94	21.13	21.30	21.47	21.68	21.87	22.03	22.22
Thailand	56.57	57.29	58.01	58.72	59.40	60.00	60.60	61.16	61.56	62.32
Tonga	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
U.S. Pacific Islands	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Vanuatu	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.18	0.19	0.20
Vietnam	67.77	69.41	71.03	72.51	73.96	74.36	75.08	76.11	77.12	77.69
Total	**2,994.27**	**3,042.95**	**3,090.98**	**3,138.10**	**3,185.97**	**3,233.31**	**3,278.53**	**3,329.92**	**3,375.40**	**3,411.57**
World Total	**5,332.17**	**5,413.37**	**5,497.50**	**5,580.87**	**5,663.35**	**5,745.03**	**5,825.22**	**5,910.75**	**5,992.13**	**6,075.08**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5000.
Notes: Sum of components may not equal total due to independent rounding.
Sources: The United Nations, Monthly Bulletin of Statistics, various issues. U.S. Department of Commerce, Bureau of the Census, International Data Base. International Monetary Fund, International Financial Statistics, various issues. Central Intelligence Agency, The World Factbook, various issues.

Table B2 World Gross Domestic Product at Market Exchange Rates, 1991 - 2000

(Billions of 1995 U.S. Dollars)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Bermuda	--	--	--	--	--	--	--	--	--	--
Canada	530.1	534.1	546.4	572.2	588.1	598.1	621.7	643.8	673.1	704.6
Greenland	--	--	--	--	--	--	--	--	--	--
Mexico	276.4	286.4	292.0	305.0	286.2	300.8	321.3	336.8	349.9	374.0
Saint Pierre and Miquelon	--	--	--	--	--	--	--	--	--	--
United States	6,549.6	6,749.3	6,928.4	7,208.1	7,400.5	7,664.8	8,004.5	8,347.3	8,688.3	9,048.8
Central & South America										
Antigua and Barbuda	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	--
Argentina	216.6	237.4	250.9	265.6	258.0	272.3	294.4	305.7	295.3	293.8
Aruba	--	--	--	--	--	--	--	--	--	--
Bahamas, The	3.2	3.0	3.0	3.0	3.1	--	--	--	--	--
Barbados	1.9	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.1	--
Belize	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.8
Bolivia	5.8	5.9	6.1	6.4	6.7	7.0	7.4	7.7	7.8	8.0
Brazil	611.7	608.4	638.3	675.6	704.2	722.9	746.5	748.2	754.1	787.7
Cayman Islands	--	--	--	--	--	--	--	--	--	--
Chile	46.4	52.1	55.8	59.0	65.2	70.0	75.2	78.2	77.3	81.4
Colombia	75.8	78.8	83.1	87.9	92.5	94.4	97.6	98.2	94.2	96.9
Costa Rica	9.1	9.9	10.6	11.2	11.6	11.7	12.3	13.4	14.5	14.7
Cuba	--	--	--	--	--	--	--	--	--	--
Dominica	0.2	0.2	0.2	0.2	0.2	0.2	0.2	--	--	--
Dominican Republic	9.8	10.6	10.9	11.4	11.9	12.8	13.9	14.9	16.2	17.3
Ecuador	15.9	16.5	16.8	17.5	17.9	18.3	18.9	19.0	17.6	18.0
El Salvador	7.3	7.8	8.4	8.9	9.5	9.7	10.1	10.4	10.8	11.0
French Guiana	--	--	--	--	--	--	--	--	--	--
Grenada	--	--	--	--	0.3	--	--	--	--	--
Guadeloupe	--	--	--	--	--	--	--	--	--	--
Guatemala	12.3	12.9	13.4	14.0	14.7	15.1	15.7	16.5	17.1	17.7
Guyana	--	--	--	--	0.6	--	--	--	--	--
Haiti	2.9	2.5	2.4	2.2	2.3	2.4	2.4	2.5	2.6	2.6
Honduras	3.4	3.6	3.9	3.8	4.0	4.1	4.3	4.4	4.3	4.6
Jamaica	5.3	5.4	5.5	5.6	5.6	5.5	5.4	5.4	5.4	5.4
Martinique	--	--	--	--	--	--	--	--	--	--
Montserrat	--	--	--	--	--	--	--	--	--	--
Netherlands Antilles	--	--	--	--	--	--	--	--	--	--
Nicaragua	1.7	1.7	1.7	1.8	1.8	1.9	2.0	2.1	2.3	--
Panama	6.6	7.2	7.6	7.8	7.9	8.1	8.5	8.9	9.1	9.4
Paraguay	7.9	8.0	8.4	8.6	9.0	9.1	9.4	9.3	9.4	9.3
Peru	42.0	41.8	43.8	49.4	53.6	55.0	58.7	58.4	58.9	60.8
Puerto Rico	--	--	--	--	--	--	--	--	--	--
Saint Kitts and Nevis	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	--
Saint Lucia	0.5	0.5	0.5	0.6	0.6	0.6	0.6	--	--	--
Saint Vincent/Grenadines	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	--	--
Suriname	--	--	--	--	0.5	--	--	--	--	--
Trinidad and Tobago	5.1	5.0	5.0	5.1	5.3	5.5	5.7	6.0	--	--
Turks and Caicos Islands	--	--	--	--	--	--	--	--	--	--
Uruguay	16.5	17.8	18.3	19.6	19.3	20.4	21.4	22.4	21.8	21.5
Venezuela	71.7	76.0	76.2	74.4	77.4	77.2	82.2	82.3	77.3	79.8
Virgin Islands, British	--	--	--	--	--	--	--	--	--	--
Virgin Islands, U.S.	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

Table B2 World Gross Domestic Product at Market Exchange Rates, 1991 - 2000 (Continued)

(Billions of 1995 U.S. Dollars)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Western Europe										
Austria	221.8	224.7	225.9	231.3	235.2	239.9	243.1	251.0	257.1	265.7
Belgium	261.2	265.3	261.2	269.0	275.9	279.2	288.7	295.7	303.8	316.1
Denmark	165.3	166.3	166.3	175.4	180.3	184.8	190.3	195.5	199.7	205.6
Finland	125.4	121.2	119.8	124.5	129.3	134.5	142.9	150.6	156.6	165.4
France	1,493.6	1,512.4	1,499.2	1,525.5	1,554.6	1,571.1	1,600.5	1,656.4	1,706.6	1,763.7
Germany	2,334.8	2,387.1	2,361.2	2,416.6	2,458.3	2,476.9	2,512.8	2,566.9	2,597.9	2,679.1
Greece	114.2	114.7	113.7	115.4	117.6	120.3	124.6	128.4	132.7	138.2
Iceland	6.9	6.6	6.7	7.0	7.0	7.3	7.7	8.0	8.4	8.7
Ireland	53.9	55.7	57.2	60.5	66.4	71.5	79.2	86.0	94.4	--
Italy	1,044.4	1,052.3	1,043.0	1,066.1	1,097.2	1,109.2	1,131.7	1,152.2	1,170.8	1,204.9
Luxembourg	--	--	--	--	18.3	18.7	20.4	21.7	22.9	24.6
Malta	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.7	3.8	4.0
Netherlands	367.6	374.9	377.3	389.2	398.4	410.8	425.8	441.5	479.7	498.1
Norway	126.1	130.3	133.8	141.2	146.6	154.6	159.9	163.1	164.6	169.0
Portugal	98.8	100.7	99.3	101.6	104.6	107.9	111.6	115.5	124.4	128.5
Spain	561.0	564.9	558.3	570.9	586.4	600.6	621.8	645.3	669.5	702.4
Sweden	232.6	229.2	224.2	231.6	240.2	242.8	247.6	254.9	264.5	276.8
Switzerland	306.0	305.6	304.1	305.7	307.2	308.2	313.5	320.8	325.8	337.0
Turkey	145.6	154.1	167.1	158.7	169.3	181.8	195.7	201.9	191.7	206.2
United Kingdom	1,025.7	1,026.5	1,050.4	1,096.5	1,127.0	1,155.8	1,196.4	1,228.0	1,256.1	1,294.7
Former Yugoslavia	--	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	--	--	--	--	--	--	--	--	--
Croatia	--	--	17.5	17.6	18.8	19.9	21.3	21.9	21.6	27.1
Macedonia, TFYR	--	--	--	4.5	4.5	4.5	4.6	4.7	4.8	--
Slovenia	--	16.6	17.1	18.0	18.7	19.4	20.3	21.1	22.2	23.2
Yugoslavia	--	--	--	--	--	--	--	--	--	--
Eastern Europe & Former U.S.S.R.										
Albania	--	--	--	--	--	--	--	--	--	--
Bulgaria	13.9	12.9	12.6	12.9	13.1	11.7	10.9	11.2	11.6	12.2
Former Czechoslovakia	--	--	--	--	--	--	--	--	--	--
Czech Republic	--	--	48.1	49.1	52.0	54.3	53.9	53.2	53.0	54.6
Slovakia	--	--	16.4	17.2	18.4	19.5	20.7	21.6	22.0	22.5
Hungary	44.4	43.0	42.8	44.0	44.7	45.3	47.3	49.6	51.8	54.5
Poland	106.2	109.0	113.1	118.9	127.3	135.0	144.2	151.3	157.4	163.9
Romania	34.4	31.4	31.9	33.1	35.5	36.9	34.6	33.0	32.2	32.8
Former U.S.S.R.	--	--	--	--	--	--	--	--	--	--
Armenia	--	1.3	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7
Azerbaijan	--	4.4	3.4	2.7	2.4	2.5	2.6	2.9	3.1	3.4
Belarus	--	14.4	13.3	11.8	10.5	10.8	12.1	13.1	13.5	14.3
Estonia	--	3.8	3.5	3.4	3.6	3.7	4.1	4.2	4.2	4.5
Georgia	--	5.1	3.3	2.9	3.0	3.3	3.7	3.8	3.9	4.0
Kazakhstan	--	22.8	20.7	18.1	16.6	16.7	17.0	16.7	17.0	18.6
Kyrgyzstan	--	2.3	2.0	1.6	1.5	1.6	1.8	1.8	1.9	2.0
Latvia	--	5.2	4.5	4.5	4.4	4.6	5.0	5.2	5.2	5.6
Lithuania	--	7.6	6.4	5.7	6.0	6.3	6.8	7.1	6.8	7.1
Moldova	--	2.1	2.1	1.5	1.4	1.4	1.4	1.3	1.2	1.3
Russia	--	441.8	403.2	352.0	337.9	325.9	328.6	312.9	322.7	349.4
Tajikistan	--	1.0	0.9	0.7	0.6	0.5	0.5	0.5	0.6	0.6
Turkmenistan	--	8.8	7.9	6.4	5.9	5.5	4.0	4.2	4.9	5.8
Ukraine	--	63.7	54.7	42.1	37.0	33.3	32.3	31.7	31.6	33.4
Uzbekistan	--	11.0	10.8	10.2	10.1	10.3	10.8	11.3	11.8	12.3

See footnotes at end of table.

Table B2 World Gross Domestic Product at Market Exchange Rates, 1991 - 2000 (Continued)

(Billions of 1995 U.S. Dollars)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	--
Cyprus	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.1	--
Iran	87.5	92.5	94.0	94.7	98.7	105.3	109.2	111.2	114.0	119.7
Iraq	--	--	--	--	--	--	--	--	--	--
Israel	70.2	74.8	77.2	82.4	88.2	92.7	95.7	98.2	100.4	106.1
Jordan	5.1	5.9	6.2	6.5	6.8	7.1	7.3	7.5	--	--
Kuwait	--	18.1	24.2	26.3	26.6	25.7	25.9	--	--	--
Lebanon	--	--	--	--	--	--	--	--	--	--
Oman	11.0	11.9	12.7	13.2	13.8	14.2	15.1	15.5	15.3	16.7
Qatar	7.0	7.6	7.2	7.5	8.1	8.9	9.0	9.0	9.4	10.5
Saudi Arabia	123.9	127.4	126.6	127.2	127.8	129.6	132.2	134.5	133.4	139.4
Syria	37.4	42.5	44.7	48.1	50.9	54.6	56.0	60.2	59.1	--
United Arab Emirates	36.4	37.4	37.5	38.6	40.0	44.0	44.5	42.2	44.1	47.6
Yemen	10.9	11.5	11.5	11.1	12.0	12.3	13.3	14.0	14.5	--
Africa										
Algeria	41.1	41.8	40.9	40.5	42.1	43.7	46.2	48.0	49.5	51.3
Angola	--	--	--	--	--	--	--	--	--	--
Benin	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.3	2.5	2.6
Botswana	3.9	4.1	4.1	4.3	4.4	4.7	4.9	5.3	5.5	6.0
Burkina Faso	2.1	2.1	2.0	2.1	2.2	2.4	2.5	2.7	2.8	2.9
Burundi	1.2	1.2	1.1	1.1	1.0	0.9	0.9	1.0	--	--
Cameroon	9.3	9.0	8.7	8.5	8.7	9.2	9.6	--	--	--
Cape Verde	--	--	--	--	--	--	--	--	--	--
Central African Republic	0.8	0.7	0.7	1.0	1.1	1.1	1.1	1.3	--	--
Chad	--	1.0	0.8	1.3	1.4	1.6	--	--	--	--
Comoros	--	--	--	--	0.2	--	--	--	--	--
Congo (Brazzaville)	2.2	2.2	2.2	2.1	2.1	--	--	--	--	--
Congo (Kinshasa)	7.6	6.8	5.9	5.7	5.7	5.6	5.3	--	--	--
Cote d'Ivoire (Ivory Coast)	9.3	9.3	9.3	9.5	10.0	10.9	11.5	12.4	12.6	12.4
Djibouti	--	--	--	--	--	--	--	--	--	--
Egypt	51.7	54.0	55.6	57.8	60.5	63.5	67.0	70.7	75.0	79.8
Equatorial Guinea	--	0.1	0.1	0.1	0.2	0.2	0.5	--	--	--
Eritrea	--	--	--	--	--	--	--	--	--	--
Ethiopia	4.8	4.6	5.1	5.2	5.5	6.1	6.4	6.4	--	--
Gabon	5.5	5.3	5.6	4.8	5.0	5.1	5.1	5.2	5.3	5.5
Gambia, The	0.3	0.3	0.3	0.3	0.3	--	--	--	--	--
Ghana	5.5	5.7	6.0	6.2	6.5	6.8	7.0	--	--	--
Guinea	--	--	--	--	--	--	--	--	--	--
Guinea-Bissau	0.4	0.4	0.4	0.4	0.5	0.5	0.5	--	--	--
Kenya	8.5	8.4	8.4	8.7	9.1	9.4	9.7	9.8	--	--
Lesotho	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.1
Liberia	--	--	--	--	--	--	--	--	--	--
Libya	47.3	41.8	33.5	29.6	29.1	30.5	30.0	29.5	30.0	31.5
Madagascar	3.2	3.3	3.3	3.3	3.4	3.5	3.6	3.7	3.9	4.1
Malawi	1.4	1.3	1.4	1.3	1.4	1.6	1.7	1.7	1.8	1.8
Mali	--	--	--	--	--	--	--	--	--	--
Mauritania	--	--	--	--	--	--	--	--	--	--
Mauritius	3.3	3.5	3.7	3.8	4.0	4.2	4.4	4.7	4.9	--
Morocco	33.7	32.3	32.0	35.3	33.0	37.0	36.2	38.7	38.4	38.7
Mozambique	2.1	1.9	2.0	2.2	2.2	2.4	2.7	3.0	3.3	--
Namibia	2.9	3.1	3.0	3.1	3.2	3.3	3.4	3.5	--	--
Niger	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.9	--	--
Nigeria	84.2	86.7	88.6	88.1	90.3	93.3	96.3	98.6	101.2	104.8
Reunion	--	--	--	--	--	--	--	--	--	--
Rwanda	1.9	2.1	1.9	1.0	1.3	1.5	1.7	1.8	1.9	2.1
Sao Tome and Principe	--	--	--	--	--	--	--	--	--	--
Senegal	4.1	4.2	4.1	4.3	4.5	4.7	4.9	5.2	--	--
Seychelles	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	--
Sierra Leone	1.2	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Somalia	--	--	--	--	--	--	--	--	--	--
South Africa	143.3	140.2	142.0	146.5	151.1	157.4	161.3	162.4	165.5	170.6
Sudan	--	--	--	--	--	--	--	--	--	--
Swaziland	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	--

Table B2 World Gross Domestic Product at Market Exchange Rates, 1991 - 2000 (Continued)

(Billions of 1995 U.S. Dollars)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Tanzania	4.9	4.9	5.0	5.1	5.3	5.5	5.7	5.4	5.7	6.0
Togo	1.3	1.3	1.0	1.2	1.3	1.4	1.5	1.5	--	--
Tunisia	15.5	16.7	17.1	17.6	18.0	19.3	20.4	21.3	22.7	23.8
Uganda	5.3	5.7	5.8	6.0	6.2	6.6	--	--	--	--
Western Sahara	--	--	--	--	--	--	--	--	--	--
Zambia	3.5	3.4	3.7	3.6	3.5	3.7	3.8	--	--	--
Zimbabwe	7.3	6.6	6.7	7.2	7.1	7.7	8.0	--	--	--
Asia & Oceania										
Afghanistan	--	--	--	--	--	--	--	--	--	--
Australia	314.3	321.7	333.7	351.1	364.5	379.5	394.8	415.9	435.6	452.2
Bangladesh	24.5	25.5	26.7	27.8	29.1	30.6	32.4	34.2	36.0	38.2
Bhutan	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	--
Brunei	--	--	--	--	--	--	--	--	--	--
Burma	79.8	87.5	92.8	99.8	106.7	113.6	120.1	127.0	140.9	149.7
Cambodia	--	--	--	--	--	--	--	--	--	--
China	434.0	495.9	562.7	634.0	700.6	767.8	835.4	900.6	964.6	1,041.8
Fiji	1.7	1.8	1.8	1.9	2.0	2.1	2.0	1.2	2.2	--
French Polynesia	--	--	--	--	--	--	--	--	--	--
Guam	--	--	--	--	--	--	--	--	--	--
Hong Kong	112.7	119.7	127.1	134.1	139.2	145.5	152.7	144.6	149.0	164.5
India	286.9	300.5	315.4	338.6	364.5	389.8	407.6	433.9	465.0	--
Indonesia	153.2	163.1	173.7	186.8	202.1	217.9	228.2	198.2	199.9	209.4
Japan	5,113.2	5,165.5	5,181.6	5,215.0	5,291.7	5,499.3	5,545.9	5,385.0	5,315.0	5,341.6
Korea, North	--	--	--	--	--	--	--	--	--	--
Korea, South	373.1	393.4	415.0	449.2	489.3	522.3	548.5	511.8	567.5	617.5
Laos	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.1	2.2	--
Macau	--	--	--	--	--	--	--	--	--	--
Malaysia	61.9	67.4	74.1	80.9	88.8	97.7	104.9	97.1	102.8	111.6
Maldives	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	--
Mongolia	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.1	--	--
Nepal	3.7	3.8	3.9	4.2	4.2	4.5	4.7	4.8	5.0	--
New Caledonia	--	--	--	--	--	--	--	--	--	--
New Zealand	52.0	52.5	55.8	58.7	60.8	62.7	64.3	64.0	66.7	68.0
Pakistan	49.4	53.2	54.2	56.4	59.2	62.2	62.1	63.7	65.4	69.1
Papua New Guinea	3.3	3.8	4.5	4.8	4.6	5.0	4.8	4.6	--	--
Philippines	66.2	66.4	67.8	70.8	74.1	78.5	82.5	82.1	84.8	88.2
Singapore	57.8	61.5	69.3	77.2	83.4	89.7	89.3	97.6	103.2	113.4
Sri Lanka	10.5	10.9	11.7	12.4	13.0	13.5	14.4	15.0	15.7	--
Taiwan	197.2	210.5	223.8	238.4	252.8	267.1	285.2	299.0	315.1	334.0
Thailand	121.2	131.0	142.4	154.6	168.3	177.6	176.8	158.8	164.1	171.2
Tonga	--	--	--	--	--	--	--	--	--	--
Vanuatu	0.2	0.2	0.2	0.2	0.2	--	--	--	--	--
Vietnam	12.7	13.8	14.9	16.2	17.7	19.4	21.0	22.2	23.2	24.8

[1] Preliminary.

-- = Not applicable.

Notes: The data presented in this table are obtained by converting the gross domestic product (GDP) for each country measured in 1995 foreign currency units to U.S. dollars using 1995 annual average foreign currency market exchange rates. GDP figures theoretically should be converted by using purchasing power parity (PPP) rates to avoid the problem that the market exchange rate for a foreign currency is not a precise reflection of the purchasing power of that currency. In practice, it is often difficult to find generally agreeable PPP rates for some countries.

Sources: International Monetary Fund, International Financial Statistics, various issues. U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, various issues. International Energy Agency, Energy Balances of OECD Countries 1998-1999, and Energy Balances of Non-OECD Countries 1998-1999. The World Bank, World Tables 1995. WEFA Group, Eurasia Economic Outlook, Third Quarter 2001; Middle East and Africa Economic Outlook, Third Quarter 2001; World Economic Outlook, Third Quarter 2001; Latin America Economic Outlook, Third Quarter 2001; Asia Economic Outlook, Third Quarter 2001; and World Economic Service 1980-1999 Historical Data, May 2000. PlanEcon, Review and Outlook for Eastern Europe, July 2000.

Appendix C

Conversion Factors and Heat Contents

Table C1 General Conversion Factors

Product	Barrels per Metric Ton
Refined Petroleum Products	
Asphalt	6.06
Distillate Fuel Oil	7.46
Gasoline, Aviation	8.90
Gasoline, Motor	8.53
Greases	6.30
Jet Fuel, Kerosene-Type	7.93
Jet Fuel, Naphtha-Type	8.27
Kerosene	7.73
Liquefied Petroleum Gas (LPG)	11.60
Lubricants	7.00
Miscellaneous Products	8.04
Naphthas	8.22
Natural Gas Liquids (NGL)	10.40
Natural Gasoline	10.00
Paraffin Oil	7.14
Paraffin Wax	7.87
Petrolatum	7.87
Petroleum Coke	5.51
Residual Fuel Oil	6.66
White Spirits	8.50
Crude Oil	See Table C2 on next page.

Product Unit	Equivalent
Liquid Fuels	
42 U.S. gallons	1 barrel
1 cubic meter	6.289 barrels
159 liters	1 barrel
Gaseous Fuels	
35.315 cubic feet	1 cubic meter
Liquefied Natural Gas (LNG)	
1 metric ton	48,700 cubic feet of natural gas
Solid Fuels	
1 long ton	1.120 short tons
1 metric ton	1.10231136 short tons
Heat	
1 quadrillion (10^{15}) British thermal units (Btu)	1.055056 exa (10^{18}) joules
1 exa (10^{18}) joule	0.9478 quadrillion (10^{15}) Btu

Table C2 Barrels of Crude Oil Per Metric Ton, 1991 - 2000

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	7.186	7.186	7.186	7.186	7.186	7.186	7.186	7.186	7.186	7.186
Mexico	6.965	6.965	6.965	6.965	6.965	6.965	6.965	6.965	6.965	6.965
United States	7.333	7.333	7.333	7.333	7.333	7.333	7.333	7.333	7.333	7.333
Central & South America										
Argentina	7.120	7.120	7.120	7.120	7.120	7.120	7.120	7.120	7.120	7.120
Bolivia	7.881	7.881	7.881	7.881	7.881	7.881	7.881	7.881	7.881	7.881
Brazil	7.056	7.056	7.056	7.056	7.056	7.056	7.056	7.056	7.056	7.056
Chile	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Colombia	7.080	7.080	7.080	7.080	7.080	7.080	7.080	7.080	7.080	7.080
Cuba	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449
Ecuador	7.130	7.130	7.130	7.130	7.130	7.130	7.130	7.130	7.130	7.130
Peru	7.407	7.407	7.407	7.407	7.407	7.407	7.407	7.407	7.407	7.407
Trinidad and Tobago	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084
Venezuela	6.890	6.890	6.890	6.890	6.890	6.890	6.890	7.310	7.121	7.127
Western Europe										
Austria	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200
Denmark	7.405	7.405	7.405	7.405	7.405	7.405	7.405	7.405	7.405	7.405
France	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Germany	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330
Greece	7.231	7.231	7.231	7.231	7.231	7.231	7.231	7.231	7.231	7.231
Italy	7.300	7.300	7.300	7.300	7.300	7.300	7.300	7.300	7.300	7.300
Netherlands	7.239	7.239	7.239	7.239	7.239	7.239	7.239	7.239	7.239	7.239
Norway	7.644	7.644	7.644	7.644	7.644	7.644	7.644	7.644	7.644	7.644
Spain	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Sweden	6.623	6.623	6.623	6.623	6.623	6.623	6.623	6.623	6.623	6.623
Turkey	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200	7.200
United Kingdom	7.523	7.523	7.523	7.523	7.523	7.523	7.523	7.523	7.523	7.523
Former Yugoslavia	7.418	--	--	--	--	--	--	--	--	--
Croatia	--	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Slovenia	--	--	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Yugoslavia	--	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Eastern Europe & Former U.S.S.R.										
Albania	6.594	6.594	6.594	6.594	6.594	6.594	6.594	6.594	6.594	6.594
Bulgaria	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332	7.332
Former Czechoslovakia	6.780	6.780	--	--	--	--	--	--	--	--
Czech Republic	--	--	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780
Slovakia	--	--	6.780	6.780	6.780	6.780	6.780	6.780	6.780	6.780
Hungary	6.690	6.690	6.690	6.690	6.690	6.690	6.690	6.690	6.690	6.690
Poland	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418	7.418
Romania	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Former U.S.S.R.	7.270	--	--	--	--	--	--	--	--	--
Azerbaijan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Belarus	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Georgia	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Lithuania	--	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Kazakhstan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Kyrgyzstan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Russia	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Tajikistan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Turkmenistan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Ukraine	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270
Uzbekistan	--	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270	7.270

See footnotes at end of table.

Table C2 Barrels of Crude Oil Per Metric Ton, 1991 - 2000 (Continued)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Middle East										
Bahrain	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320
Iran	7.350	7.350	7.350	7.350	7.350	7.350	7.350	7.296	7.284	7.284
Iraq	7.430	7.430	7.430	7.430	7.430	7.430	7.430	7.413	7.413	7.413
Israel	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247	7.247
Jordan	7.190	7.190	7.190	7.190	7.190	7.190	7.190	7.190	7.190	7.190
Kuwait	7.250	7.250	7.250	7.250	7.250	7.250	7.250	7.246	7.258	7.258
Oman	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330	7.330
Qatar	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.590	7.618	7.618
Saudi Arabia	7.323	7.323	7.323	7.323	7.323	7.323	7.323	7.284	7.285	7.285
Syria	7.290	7.290	7.290	7.290	7.290	7.290	7.290	7.290	7.290	7.290
United Arab Emirates	7.596	7.596	7.596	7.596	7.596	7.596	7.596	7.588	7.553	7.553
Yemen	7.631	7.631	7.631	7.631	7.631	7.631	7.631	7.631	7.631	7.631
Africa										
Algeria	8.130	8.130	8.130	8.130	8.130	8.130	8.130	7.945	7.945	7.945
Angola	7.409	7.409	7.409	7.409	7.409	7.409	7.410	7.410	7.410	7.410
Benin	6.870	6.870	6.870	6.870	6.870	6.870	6.870	6.870	6.870	6.870
Cameroon	7.205	7.205	7.205	7.205	7.205	7.205	7.205	7.205	7.205	7.205
Congo (Brazzaville)	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506	7.506
Congo (Kinshasa)	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320	7.320
Cote d'Ivoire (Ivory Coast)	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285
Egypt	7.256	7.256	7.256	7.256	7.256	7.256	7.260	7.260	7.260	7.260
Equatorial Guinea	8.077	8.077	8.077	8.077	8.077	8.077	8.077	8.077	8.077	8.077
Gabon	7.305	7.305	7.305	7.305	7.305	7.305	7.305	7.305	7.305	7.305
Ghana	--	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285
Libya	7.580	7.580	7.580	7.580	7.580	7.580	7.580	7.558	7.558	7.681
Morocco	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600
Nigeria	7.315	7.315	7.315	7.315	7.315	7.315	7.500	7.411	7.411	7.411
South Africa	--	--	--	--	--	--	--	7.720	7.720	7.720
Sudan	--	7.452	7.452	7.452	7.452	7.452	7.452	7.452	7.452	7.452
Tunisia	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689	7.689
Asia & Oceania										
Australia	7.868	7.868	7.868	7.868	7.868	7.868	7.868	7.868	7.868	7.868
Bangladesh	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453	7.453
Brunei	7.340	7.340	7.340	7.340	7.340	7.340	7.340	7.340	7.340	7.340
Burma	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084	7.084
China	7.320	7.320	7.320	7.320	7.320	7.320	7.300	7.300	7.300	7.300
India	7.440	7.440	7.440	7.440	7.440	7.440	7.330	7.330	7.330	7.330
Indonesia	7.360	7.360	7.360	7.360	7.360	7.360	7.360	7.234	7.234	7.234
Japan	7.357	7.357	7.357	7.357	7.357	7.357	7.357	7.357	7.357	7.357
Malaysia	7.641	7.641	7.641	7.641	7.641	7.641	7.641	7.641	7.641	7.641
New Zealand	7.321	7.321	7.321	7.321	7.321	7.321	7.321	7.321	7.321	7.321
Pakistan	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500
Papua New Guinea	7.809	7.809	7.809	7.809	7.809	7.809	7.809	7.809	7.809	7.809
Philippines	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285	7.285
Taiwan	6.568	6.568	6.568	6.568	6.568	6.568	6.568	6.568	6.568	6.568
Thailand	6.758	6.758	6.758	6.758	6.758	6.758	6.758	6.758	6.758	6.758
Vietnam	7.082	7.082	7.082	7.082	7.082	7.082	7.082	7.082	7.082	7.082

-- = Not applicable.

Sources: See sources at the end of Section 3.

Table C3 Gross Heat Content of Crude Oil, 1991 - 2000

(Thousand Btu per Barrel)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810
Mexico	6,010	6,010	6,010	6,010	6,010	6,010	6,010	6,010	6,010	6,010
United States	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Central & South America										
Argentina	5,993	5,993	5,993	5,993	5,993	5,993	5,993	5,993	5,993	5,993
Bolivia	5,574	5,574	5,574	5,574	5,574	5,574	5,574	5,574	5,574	5,574
Brazil	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910
Chile	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780
Colombia	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023
Cuba	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393
Ecuador	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986
Peru	5,831	5,831	5,831	5,831	5,831	5,831	5,831	5,831	5,831	5,831
Trinidad and Tobago	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023	6,023
Venezuela	6,135	6,135	6,135	6,135	6,135	6,135	6,135	6,135	6,135	6,135
Western Europe										
Austria	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020
Denmark	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677
France	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869
Germany	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926
Greece	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926	5,926
Italy	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158
Netherlands	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158
Norway	5,620	5,620	5,620	5,620	5,620	5,620	5,620	5,620	5,620	5,620
Spain	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780
Sweden	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148
Turkey	5,976	5,976	5,976	5,976	5,976	5,976	5,976	5,976	5,976	5,976
United Kingdom	5,803	5,803	5,803	5,803	5,803	5,803	5,803	5,803	5,803	5,803
Former Yugoslavia	5,823	--	--	--	--	--	--	--	--	--
Croatia	--	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823
Slovenia	--	--	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823
Yugoslavia	--	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823	5,823
Eastern Europe & Former U.S.S.R.										
Albania	6,305	6,305	6,305	6,305	6,305	6,305	6,305	6,305	6,305	6,305
Bulgaria	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879
Former Czechoslovakia	6,211	6,211	--	--	--	--	--	--	--	--
Czech Republic	--	--	6,211	6,211	6,211	6,211	6,211	6,211	6,211	6,211
Slovakia	--	--	6,211	6,211	6,211	6,211	6,211	6,211	6,211	6,211
Hungary	6,249	6,249	6,249	6,249	6,249	6,249	6,249	6,249	6,249	6,249
Poland	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820
Romania	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780
Former U.S.S.R.	5,880	--	--	--	--	--	--	--	--	--
Azerbaijan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Belarus	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Georgia	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Kazakhstan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Kyrgyzstan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Lithuania	--	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Russia	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Tajikistan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Turkmenistan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Ukraine	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
Uzbekistan	--	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880

See footnotes at end of table.

Table C3 Gross Heat Content of Crude Oil, 1991 - 2000 (Continued)

(Thousand Btu per Barrel)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Middle East										
Bahrain	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879
Iran	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888
Iraq	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820	5,820
Israel	5,920	5,920	5,920	5,920	5,920	5,920	5,920	5,920	5,920	5,920
Jordan	5,956	5,956	5,956	5,956	5,956	5,956	5,956	5,956	5,956	5,956
Kuwait	5,921	5,921	5,921	5,921	5,921	5,921	5,921	5,921	5,921	5,921
Oman	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869	5,869
Qatar	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777
Saudi Arabia	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910	5,910
Syria	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158	6,158
United Arab Emirates	5,788	5,788	5,788	5,788	5,788	5,788	5,788	5,788	5,788	5,788
Yemen	5,725	5,725	5,725	5,725	5,725	5,725	5,725	5,725	5,725	5,725
Africa										
Algeria	5,555	5,555	5,555	5,555	5,555	5,555	5,555	5,555	5,555	5,555
Angola	5,828	5,828	5,828	5,828	5,828	5,828	5,828	5,828	5,828	5,828
Benin	6,142	6,142	6,142	6,142	6,142	6,142	6,142	6,142	6,142	6,142
Cameroon	5,948	5,948	5,948	5,948	5,948	5,948	5,948	5,948	5,948	5,948
Congo (Brazzaville)	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780	5,780
Congo (Kinshasa)	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879
Cote d'Ivoire (Ivory Coast)	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899
Egypt	5,922	5,922	5,922	5,922	5,922	5,922	5,922	5,922	5,922	5,922
Equatorial Guinea	5,464	5,464	5,464	5,464	5,464	5,464	5,464	5,464	5,464	5,464
Gabon	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888
Ghana	--	5,936	5,936	5,936	5,936	5,936	5,936	5,936	5,936	5,936
Libya	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775	5,775
Morocco	5,738	5,738	5,738	5,738	5,738	5,738	5,738	5,738	5,738	5,738
Nigeria	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
South Africa	--	--	--	--	--	--	--	5,657	5,657	5,657
Sudan	--	5,084	5,084	5,084	5,084	5,084	5,084	5,084	5,084	5,084
Tunisia	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677	5,677
Asia & Oceania										
Australia	5,578	5,578	5,578	5,578	5,578	5,578	5,578	5,578	5,578	5,578
Bangladesh	5,792	5,792	5,792	5,792	5,792	5,792	5,792	5,792	5,792	5,792
Brunei	5,865	5,865	5,865	5,865	5,865	5,865	5,865	5,865	5,865	5,865
Burma	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020	6,020
China	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879	5,879
India	5,729	5,729	5,729	5,729	5,729	5,729	5,729	5,729	5,729	5,729
Indonesia	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740
Japan	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899	5,899
Malaysia	5,697	5,697	5,697	5,697	5,697	5,697	5,697	5,697	5,697	5,697
New Zealand	5,441	5,441	5,441	5,441	5,441	5,441	5,441	5,441	5,441	5,441
Pakistan	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777	5,777
Papua New Guinea	5,607	5,607	5,607	5,607	5,607	5,607	5,607	5,607	5,607	5,607
Philippines	5,902	5,902	5,902	5,902	5,902	5,902	5,902	5,902	5,902	5,902
Taiwan	6,321	6,321	6,321	6,321	6,321	6,321	6,321	6,321	6,321	6,321
Thailand	6,317	6,317	6,317	6,317	6,317	6,317	6,317	6,317	6,317	6,317
Vietnam	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022

-- = Not applicable.

Sources: See sources at the end of Section 3.

Table C4 Gross Heat Content of Natural Gas Plant Liquids, 1991 - 2000

(Thousand Btu per Barrel)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	3,980	3,980	3,980	3,980	3,980	3,980	3,980	3,980	3,980	3,980
Mexico	3,620	3,620	3,620	3,620	3,620	3,620	3,620	3,620	3,620	3,620
United States	3,807	3,804	3,801	3,794	3,796	3,777	3,762	3,769	3,744	3,733
Central & South America										
Argentina	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820
Bolivia	4,130	4,130	4,130	4,130	4,130	4,130	4,130	4,130	4,130	4,130
Brazil	4,250	4,250	4,250	4,250	4,250	4,250	4,250	4,250	4,250	4,250
Chile	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Colombia	3,286	3,286	3,286	3,286	3,286	3,286	3,286	3,286	3,286	3,286
Cuba	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344
Ecuador	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235
Peru	4,617	4,617	4,617	4,617	4,617	4,617	4,617	4,617	4,617	4,617
Trinidad and Tobago	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344	4,344
Venezuela	4,195	4,195	4,195	4,195	4,195	4,195	4,195	4,195	4,195	4,195
Western Europe										
Austria	4,262	4,262	4,262	4,262	4,262	4,262	4,262	4,262	4,262	4,262
France	4,385	4,385	4,385	4,385	4,385	4,385	4,385	4,385	4,385	4,385
Greece	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050
Italy	4,259	4,259	4,259	4,259	4,259	4,259	4,259	4,259	4,259	4,259
Netherlands	4,347	4,347	4,347	4,347	4,347	4,347	4,347	4,347	4,347	4,347
Norway	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348
Spain	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348
United Kingdom	4,490	4,490	4,490	4,490	4,490	4,490	4,490	4,490	4,490	4,490
Former Yugoslavia	4,349	--	--	--	--	--	--	--	--	--
Croatia	--	4,349	4,349	4,349	4,349	4,349	4,349	4,349	4,349	4,349
Eastern Europe & Former U.S.S.R.										
Former Czechoslovakia	4,645	4,645	--	--	--	--	--	--	--	--
Czech Republic	--	--	4,645	4,645	4,645	4,645	4,645	4,645	4,645	4,645
Hungary	4,386	4,386	4,386	4,386	4,386	4,386	4,386	4,386	4,386	4,386
Poland	4,454	4,454	4,454	4,454	4,454	4,454	4,454	4,454	4,454	4,454
Romania	4,619	4,619	4,619	4,619	4,619	4,619	4,619	4,619	4,619	4,619
Former U.S.S.R.	4,150	--	--	--	--	--	--	--	--	--
Azerbaijan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Kazakhstan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Kyrgyzstan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Russia	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Tajikistan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Turkmenistan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Ukraine	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Uzbekistan	--	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150	4,150
Middle East										
Bahrain	4,287	4,287	4,287	4,287	4,287	4,287	4,287	4,287	4,287	4,287
Iran	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348
Iraq	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348
Kuwait	4,190	4,190	4,190	4,190	4,190	4,190	4,190	4,190	4,190	4,190
Oman	4,581	4,581	4,581	4,581	4,581	4,581	4,581	4,581	4,581	4,581
Qatar	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790	3,790
Saudi Arabia	4,265	4,265	4,265	4,265	4,265	4,265	4,265	4,265	4,265	4,265
Syria	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
United Arab Emirates	4,532	4,532	4,532	4,532	4,532	4,532	4,532	4,532	4,532	4,532

See footnotes at end of table.

Table C4 Gross Heat Content of Natural Gas Plant Liquids, 1991 - 2000 (Continued)

(Thousand Btu per Barrel)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Africa										
Algeria	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080
Egypt	4,940	4,940	4,940	4,940	4,940	4,940	4,940	4,940	4,940	4,940
Libya	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350
South Africa	--	4,649	4,649	4,649	4,649	4,649	4,649	4,649	4,649	4,649
Tunisia	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
Asia & Oceania										
Australia	4,290	4,290	4,290	4,290	4,290	4,290	4,290	4,290	4,290	4,290
Bangladesh	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050
Brunei	4,506	4,506	4,506	4,506	4,506	4,506	4,506	4,506	4,506	4,506
Burma	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348	4,348
India	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600
Indonesia	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060
Japan	4,327	4,327	4,327	4,327	4,327	4,327	4,327	4,327	4,327	4,327
Malaysia	4,410	4,410	4,410	4,410	4,410	4,410	4,410	4,410	4,410	4,410
New Zealand	4,075	4,075	4,075	4,075	4,075	4,075	4,075	4,075	4,075	4,075
Pakistan	4,372	4,372	4,372	4,372	4,372	4,372	4,372	4,372	4,372	4,372
Taiwan	3,825	3,825	3,825	3,825	3,825	3,825	3,825	3,825	3,825	3,825
Thailand	4,349	4,349	4,349	4,349	4,349	4,349	4,349	4,349	4,349	4,349

-- = Not applicable.

Sources: See sources at the end of Section 3.

Table C5 Gross Heat Content of Dry Natural Gas, 1991 - 2000

(Btu per Cubic Foot)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	1,015	1,017	1,017	1,035	1,021	1,021	1,023	1,024	1,023	1,023
Mexico	1,116	1,110	1,110	1,111	1,111	1,135	1,068	1,062	1,059	1,059
United States	1,030	1,030	1,027	1,028	1,027	1,027	1,026	1,031	1,027	1,025
Central & South America										
Argentina	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045
Barbados	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Bolivia	1,000	1,000	1,000	1,000	1,036	1,036	1,036	1,036	1,036	1,036
Brazil	1,175	1,174	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Chile	1,000	1,000	1,000	1,000	1,000	1,050	1,050	1,050	1,050	1,050
Colombia	929	929	929	929	929	929	929	929	929	929
Cuba	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Ecuador	1,300	1,300	1,300	1,300	1,299	1,299	1,299	1,299	1,299	1,299
Peru	929	929	929	929	929	929	929	929	929	929
Trinidad and Tobago	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045
Venezuela	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191
Western Europe										
Austria	1,060	1,060	1,063	1,063	1,063	1,063	1,063	1,063	1,060	1,060
Belgium	1,142	989	1,194	1,154	--	1,065	1,065	--	--	859
Denmark	1,092	1,091	1,093	1,099	1,098	1,098	1,105	1,116	1,117	1,121
France	1,101	1,102	1,052	1,052	1,040	1,032	1,027	1,014	1,008	1,008
Germany	893	893	895	895	895	895	895	895	895	895
Greece	1,469	1,444	1,433	1,563	1,535	1,521	1,522	1,524	1,570	1,467
Ireland	1,010	1,010	1,009	1,009	1,011	1,011	1,008	1,008	1,009	1,008
Italy	1,013	1,013	1,001	1,001	1,001	1,020	1,023	1,023	1,023	1,023
Netherlands	894	894	894	894	894	894	894	894	894	894
Norway	1,088	1,093	1,099	1,113	1,121	1,111	1,106	1,086	1,081	1,083
Spain	1,140	1,140	1,157	1,156	1,141	1,141	1,142	1,140	1,142	1,140
Switzerland	1,074	984	1,207	1,074	--	--	--	--	--	--
Turkey	1,028	1,028	1,028	1,028	1,028	1,028	1,029	1,028	1,028	1,028
United Kingdom	1,002	1,040	1,038	1,043	1,053	1,053	1,053	1,061	1,059	1,057
Former Yugoslavia	1,061	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	992	--	--	992	--	--	--	--	--
Croatia	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Slovenia	--	959	959	959	959	1,062	1,062	1,062	1,062	1,062
Yugoslavia	--	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061

See footnotes at end of table.

Table C5 Gross Heat Content of Dry Natural Gas, 1991 - 2000 (Continued)

(Btu per Cubic Foot)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Eastern Europe & Former U.S.S.R.										
Albania	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044
Bulgaria	990	990	990	990	989	989	989	989	989	989
Former Czechoslovakia	974	974	--	--	--	--	--	--	--	--
Czech Republic	--	--	987	954	952	952	952	952	952	952
Slovakia	--	--	971	971	970	970	970	970	970	970
Hungary	965	948	962	966	968	963	960	955	963	968
Poland	758	760	791	791	781	782	784	792	779	793
Romania	1,009	1,009	999	999	996	996	996	996	996	996
Former U.S.S.R.	1,012	--	--	--	--	--	--	--	--	--
Azerbaijan	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Belarus	--	1,037	1,037	1,037	1,037	1,037	1,037	1,037	1,037	1,037
Georgia	--	1,047	--	--	--	--	--	1,047	1,047	1,047
Kazakhstan	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Kyrgyzstan	--	1,033	1,035	1,035	1,047	1,047	1,047	1,047	1,047	1,047
Russia	--	1,008	1,008	1,008	1,008	1,008	1,008	1,008	1,008	1,008
Tajikistan	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Turkmenistan	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Ukraine	--	1,033	1,033	1,033	1,047	1,047	1,047	1,047	1,047	1,047
Uzbekistan	--	1,015	1,015	1,015	1,017	1,017	1,017	1,017	1,017	1,017
Middle East										
Bahrain	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Iran	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Iraq	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Israel	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039
Jordan	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Kuwait	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Oman	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Qatar	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Saudi Arabia	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Syria	962	962	962	962	962	962	962	962	962	962
United Arab Emirates	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Africa										
Algeria	1,180	1,180	1,180	1,180	1,180	1,127	1,127	1,127	1,127	1,127
Angola	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Cote d'Ivoire (Ivory Coast)	--	--	--	--	1,000	1,000	1,000	1,000	1,000	1,000
Egypt	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Equatorial Guinea	--	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Gabon	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Libya	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Morocco	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Mozambique	--	--	--	--	--	--	--	1,047	1,047	1,047
Nigeria	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Senegal	--	--	899	899	899	899	899	899	899	899
South Africa	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Tunisia	1,236	1,236	1,174	1,174	1,174	1,174	1,174	1,174	1,174	1,174

See footnotes at end of table.

Table C5 Gross Heat Content of Dry Natural Gas, 1991 - 2000 (Continued)

(Btu per Cubic Foot)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Asia & Oceania										
Afghanistan	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Australia	1,044	1,063	1,065	1,063	1,067	1,062	1,067	1,069	1,088	1,088
Bangladesh	941	941	989	989	979	979	979	979	979	979
Brunei	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154
Burma	1,014	1,014	1,054	1,054	1,054	1,054	1,054	1,054	1,054	1,054
China	1,151	1,151	1,151	1,151	1,162	1,162	1,162	1,162	1,162	1,162
India	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151
Indonesia	1,100	1,100	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090
Japan	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101
Malaysia	1,043	1,043	1,053	1,053	1,053	1,053	1,053	1,053	1,053	1,053
New Zealand	996	1,001	1,007	1,013	1,017	1,032	1,041	1,048	1,044	1,036
Pakistan	934	934	934	934	934	934	934	934	934	934
Papua New Guinea	--	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047
Philippines	--	--	--	--	977	977	977	977	977	977
Taiwan	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Thailand	1,000	1,000	1,000	1,000	1,000	977	977	977	977	977
Vietnam	1,026	1,026	1,036	1,036	1,036	1,036	1,036	1,036	1,036	1,036

-- = Not applicable.

Sources: See sources at the end of Section 4.

Table C6 Gross Heat Content of Coal, 1991 - 2000

(Thousand Btu per Short Ton)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	22,670	22,414	22,485	22,747	22,957	22,957	24,042	23,933	23,874	23,863
Mexico	19,352	19,352	19,352	15,644	15,958	16,321	17,492	17,012	17,012	17,012
United States	21,681	21,682	21,418	21,394	21,326	21,322	21,296	21,418	21,070	21,072
Central & South America										
Argentina	19,438	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300
Brazil	17,459	16,000	16,000	16,000	14,746	14,746	14,287	14,287	14,363	14,363
Chile	24,845	24,847	24,847	24,847	24,442	24,442	25,664	25,664	25,664	25,664
Colombia	23,405	23,405	23,405	21,296	21,296	21,296	24,568	24,568	24,568	24,568
Peru	19,435	19,435	19,435	19,435	19,435	19,435	26,458	26,458	26,458	26,458
Venezuela	24,403	23,917	23,917	23,917	23,917	23,917	27,592	27,592	27,592	27,592
Western Europe										
Austria	10,493	9,372	9,373	9,370	9,370	9,370	9,839	9,929	9,929	9,929
Belgium	17,054	17,054	17,054	15,184	17,257	15,997	19,428	22,417	19,908	19,908
France	22,331	22,535	22,273	22,109	22,714	23,163	22,897	23,057	23,251	23,561
Germany	10,205	10,544	10,690	10,992	11,006	10,532	11,208	11,096	11,049	10,541
Greece	5,444	4,479	4,940	4,705	4,686	4,330	4,951	5,046	5,046	5,046
Ireland	24,768	23,414	23,604	22,469	22,469	22,469	24,564	24,564	--	--
Italy	9,297	10,819	9,216	8,608	8,348	4,172	4,381	4,381	4,381	4,381
Norway	24,172	24,168	24,168	24,161	24,161	24,161	25,369	25,369	25,369	25,369
Portugal	12,477	12,477	12,477	12,477	--	--	--	--	--	--
Spain	13,423	13,429	13,393	13,704	11,539	11,640	12,181	11,651	11,375	11,375
Sweden	20,642	23,404	23,404	23,404	--	--	--	--	--	--
Turkey	8,554	8,555	8,746	7,848	7,658	7,620	8,101	7,701	7,387	7,423
United Kingdom	22,687	20,860	20,849	20,828	21,728	21,645	22,984	22,470	22,727	22,727
Former Yugoslavia	10,425	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	7,958	7,958	7,958	7,646	7,646	8,013	8,013	8,013	8,013
Croatia	--	--	27,664	28,085	22,675	23,522	22,678	22,678	22,678	22,678
Macedonia, TFYR	--	7,936	7,936	7,936	7,936	7,936	8,013	8,013	8,013	8,013
Slovenia	--	9,995	9,923	9,679	11,054	10,846	10,115	10,255	10,195	10,183
Yugoslavia	--	7,989	7,981	7,984	5,275	8,452	8,043	8,045	8,032	8,052
Eastern Europe & Former U.S.S.R.										
Albania	8,463	8,463	8,463	8,463	8,463	8,463	8,886	8,886	8,882	8,882
Bulgaria	8,514	8,086	8,214	8,073	7,755	8,093	8,185	8,182	8,222	8,270
Former Czechoslovakia	20,662	20,783	--	--	--	--	--	--	--	--
Czech Republic	--	--	11,666	11,722	11,737	12,270	11,519	11,521	11,788	11,788
Slovakia	--	--	10,712	10,712	10,540	10,540	11,067	11,067	11,067	11,067
Hungary	8,844	8,877	7,816	7,808	7,528	7,604	7,998	7,845	7,797	7,791
Poland	15,506	16,111	16,036	16,166	15,462	15,833	16,526	16,110	16,097	15,972
Romania	7,882	6,737	6,901	6,944	6,882	7,137	6,964	6,979	7,543	7,518
Former U.S.S.R.	15,180	--	--	--	--	--	--	--	--	--
Georgia	--	16,840	16,840	16,840	15,976	15,976	13,229	13,229	13,229	13,229
Kazakhstan	--	16,561	16,663	12,602	12,603	13,888	13,229	13,229	13,229	13,229
Kyrgyzstan	--	12,451	11,977	12,361	12,523	13,888	13,229	13,229	13,229	13,229
Moldova	--	16,840	16,840	16,840	16,840	13,888	13,229	--	--	--
Russia	--	15,670	15,686	15,719	15,794	16,393	15,521	15,507	18,381	18,405
Tajikistan	--	15,976	15,976	15,976	15,976	15,976	16,774	16,774	16,774	16,774
Ukraine	--	17,489	17,517	17,556	20,846	20,321	19,371	19,374	19,374	19,404
Uzbekistan	--	12,729	12,741	12,725	12,728	12,687	13,300	13,311	13,311	13,314

See footnotes at end of table.

Table C6 Gross Heat Content of Coal, 1991 - 2000 (Continued)

(Thousand Btu per Short Ton)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Middle East										
Iran	26,232	26,232	26,232	26,232	25,200	24,403	23,245	23,245	23,245	23,245
Africa										
Algeria	24,403	24,403	24,403	24,403	25,200	25,200	23,245	23,245	23,245	23,245
Botswana	22,000	22,000	22,000	22,000	25,200	24,403	23,245	23,245	23,245	23,245
Cameroon	18,000	18,000	18,000	18,000	18,000	18,000	23,245	23,245	23,245	23,245
Congo (Kinshasa)	23,927	23,927	23,927	23,927	25,200	24,403	22,776	22,776	22,776	22,776
Egypt	--	--	--	--	--	24,403	23,245	23,245	23,245	23,245
Malawi	21,500	21,500	21,500	21,500	25,200	24,403	24,403	24,403	24,403	24,403
Morocco	30,103	30,103	30,103	30,103	25,200	22,221	21,166	21,166	21,166	21,166
Mozambique	24,403	24,403	24,403	24,403	25,200	24,403	22,565	22,565	22,565	22,565
Niger	25,200	25,200	25,200	25,200	25,200	24,403	23,245	23,245	23,245	23,245
Nigeria	24,403	24,403	24,403	24,403	25,200	24,403	23,245	23,245	23,245	23,245
South Africa	20,427	20,461	20,446	20,409	20,384	20,389	21,302	21,302	21,302	21,302
Swaziland	23,386	23,386	23,386	23,386	23,387	24,403	23,245	23,245	23,245	23,245
Tanzania	24,403	24,403	24,403	24,403	25,200	23,245	23,245	23,245	23,245	23,245
Zambia	23,411	24,244	25,308	25,308	21,246	23,415	22,304	22,304	22,304	22,304
Zimbabwe	24,403	24,403	24,403	24,403	24,403	24,403	24,371	24,371	24,371	24,371
Asia & Oceania										
Afghanistan	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000
Australia	17,498	17,540	17,782	18,374	18,485	18,386	19,542	19,265	19,548	19,673
Bhutan	17,500	17,500	18,500	18,500	25,200	24,403	23,245	23,245	23,245	23,245
Burma	15,840	15,606	17,531	17,800	18,354	18,033	15,801	12,619	13,557	13,557
China	18,109	18,100	17,973	17,978	17,103	17,103	18,409	18,428	18,469	18,512
India	16,727	17,050	17,042	16,907	19,855	18,177	17,680	17,674	17,673	17,670
Indonesia	24,403	24,403	24,403	24,402	25,199	24,403	23,245	23,244	23,241	23,240
Japan	21,100	21,102	21,102	19,834	19,834	19,834	20,826	20,826	20,826	20,826
Korea, North	24,403	24,403	24,403	24,403	24,403	24,403	23,245	23,245	23,245	23,245
Korea, South	16,203	16,200	16,200	16,200	16,199	16,199	17,009	17,009	17,009	17,009
Laos	22,500	22,500	22,500	22,500	25,200	24,403	24,403	24,403	--	--
Malaysia	24,403	24,403	24,403	24,403	25,200	27,776	26,458	26,458	26,458	26,458
Mongolia	10,206	9,237	9,237	9,238	9,720	9,305	8,862	8,865	8,864	8,088
Nepal	8,000	8,000	8,000	8,000	8,000	7,936	7,559	7,559	7,559	7,559
New Zealand	22,551	22,558	22,556	21,459	20,548	20,703	19,580	19,675	19,813	20,061
Pakistan	19,443	19,443	19,443	19,443	19,124	17,753	16,910	16,910	16,910	16,910
Philippines	20,204	20,206	20,206	20,205	17,003	19,016	18,113	18,116	18,117	18,120
Taiwan	24,602	23,500	22,324	22,324	25,200	24,403	23,434	23,434	23,434	23,434
Thailand	9,911	9,415	9,418	9,412	15,843	11,510	10,962	10,962	10,961	10,961
Vietnam	24,403	24,403	29,308	29,308	25,200	19,816	21,166	21,166	21,166	21,166

-- = Not applicable.

Note: Heat contents are calculated based on individual heat contents for production of anthracite, bituminous, and lignite.

Sources: See sources at the end of Section 5.

Table C7 Gross Heat Content of Hydroelectric Power, 1991 - 2000

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Mexico	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
United States	10,436	10,342	10,309	10,316	10,312	10,340	10,357	10,346	10,346	10,346
Central & South America										
Argentina	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Bolivia	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403
Brazil	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Chile	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Colombia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Costa Rica	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Dominican Republic	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
Ecuador	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
El Salvador	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402
Guatemala	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Haiti	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410
Honduras	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402
Jamaica	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403
Nicaragua	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415
Panama	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398
Paraguay	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Peru	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Puerto Rico	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389
Suriname	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Uruguay	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Venezuela	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Western Europe										
Austria	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Belgium	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Finland	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
France	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Germany	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Greece	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Iceland	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Ireland	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398
Italy	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Luxembourg	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409
Norway	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Portugal	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Spain	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Sweden	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Switzerland	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turkey	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
United Kingdom	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Former Yugoslavia	10,400	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Croatia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Macedonia, TFYR	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Slovenia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Yugoslavia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400

See footnotes at end of table.

Table C7 Gross Heat Content of Hydroelectric Power, 1991 - 2000 (Continued)

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Eastern Europe & Former U.S.S.R.										
Albania	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Bulgaria	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398
Former Czechoslovakia	10,400	10,400	--	--	--	--	--	--	--	--
Czech Republic	--	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Slovakia	--	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Hungary	10,419	10,419	10,419	10,419	10,419	10,419	10,419	10,419	10,419	10,419
Poland	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
Romania	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Former U.S.S.R.	10,400	--	--	--	--	--	--	--	--	--
Armenia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Azerbaijan	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Georgia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Kazakhstan	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Kyrgyzstan	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Latvia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Lithuania	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Moldova	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Russia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Tajikistan	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Ukraine	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Uzbekistan	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Middle East										
Iran	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Iraq	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Israel	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Jordan	10,526	10,526	10,526	10,526	10,526	10,526	10,526	10,526	10,526	10,526
Lebanon	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Syria	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Africa										
Algeria	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
Angola	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Cameroon	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Congo (Brazzaville)	10,390	10,390	10,390	10,390	10,390	10,390	10,390	10,390	10,390	10,390
Congo (Kinshasa)	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Cote d'Ivoire (Ivory Coast)	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
Egypt	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Ethiopia	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
Gabon	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
Ghana	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Guinea	10,424	10,424	10,424	10,424	10,424	10,424	10,424	10,424	10,424	10,424
Kenya	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Madagascar	10,412	10,412	10,412	10,412	10,412	10,412	10,412	10,412	10,412	10,412
Malawi	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394
Mali	10,375	10,375	10,375	10,375	10,375	10,375	10,375	10,375	10,375	10,375
Morocco	10,407	10,407	10,407	10,407	10,407	10,407	10,407	10,407	10,407	10,407
Mozambique	10,339	10,339	10,339	10,339	10,339	10,339	10,339	10,339	10,339	10,339
Nigeria	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398
Reunion	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
South Africa	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394
Sudan	10,391	10,391	10,391	10,391	10,391	10,391	10,391	10,391	10,391	10,391
Swaziland	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Tanzania	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Uganda	10,392	10,392	10,392	10,392	10,392	10,392	10,392	10,392	10,392	10,392
Zambia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Zimbabwe	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401

See footnotes at end of table.

Table C7 Gross Heat Content of Hydroelectric Power, 1991 - 2000 (Continued)

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Asia & Oceania										
Afghanistan	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Australia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Bangladesh	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Bhutan	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Burma	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Cambodia	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333
China	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Fiji	10,405	10,405	10,405	10,405	10,405	10,405	10,405	10,405	10,405	10,405
French Polynesia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
India	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Indonesia	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Japan	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Korea, North	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Korea, South	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Laos	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
Malaysia	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
Nepal	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394
New Caledonia	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394	10,394
New Zealand	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Pakistan	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Papua New Guinea	10,393	10,393	10,393	10,393	10,393	10,393	10,393	10,393	10,393	10,393
Philippines	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Samoa	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Sri Lanka	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
Taiwan	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Thailand	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
U.S. Pacific Islands	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Vietnam	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399

- - = Not applicable.

Note: There is no generally accepted practice for evaluating the thermal conversion rates for power plants that generate electricity from hydroelectric sources. Therefore, estimates of the prevailing annual average heat content for fossil-fueled, steam-electric power plants are used to evaluate the heat content for hydroelectric power. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption such as droughts.

Sources: See sources at the end of Section 6.

Table C8 Gross Heat Content of Nuclear Electric Power, 1991 - 2000

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	11,478	11,440	11,376	11,376	11,356	11,356	11,356	11,292	11,292	11,292
Mexico	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065
United States	10,740	10,678	10,682	10,676	10,658	10,623	10,623	10,623	10,623	10,623
Central & South America										
Argentina	11,809	11,809	11,809	11,809	11,705	11,705	11,705	11,705	11,705	11,705
Brazil	10,246	10,246	10,246	10,246	10,216	10,216	10,216	10,216	10,216	10,216
Western Europe										
Belgium	10,373	10,373	10,373	10,373	10,354	10,354	10,354	10,354	10,354	10,354
Finland	10,278	10,278	10,278	10,278	10,208	10,208	10,208	10,208	10,208	10,208
France	10,405	10,399	10,396	10,355	10,355	10,349	10,349	10,349	10,349	10,349
Germany	10,205	10,205	10,205	10,205	10,061	10,061	10,061	10,061	10,061	10,061
Netherlands	10,485	10,485	10,485	10,485	10,485	10,485	9,721	9,721	9,721	9,721
Spain	10,151	10,151	10,151	10,151	10,151	10,151	10,151	10,151	10,151	10,151
Sweden	10,090	10,090	10,090	10,090	10,079	10,079	10,079	10,079	10,079	10,079
Switzerland	10,540	10,540	10,540	10,540	10,273	10,273	10,273	10,273	10,273	10,273
United Kingdom	12,461	12,461	12,424	12,552	12,446	12,446	12,446	12,446	12,446	12,446
Former Yugoslavia	10,035	--	--	--	--	--	--	--	--	--
Slovenia	--	10,035	10,035	10,035	10,035	10,035	10,035	10,035	10,035	10,035
Eastern Europe & Former U.S.S.R.										
Bulgaria	11,006	11,006	11,006	11,006	11,006	11,006	11,006	11,006	11,006	11,006
Former Czechoslovakia	12,274	12,274	--	--	--	--	--	--	--	--
Czech Republic	--	--	12,099	12,099	11,373	11,373	11,373	11,373	11,373	11,373
Slovakia	--	--	12,318	12,318	11,818	11,818	11,818	11,875	11,875	11,875
Hungary	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065
Romania	--	--	--	--	--	11,930	11,930	11,930	11,930	11,930
Former U.S.S.R.	11,469	--	--	--	--	--	--	--	--	--
Armenia	--	--	--	--	--	11,725	11,725	11,725	11,725	11,725
Kazakhstan	--	11,373	11,373	11,373	11,373	11,373	11,373	11,373	11,373	--
Lithuania	--	10,663	10,663	10,663	10,663	10,663	10,663	10,663	10,663	10,663
Russia	--	11,038	11,030	11,030	11,030	11,030	11,030	11,030	11,030	11,030
Ukraine	--	10,911	10,911	10,911	10,903	10,903	10,920	10,920	10,920	10,920
Africa										
South Africa	10,035	10,035	10,035	10,035	10,035	10,035	10,035	10,035	10,035	10,035
Asia & Oceania										
China	--	10,339	10,207	10,159	10,159	10,159	10,159	10,159	10,159	10,159
India	11,844	11,906	11,957	11,957	11,998	11,998	11,998	11,998	11,998	11,998
Japan	10,250	10,250	10,234	10,226	10,236	10,223	10,217	10,217	10,217	10,217
Korea, South	10,088	10,088	10,088	10,035	10,035	9,991	9,955	9,975	9,975	9,975
Pakistan	10,797	10,797	10,797	10,797	10,797	10,797	10,797	10,797	10,797	10,797
Taiwan	9,876	9,876	9,876	9,876	9,876	9,876	9,876	9,876	9,876	9,876

-- = Not applicable.

Note: The average heat content of electricity generated by nuclear electric power plants is calculated by dividing the heat content of electricity consumed in nuclear generating units (3,412 Btu per kilowatthour) by the estimated efficiency factor (the ratio of output to input) for each nuclear power plant.

Sources: See sources at the end of Section 6.

Table C9 Gross Heat Content of Geothermal Electric Power, 1991 - 2000

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Mexico	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
United States	20,997	20,914	20,914	20,914	20,914	20,960	20,960	21,017	21,017	21,017
Central & South America										
Costa Rica	--	--	--	21,020	21,020	21,020	21,020	21,020	21,020	21,020
El Salvador	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Nicaragua	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Western Europe										
Iceland	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Italy	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Portugal	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Turkey	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Eastern Europe & Former U.S.S.R.										
Former U.S.S.R.	21,020	--	--	--	--	--	--	--	--	--
Russia	--	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Middle East										
Jordan	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Africa										
Ethiopia	21,020	21,020	21,020	21,020	21,020	21,020	--	--	--	--
Kenya	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Asia & Oceania										
Indonesia	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Japan	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
New Zealand	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Philippines	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020	21,020
Thailand	--	--	--	--	--	--	21,020	21,020	21,020	21,020

-- = Not applicable.

Note: The average heat content of electricity generated by geothermal electric power plants is calculated by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities.

Sources: See sources at the end of Section 6.

Table C10 Gross Heat Content of Solar, Wind, and Wood and Waste Electric Power, 1991 - 2000

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
North America										
Canada	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Mexico	--	--	--	10,400	10,400	10,400	10,400	10,401	10,401	10,401
United States	10,436	10,342	10,309	10,316	10,312	10,340	10,357	10,346	10,346	10,346
Central & South America										
Argentina	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Bolivia	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403
Brazil	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Chile	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Colombia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Costa Rica	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Cuba	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Dominican Republic	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404	10,404
El Salvador	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402	10,402
Guatemala	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Haiti	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410	10,410
Jamaica	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403	10,403
Nicaragua	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415
Panama	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398	10,398
Paraguay	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Peru	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Trinidad and Tobago	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Uruguay	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401	10,401
Western Europe										
Austria	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Belgium	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397	10,397
Croatia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Denmark	10,345	10,345	10,345	10,345	10,345	10,345	10,345	10,345	10,345	10,345
Faroe Islands	--	--	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Finland	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
France	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Germany	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Greece	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Ireland	--	10,398	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Italy	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Luxembourg	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409	10,409
Netherlands	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Norway	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Portugal	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Slovenia	--	--	--	--	--	--	--	--	10,400	10,400
Spain	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Sweden	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Switzerland	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turkey	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
United Kingdom	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Eastern Europe & Former U.S.S.R.										
Belarus	--	--	--	--	--	--	--	10,400	10,400	10,400
Bulgaria	--	--	--	--	--	--	--	10,400	10,400	10,400
Czech Republic	--	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Hungary	--	--	--	--	--	--	--	10,401	10,401	10,401
Estonia	--	--	--	--	10,400	10,400	10,400	10,400	10,400	10,400
Poland	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399
Romania	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Russia	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400

See footnotes at end of table.

Table C10 Gross Heat Content of Solar, Wind, and Wood and Waste Electric Power, 1991 - 2000 (Continued)

(Btu per Kilowatthour)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Asia & Oceania										
Australia	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
China	--	--	--	10,400	10,400	10,400	10,400	10,400	10,400	10,400
India	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Japan	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Korea, South	--	--	--	10,401	10,401	10,401	10,401	10,401	10,401	10,401
New Zealand	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Thailand	--	--	--	--	10,400	10,400	10,400	10,400	10,400	10,400

-- = Not applicable.

Note: There is no generally accepted practice for evaluating the thermal conversion rates for power plants that generate electricity from solar, wind, and wood and waste. Therefore, estimates of the prevailing annual average heat content for fossil-fueled, steam-electric power plants are used to evaluate the heat content for solar, wind, and wood and waste power.

Sources: See sources at the end of Section 6.

Appendix D

Oil and Gas Market Chronology: 2000

Oil and Gas Market Chronology: 2000

The following chronology lists international events that hold significance for world oil and natural gas markets. Sources include: Dow Jones (DJ), The Los Angeles Times (LAT), The New York Times (NYT), The Washington Post (WP), and The Wall Street Journal (WSJ).

*(**Note:** For monthly chronologies for 1996-2002 and annual highlights for 1970-2001, see the Chronologies section of our International (Energy) Web Page at (**http://www.eia.doe.gov/emeu/international/chronolo.html**).*

Jan. 1 Energy companies and countries around the world report that they have passed into the year 2000 without significant problems from the "Y2K Bug." There was concern that the inability of some computers and embedded control systems to recognize the year 2000 could create serious problems. (DJ, WP)

Jan. 6 Texaco announces that it has completed testing of the Agbami-2 well off the coast of Nigeria. The company states that the new field has crude oil reserves estimated at more than one billion barrels. (DJ, WSJ)

Jan. 7 Statoil shuts in 390,000 barrels per day of crude oil production in response to severe weather in the North Sea. Including earlier moves by Norsk Hydro, Statoil, and Shell, a total of 1.27 million barrels per day of North Sea crude oil production is shut in due to weather. (DJ)

Jan. 13 The National Research Council, a body of the National Academy of Sciences, releases a report confirming that the rise in global temperatures is "undoubtedly real," deflating a key argument used by skeptics of global warming. The report does not directly address the causes of the warming trend. (WP, LAT, WSJ)

Jan. 13 The Environmental Protection Agency announces a fine of $30 million against refiner Koch Industries as part of a settlement of charges that the company contaminated lakes and streams with petroleum products that leaked from pipelines. (DJ)

Jan. 13 Indonesian President Abderrahman Wahid appoints a high level panel to oversee the restructuring of the state-owned oil company Pertamina and choose a new senior management team for the firm. (DJ, WSJ)

Jan. 14 Chevron announces that it has agreed to pay $95 million to settle charges that it underpaid royalties to the federal government for oil produced on federal lands. The company says the move is not an admission of wrongdoing. (WSJ)

Jan. 16 Takashi Fukuya, Japan's Minister of International Trade and Industry, meets with Saudi Arabia's Petroleum Minister Ali al-Naimi in an attempt to reach an agreement on the renewal of Japanese firm Arabian Oil Company's concession for crude oil production in the Saudi sector of the Neutral Zone. The ministers reportedly failed to reach agreement on an extension. (DJ)

Jan. 19 China discovers a large natural gas deposit in the Tarim Basin in the Xinjiang region of Western China. The country is considering the construction of a gas pipeline from the region to more heavily populated areas along the Pacific coast. (DJ)

Jan. 22 Iraq reaches an agreement on the continuation of oil supplies to Jordan. Under the agreement, Iraq will give Jordan $300 million worth of crude oil in 2000 free of charge, and Jordan will pay a maximum of $19 per barrel for any additional volumes imported. (DJ)

Jan. 25 Spot prices for number two heating oil close at $1.359 per gallon, after rising rapidly from $0.687 per gallon at the beginning of January 2000. The rapid rise takes place as winter storms hit the northeastern United States, increasing short-term demand for heating oil. The spot price of West Texas Intermediate crude oil closes at $30.28 per barrel. (DJ)

Jan. 26 The United Nations Security Council reaches agreement on the appointment of Hans Blix of Sweden, the former head of the International Atomic Energy Agency (IAEA), to lead the new United Nations weapons inspection organization for Iraq. Iraq has indicated that it does not intend to accept the new Security Council resolution. (DJ)

Jan. 27 Senator Charles Schumer meets with Secretary of Energy Bill Richardson to press for a sale of oil from the Strategic Petroleum Reserve (SPR) in response to high oil prices. In particular, northeastern members of Congress have been concerned by the sharp rise in prices for heating oil in late January 2000 due to cold temperatures on the East Coast of the United States. (DJ)

Jan. 27 The Federal Trade Commission (FTC) decides to postpone a scheduled decision on whether to allow the proposed merger between BP Amoco and Atlantic Richfield, after the companies involved made a new offer to divest themselves of further assets. (NYT)

Jan. 27 Azerbaijan experiences a short-term domestic petroleum products shortage, which cripples the country's oil fired power plants. The government of Azerbaijan temporarily restricts oil shipments to the Russian port of Novorossisk and orders the import of a shipment of oil from neighboring Turkmenistan. (DJ)

Jan. 28 ExxonMobil's Australian unit, Mobil Oil Australia Limited, announces a compensation package to cover equipment damage and direct business losses arising from contaminated aircraft fuels. Around 5,000 small aircraft have been grounded in Australia due to concerns that engines could clog after consuming the fuels. Mobil has said the contamination resulted from a mistake in the production process, but has not admitted liability for financial losses incurred by its clients. (DJ)

Feb. 2 The Federal Trade Commission (FTC) acts to block the proposed merger between BP Amoco and Atlantic Richfield, saying the merger would unduly restrict competition along the West coast of the United States. (WSJ, WP)

Feb. 3 The United States Navy seizes the Russian tanker Volgoneft-147 in the Persian Gulf. The vessel is transporting a cargo of smuggled Iraqi gasoil in violation of United Nations sanctions against Iraq. (NYT, WP)

Feb. 8 Russia's second largest oil company, Yukos Oil, announces an agreement with state oil pipeline company Transneft to build a $1.7 billion oil pipeline from Siberia to China. The pipeline would run from Angarsk in Siberia to Beijing. (WSJ)

Feb. 9 The Federal Energy Regulatory Commission (FERC) issues a group of policy changes that extend the deregulation of the interstate natural gas pipeline system begun under Order 636 in 1992. Among the changes is a lifting, for a trial period of 30 months, of the price ceiling on secondary market exchanges of short-term gas pipeline capacity. FERC's lifting of the ceiling is meant in part to encourage gas shippers to use longer-term contracts that would promote market stability. (DJ)

Feb. 11 Occidental Petroleum agrees to buy Altura Energy, the onshore U.S. oil exploration joint venture between BP Amoco and Shell, for $3.5 billion. Altura produces about 110,000 barrels per day of crude oil, mostly in West Texas and New Mexico. (LAT)

Feb. 14 The price of West Texas Intermediate crude oil closes on the New York Mercantile Exchange at $30.30 per barrel, the highest price (in nominal terms) since the Gulf War in 1991. (WSJ)

Feb. 16 The United States announces sanctions against the Greater Nile Petroleum Operating Company (GNPOC), which is developing oilfields in Sudan. The sanctions prohibit American firms and individuals from doing business with GNPOC, but do not cover the foreign parent companies of GNPOC, which include China National Petroleum Corporation (CNPC), Petronas, and Talisman Energy. (NYT)

Feb. 16 President Clinton announces the release of $125 million in additional federal government assistance for low-income households hit by high heating oil prices. On the same day, Secretary of Energy Bill Richardson addresses the New England Heating Oil Summit in Boston. The moves come after a dramatic spike in heating oil prices in the Northeastern United States. The price for number two heating oil at New York Harbor peaked at February 4th at $1.77 per gallon. (WP, WSJ, DJ)

Feb. 18 Iranian voters go to the polls to elect members of parliament. The election results in a landslide victory for reformist candidates allied with Iranian President Mohammed Khatami. (DJ)

Feb. 21 General Electric announces a breakthrough in the design of natural gas power generating plants, using steam instead of air to cool turbine blades. According to the company, the new design will use about 5 percent less natural gas per unit of power generated than the best existing technologies. (WSJ)

Feb. 22 Several hundred truck drivers form a convoy through downtown Washington in a protest against high diesel fuel prices. Trucking lobby groups such as the American Trucking Association have supported calls for a release of oil from the Strategic Petroleum Reserve. Senator Ben Nighthorse Campbell proposes removing the federal excise tax on diesel for one year. (DJ)

Feb. 24 BP Amoco announces that it plans to make $2.5 billion in investments in the development of natural gas reserves at the In Salah field in Algeria. Gas deliveries to Europe from the field are expected to start in 2003. (WSJ)

Feb. 24 Saudi Arabia announces that it intends to invite representatives of companies which have submitted bids for natural gas and petrochemical investment in the country to talks which will be held in late March 2000, shortly after the end of the Muslim *hajj* pilgrimage season. (DJ)

Feb. 26 Secretary of Energy Bill Richardson meets with Saudi Arabian Petroleum Minister Ali Naimi in Riyadh to discuss the recent rise in crude oil prices. The meeting is part of an overseas tour that includes stops in Mexico, Norway, Egypt, Israel, Saudi Arabia, and Kuwait. In a joint statement, Naimi pledged to "continue to review oil supply and demand levels to ensure market stability, prevent oil price volatility, and avoid harming the world economy." (DJ)

Feb. 27 BP Amoco and Atlantic Richfield hold talks with the Federal Trade Commission (FTC) on their proposed merger, which the FTC has filed suit in a federal court to block. The two companies have reportedly offered major concessions, including a much larger sale of Alaskan North Slope production assets. (WSJ)

Feb. 27 Columbia Energy agrees to be acquired by NiSource, ending an eight month long takeover battle. The deal is valued at $6 billion, will make NiSource the largest natural gas company east of the Rocky Mountains. (WSJ)

Feb. 28 Arabian Oil Company, the Japanese firm that produces crude oil in the Neutral Zone of Kuwait and Saudi Arabia, announces the expiration of its concession for production in the Saudi half of the Zone. The firm's concession for the Kuwaiti portion of the Neutral Zone expires in 2003. (DJ)

Mar. 2 Valero Energy Corporation agrees to purchase ExxonMobil's 160,000 barrel per day refinery at Benicia California, and 340 retail gas stations for $895 million. The sale is part of the package of divestitures which Exxon and Mobil agreed to in order to secure approval for their merger from the Federal Trade Commission (FTC). Valero was selected despite a higher bid from Ultramar Diamond Shamrock Corporation, in the expectation that Valero posed fewer potential problems with approval by the FTC, as it has not previously sold gasoline in California and would introduce a new competitor into that market. (WSJ)

Mar. 3 A strike by workers at Petroleos de Venezuela (PdVSA) officially begins, but fails to attract much support from union members. Only about 15 percent of PdVSA workers fail to report for work, according to the company, and operations are not disrupted. (DJ)

Mar. 6 The United States Supreme Court overturns the state of Washington's law establishing state regulation of oil tankers, ruling unanimously that federal laws take precedence. The attempt to impose tougher regulatory standards came in the wake of the 1989 Exxon Valdez disaster in Alaska. (WP, NYT)

Mar. 7 New York Mercantile Exchange front-month crude oil futures close at $34.13 per barrel, the highest level in nine years. (WSJ)

Mar. 9 South Korea's Hyundai Corporation announces that it is to begin developing Libya's Elephant oilfield, discovered in 1997. The project is expected to produce 150,000 barrels per day when it reaches full output capacity in 2003. (DJ)

Mar. 14 The Clinton administration announces changes to the system for assessing royalties for oil production on federal lands. In the future, royalty calculations will be pegged closer to current spot market prices, instead of an arbitrary value at the wellhead. The changes are expected to generate an additional $67.3 million in revenues. (WP)

Mar. 15 Phillips Petroleum announces that it has agreed to purchase Atlantic Richfield's assets in Alaska for $6.5 billion. The sale is being made in an effort to secure approval from the Federal Trade Commission (FTC) for the merger of Atlantic Richfield with BP Amoco. Earlier the same day, the FTC announced that it had suspended its antitrust lawsuit seeking to block the merger, citing progress in talks with the companies involved. (DJ, NYT, WSJ)

Mar. 17 Secretary of State Madeleine Albright announces an easing of some United States economic sanctions against Iran. Purchases of several non-energy items produced in Iran, such as pistachio nuts and Persian rugs, now will be permitted. Sanctions dealing with Iran's oil and gas industries, however, remain in place. (NYT)

Mar. 20 EPA Administrator Carol Browner announces that the Clinton Administration intends to push for a phaseout of the use of methyl tertiary butyl ether (MTBE) as a gasoline additive. The administration wants Congress to pass legislation that would end the requirement for the use of MTBE in gasoline sold in some smog-prone urban areas, and instead require nationwide use of ethanol. (DJ)

Mar. 21 Secretary of Energy Bill Richardson arrives in Algiers to meet with Algeria's oil minister, Chakib Khalil, as part of a final round of talks with oil producers about the need to increase production in advance of the OPEC ministerial meeting scheduled for March 27th. The visit is the first to Algeria by a cabinet level American official in over a decade. Earlier in the day, Secretary Richardson has visited Nigeria for talks with President Olesegun Obasanjo. (SJ)

Mar. 23 Vice Admiral Charles Moore, who oversees United States naval operations in the Persian Gulf, briefs the United Nations Sanctions Committee on the increased smuggling of Iraqi oil. Iraq is expected to earn in excess of $500 million from oil smuggling, and possibly up to double that amount, in the absence of strong action by Iran to prevent the use of its territorial waters by smugglers. (DJ, NYT)

Mar. 23 BP Amoco announces that it will purchase 20% of the shares to be offered by PetroChina in its initial public offering (IPO) on the New York and Hong Kong stock exchanges on April 7th. PetroChina is a unit of China National Petroleum Corporation (CNPC), China's largest oil and gas company. The announcement by BP Amoco provides a needed boost to the IPO, which had to be scaled back in size by more than half due to lack of interest on the part of many large institutional investors. The two firms also announce the formation of a joint venture that will build natural gas distribution infrastructure in parts of coastal China. (LAT, WSJ)

Mar. 23 Russia's Lukoil announces the discovery of as much as 2.2 billion barrels of new oil reserves in the Russian sector of the Caspian Sea. (WSJ)

Mar. 26 Vladimir Putin is elected president of Russia on the first ballot, winning 53 percent of the popular vote. Putin took office as acting president in December 1999 after the resignation of Boris Yeltsin. (DJ)

Mar. 27 ExxonMobil files a lawsuit in an attempt to block the sale of Atlantic Richfield's assets in Alaska to Phillips Petroleum. ExxonMobil holds stakes in Prudhoe Bay assets currently operated by Atlantic Richfield. (DJ)

Mar. 28 After two days of meetings, oil ministers of the Organization of Petroleum Exporting Countries (OPEC) agrees on an increase in oil production of 1.452 million barrels per day by its members, excluding Iran and Iraq. Iraq, has not been subject to OPEC production agreements while under U.N. Security Council sanctions. Iran, though not formally signing on to the agreement, stated its intention to raise its production in order to avoid loss of its market share. This would represent about a 1.7 million barrel per day increase in OPEC production targets, if Iran was included. Several major non-OPEC producers, including Mexico and Norway, also have indicated an intention to raise production. (DJ)

Mar. 30 The State Department announces that it is lifting its hold on an Eximbank loan to Russia's Tyumen Oil Company. The loan was blocked by the State Department in December due to a dispute between Tyumen and BP Amoco over the ownership of assets in Siberia's Chernegorneft oil field, but the two firms had since reached a settlement. (WP, NYT)

Mar. 30 The United Nations Security Council votes to allow Iraq to import $1.2 billion in spare parts and other equipment for its oil industry this year under the "oil for food" program. This is an increase from the previous $600 million annual value allowed. (NYT)

Apr. 5 The government of Iran announces that it has seized a tanker that was smuggling Iraqi oil through Iranian territorial waters. A spokesman for the United States Department of State welcomes the action. (NYT, WP)

Apr. 6 PetroChina, a holding company that serves as a listing vehicle for the China National Petroleum Corporation, launches an initial public offering (IPO) on the New York and Hong Kong stock exchanges. The IPO is valued at nearly $3 billion, scaled back drastically in size due to a lack of investor interest. (WSJ)

Apr. 7 Tosco Corporation agrees to purchase the Wood River Refinery from Equilon Enterprises, a joint venture between Texaco and Shell, for $420 million. Equilon officials say the sale is part of a shift to concentrate on the West Coast petroleum products market. (NYT)

Apr. 12 Several Chief Executive Officers (CEOs) of major United States oil companies meet with senior Saudi Arabian officials to discuss possible investments in natural gas and petrochemical projects. The firms represented at the meetings include ExxonMobil, Conoco, Texaco, Chevron, Phillips Petroleum, and Marathon Oil. The Saudi government announces, in conjunction with the meetings, a package of legal changes that will make Saudi Arabia more open to foreign investors. Complete foreign ownership will be allowed for some types of projects, and the maximum corporate tax rate for foreign enterprises will be reduced to 15 percent. (WP)

Apr. 14 BP Amoco receives approval from the Federal Trade Commission (FTC) for its $28 billion takeover of Atlantic Richfield Corporation (ARCO). As part of the approval, ARCO has agreed to sell its crude oil production operations in Alaska to Phillips in a deal valued at $6.5 billion. (WP, WSJ)

Apr. 18 The China National Petroleum Corporation (CNPC) announces an agreement with Petroleos de Venezuela (PDVSA) to begin purchases of Orimulsion, a power-plant fuel made from bitumen from Venezuela's Orinoco region. (NYT)

Apr. 18 Amerada Hess Corporation announces an agreement with the Algerian state-owned oil company Sonatrach to develop three oil fields in central Algeria. The $555 million project will develop the El Gassi, El Agreb, and Zotti fields. (NYT)

Apr. 19 The United States Commerce Department reports a record $29.2 billion trade deficit for February 2000. This is due largely to the sharp increase in prices for crude oil imports, which added $1.3 billion to the monthly trade deficit. (WP)

Apr. 24 The American Petroleum Institute (API) files a federal lawsuit seeking to overturn the Interior Department's new rules for royalty valuation of natural gas produced from federal government lands. The Independent Petroleum Association of America (IPAA), which represents independent oil and gas companies, also has filed a similar lawsuit. (DJ)

Apr. 25 Royal Dutch Shell agrees to pay a $2 million fine for transporting smuggled Iraqi oil aboard a Russian tanker. The tanker, *Akademik Pustovoit*, was detained by United States naval vessels enforcing United Nations sanctions against Iraq on April 5th. Defense Department spokesman Kenneth Bacon states that Shell appeared to have acquired the Iraqi oil unwittingly, and would therefore be allowed to keep the cargo. The fine will go into a United Nations fund for the enforcement of sanctions. (NYT, WP)

Apr. 28 Azerbaijan, Georgia, and Turkey sign a final governmental agreement in Washington on the planned Baku-Ceyhan pipeline, which would transport oil from the Caspian Sea region to Western markets through the Turkish port of Ceyhan. The agreement covers the issues of transit fees, security, and governmental liability involved in the project. (DJ)

Apr. 29 Iraq's oil ministry states that it expects to export more than $8.5 billion worth of oil in the current six-month phase of the United Nations "oil for food" program. (DJ)

Apr. 30 TotalFinaElf announces that it intends to invest $8 billion in Saudi Arabia's natural gas sector. The announcement comes following a meeting between Total Chairman Thierry Desmarest and Saudi Arabia's oil and gas policy committee, which includes Foreign Minister Saud al-Faisal and Petroleum Minister Ali Naimi. The Saudi government has been seeking foreign investment in natural gas and petrochemical projects. (DJ)

Apr. 30 The National Iranian Oil Company (NIOC) signs a 25-year agreement with a consortium of multinational firms for a set of studies dealing with its natural gas sector. The topics will include estimating reserves and assessment of Iran's prospects for both increased domestic use and exports of natural gas. Firms involved in the agreement include BP Amoco, Royal Dutch Shell, British Gas, and Gaz de France, among others. (DJ)

May 2 ExxonMobil signs a production-sharing agreement with Qatar General Petroleum Corporation (QGPC) for the development of natural gas from Qatar's offshore North Field. The project is expected to eventually produce 1.75 billion cubic feet per day, much of which will be exported to the United Arab Emirates (UAE) as part of the Dolphin Project, a series of pipelines linking the gas grids of Qatar, the UAE, and Oman. (DJ)

May 5 Indonesia's central government proposes three management options to the government of Riau province for the Penkanbaru field, Indonesia's largest. The options include the possibility of Riau taking over state oil company

Pertamina's stake in the field. The move is part of an effort by the government of President Wahid to distribute oil and gas revenues more fairly among Indonesia's regions. (DJ)

May 10 BP Amoco reports the discovery of a major natural gas field off the coast of Trinidad, which may hold 2 trillion cubic feet of gas. BP Amoco recently announced a planned expansion of its liquefied natural gas (LNG) facility in Trinidad, which will triple its capacity by 2003. (DJ)

May 16 Several sources, including the Washington Post, report a major oil find at the Kashagan field offshore from Kazakhstan, with reserves reportedly greater than 8 billion barrels. If these early reserve estimates prove correct, the additional production volumes could boost chances for construction of the proposed Baku-Ceyhan pipeline. (WP, DJ)

May 16 Senate majority leader Trent Lott and other Republicans introduce legislation intended to boost United States domestic oil production. Among other actions, the bill would provide a tax credit of up to $3 per barrel for production from marginal wells during period of low oil prices and open up the coastal portion of the Arctic National Wildlife Refuge (ANWR) to oil exploration. (DJ)

May 17 Chevron announces that it is to acquire an additional 5 percent stake in Tengizchevroil, the firm that operates the Tengiz field in Kazakhstan, in a deal valued at $450 million. The Kazakh government share in the field will fall to 20 percent. (DJ)

May 17 The Environmental Protection Agency (EPA) formally proposes a rule that, if finalized, would reduce allowable sulfur levels in diesel fuel by 97 percent over the next five years. The move is opposed by major refiners. (DJ)

May 19 BP Amoco receives approval from the European Union for its acquisition of Burmah Castrol, for $4.7 billion. After the purchase, BP Amoco will hold a 15 percent market share for automotive lubricants in Europe, comparable to TotalFinaElf and ExxonMobil. (DJ)

May 19 A federal appeals court denies a petition by six major oil companies to rehear a decision upholding a Unocal patent for reformulated gasoline. Uncertainty over Unocal's patent rights has led some refiners to stay out of the market for reformulated gasoline, fearing that they may infringe on one of Unocal's five patents related to reformulated gasoline. (DJ)

May 21 Russian President Vladimir Putin appoints Alexander Gavrin as Minister of Energy. Gavrin, a former Lukoil executive, replaces Victor Kalyuzhny. Putin also abolishes Russia's State Committee on the Environment, transferring its functions to the Ministry of Natural Resources, which licenses oil and gas development. (WSJ, WP)

May 22 The United States Supreme Court agrees to hear a case involving the power of federal agencies to issue regulations under broad grants of authority from Congress. The Environmental Protection Agency (EPA) is appealing a decision by a federal appellate court that invalidated new standards set by the EPA in 1997 for ozone and particulate matter emissions. The case, *Browner vs. American Trucking Association*, is significant because it is the first time since 1935 that a federal regulatory program has been struck down under the "non-delegation doctrine."

May 23 The Energy Information Administration releases a study of oil reserves in the Arctic National Wildlife Refuge (ANWR), which currently is off-limits to oil exploration. The study estimates that there are between 5.7 and 16 billion barrels of recoverable oil in the ANWR. (WSJ)

May 24 BP Amoco agrees to purchase the 18.1 percent of Houston-based upstream oil and gas producer Vastar Resources that it does not already own. The deal is valued at $1.6 billion. (WSJ)

May 26 Devon Energy agrees to acquire Santa Fe Snyder Corporation for $2.35 billion in stock, plus the assumption of about $1 billion in debt. The deal will put Devon Energy among the largest independent oil and gas producers in the United States. (DJ)

May 29 Retail gasoline prices in the United States reach their highest level ever, with an average price of $1.538 per gallon. The previous peak was $1.529 per gallon, on March 20, 2000. These figures are not adjusted for inflation. (DJ)

May 30 The Environmental Protection Agency (EPA) denies requests from petroleum marketers in Chicago and Milwaukee for a temporary exemption from a requirement to sell reformulated gasoline, rejecting marketers' claims of supply

shortages in those cities. Earlier, on May 18, the EPA had approved such a temporary waiver for St. Louis, based on a local supply shortage. (DJ)

May 31 Iraqi Oil Minister Amir Muhammad Rashid states that Iraq does not intend to cooperate with the United Nations Monitoring, Verification, and Inspection Commission (UNMOVIC), the new body created to verify Iraq's destruction of prohibited weapons. In other comments, he also states that Iraq does not intend to sign more contracts with foreign oil companies to develop its oilfields until contracts previously awarded are implemented. (DJ)

May 31 TransCanada Pipelines agrees to sell its stakes in several natural gas transmission assets in Argentina, Brazil, and Chile to TotalFinaElf for $440 million. The sales come as part of TransCanada's drive to divest non-core assets, which the company expects to result in revenues of $3 billion. (DJ)

May 31 Oilfield services firms Baker Hughes and Schlumberger agree to create a venture that will unite the two companies' seismic survey units. The joint venture, Western Geco, will own seismic survey hardware, data processing operations, and the companies' archives of seismic survey data. The firm will be 70 percent owned by Schlumberger and 30 percent owned by Baker Hughes. Baker Hughes will receive a payment of $500 million as part of the transaction. (DJ)

June 6 The World Bank executive board votes to approve a loan of $193 million to support a project to build a crude oil pipeline from Chad to the coast of Cameroon. The countries will collect an estimated $2 billion in revenues from the project over a period of 25 years. (DJ)

June 8 The Brazilian government conducts an auction of oil exploration and production concessions covering a total of 21 blocks, both onshore and offshore. The auction represents an important step in the opening of Brazil's oil industry to international competition and investment. (NYT)

June 9 The United Nations Security Council passes a resolution extending the "oil for food" program, under which Iraq sells oil to finance imports of food and other civilian necessities, for a period of six months. (NYT)

June 9 The United States and Mexico sign a treaty resolving the issue of economic rights over the deepwater "doughnut hole" area in the Gulf of Mexico between the two countries. The agreement is based on measuring distances from each country's coast, and gives the United States rights to 38 percent of the area. (DJ)

June 10 Syrian President Hafez Assad dies in Damascus. Syria's parliament votes to amend the constitution to lower the minimum age for a president, a move seen as facilitating a succession by his son, Bashar Assad. (DJ)

June 15 The German government announces an agreement with utilities for the complete phaseout of nuclear power. Nuclear power plants will be closed after a lifespan of 32 years. Nuclear power supplies about one-third of Germany's electricity, and the phaseout plan may complicate Germany's plans to reduce fossil fuel consumption to curb greenhouse gas emissions. (DJ)

June 15 The Department of Energy orders the release of 500,000 barrels of crude oil from the Strategic Petroleum Reserve (SPR). The oil is to be loaned to Citgo's refinery at Lake Charles, Louisiana, which has been cut off from it normal crude oil supplies by an obstructed waterway. (DJ)

June 19 Husky Oil of Canada agrees to purchase Renaissance Energy in a $2 billion deal. The new entity created by the merger will be the second largest producer of oil and gas in Canada. (WSJ)

June 19 The Energy Information Administration (EIA) reports a one-week rise of five cents in the average price of regular gasoline, to $1.681. This is the seventh straight week of increasing prices. Gasoline prices in the Midwest are the nation's highest, at $1.874. (DJ)

June 20 The Federal Trade Commission (FTC) launches a formal investigation into high gasoline prices in some areas of the Midwest, which has seen gasoline prices rise disproportionately in relation to the rest of the United States. (DJ)

June 21 Oil ministers from the Organization of Petroleum Exporting Countries (OPEC), meeting in Vienna, agree to raise production quotas by a total of 708,000 barrels per day. OPEC's total production quota will rise to 25.4 million barrels per day as of July 1, 2000. The next day, crude oil futures rise, with the New York Mercantile Exchange (NYMEX) August contract closing June 22 at $32.19. (DJ)

June 26 The United States Supreme Court orders the federal government to refund $156 million that Mobil Oil and Marathon Oil had paid for exploration rights off the coast of North Carolina. Plans to develop the area were derailed in 1990 by the Outer Banks Protection Act, which required extensive environmental analysis by the Department of the Interior before drilling would be permitted. The plaintiffs argued that the law amounted to an "open ended moratorium" on the companies' exploration plans. (DJ)

June 27 The Wall Street Journal reports that PSG International, the joint venture company formed by GE Capital and Bechtel to build the Trans-Caspian Gas Pipeline (TCGP), has laid off most staff and closed offices associated with the project. The discovery of natural gas at the Shah Deniz field off Azerbaijan in 1999 has complicated negotiations on the project. (DJ)

June 29 Norway's Oil and Energy ministry announces that it is rescinding its production cut of 100,000 barrels per day, which is had undertaken in cooperation with production cuts by the Organization of Petroleum Exporting Countries (OPEC), of which it is not a member. It is unclear whether the move will have significant impact, as Norway's production cuts are subtracted from planned, not actual, quantities, and it is unclear whether Norway can meet its full planned production of 3.4 million barrels per day in the near term. (DJ)

June 30 The Environmental Protection Agency (EPA) proposes a rule change that would make it easier for refiners to use ethanol in gasoline. The proposed change allows refiners to slightly increase the evaporative property in gasoline to accommodate ethanol, in exchange for the carbon-monoxide reductions that result from ethanol use. (DJ)

June 30 The Department of Justice and the State of Wisconsin file suit against Murphy Oil, alleging Clean Air Act violations at the company's refinery in Superior, Wisconsin. (DJ)

June 30 Australia's Woodside Petroleum rejects an asset-equity swap deal proposed by Royal Dutch Shell, which would have resulted in Shell owning a majority interest in Woodside. Analysts have said the rejection by Woodside may result in a hostile takeover bid by Shell. (DJ)

June 30 Shareholders of the Russian natural gas company Gazprom elect Dimitry Medvedev, a former senior government official, to take over as Chairman. Medvedev replaces former Prime Minister Victor Chernomyrdin in the post. Gazprom provides the Russian government with almost one-fifth of its tax revenue and accounts for about 6 percent of Russia's gross domestic product (GDP). (DJ)

July 3 News reports attributed to sources at the Organization of Petroleum Exporting Countries (OPEC) say that Saudi Arabia plans to increase production by 500,000 barrels per day in an effort to lower the price of the "OPEC Basket." Later the same day, Saudi oil minister Ali Naimi confirms that Saudi Arabia intends to increase production "very soon" if prices remain above the OPEC price range of $22-$28 per barrel. (DJ)

July 5 Halliburton announces that it has received contracts from the Brazilian state-owned oil company Petrobras for the development of the Barracuda and Caratinga offshore oilfields. The contracts, with a total value of $2.5 billion, provide for the construction of two floating production, storage, and offloading units and the drilling of 51 wells. (DJ)

July 5 Tosco Corporation agrees to sell its Avon refinery near San Francisco to Ultramar Diamond Shamrock in a transaction valued at $800 million. (DJ)

July 11 Kuwait Petroleum Corporation announces plans to increase its production capacity to three million barrels per day, in a program of facility upgrades that will take approximately three years to complete. (DJ)

July 12 The Kuwaiti parliament ratifies a treaty with Saudi Arabia resolving competing claims to offshore mineral rights. The two countries will share revenues from the Khafji, Dorra, and Hout oil and gas fields. The treaty will allow the two governments to begin negotiations with Iran to settle conflicting claims, which have again surfaced as Iran has begun drilling in the Dorra offshore gas field. (DJ)

July 12 In a policy shift that will allow foreign investors a majority stake in the planned Xinjiang-Shanghai natural gas pipeline project, the Chinese government announces that it is ending its ban on foreign ownership of natural gas infrastructure. A tender for the project is planned for later this year, and construction is to begin in 2001. The shift is seen as a further attempt by China to attract foreign capital to its energy sector. (DJ)

July 13 BP Amoco agrees to sell its Alliance Refinery at Belle Chasse, Louisiana to Tosco Corporation for $660 million. The sale will bring Tosco's refining capacity to 1.35 million barrels per day. BP Amoco plans to sell its Alliance Pipeline to other buyers. BP Amoco currently owns 21 refineries, but has announced plans to sell off more refining capacity, including its interests in Singapore. (DJ)

July 24 BP Amoco announces that it will launch a new brand identity worldwide, consolidating the acquisitions of Amoco, Burmah Castrol, and Atlantic Richfield. The company will drop the Amoco name, and will adopt a new green, white, and yellow logo based on the sun god Helios from Greek mythology. (DJ)

July 25 Israeli-Palestinian peace talks at Camp David break off after two weeks of U.S.- mediated negotiations fail to produce an agreement. (DJ)

July 25 A petroleum products pipeline catches fire in southeastern Nigeria, resulting in many deaths. Oil pipeline fires are common in the Niger Delta region, often resulting from attempts to steal petroleum products. (DJ)

July 25 A large spill of diesel fuel takes place in Guanabara Bay near Rio de Janeiro in Brazil. The event is the third major oil spill in Brazil in 2000. (WP)

July 26 The Offshore Kazakhstan International Operating Consortium (OKIOC), which includes nine international oil companies, reports substantial flows of oil and natural gas from the first well drilled at the Kashagan field. OKIOC plans to drill a second test well at the western ends of the structure, 25 miles away from the first well, before the end of 2000. (WSJ)

July 27 Qatar General Petroleum Corporation (QGPC) and ExxonMobil sign a memorandum of understanding with Kuwait Petroleum Corporation for exports of Qatari natural gas to Kuwait. The gas will come from Qatar's offshore North Field. (DJ)

July 27 Italy's ENI signs a deal with Iran worth $3.8 billion for the development of the country's South Pars gas field in the Persian Gulf. The project will take five years to become operational, and will eventually produce 530 million cubic feet of gas per day. (DJ)

July 28 Spain's Repsol and Brazil's Petrobras agree to a $1 billion asset swap that will make Repsol the second largest oil refiner. The two companies also agree to jointly produce electricity in Brazil. (DJ)

July 31 A Shell executive involved in the Trans-Caspian Gas Pipeline (TCGP) project warns that time is running out for reaching an agreement with the government of Turkmenistan. The Turkmen government has reportedly been asking for a pre-payment from the companies developing the pipeline, a demand they have not been willing to accept. In June 2000, consortium partner PSG International closed offices in the region associated with the TCGP project. (DJ)

July 31 The Middle East Economic Survey (MEES) reports that Saudi Arabia has short-listed eleven bidders who will be asked to submit formal proposals for integrated natural gas projects and downstream oil projects in August 2000. The firms reported to have been invited to bid include Royal Dutch Shell, Phillips Petroleum, Chevron, ExxonMobil, Texaco, Conoco, BP Amoco, ENI, Marathon Oil Canada, TotalFinaElf, Enron, and Occidental. (Enron and Occidental have submitted a joint bid.) (DJ)

Aug. 1 ExxonMobil announces that it expects to attain cost savings of $4.6 billion as a result of its recent merger, up 65% from its original estimate. Cost-cutting measures include a staff reduction of 19,000 from the original combined total of 123,000. (WSJ)

Aug. 1 The Organization of Petroleum Exporting Countries (OPEC) officially tells member governments to cancel plans to raise production. On July 17th, with the price of the OPEC Basket above $28.00 since July 1, OPEC President Ali Rodriguez told members in a letter to prepare for an increase by the end of July, provided the OPEC Basket price stayed above the $28.00 ceiling in OPEC's "price band." The price then fell below the threshold. (LAT)

Aug. 10 General Motors and ExxonMobil announce that they are jointly developing a gasoline processor for fuel cell-powered vehicles. The processor will create a stream of hydrogen derived from the gasoline that will run the fuel cell, which could be twice as efficient as a regular gasoline engine. General Motors says it plans to put fuel cell-powered vehicles on the market in significant numbers by 2004. (WSJ)

Aug. 10 Venezuelan President Hugo Chavez meets with Iraqi President Saddam Hussein in Baghdad as part of a tour of members of the Organization of Petroleum Exporting Countries (OPEC). He is the first head of state to visit Saddam Hussein since the 1990 Iraqi invasion of Kuwait. (NYT, WP)

Aug. 10 Shares of Petrobras, the Brazilian oil company, begin trading on the New York Stock Exchange, as the Brazilian government sells a 16.6 percent stake in the majority state-owned firm, raising more than $4 billion. (WSJ, NYT)

Aug. 16 ExxonMobil announces that it and four other refiners will ask the Supreme Court to review a lower court ruling upholding Unocal's patent covering reformulated gasoline. The Supreme Court will announce this fall whether it will hear the case. (WSJ)

Aug. 17 The Wall Street Journal reports that, in a reversal, President Sapamurad Niyazov is again actively pursuing the Trans-Caspian Gas Pipeline. The shift in policy reportedly is communicated during a meeting with the Turkish ambassador in Ashgabat. (WSJ)

Aug. 20 Ten people die as a result of a gas pipeline explosion outside of Carlsbad, New Mexico. The pipeline, which carries natural gas from West Texas to California, is owned by El Paso Energy. (DJ)

Aug. 22 PetroChina and the Hong Kong firm Hutchinson Whampoa announce the formation of a joint venture that will develop a business-to-business Web portal for oil and gas businesses in China. PetroChina says it expects the move to reduce its own procurement costs by 5 to 10 percent. (DJ)

Aug. 23 The Energy Information Administration reports that crude oil stock levels in the United States have fallen to their lowest level since 1976. Crude oil for October delivery closes at $32.02 on the New York Mercantile Exchange (NYMEX), up 80 cents. (DJ)

Aug. 24 Enron announces an agreement with German regulators that will allow the company to begin supplying the municipal utilities of two German cities with natural gas. As with other members of the European Union (EU), Germany must open part of its natural gas market to foreign competition to fulfill its EU commitments. (DJ)

Aug. 24 Iraq's Deputy Prime Minister Tariq Aziz says Iraq will not cooperate with the United Nations Monitoring, Verification, and Inspection Commission (UNMOVIC), the body created by the United Nations to replace the former United Nations Special Commission on Iraq (UNSCOM). (DJ)

Aug. 25 President Clinton begins an official visit to Nigeria. Nigeria is the sixth-largest supplier of crude oil to the United States, accounting for about 8 percent of American imports. (NYT)

Aug. 25 BP Amoco wins the right to retain its 10% stake in the Russian oil company Sidanco, when the shareholders vote to allow the former rival to receive newly-issued shares in exchange for a subsidiary it lost in a disputed bankruptcy proceeding. (DJ)

Aug. 25 Florida Power and Light (FPL), the largest electric utility in the United States, files with the Florida Public Service Commission for approval to raise electricity tariffs in the state. The company cites increased costs for natural gas and fuel oil. (DJ)

Aug. 28 Futures contracts for heating oil reach their highest price since October 1990, trading as high as $1.00 per gallon before falling back to close at 99.9 cents per gallon. The price rise reflects low stock levels for heating oil in the United States, which have fallen almost 40% in relation to the same period last year.

Aug. 30 The Department of Energy awards contracts to create a two-million-barrel reserve of heating oil. The oil will be stored in privately owned facilities in Woodbridge, New Jersey and New Haven, Connecticut. (DJ)

Aug. 31 PetroChina, China's largest oil and gas company, announces that it plans to eliminate 50,000 jobs annually over the next five years in a move to cut its operating costs. At the end of 1999, PetroChina had a staff of 480,000. (DJ)

Sep. 2 Royal Dutch Shell announces its intention to invest in the development of natural gas reserves on Russia's Sakhalin Island in the northern Pacific Ocean. Shell spokesmen say they expect Sakhalin's gas deposits to become a major source of supply for Northeast Asian countries. (DJ)

Sep. 8 Truck drivers in Britain begin a blockade of oil refineries to protest high fuel prices. The blockade follows a similar protest in France. (DJ)

Sep. 10 The Organization of Petroleum Exporting Countries (OPEC), at a meeting of OPEC oil ministers in Vienna, agrees to raise production quotas by 800,000 barrels per day (to 26.2 million barrels per day, not counting Iraq) in an attempt to push crude oil prices back under $28 per barrel. The quota increases become effective October 1.

Sep. 12 Royal Dutch Shell announces that it plans to purchase 14 percent of shares offered in the upcoming initial public offering (IPO) of the Chinese Petrochemical Corporation (Sinopec) for $430 million. BP Amoco had announced a purchase of $400 million in Sinopec equity the previous day. ExxonMobil is also reported to be planning a major purchase of Sinopec shares. (DJ)

Sep. 19 The Russian government sells off an 85 percent stake in the oil company Onanko for nearly $1.1 billion to a company affiliated with Tyumen Oil. The Tyumen bid beat a lower bid from a consortium including Yukos Oil and Sibneft. (DJ)

Sep. 20 Oil prices close at $37.20 on the New York Mercantile Exchange (NYMEX), after trading as high as $37.80 during the day's trading session. The price spike comes amid an increase in tensions between Iraq and Kuwait. This level sets a new ten-year high for NYMEX crude oil. (DJ)

Sep. 20 The president of the China National Offshore Oil Company (CNOOC) announces that the firm is planning a $4 billion joint venture petrochemical plant in Guangdong province with Royal Dutch Shell. He also confirms that CNOOC still plans to move forward with an initial public offering (IPO) of stock on the New York and Hong Kong stock exchanges in the first quarter of 2001. (DJ)

Sep. 20 BP Amoco announces that it plans to begin supplying significant quantities of natural gas from Alaska's North Slope to the lower 48 states by 2007. The company says it is exploring options for utilizing the gas that include a pipeline, transportation as liquefied natural gas (LNG), and conversion of some of the gas into synthetic crude oil. (DJ)

Sep. 22 President Clinton authorizes the release of 30 million barrels of oil from the Strategic Petroleum Reserve (SPR) over 30 days in an attempt to counter rising oil prices. The release will take the form of a "swap," in which crude oil volumes drawn from the SPR will be replaced by the recipients at a later date. Crude oil for November delivery falls four percent, to $32.68, on the New York Mercantile Exchange (NYMEX). (DJ)

Sep. 23 President Clinton announces the release of $400 million in federal assistance for low-income households that rely on heating oil during the winter months. The amount is the largest allocation ever for the Low Income Heating Assistance Program (LIHEAP). (DJ)

Sep. 26 A summit of heads of government of the Organization of Petroleum Exporting Countries (OPEC) opens in Caracas, Venezuela. The summit is only the second OPEC meeting held at that level. The summit ends on a conciliatory note, with the communiqué calling for increased dialogue between OPEC and consuming nations. (DJ)

Sep. 27 Royal Dutch Shell announces that it intends to spend $1.3 billion on the development of the Na Kika offshore oilfield in the Gulf of Mexico. Production at the field is expected to begin in 2003 and peak at 100,000 barrels per day. (DJ)

Sep. 28 A federal grad jury indicts Koch Industries for alleged violations of environmental laws involving emissions of benzene at its refinery in Corpus Christi, Texas. (DJ)

Sep. 28 The United Nations Compensation Commission, which handles claims for reparations arising from Iraq's 1990 invasion of Kuwait, approves by consensus a $15.9 billion claim by Kuwait for compensation for lost oil production and damage to oil reserves and equipment. The proportion of revenues from Iraqi oil sales under the "oil for food" program that are used for payment of claims is reduced from 30 percent to 25 percent. Iraq condemns the decision, but states that it will not call a halt to oil exports, as had earlier been feared. (DJ)

Sep. 28 Crude oil prices drop after Saudi Arabia's Crown Prince Abdullah, at a summit of the Organization of Petroleum Exporting Countries (OPEC), states that Saudi Arabia is ready to supply the world market with whatever amount of oil is needed to stabilize prices. Crude oil futures on the New York Mercantile Exchange (NYMEX) close at $30.34 per barrel, down nearly four percent. (DJ)

Sep. 28 The leader of Israel's Likud Party, Ariel Sharon, makes a controversial visit to the Temple Mount (known to Muslims as the Haram al-Sharif). Palestinians stage violent demonstrations in response. (DJ)

Oct. 2 Gulf Canada Resources agrees to buy Crestar Energy for $1 billion in cash and stock. The deal will create North America's 11th largest independent oil and gas producer. (WSJ)

Oct. 2 The United States Supreme Court rejects an appeal by ExxonMobil regarding $5 billion in damage awards against the company stemming from the 1989 Exxon Valdez oil spill in Alaska. ExxonMobil had argued that improper comments by a court bailiff to a juror in the case warranted a new trial. (WSJ)

Oct. 12 The New Zealand Commerce Commission announces that it will block a proposed takeover of New Zealand's Fletcher Energy by Royal Dutch Shell. The transaction would have left Shell with control of about 80% of New Zealand's oil and gas reserves. (NYT)

Oct. 12 Oil prices rise sharply on news of a terrorist attack on an American warship, the USS Cole, in the Yemeni port of Aden, as well as escalating violence between Palestinians and Israeli security forces. November crude oil on the New York Mercantile Exchange (NYMEX) rises $2.81 to close at $36.06 per barrel. Prices for Henry Hub natural gas hit a record high of $5.78 per million British thermal units (BTU) before falling back slightly to close at $5.63 per million BTU. (WSJ)

Oct. 14 The Department of Energy finalizes contracts for crude oil to be withdrawn from the Strategic Petroleum Reserve as part of an effort to ease possible supply shortages during the upcoming winter heating season. (DJ)

Oct. 15 Chevron agrees to purchase Texaco for $35.1 billion in stock. The deal would create the fourth largest oil and gas company in the world, and follows a general trend toward consolidation among the major oil companies over the last two years. Analysts expect the merger, like other recent mergers, to face intensive antitrust scrutiny, especially as a combined ChevronTexaco would have a heavy share of both refining capacity and retail outlets on the west coast of the United States. (WSJ)

Oct. 16 Venezuela's state-owned oil company, Petroleos de Venezuela (PdVSA), reaches an agreement on pay increases with its main labor union Fedepetrol, ending a four-day strike. The previous day, Venezuela's president Hugo Chavez had fired the president of PdVSA, Hector Ciavaldini, replacing him with Giacaipuro Lameda Montero, who had served as the director of Venezuela's government budget office. (DJ)

Oct. 18 Shares of Chinese state-controlled oil company Sinopec begin trading on the New York stock exchange. Several major multinational oil companies, including ExxonMobil, BP, and Royal Dutch Shell purchase Sinopec stock. The total value of the initial public offering (IPO) is $3.6 billion. The move to list shares on a foreign stock exchange comes in the wake of a similar IPO by the other major Chinese oil company, China National Petroleum Corporation (CNPC) earlier this year. (DJ)

Oct. 18 Saudi Aramco, Saudi Arabia's state-owned oil company, is placed under the direct control of the Supreme Council for Petroleum and Minerals Affairs. The move is seen by analysts as transferring more authority over the country's oil industry to the foreign minister, Prince Saud al-Faisal, who chairs the council. (DJ)

Oct. 18 ExxonMobil announces the beginning of construction on the Chad-Cameroon pipeline, which will bring oil from the landlocked central African country of Chad to a loading terminal on Cameroon's Atlantic coast. The project, partially funded by the World Bank and the United States Export-Import Bank (Eximbank), is scheduled for completion in 2003. (DJ)

Oct. 26 Cuban president Fidel Castro meets with Venezuelan president Hugo Chavez in Caracas. The two leaders sign an agreement that will provide Cuba with Venezuelan oil at discounted prices. (WSJ, NYT)

Oct. 27 Russian president Vladimir Putin announces that Russia intends to resume supplies of natural gas to Yugoslavia, which had been cut off earlier this year as a result of Yugoslavia's failure to pay its debts to Gazprom. The announcement comes during a state visit by the new Yugoslav president Vojislav Kostunica to Moscow. Kostunica took office earlier in the month after winning an election against Slobodan Milosevic, and street demonstrations demanding that Milosevic honor the results. Western governments, including the United States, lifted economic sanctions against Yugoslavia in the wake of the transfer of power to a democratic government. (WP)

Oct. 30 The president of the Organization of Petroleum Exporting Countries (OPEC), Venezuelan oil minister Ali Rodriguez, announces that the cartel will raise production quotas by 500,000 barrels per day, beginning November 1st. OPEC's action comes as a result of its "price band" mechanism, which triggers an increase in production quotas when the price of the OPEC Basket of crude oils closes over $28 per barrel for twenty consecutive trading days. Many analysts voice doubt as to whether the OPEC quota increase will lead to an actual increase in production of that magnitude, given the lack of spare production capacity of most OPEC members. (DJ, WP, WSJ)

Oct. 31 The United Nations Sanctions Committee approves an Iraqi request to be paid in Euros, rather than United States dollars, for oil exported under the "oil for food" program, which is part of the sanctions regime stemming from Iraq's 1990 invasion of Kuwait. (DJ)

Nov. 3 Russia's Lukoil announces that it will purchase Getty Petroleum Marketing of the United States for $71 million. Lukoil eventually intends to switch Getty's 1,300 retail outlets in the Northeastern and Middle Atlantic states to the Lukoil brand name. The purchase represents the first takeover of a publicly traded American company by a Russian firm. (DJ)

Nov. 7 Saudi Arabia opens a border crossing point with Iraq to facilitate Saudi exports to Iraq under the United Nations "oil for food" program. The land border had been closed since the Iraqi invasion of Kuwait in 1990. (DJ)

Nov. 7 Amerada Hess Corporation agrees to purchase the UK's Lasmo Oil for $3.5 billion in cash and stock. The move will give Amerada Hess access to Lasmo's overseas oil production assets, and comes as part of a general trend toward consolidation in the oil industry. (NYT)

Nov. 7 The United States holds presidential elections. (DJ)

Nov. 12 Oil ministers of the Organization of Petroleum Exporting Countries (OPEC), meeting in Vienna, announce a decision to put any further production increases on hold until their next meeting scheduled for January 17, 2001. The move effectively ends OPEC's "price band" mechanism, which called for automatic increases in production quotas of 500,000 barrels per day when the price of the OPEC Basket of crude oils remained over $28 per barrel for 20 consecutive trading days. OPEC also selects the Venezuelan oil minister, Ali Rodriguez, as its new Secretary General. He will formally take over from Nigeria's Rilwanu Lukman on January 1, 2001. (NYT, WSJ)

Nov. 14 Turkmenistan's President Sapamurat Niyazov announces on state television that he has reached an agreement with Russia's Gazprom for the sale of more than one trillion cubic feet of Turkmen natural gas in 2001. The sale would account for the great majority of Turkmen gas exports, and is seen by many analysts as a blow to the proposed Trans-Caspian Gas Pipeline (TCGP). (WSJ)

Nov. 15 BP Amoco announces plans to sell three of its smaller refineries in the United States as part of its plans to reduce its global refining capacity by 500,000 barrels per day. The refineries in Salt Lake City, Utah, Mandan, North Dakota, and Yorktown, Virginia have a combined capacity of 177,000 barrels per day. The company plans to complete the sales by mid-2001.(DJ)

Nov. 16 Iraq's State Oil Marketing Organization (SOMO) demands that companies lifting cargoes of Iraqi crude oil begin paying a fifty cent per barrel surcharge starting on December 1, 2000. The surcharge would be paid directly to the Iraqi government rather than being channeled into the account administered by the United Nations under the "oil for food" program, and would constitute clear violation of sanctions. The Iraqi move leads to concerns over a possible Iraqi cutoff of oil supplies beginning December 1st. (DJ)

Nov. 17 New Zealand regulators approve the acquisition of Fletcher Energy by Royal Dutch Shell, after the company agrees to divest a number of Fletcher Energy assets to preserve competition. The deal the make Shell the largest oil and gas producer in New Zealand. (DJ)

Nov. 21 Press reports indicate that Iraq has begun pumping crude oil to Syria through a recently restored pipeline. A State Department spokesman says the United States embassy in Damascus has made an inquiry to the Syrian government about the reports. (DJ)

Nov. 22 Mexican President Vicente Fox names Ernesto Martens as the Minister of Petroleum in his new administration. Martens, is to take office December 1st, was previously an airline executive. (DJ)

Nov. 22 Egypt announces that it is recalling its ambassador to Israel in protest of Israeli military retaliation against a terrorist attack the previous day in the Gaza Strip. Relations between Israel and Arab states have worsened considerably in the wake of Israeli-Palestinian clashes that started in late September 2000. Qatar had earlier closed a trade office in Israel. (DJ)

Nov. 22 The Caspian Pipeline Consortium (CPC) announces the completion of its oil pipeline connecting oilfields in Kazakhstan to the Russian Black Sea port of Novorossisk. While the pipeline itself is completed, some work remains on related service equipment. The pipeline will begin operation in mid-2001. (DJ)

Nov. 22 Caltex Indonesia halts work at 17 drilling rigs in Riau province due to a strike by more than 3,000 employees of Caltex subcontractors. While the action does not affect current production, it may delay planned increases in production in the first quarter of 2001. (DJ)

Nov. 26 The sixth Conference of Parties (COP-6) of the Kyoto Protocol in The Hague ends without an agreement between member states on implementing cuts in emissions of greenhouse gases. One of the main issues under negotiation at the conference was the possibility that member states could claim credit for "carbon sinks," forests and farmland that absorbs carbon dioxide, as part of their overall commitment to reducing carbon dioxide emissions. Another main issue was "emissions trading," which would allow member states to purchase "emissions credits" from other member states whose carbon dioxide emissions were below their targets. (WP, WSJ, NYT)

Nov. 28 Canadian Prime Minister Jean Chretien wins reelection, with his Liberal Party winning 173 of the 301 seats in the Canadian House of Commons. (DJ)

Nov. 28 The Board of Directors of Australia's Woodside Petroleum rejects a takeover offer from Royal Dutch Shell, but agrees to present the offer to shareholders at its annual meeting in 2001. A takeover offer earlier in the year was also rejected. (DJ)

Nov. 30 Russia's Finance Minister Alexei Kudrin announces that an investigation by Russian tax officials has found widespread evidence of tax evasion by Russian oil companies, estimated to cost the Russian government $9 billion annually in lost revenues. Russian oil companies account for about 40 percent of Russia's hard currency export revenues and 25 percent of the Russian government's tax revenues. (NYT, WSJ, DJ)

Nov. 30 Natural gas futures soar to a record high as forecasts for colder weather in the Northeast and Midwest threaten to boost demand at a time when supplies of natural gas in storage are at low levels. Natural gas closes at $6.589 per million British Thermal Units (BTUs) on the New York Mercantile Exchange (NYMEX), a rise of 40.8 cents.(DJ)

Dec. 1 Vicente Fox is inaugurated as Mexico's president. (DJ)

Dec. 1 Iraq informs the United Nations Sanctions Committee that it intends to stand by its proposed oil prices for December, which the committee rejected earlier in the week because they were below fair market value. The Iraqi move is seen as part of its effort to force lifters of its oil to pay a 50 cent "surcharge" directly to Iraq. Iraq also suspends its oil exports. (DJ)

Dec. 4 California utilities are forced to cut off electricity supplies to some "interruptible" customers due to a supply shortage. California has suffered shortages and high wholesale electricity prices since May 2000. The immediate shortage stems, in part, from a reduction in electricity imports from the Pacific Northwest as a result of cold weather in the area. Other problems include: gas supply problems, low availability of hydroelectric and nuclear generating capacity, and high power demand. (DJ)

Dec. 5 The United Nations Security Council approves a six month extension to the Iraq "oil for food" program. (DJ)

Dec. 8 Press reports indicate that scheduled loadings of Syrian crude oil have increased by approximately 20 percent for December 2000. The increase is suspected by some analysts to be due to possible supplies of Iraqi crude oil to Syrian refineries through a recently-refurbished pipeline linking the two countries. (DJ)

Dec. 12 The Chinese government announces that it intends to begin a limited opening of the country's retail petroleum products market to competition by foreign oil companies. The opening will initially take the form of a pilot program in one or two cities in 2001. (DJ)

Dec. 13 Iraq resumes exports of crude oil after a disruption of nearly two weeks due to a dispute over payments with the United Nations. Iraq had cut off exports when clients had refused to pay a surcharge directly to Iraq, which would violate terms of the "oil for food" program permitting Iraq to export oil while sanctions remain in effect, rather than to the account controlled by the United Nations Sanctions Committee. Earlier, on December 8th, the committee approved Iraq's revised pricing offer for December 2000, which oil traders said is still below market value relative to comparable grades of crude oil. (DJ)

Dec. 15 Natural gas prices soar 13 percent after the National Weather Service issues a revised forecast predicting colder winter weather in the eastern United States. Henry Hub natural gas closes at $8.396 on the New York Mercantile Exchange (NYMEX), up 98.3 cents. Gas prices are running at record high levels on concerns over winter supplies, especially given colder weather this season. (DJ)

Dec. 16 Ukraine permanently shuts down the last reactor at its Chernobyl nuclear power plant, which gained notoriety for a major accident and radiation leak in 1986. The facility will still be the location of a major cleanup effort, as Ukraine tries to contain continuing radiation leakage from the containment structures around the reactors damaged in the accident. (DJ)

Dec. 19 Construction begins on a $3.5 billion pipeline linking oilfields in Chad to a loading terminal in Cameroon. Crude oil exports from the Chadian fields are expected to start in 2003-2004. (DJ)

Dec. 19 An Alabama jury returns a $3.5 billion judgment against ExxonMobil for alleged underpayment of royalties for offshore natural gas wells in Alabama waters. The bulk of the award is punitive damages. ExxonMobil says it plans to appeal. (NYT)

Dec. 21 Italy's ENI makes a $4-billion offer for the takeover of British independent oil company Lasmo Oil. Lasmo says it has agreed to the terms of the offer. The offer effectively outbids a lower offer from Amerada Hess that was made last month, and Amerada Hess says it will not raise its offer. (DJ)

Dec. 21 The Environmental Protection Agency (EPA) announces new regulations that will drastically reduce the allowable sulfur content in diesel fuel in the United States. The new diesel sulfur standard will be 15 parts per million (PPM). Oil industry trade groups have opposed the new standard. (DJ)

Dec. 25 Sinopec, one of the major Chinese oil companies, announces plans to lay off 27,000 employees in 2001. The layoffs are part of an overall program to trim costs and boost competitiveness in anticipation of China's expected entry into the World Trade Organization (WTO). (DJ)

Dec. 26 Heating oil prices in the United States rise more than 6 percent in response to cold temperatures in the northeastern United States. Heating oil closes at 93.5 cents per gallon on the New York Mercantile Exchange (NYMEX). (DJ)

Dec. 26 Marathon Oil announces that it intends to acquire natural gas firm Penneco Energy for around $500 million. Penneco's operations focus on coal bed methane in Wyoming and Montana. (DJ)

Dec. 27 Natural gas prices in the United States surge above $10 per million British Thermal Units (BTUs) first time ever in response to cold weather and stockdraws reported by the American Gas Association (AGA). Henry Hub natural gas closes at $9.978, after falling slightly from its intraday peak price. (DJ)

Dec. 27 Venezuelan President Hugo Chavez appoints Alvaro Silva Calderon to replace Ali Rodriguez as Minister of Petroleum. Calderon had previously served as a deputy minister. Rodriguez had recently been chosen as the new Secretary General of the Organization of Petroleum Exporting Countries (OPEC). Both will assume their new posts effective January 5, 2001. (DJ)

Dec. 27 Hunt Oil Company announces an unsolicited takeover offer for the 90.4 percent of Canada's Berkeley Petroleum that it does not already own for $662 million. The move is seen as an attempt by Hunt Oil to become a larger player in the North American natural gas market in an era of rising demand. Berkeley Petroleum's management opposes the takeover. (DJ)

Dec. 28 AES Corporation purchases 61.6% of the Chilean electricity generator Gener, S.A., for $841 million. Gener, Chile's second largest electricity generator, was one of only a few South American power firms that had not been purchased by foreign investors. (DJ)

Dec. 30 President Clinton orders the release of $300 million in emergency funds to help low-income Americans pay for high heating oil costs. Clinton says the months of November and December have been among the coldest on record. (DJ)

Dec. 31 Saudi oil minister Ali Naimi says that the Organization of Petroleum Exporting Countries (OPEC) will cut production when ministers meet in Vienna on January 17, 2001. Oil prices have fallen sharply in recent weeks, with the OPEC basket reaching $21.50 per barrel on December 25th, down one-third from highs reached in October 2000. Despite the recent decline, average oil prices for 2000 were the highest (not adjusted for inflation) in seventeen years. (DJ)

Appendix E

World Energy Consumption (Btu), 1991-2000

Table E1 World Primary Energy Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	10.89	10.94	11.46	11.74	11.75	12.11	12.37	12.20	12.74	13.07
Mexico	5.02	5.12	5.13	5.30	5.31	5.55	5.65	5.93	6.06	6.18
United States	84.33	85.55	87.33	89.25	90.98	93.97	94.38	94.66	96.77	98.79
Other	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	**100.26**	**101.63**	**103.94**	**106.31**	**108.05**	**111.64**	**112.41**	**112.80**	**115.58**	**118.05**
Central & South America										
Argentina	1.99	2.12	2.29	2.32	2.40	2.47	2.57	2.73	2.59	2.71
Brazil	6.21	6.30	6.58	6.89	7.30	7.76	8.19	8.45	8.72	9.10
Chile	0.56	0.60	0.65	0.69	0.75	0.82	0.95	0.94	0.99	1.03
Colombia	0.97	0.98	1.07	1.10	1.12	1.18	1.23	1.25	1.18	1.18
Cuba	0.46	0.41	0.40	0.41	0.42	0.43	0.39	0.37	0.38	0.39
Venezuela	2.21	2.22	2.29	2.42	2.47	2.58	2.66	2.81	2.72	2.72
Other	2.64	2.72	2.84	3.03	3.23	3.30	3.47	3.71	3.80	3.93
Total	**15.04**	**15.35**	**16.12**	**16.87**	**17.69**	**18.54**	**19.46**	**20.27**	**20.39**	**21.07**
Western Europe										
Austria	1.23	1.19	1.23	1.23	1.28	1.29	1.33	1.35	1.44	1.41
Belgium	2.27	2.24	2.26	2.31	2.36	2.55	2.63	2.66	2.61	2.75
Denmark	0.83	0.82	0.85	0.84	0.88	0.88	0.91	0.90	0.88	0.88
Finland	1.14	1.18	1.20	1.23	1.12	1.14	1.26	1.29	1.30	1.30
France	9.39	9.41	9.37	9.28	9.54	9.92	9.87	10.19	10.30	10.41
Germany	14.31	14.00	14.06	14.01	14.32	14.30	14.30	14.33	14.13	13.98
Greece	1.07	1.04	1.09	1.11	1.12	1.15	1.22	1.29	1.29	1.33
Ireland	0.39	0.40	0.40	0.42	0.45	0.47	0.49	0.53	0.56	0.59
Italy	7.17	7.22	7.05	6.97	7.56	7.64	7.45	7.73	7.77	7.96
Netherlands	3.56	3.53	3.60	3.57	3.70	3.82	3.83	3.81	3.83	3.91
Norway	1.59	1.65	1.65	1.66	1.73	1.74	1.81	1.86	1.89	1.79
Portugal	0.75	0.76	0.78	0.81	0.85	0.88	0.94	0.99	1.01	1.08
Spain	4.15	4.12	4.04	4.22	4.48	4.39	4.72	5.02	5.21	5.40
Sweden	2.17	2.17	2.18	2.19	2.34	2.28	2.18	2.28	2.23	2.25
Switzerland	1.21	1.21	1.20	1.20	1.17	1.21	1.23	1.21	1.23	1.24
Turkey	2.08	2.13	2.33	2.23	2.47	2.74	2.96	3.02	2.92	3.20
United Kingdom	9.60	9.33	9.65	9.64	9.60	10.16	9.88	9.87	9.79	9.88
Former Yugoslavia	1.87	--	--	--	--	--	--	--	--	--
Croatia	--	0.33	0.33	0.36	0.37	0.37	0.38	0.40	0.39	0.41
Yugoslavia	--	0.69	0.55	0.60	0.46	0.70	0.73	0.77	0.64	0.59
Other	0.31	0.81	0.81	0.79	0.87	0.85	0.84	0.89	0.91	0.93
Total	**65.08**	**64.23**	**64.63**	**64.69**	**66.67**	**68.49**	**68.96**	**70.37**	**70.32**	**71.29**
Eastern Europe & Former U.S.S.R.										
Bulgaria	1.01	1.00	0.93	0.92	0.99	1.01	0.96	0.90	0.83	0.94
Former Czechoslovakia	3.55	3.24	--	--	--	--	--	--	--	--
Czech Republic	--	--	1.66	1.56	1.65	1.80	1.72	1.56	1.48	1.45
Slovakia	--	--	0.79	0.77	0.82	0.81	0.80	0.79	0.80	0.78
Hungary	1.16	1.08	1.06	1.06	1.06	1.09	1.07	1.07	1.07	1.05
Poland	3.88	3.87	4.00	3.84	3.69	3.55	4.09	3.83	3.68	3.68
Romania	2.24	2.06	1.99	1.88	2.02	2.06	2.03	1.75	1.56	1.59
Former U.S.S.R.	57.46	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.99	0.85	0.76	0.73	0.65	0.64	0.55	0.57	0.53
Belarus	--	1.57	1.34	1.10	1.06	1.07	1.07	1.07	1.06	1.08
Kazakhstan	--	3.37	2.79	2.25	2.04	1.99	1.70	1.64	1.53	1.79
Lithuania	--	0.44	0.37	0.36	0.37	0.32	0.33	0.35	0.28	0.27
Russia	--	34.88	32.67	29.63	28.24	27.92	25.52	25.62	27.45	28.07
Turkmenistan	--	0.29	0.27	0.27	0.29	0.28	0.29	0.25	0.31	0.37
Ukraine	--	8.89	8.58	7.31	7.21	6.73	6.44	6.26	6.41	6.46
Uzbekistan	--	1.66	2.04	1.76	1.85	1.91	1.89	1.84	1.87	1.92
Other	0.09	1.83	1.39	1.20	1.17	1.28	1.23	1.27	1.18	1.17
Total	**69.40**	**65.16**	**60.75**	**54.66**	**53.20**	**52.47**	**49.78**	**48.76**	**50.08**	**51.14**

See footnotes at end of table.

Table E1 World Primary Energy Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	0.29	0.24	0.29	0.28	0.29	0.29	0.35	0.36	0.36	0.37
Iran	3.23	3.35	3.47	3.66	3.81	3.95	4.44	4.47	4.61	4.72
Iraq	0.60	0.84	0.96	1.08	1.13	1.12	1.03	1.05	1.07	1.09
Israel	0.48	0.54	0.60	0.62	0.61	0.65	0.70	0.75	0.76	0.78
Kuwait	0.21	0.35	0.48	0.57	0.59	0.75	0.80	0.85	0.92	0.99
Oman	0.21	0.20	0.23	0.24	0.22	0.23	0.27	0.35	0.30	0.34
Qatar	0.41	0.49	0.57	0.57	0.58	0.59	0.64	0.65	0.62	0.66
Saudi Arabia	3.28	3.39	3.52	3.64	3.85	4.05	4.08	4.27	4.35	4.57
Syria	0.56	0.59	0.64	0.68	0.65	0.70	0.74	0.81	0.83	0.82
United Arab Emirates	1.49	1.55	1.48	1.49	1.60	1.67	1.79	1.84	1.86	1.74
Yemen	0.17	0.17	0.14	0.14	0.14	0.14	0.15	0.14	0.13	0.14
Other	0.33	0.36	0.39	0.45	0.47	0.49	0.52	0.54	0.56	0.57
Total	**11.26**	**12.06**	**12.77**	**13.41**	**13.97**	**14.65**	**15.50**	**16.08**	**16.37**	**16.80**
Africa										
Algeria	1.35	1.29	1.20	1.23	1.30	1.26	1.20	1.25	1.25	1.23
Angola	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.10	0.09
Egypt	1.43	1.43	1.51	1.55	1.58	1.73	1.80	1.87	1.91	2.04
Gabon	0.04	0.05	0.04	0.05	0.05	0.06	0.06	0.05	0.05	0.05
Libya	0.53	0.49	0.51	0.53	0.54	0.57	0.59	0.57	0.53	0.58
Morocco	0.32	0.33	0.36	0.40	0.37	0.39	0.40	0.41	0.44	0.42
Nigeria	0.77	0.78	0.80	0.74	0.83	0.85	0.85	0.81	0.81	0.83
South Africa	3.58	3.73	3.80	3.85	4.16	3.97	4.64	4.88	4.60	4.64
Zimbabwe	0.23	0.24	0.22	0.23	0.23	0.23	0.22	0.21	0.24	0.25
Other	1.41	1.48	1.51	1.58	1.57	1.64	1.69	1.70	1.75	1.75
Total	**9.76**	**9.91**	**10.05**	**10.25**	**10.73**	**10.78**	**11.57**	**11.84**	**11.68**	**11.88**
Asia & Oceania										
Australia	3.70	3.82	3.93	3.96	4.11	4.18	4.56	4.60	4.84	4.89
Bangladesh	0.26	0.29	0.31	0.34	0.37	0.39	0.40	0.42	0.47	0.50
Brunei	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.06	0.07	0.08
China	28.26	29.31	31.36	34.04	35.21	36.04	37.61	37.07	37.02	36.67
Hong Kong	0.47	0.52	0.56	0.61	0.66	0.68	0.52	0.68	0.89	0.80
India	8.06	8.71	9.10	9.59	11.10	11.25	11.55	11.78	12.12	12.67
Indonesia	2.36	2.54	2.87	3.06	3.26	3.52	3.68	3.52	3.72	3.85
Japan	18.89	19.14	19.41	20.18	20.83	21.48	21.78	21.43	21.57	21.77
Korea, North	3.05	3.02	3.12	3.08	3.04	2.97	2.82	2.72	2.76	2.81
Korea, South	4.28	4.79	5.55	6.01	6.62	6.95	7.40	6.82	7.31	7.88
Malaysia	1.09	1.14	1.29	1.43	1.47	1.64	1.66	1.68	1.74	1.86
New Zealand	0.73	0.74	0.77	0.80	0.86	0.82	0.80	0.79	0.80	0.83
Pakistan	1.25	1.29	1.41	1.50	1.58	1.70	1.68	1.73	1.81	1.91
Philippines	0.73	0.77	0.84	0.90	0.96	1.02	1.09	1.13	1.18	1.23
Singapore	0.86	0.97	1.08	1.16	1.18	1.35	1.49	1.54	1.62	1.68
Taiwan	2.09	2.21	2.43	2.63	2.96	3.16	3.27	3.42	3.69	3.78
Thailand	1.37	1.47	1.68	1.87	2.25	2.44	2.52	2.37	2.50	2.56
Vietnam	0.28	0.30	0.38	0.41	0.51	0.55	0.54	0.55	0.64	0.68
Other	0.57	0.55	0.58	0.63	0.64	0.65	0.66	0.69	0.72	0.74
Total	**78.33**	**81.61**	**86.73**	**92.24**	**97.67**	**100.84**	**104.09**	**102.99**	**105.48**	**107.16**
World Total	**349.14**	**349.96**	**354.98**	**358.43**	**367.99**	**377.42**	**381.77**	**383.12**	**389.89**	**397.40**

[1] Preliminary.

-- = Not applicable.

(s) = Value less than 5 trillion Btu.

Notes: Sum of components may not equal total due to independent rounding.

Primary energy consumption reported in this table includes petroleum, dry natural gas, coal, net hydroelectric, nuclear, geothermal, solar, wind, and wood and waste electric power, as reported in Tables E2-E7. Primary energy consumption for the United States also includes: (1) the consumption of geothermal, solar, and wood and waste energy not used for electricity generation; (2) electricity imports from Mexico that are derived from geothermal energy; and (3) net imports of electricity derived from nonrenewable sources. Primary energy consumption for all countries, except the United States, has been adjusted to include total electricity imports and to exclude total electricity exports. This adjustment is necessary because the consumption data for electric power by type, as reported in Tables E5-E7, are not adjusted for electricity imports and exports, except for hydroelectric power in the United States. As a result of these adjustments, primary energy consumption reported in this table might not be equal to sum of the individual fuel types reported in Tables E2-E7.

Sources: See sources at the end of Sections 3, 4, 5, and 6.

Table E2 World Petroleum Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	3.24	3.28	3.33	3.40	3.45	3.53	3.78	3.83	3.98	4.05
Mexico	3.45	3.47	3.44	3.62	3.47	3.56	3.63	3.83	3.91	3.90
United States	32.85	33.53	33.84	34.67	34.55	35.76	36.27	36.93	37.96	38.40
Other	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total	**39.55**	**40.30**	**40.63**	**41.72**	**41.49**	**42.86**	**43.69**	**44.61**	**45.86**	**46.37**
Central & South America										
Argentina	0.84	0.90	0.97	0.92	0.91	0.97	0.98	1.03	1.01	0.98
Bolivia	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.09	0.09
Brazil	3.04	3.12	3.24	3.44	3.67	3.90	4.16	4.29	4.36	4.41
Chile	0.29	0.30	0.34	0.36	0.40	0.44	0.47	0.48	0.49	0.50
Colombia	0.41	0.46	0.48	0.48	0.50	0.55	0.57	0.58	0.55	0.54
Costa Rica	0.04	0.05	0.06	0.06	0.07	0.06	0.06	0.07	0.08	0.07
Cuba	0.44	0.39	0.39	0.40	0.41	0.42	0.36	0.35	0.36	0.36
Dominican Republic	0.13	0.14	0.12	0.14	0.15	0.16	0.17	0.18	0.20	0.19
Ecuador	0.21	0.24	0.22	0.24	0.25	0.26	0.27	0.28	0.26	0.27
El Salvador	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.08
Guatemala	0.05	0.06	0.07	0.08	0.08	0.09	0.10	0.12	0.12	0.12
Honduras	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07
Jamaica	0.10	0.11	0.11	0.12	0.13	0.13	0.14	0.14	0.15	0.15
Netherlands Antilles	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.16	0.16
Panama	0.07	0.09	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.12
Peru	0.23	0.25	0.26	0.27	0.30	0.32	0.34	0.36	0.35	0.35
Puerto Rico	0.37	0.33	0.34	0.35	0.34	0.33	0.32	0.34	0.32	0.34
Trinidad and Tobago	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.05
Uruguay	0.06	0.07	0.07	0.07	0.06	0.07	0.08	0.09	0.10	0.09
Venezuela	0.81	0.83	0.83	0.85	0.88	0.88	0.89	0.91	0.90	0.92
Virgin Islands, U.S.	0.11	0.12	0.11	0.11	0.18	0.16	0.19	0.26	0.30	0.31
Other	0.24	0.24	0.26	0.27	0.30	0.29	0.31	0.35	0.35	0.35
Total	**7.77**	**8.00**	**8.28**	**8.60**	**9.09**	**9.51**	**9.91**	**10.34**	**10.45**	**10.50**
Western Europe										
Austria	0.49	0.48	0.48	0.49	0.49	0.48	0.51	0.52	0.60	0.55
Belgium	1.06	1.08	1.05	1.08	1.05	1.19	1.25	1.27	1.20	1.24
Denmark	0.41	0.40	0.41	0.44	0.47	0.50	0.49	0.48	0.47	0.45
Finland	0.48	0.46	0.44	0.46	0.36	0.40	0.46	0.44	0.45	0.42
France	3.99	3.96	3.85	3.77	3.90	4.00	4.04	4.19	4.19	4.17
Germany	5.85	5.87	5.97	5.92	5.92	5.98	6.02	6.03	5.86	5.73
Greece	0.68	0.70	0.72	0.74	0.74	0.77	0.79	0.82	0.81	0.84
Ireland	0.21	0.22	0.22	0.24	0.26	0.26	0.28	0.31	0.35	0.35
Italy	3.92	4.08	3.87	3.84	4.28	4.28	3.99	4.06	3.84	3.87
Luxembourg	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.10
Netherlands	1.57	1.59	1.58	1.59	1.65	1.61	1.69	1.69	1.74	1.78
Norway	0.37	0.37	0.37	0.37	0.39	0.43	0.45	0.45	0.45	0.39
Portugal	0.53	0.58	0.55	0.56	0.60	0.57	0.61	0.68	0.69	0.69
Spain	2.21	2.29	2.18	2.33	2.60	2.43	2.66	2.87	2.98	3.05
Sweden	0.66	0.70	0.68	0.72	0.84	0.82	0.67	0.76	0.74	0.69
Switzerland	0.58	0.59	0.57	0.58	0.53	0.56	0.58	0.55	0.55	0.56
Turkey	0.97	1.02	1.16	1.11	1.23	1.30	1.29	1.27	1.26	1.33
United Kingdom	3.68	3.67	3.70	3.72	3.72	3.72	3.65	3.61	3.50	3.47
Former Yugoslavia	0.53	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.07	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Croatia	--	0.14	0.13	0.17	0.19	0.17	0.17	0.19	0.19	0.19
Macedonia, TFYR	--	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.04	0.04
Slovenia	--	0.07	0.09	0.09	0.10	0.11	0.11	0.12	0.11	0.11
Yugoslavia	--	0.12	0.07	0.07	0.06	0.11	0.14	0.13	0.12	0.12
Other	0.07	0.09	0.10	0.10	0.10	0.10	0.16	0.11	0.14	0.13
Total	**28.32**	**28.68**	**28.37**	**28.52**	**29.62**	**29.97**	**30.16**	**30.75**	**30.41**	**30.30**

See footnotes at end of table.

Table E2 World Petroleum Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Bulgaria	0.26	0.28	0.25	0.27	0.28	0.25	0.23	0.22	0.20	0.19
Former Czechoslovakia	0.49	0.45	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.31	0.32	0.33	0.38	0.34	0.35	0.37	0.34
Slovakia	--	--	0.13	0.14	0.14	0.14	0.14	0.15	0.14	0.14
Hungary	0.34	0.36	0.35	0.36	0.33	0.31	0.32	0.33	0.32	0.30
Poland	0.57	0.62	0.62	0.63	0.65	0.75	0.79	0.84	0.83	0.90
Romania	0.60	0.53	0.53	0.47	0.52	0.55	0.58	0.53	0.44	0.41
Former U.S.S.R.	17.45	--	--	--	--	--	--	--	--	--
Armenia	--	0.10	0.05	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Azerbaijan	--	0.43	0.41	0.39	0.38	0.28	0.28	0.32	0.32	0.30
Belarus	--	0.79	0.62	0.51	0.49	0.44	0.41	0.40	0.34	0.31
Estonia	--	0.05	0.06	0.05	0.05	0.06	0.06	0.06	0.05	0.05
Georgia	--	0.06	0.03	0.02	0.02	0.04	0.04	0.05	0.05	0.05
Kazakhstan	--	0.85	0.71	0.63	0.59	0.53	0.44	0.42	0.31	0.33
Kyrgyzstan	--	0.07	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.02
Latvia	--	0.11	0.09	0.08	0.09	0.10	0.08	0.07	0.05	0.05
Lithuania	--	0.18	0.16	0.17	0.16	0.14	0.14	0.16	0.12	0.11
Moldova	--	0.12	0.09	0.05	0.05	0.04	0.04	0.03	0.02	0.02
Russia	--	9.32	7.86	6.66	6.25	5.52	5.37	5.21	5.29	5.21
Tajikistan	--	0.04	0.04	0.01	0.02	0.05	0.05	0.06	0.06	0.06
Turkmenistan	--	0.16	0.14	0.13	0.13	0.13	0.14	0.12	0.11	0.10
Ukraine	--	1.74	1.22	1.06	1.01	0.80	0.74	0.79	0.77	0.74
Uzbekistan	--	0.40	0.37	0.35	0.38	0.30	0.30	0.29	0.30	0.27
Total	**19.75**	**16.72**	**14.13**	**12.37**	**11.93**	**10.85**	**10.53**	**10.46**	**10.15**	**9.93**
Middle East										
Bahrain	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05
Cyprus	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.11
Iran	2.27	2.28	2.34	2.36	2.39	2.34	2.57	2.42	2.28	2.25
Iraq	0.56	0.73	0.86	0.95	1.00	1.00	0.91	0.94	0.95	0.97
Israel	0.37	0.43	0.42	0.42	0.44	0.45	0.49	0.52	0.54	0.56
Jordan	0.13	0.15	0.15	0.17	0.18	0.19	0.19	0.20	0.20	0.20
Kuwait	0.20	0.25	0.28	0.35	0.37	0.40	0.45	0.51	0.60	0.64
Lebanon	0.11	0.11	0.14	0.16	0.17	0.18	0.20	0.21	0.22	0.22
Oman	0.08	0.08	0.08	0.08	0.09	0.10	0.10	0.11	0.11	0.11
Qatar	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.10	0.10	0.10
Saudi Arabia	2.09	2.13	2.19	2.24	2.45	2.52	2.40	2.54	2.64	2.73
Syria	0.37	0.39	0.44	0.48	0.48	0.49	0.51	0.53	0.54	0.55
United Arab Emirates	0.67	0.60	0.65	0.69	0.69	0.66	0.72	0.71	0.72	0.72
Yemen	0.17	0.17	0.14	0.14	0.14	0.14	0.15	0.14	0.13	0.14
Total	**7.19**	**7.52**	**7.89**	**8.25**	**8.62**	**8.70**	**8.93**	**9.08**	**9.18**	**9.35**

See footnotes at end of table.

Table E2 World Petroleum Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Africa										
Algeria	0.41	0.41	0.40	0.40	0.40	0.39	0.38	0.40	0.38	0.39
Angola	0.05	0.06	0.05	0.05	0.06	0.05	0.06	0.05	0.06	0.06
Cameroon	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.05
Congo (Brazzaville)	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01
Congo (Kinshasa)	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.04	0.05
Cote d'Ivoire (Ivory Coast)	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.05	0.06	0.06
Egypt	0.97	0.94	0.95	0.96	0.98	1.07	1.13	1.18	1.17	1.14
Ethiopia	0.03	0.05	0.05	0.03	0.03	0.02	0.02	0.04	0.04	0.04
Gabon	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.04
Ghana	0.04	0.05	0.05	0.05	0.06	0.06	0.05	0.05	0.06	0.06
Kenya	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11
Libya	0.35	0.31	0.34	0.35	0.36	0.38	0.39	0.37	0.38	0.38
Morocco	0.24	0.27	0.28	0.30	0.29	0.28	0.29	0.29	0.32	0.30
Nigeria	0.53	0.54	0.55	0.52	0.58	0.59	0.58	0.54	0.52	0.54
Senegal	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06
South Africa	0.69	0.85	0.83	0.84	0.86	0.88	0.90	0.92	0.95	0.98
Sudan	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.07
Tunisia	0.14	0.15	0.15	0.15	0.14	0.15	0.16	0.16	0.16	0.17
Zimbabwe	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.07
Other	0.37	0.40	0.41	0.46	0.44	0.44	0.45	0.46	0.48	0.46
Total	**4.26**	**4.46**	**4.50**	**4.58**	**4.67**	**4.80**	**4.92**	**4.95**	**5.03**	**5.04**
Asia & Oceania										
Australia	1.42	1.43	1.50	1.57	1.66	1.59	1.64	1.66	1.71	1.70
Bangladesh	0.08	0.08	0.09	0.10	0.11	0.11	0.12	0.12	0.14	0.15
Brunei	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Burma	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.06	0.08	0.08
China	5.29	5.57	6.19	6.57	6.98	7.44	8.10	8.44	8.99	9.85
Guam	0.03	0.04	0.05	0.07	0.05	0.04	0.05	0.04	0.05	0.05
Hong Kong	0.28	0.32	0.33	0.38	0.39	0.39	0.26	0.39	0.61	0.54
India	2.49	2.66	2.73	2.94	3.27	3.48	3.66	3.86	4.04	4.10
Indonesia	1.45	1.48	1.59	1.61	1.68	1.78	1.97	1.89	2.00	2.15
Japan	10.76	11.10	10.95	11.56	11.63	11.92	11.61	11.20	11.32	11.20
Korea, North	0.16	0.15	0.15	0.14	0.13	0.10	0.10	0.14	0.16	0.16
Korea, South	2.53	3.05	3.54	3.88	4.19	4.50	4.73	4.01	4.30	4.45
Malaysia	0.58	0.62	0.70	0.79	0.83	0.91	0.94	0.92	0.92	0.93
Mongolia	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
New Zealand	0.21	0.22	0.25	0.26	0.31	0.27	0.26	0.27	0.27	0.29
Pakistan	0.47	0.49	0.55	0.61	0.64	0.71	0.72	0.75	0.76	0.79
Papua New Guinea	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Philippines	0.50	0.55	0.60	0.64	0.69	0.72	0.77	0.80	0.77	0.74
Singapore	0.85	0.93	1.03	1.11	1.13	1.29	1.43	1.48	1.57	1.63
Sri Lanka	0.07	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.14
Taiwan	1.15	1.17	1.30	1.39	1.56	1.64	1.63	1.69	1.79	1.77
Thailand	0.91	1.00	1.14	1.26	1.42	1.56	1.54	1.46	1.51	1.48
Vietnam	0.12	0.13	0.16	0.18	0.20	0.24	0.27	0.28	0.33	0.35
Other	0.15	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.17	0.17
Total	**29.64**	**31.31**	**33.17**	**35.39**	**37.23**	**39.09**	**40.20**	**39.84**	**41.70**	**42.79**
World Total	**136.47**	**137.00**	**136.97**	**139.44**	**142.66**	**145.78**	**148.34**	**150.03**	**152.77**	**154.28**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 3.

Table E3 World Dry Natural Gas Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	2.44	2.64	2.78	2.92	2.85	2.98	2.95	2.86	3.18	3.37
Mexico	1.06	1.06	1.08	1.14	1.16	1.23	1.26	1.36	1.34	1.46
United States	19.61	20.13	20.83	21.29	22.16	22.56	22.53	21.94	22.20	23.11
Total	**23.10**	**23.83**	**24.69**	**25.35**	**26.17**	**26.77**	**26.74**	**26.16**	**26.72**	**27.94**
Central & South America										
Argentina	0.82	0.82	0.87	0.89	1.00	1.06	1.05	1.13	1.19	1.23
Barbados	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bolivia	0.03	0.03	0.03	0.03	0.05	0.04	0.05	0.03	0.03	0.05
Brazil	0.14	0.15	0.15	0.16	0.17	0.19	0.20	0.21	0.24	0.35
Chile	0.05	0.05	0.06	0.07	0.07	0.07	0.10	0.12	0.17	0.19
Colombia	0.14	0.14	0.15	0.15	0.15	0.16	0.20	0.21	0.17	0.19
Cuba	(s)	(s)	(s)	(s)	(s)	(s)	0.03	0.01	0.02	0.02
Ecuador	(s)	(s)	(s)	(s)	0.01	0.01	(s)	(s)	(s)	(s)
Peru	0.02	0.02	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01
Puerto Rico	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Trinidad and Tobago	0.21	0.20	0.23	0.26	0.28	0.32	0.34	0.34	0.35	0.37
Uruguay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)
Venezuela	0.95	0.91	0.97	1.04	1.06	1.14	1.18	1.32	1.21	1.14
Total	**2.36**	**2.34**	**2.50**	**2.65**	**2.80**	**3.00**	**3.17**	**3.40**	**3.41**	**3.57**
Western Europe										
Austria	0.24	0.24	0.25	0.26	0.28	0.30	0.29	0.30	0.30	0.29
Belgium	0.39	0.40	0.42	0.43	0.47	0.52	0.50	0.55	0.59	0.63
Denmark	0.09	0.09	0.11	0.12	0.14	0.16	0.19	0.19	0.20	0.20
Finland	0.10	0.11	0.11	0.12	0.12	0.13	0.13	0.15	0.15	0.15
France	1.23	1.25	1.26	1.25	1.27	1.41	1.40	1.43	1.50	1.55
Germany	2.48	2.45	2.53	2.65	3.06	3.06	2.93	3.05	3.08	3.04
Greece	0.01	0.01	(s)	(s)	(s)	(s)	0.01	0.03	0.05	0.08
Ireland	0.08	0.08	0.10	0.10	0.10	0.12	0.12	0.12	0.13	0.15
Italy	1.83	1.81	1.85	1.79	1.97	2.03	2.09	2.26	2.45	2.54
Luxembourg	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Netherlands	1.53	1.49	1.53	1.48	1.52	1.68	1.58	1.57	1.52	1.54
Norway	0.08	0.14	0.10	0.10	0.11	0.11	0.14	0.14	0.17	0.09
Portugal	0.00	0.00	0.00	0.00	0.00	0.00	(s)	0.03	0.09	0.09
Spain	0.25	0.26	0.26	0.27	0.34	0.38	0.50	0.51	0.59	0.63
Sweden	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Switzerland	0.08	0.08	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11
Turkey	0.15	0.17	0.19	0.20	0.26	0.31	0.37	0.39	0.46	0.54
United Kingdom	2.24	2.20	2.51	2.65	2.83	3.35	3.20	3.26	3.45	3.59
Former Yugoslavia	0.26	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.02	0.01	0.01	0.09	(s)	(s)	0.01	0.01	0.01
Croatia	--	0.10	0.11	0.10	0.09	0.09	0.10	0.10	0.10	0.10
Macedonia, TFYR	--	0.01	0.01	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Slovenia	--	0.02	0.03	0.03	0.03	0.05	0.03	0.04	0.04	0.04
Yugoslavia	--	0.08	0.04	0.06	0.04	0.10	0.10	0.11	0.06	0.02
Total	**11.10**	**11.05**	**11.54**	**11.75**	**12.88**	**13.98**	**13.85**	**14.38**	**15.11**	**15.46**

See footnotes at end of table.

Table E3 World Dry Natural Gas Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bulgaria	0.20	0.18	0.17	0.17	0.21	0.22	0.18	0.13	0.12	0.19
Former Czechoslovakia	0.49	0.40	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.26	0.24	0.29	0.33	0.34	0.34	0.34	0.33
Slovakia	--	--	0.22	0.21	0.28	0.24	0.25	0.25	0.26	0.26
Hungary	0.39	0.34	0.37	0.37	0.40	0.45	0.43	0.43	0.44	0.42
Poland	0.35	0.34	0.36	0.37	0.39	0.43	0.43	0.43	0.41	0.42
Romania	1.05	0.94	0.91	0.85	0.90	0.89	0.83	0.65	0.62	0.62
Former U.S.S.R.	25.31	--	--	--	--	--	--	--	--	--
Armenia	--	0.07	0.05	0.06	0.06	0.07	0.05	0.05	0.05	0.05
Azerbaijan	--	0.55	0.41	0.35	0.33	0.34	0.34	0.21	0.22	0.21
Belarus	--	0.67	0.62	0.52	0.47	0.51	0.55	0.57	0.63	0.72
Estonia	--	0.05	0.02	0.02	0.03	0.03	0.04	0.06	0.04	0.04
Georgia	--	0.18	0.09	0.06	0.08	0.07	0.07	0.07	0.04	0.04
Kazakhstan	--	0.74	0.55	0.55	0.40	0.53	0.52	0.50	0.50	0.51
Kyrgyzstan	--	0.09	0.08	0.07	0.03	0.07	0.07	0.07	0.07	0.07
Latvia	--	0.06	0.03	0.02	0.04	0.04	0.05	0.05	0.05	0.06
Lithuania	--	0.14	0.09	0.08	0.10	0.09	0.10	0.11	0.08	0.09
Moldova	--	0.08	0.07	0.05	0.05	0.08	0.09	0.09	0.08	0.08
Russia	--	16.61	16.31	15.34	14.64	14.63	13.55	14.17	14.14	14.26
Tajikistan	--	0.07	0.05	0.06	0.03	0.05	0.04	0.04	0.04	0.05
Turkmenistan	--	0.15	0.15	0.16	0.18	0.18	0.17	0.16	0.21	0.27
Ukraine	--	3.62	4.01	3.44	3.11	3.07	2.97	2.73	2.88	2.91
Uzbekistan	--	1.11	1.56	1.25	1.37	1.46	1.48	1.43	1.45	1.54
Total	**27.80**	**26.41**	**26.38**	**24.23**	**23.38**	**23.78**	**22.54**	**22.53**	**22.65**	**23.14**
Middle East										
Bahrain	0.24	0.20	0.24	0.24	0.24	0.24	0.29	0.31	0.31	0.32
Iran	0.86	0.93	0.99	1.19	1.31	1.50	1.76	1.93	2.23	2.35
Iraq	0.04	0.11	0.09	0.12	0.12	0.12	0.11	0.11	0.12	0.12
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Kuwait	0.02	0.10	0.20	0.22	0.22	0.34	0.34	0.33	0.32	0.35
Oman	0.13	0.12	0.15	0.15	0.14	0.13	0.17	0.24	0.19	0.23
Qatar	0.34	0.42	0.50	0.50	0.50	0.51	0.54	0.55	0.52	0.56
Saudi Arabia	1.18	1.26	1.33	1.39	1.41	1.53	1.68	1.73	1.71	1.84
Syria	0.12	0.12	0.13	0.13	0.10	0.14	0.15	0.20	0.21	0.21
United Arab Emirates	0.83	0.94	0.84	0.80	0.92	1.00	1.07	1.12	1.15	1.02
Total	**3.77**	**4.20**	**4.47**	**4.75**	**4.96**	**5.52**	**6.13**	**6.53**	**6.75**	**7.00**
Africa										
Algeria	0.91	0.86	0.77	0.81	0.88	0.86	0.80	0.83	0.85	0.82
Angola	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Cote d'Ivoire (Ivory Coast)	0.00	0.00	0.00	0.00	(s)	0.02	0.02	0.03	0.05	0.05
Egypt	0.34	0.37	0.42	0.44	0.46	0.50	0.50	0.51	0.54	0.68
Equatorial Guinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Gabon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Libya	0.18	0.18	0.18	0.18	0.18	0.19	0.20	0.20	0.16	0.19
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Mozambique	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Nigeria	0.18	0.18	0.19	0.17	0.19	0.20	0.22	0.22	0.23	0.23
Senegal	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
South Africa	0.00	(s)	0.07	0.07	0.07	0.07	0.06	0.05	0.05	0.05
Tunisia	0.05	0.04	0.06	0.08	0.07	0.08	0.10	0.12	0.12	0.12
Total	**1.69**	**1.66**	**1.71**	**1.78**	**1.87**	**1.94**	**1.94**	**1.99**	**2.03**	**2.17**

See footnotes at end of table.

Table E3 World Dry Natural Gas Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Australia	0.61	0.63	0.66	0.69	0.74	0.74	0.75	0.78	0.80	0.81
Bangladesh	0.16	0.19	0.21	0.23	0.25	0.26	0.26	0.28	0.31	0.34
Brunei	0.02	0.04	0.03	0.03	0.04	0.03	0.04	0.03	0.04	0.04
Burma	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.06	0.07
China	0.61	0.61	0.64	0.68	0.70	0.77	0.87	0.91	0.99	1.11
Hong Kong	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
India	0.52	0.55	0.61	0.68	0.72	0.80	0.83	0.88	0.87	0.91
Indonesia	0.61	0.74	0.93	1.05	1.16	1.21	1.23	1.07	1.23	1.18
Japan	2.07	2.12	2.13	2.28	2.31	2.50	2.55	2.65	2.76	2.88
Korea, South	0.14	0.18	0.23	0.30	0.37	0.48	0.59	0.55	0.67	0.75
Malaysia	0.40	0.40	0.48	0.51	0.51	0.59	0.62	0.65	0.69	0.76
New Zealand	0.18	0.20	0.18	0.18	0.17	0.19	0.21	0.18	0.19	0.21
Pakistan	0.50	0.51	0.54	0.59	0.60	0.65	0.65	0.66	0.73	0.80
Papua New Guinea	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	0.00	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Singapore	0.00	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Taiwan	0.11	0.11	0.11	0.14	0.15	0.16	0.19	0.22	0.22	0.24
Thailand	0.24	0.25	0.31	0.34	0.37	0.42	0.53	0.56	0.61	0.64
Vietnam	(s)	0.01	0.01	0.01	0.03	0.03	0.01	0.03	0.04	0.04
Total	**6.22**	**6.66**	**7.20**	**7.85**	**8.26**	**8.99**	**9.45**	**9.60**	**10.31**	**10.88**
World Total	**76.03**	**76.16**	**78.49**	**78.37**	**80.33**	**83.99**	**83.82**	**84.59**	**86.99**	**90.15**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 4.

Table E4 World Coal Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	1.26	1.10	1.22	1.26	1.28	1.29	1.45	1.55	1.48	1.49
Mexico	0.16	0.18	0.18	0.19	0.21	0.24	0.26	0.27	0.25	0.25
United States [2]	19.01	19.19	19.79	19.99	20.09	20.98	21.51	21.73	21.73	22.50
Total	**20.43**	**20.46**	**21.19**	**21.43**	**21.57**	**22.51**	**23.22**	**23.55**	**23.46**	**24.24**
Central & South America										
Argentina	0.03	0.03	0.03	0.05	0.04	0.04	0.04	0.04	0.03	0.04
Brazil	0.43	0.39	0.40	0.38	0.39	0.40	0.40	0.40	0.51	0.55
Chile	0.08	0.07	0.07	0.08	0.09	0.12	0.18	0.17	0.17	0.13
Colombia	0.13	0.15	0.15	0.13	0.11	0.11	0.14	0.14	0.11	0.12
Costa Rica	(s)	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Cuba	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Dominican Republic	0.01	0.01	0.01	(s)	(s)	(s)	(s)	0.01	0.01	(s)
Guatemala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	0.01
Haiti	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Honduras	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jamaica	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Panama	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Peru	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.03
Puerto Rico	0.01	(s)	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Uruguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Venezuela	(s)	(s)	(s)	(s)	(s)	0.01	(s)	0.04	0.03	0.01
Virgin Islands, U.S.	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Other	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**0.70**	**0.67**	**0.69**	**0.67**	**0.66**	**0.72**	**0.79**	**0.83**	**0.91**	**0.91**
Western Europe										
Austria	0.16	0.10	0.11	0.12	0.13	0.13	0.15	0.13	0.13	0.14
Belgium	0.41	0.33	0.34	0.36	0.37	0.35	0.36	0.36	0.31	0.34
Denmark	0.34	0.27	0.30	0.31	0.26	0.35	0.27	0.24	0.19	0.17
Finland	0.15	0.13	0.17	0.20	0.17	0.20	0.20	0.14	0.15	0.15
France	0.83	0.70	0.59	0.56	0.61	0.63	0.57	0.68	0.60	0.60
Germany	4.35	3.96	3.81	3.66	3.52	3.46	3.47	3.40	3.21	3.18
Greece	0.35	0.30	0.34	0.34	0.33	0.32	0.36	0.37	0.37	0.37
Iceland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Ireland	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.08
Italy	0.56	0.45	0.42	0.42	0.46	0.42	0.44	0.46	0.46	0.49
Luxembourg	0.04	0.04	0.04	0.04	0.02	0.02	0.01	(s)	(s)	(s)
Malta	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Netherlands	0.32	0.30	0.33	0.34	0.36	0.36	0.37	0.34	0.29	0.31
Norway	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Portugal	0.12	0.11	0.12	0.13	0.14	0.14	0.15	0.13	0.16	0.16
Spain	0.87	0.82	0.79	0.76	0.71	0.59	0.68	0.65	0.72	0.74
Sweden	0.09	0.08	0.10	0.10	0.09	0.11	0.09	0.09	0.09	0.09
Switzerland	0.01	0.01	0.01	0.01	0.01	0.01	(s)	(s)	(s)	0.01
Turkey	0.72	0.67	0.63	0.61	0.62	0.72	0.86	0.89	0.81	0.98
United Kingdom	2.67	2.34	2.18	2.00	1.77	1.75	1.65	1.55	1.41	1.52
Former Yugoslavia	0.88	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01
Croatia	--	0.01	0.02	0.01	(s)	0.01	0.01	0.01	0.01	0.03
Macedonia, TFYR	--	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.07	0.07
Slovenia	--	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.06	0.06
Yugoslavia	--	0.36	0.34	0.35	0.25	0.38	0.36	0.39	0.30	0.31
Total	**13.01**	**11.25**	**10.90**	**10.57**	**10.11**	**10.21**	**10.31**	**10.15**	**9.49**	**9.85**

See footnotes at end of table.

Table E4 World Coal Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bulgaria	0.36	0.37	0.34	0.31	0.31	0.33	0.38	0.37	0.33	0.35
Former Czechoslovakia	2.23	2.08	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.95	0.84	0.87	0.93	0.89	0.73	0.64	0.72
Slovakia	--	--	0.24	0.21	0.21	0.21	0.20	0.18	0.20	0.19
Hungary	0.23	0.21	0.18	0.17	0.16	0.17	0.17	0.16	0.17	0.15
Poland	2.95	2.91	3.00	2.82	2.64	2.36	2.84	2.57	2.46	2.40
Romania	0.40	0.42	0.40	0.41	0.42	0.43	0.38	0.31	0.26	0.31
Former U.S.S.R.	10.17	--	--	--	--	--	--	--	--	--
Armenia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Azerbaijan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Belarus	--	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Estonia	--	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01
Georgia	--	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Kazakhstan	--	1.56	1.29	0.90	0.90	0.79	0.63	0.62	0.62	0.84
Kyrgyzstan	--	0.05	0.03	0.04	0.02	0.02	0.01	0.02	0.02	0.02
Latvia	--	0.02	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)
Lithuania	--	0.02	0.02	0.02	0.01	0.01	0.01	0.01	(s)	(s)
Moldova	--	0.08	0.05	0.05	0.03	0.02	0.01	0.01	(s)	(s)
Russia	--	6.07	5.64	4.99	4.67	5.22	4.00	3.69	5.27	5.68
Tajikistan	--	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	0.01	0.01	0.01	0.01	(s)	(s)	0.00	0.00	0.00
Ukraine	--	2.74	2.47	1.97	2.28	1.96	1.81	1.81	1.93	1.92
Uzbekistan	--	0.09	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04
Total	**16.35**	**16.72**	**14.79**	**12.87**	**12.64**	**12.55**	**11.41**	**10.58**	**12.00**	**12.68**
Middle East										
Cyprus	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Iran	0.04	0.04	0.03	0.05	0.04	0.04	0.05	0.05	0.05	0.05
Israel	0.11	0.11	0.18	0.19	0.18	0.21	0.23	0.24	0.24	0.24
Other	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.15**	**0.15**	**0.22**	**0.24**	**0.23**	**0.26**	**0.28**	**0.30**	**0.29**	**0.29**
Africa										
Algeria	0.03	0.03	0.03	0.02	0.03	0.02	0.01	0.02	0.02	0.02
Botswana	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Cameroon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Egypt	0.03	0.03	0.04	0.04	0.03	0.04	0.04	0.05	0.05	0.05
Ghana	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kenya	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Libya	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Madagascar	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Malawi	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Mauritania	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Mauritius	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Morocco	0.06	0.04	0.07	0.07	0.07	0.09	0.08	0.09	0.09	0.09
Mozambique	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00	0.00
Namibia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Niger	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nigeria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
South Africa	2.80	2.80	2.86	2.85	3.14	2.95	3.61	3.79	3.43	3.46
Swaziland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Tanzania	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Tunisia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Zambia	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Zimbabwe	0.14	0.15	0.14	0.15	0.15	0.12	0.10	0.11	0.10	0.11
Total	**3.12**	**3.11**	**3.19**	**3.19**	**3.47**	**3.28**	**3.90**	**4.11**	**3.76**	**3.78**

See footnotes at end of table.

Table E4 World Coal Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Australia	1.49	1.57	1.57	1.50	1.53	1.66	1.97	1.96	2.13	2.16
Bangladesh	0.01	(s)	(s)	(s)	(s)	0.01	0.01	(s)	(s)	(s)
Bhutan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Burma	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
China	21.05	21.71	22.91	24.96	25.51	25.83	26.57	25.52	24.65	23.34
Fiji	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Hong Kong	0.21	0.23	0.26	0.19	0.20	0.20	0.16	0.20	0.16	0.16
India	4.23	4.69	4.95	5.04	6.27	6.14	6.15	6.10	6.22	6.68
Indonesia	0.16	0.20	0.23	0.28	0.29	0.40	0.34	0.38	0.29	0.30
Japan	2.77	2.69	2.71	2.81	2.95	3.02	3.27	3.18	3.29	3.56
Korea, North	2.56	2.62	2.72	2.69	2.67	2.64	2.49	2.36	2.39	2.41
Korea, South	1.04	0.98	1.19	1.24	1.40	1.24	1.33	1.36	1.32	1.61
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Malaysia	0.06	0.06	0.06	0.07	0.07	0.09	0.06	0.07	0.06	0.09
Mongolia	0.08	0.06	0.06	0.05	0.06	0.05	0.05	0.05	0.05	0.05
Nepal	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
New Caledonia	(s)	(s)	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
New Zealand	0.05	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.04	0.03
Pakistan	0.08	0.09	0.09	0.10	0.09	0.10	0.09	0.09	0.09	0.09
Papua New Guinea	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	0.07	0.06	0.08	0.08	0.08	0.10	0.11	0.10	0.16	0.21
Singapore	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Sri Lanka	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Taiwan	0.45	0.51	0.63	0.68	0.83	0.91	1.01	1.06	1.23	1.31
Thailand	0.17	0.18	0.19	0.21	0.38	0.38	0.36	0.29	0.31	0.33
Vietnam	0.09	0.09	0.13	0.13	0.17	0.15	0.14	0.13	0.13	0.13
Total	**34.58**	**35.83**	**37.85**	**40.10**	**42.56**	**42.97**	**44.18**	**42.89**	**42.54**	**42.47**
World Total	**88.35**	**88.20**	**88.83**	**89.09**	**91.24**	**92.50**	**94.09**	**92.41**	**92.44**	**94.22**

[1] Preliminary.
[2] United States coal consumption is from Energy Information Administration, Monthly Energy Review, December 2001, tables 1.4 and 1.5. It is the sum of (consumption of) coal from table 1.4 and (net imports of) coal coke from table 1.5.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Coal includes anthracite, subanthracite, bituminous, subbituminous, lignite, and brown coal.
Sources: See sources at the end of Section 5.

Table E5 World Net Hydroelectric Power Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	3.17	3.26	3.33	3.40	3.45	3.67	3.61	3.42	3.56	3.67
Mexico	0.23	0.27	0.27	0.21	0.28	0.32	0.27	0.25	0.34	0.34
United States [2]	3.11	2.77	3.08	2.96	3.45	3.86	3.92	3.52	3.45	3.09
Total	**6.51**	**6.30**	**6.68**	**6.56**	**7.19**	**7.85**	**7.80**	**7.19**	**7.34**	**7.10**
Central & South America										
Argentina	0.20	0.25	0.31	0.35	0.35	0.30	0.36	0.37	0.22	0.35
Bolivia	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02
Brazil	2.24	2.30	2.42	2.50	2.61	2.74	2.87	3.00	3.02	3.17
Chile	0.14	0.17	0.18	0.17	0.19	0.17	0.19	0.16	0.14	0.19
Colombia	0.28	0.23	0.29	0.33	0.35	0.36	0.32	0.32	0.35	0.33
Costa Rica	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06
Dominican Republic	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Ecuador	0.05	0.05	0.06	0.07	0.05	0.06	0.07	0.07	0.07	0.08
El Salvador	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
Guatemala	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Haiti	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Honduras	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
Jamaica	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nicaragua	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	(s)	(s)
Panama	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Paraguay	0.30	0.28	0.32	0.37	0.43	0.49	0.52	0.52	0.54	0.55
Peru	0.12	0.10	0.12	0.13	0.14	0.14	0.14	0.14	0.15	0.17
Puerto Rico	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Suriname	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Uruguay	0.06	0.08	0.08	0.08	0.06	0.06	0.07	0.09	0.06	0.07
Venezuela	0.46	0.49	0.49	0.53	0.53	0.55	0.59	0.55	0.57	0.65
Other	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**4.02**	**4.13**	**4.45**	**4.73**	**4.90**	**5.06**	**5.31**	**5.42**	**5.31**	**5.77**
Western Europe										
Austria	0.32	0.36	0.38	0.37	0.38	0.35	0.37	0.38	0.42	0.43
Belgium	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Finland	0.14	0.16	0.14	0.12	0.13	0.12	0.13	0.15	0.13	0.15
France	0.59	0.70	0.66	0.80	0.73	0.67	0.64	0.64	0.75	0.69
Germany	0.15	0.18	0.18	0.21	0.22	0.23	0.18	0.18	0.20	0.20
Greece	0.03	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.05	0.03
Iceland	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.07
Ireland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Italy	0.43	0.43	0.43	0.46	0.39	0.43	0.43	0.42	0.47	0.46
Luxembourg	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Norway	1.13	1.20	1.23	1.15	1.25	1.07	1.13	1.19	1.24	1.46
Portugal	0.09	0.05	0.09	0.11	0.09	0.15	0.13	0.13	0.07	0.12
Spain	0.28	0.19	0.25	0.29	0.24	0.41	0.36	0.35	0.24	0.27
Sweden	0.65	0.77	0.77	0.61	0.70	0.53	0.71	0.77	0.74	0.81
Switzerland	0.33	0.34	0.37	0.40	0.36	0.29	0.35	0.34	0.41	0.38
Turkey	0.23	0.27	0.35	0.31	0.37	0.42	0.41	0.43	0.36	0.32
United Kingdom	0.05	0.06	0.04	0.05	0.05	0.03	0.04	0.05	0.06	0.05
Former Yugoslavia	0.20	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.03	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Croatia	--	0.04	0.04	0.05	0.05	0.07	0.05	0.06	0.07	0.06
Macedonia, TFYR	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Slovenia	--	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04
Yugoslavia	--	0.12	0.10	0.11	0.12	0.12	0.13	0.13	0.14	0.14
Other	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**4.69**	**5.02**	**5.17**	**5.19**	**5.24**	**5.08**	**5.23**	**5.42**	**5.47**	**5.73**

See footnotes at end of table.

Table E5 World Net Hydroelectric Power Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.04	0.03	0.03	0.04	0.04	0.06	0.05	0.05	0.05	0.05
Bulgaria	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Former Czechoslovakia	0.03	0.04	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02
Slovakia	--	--	0.04	0.05	0.05	0.05	0.04	0.04	0.05	0.05
Hungary	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Poland	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02
Romania	0.15	0.12	0.13	0.13	0.17	0.16	0.18	0.19	0.19	0.19
Former U.S.S.R.	2.42	--	--	--	--	--	--	--	--	--
Armenia	--	0.03	0.04	0.04	0.02	0.02	0.01	0.02	0.02	0.02
Azerbaijan	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Georgia	--	0.07	0.07	0.05	0.05	0.06	0.06	0.07	0.07	0.06
Kazakhstan	--	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.06	0.07
Kyrgyzstan	--	0.10	0.09	0.12	0.11	0.13	0.11	0.10	0.13	0.14
Latvia	--	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.03	0.02
Lithuania	--	(s)	(s)	(s)	(s)	(s)	(s)	0.01	(s)	(s)
Moldova	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	1.78	1.79	1.82	1.83	1.60	1.63	1.64	1.66	1.64
Tajikistan	--	0.16	0.18	0.17	0.15	0.15	0.14	0.15	0.16	0.15
Ukraine	--	0.08	0.12	0.13	0.10	0.09	0.10	0.16	0.12	0.12
Uzbekistan	--	0.06	0.08	0.07	0.06	0.07	0.06	0.06	0.06	0.06
Other	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**2.70**	**2.65**	**2.79**	**2.85**	**2.83**	**2.59**	**2.61**	**2.69**	**2.69**	**2.66**
Middle East										
Iran	0.07	0.10	0.10	0.08	0.07	0.08	0.07	0.07	0.05	0.07
Iraq	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Lebanon	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	(s)	(s)
Syria	0.06	0.08	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.07
Total	**0.15**	**0.19**	**0.18**	**0.16**	**0.16**	**0.16**	**0.16**	**0.17**	**0.15**	**0.15**
Africa										
Algeria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Angola	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cameroon	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Congo (Brazzaville)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.06
Cote d'Ivoire (Ivory Coast)	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
Egypt	0.09	0.09	0.11	0.11	0.11	0.12	0.12	0.13	0.16	0.17
Ethiopia	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Gabon	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ghana	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.04	0.04	0.04
Guinea	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kenya	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Madagascar	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Malawi	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Mali	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Morocco	0.01	0.01	(s)	0.01	0.01	0.02	0.02	0.02	0.02	0.01
Mozambique	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.02	0.07	0.07
Nigeria	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Reunion	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
South Africa	0.02	0.01	(s)	0.01	0.01	0.01	0.02	0.02	0.01	0.01
Sudan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Swaziland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Tanzania	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
Uganda	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Zambia	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Zimbabwe	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Other	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.59**	**0.58**	**0.58**	**0.58**	**0.60**	**0.65**	**0.67**	**0.63**	**0.72**	**0.73**

See footnotes at end of table.

Table E5 World Net Hydroelectric Power Consumption (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Australia	0.16	0.16	0.17	0.17	0.16	0.16	0.17	0.16	0.17	0.18
Bangladesh	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Bhutan	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Burma	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Cambodia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
China	1.29	1.35	1.55	1.72	1.92	1.92	2.01	2.11	2.32	2.29
Fiji	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
French Polynesia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
India	0.75	0.72	0.73	0.85	0.75	0.71	0.77	0.78	0.84	0.79
Indonesia	0.10	0.10	0.09	0.07	0.09	0.09	0.09	0.11	0.12	0.14
Japan	1.00	0.85	0.98	0.69	0.85	0.83	0.92	0.95	0.89	0.90
Korea, North	0.33	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.23
Korea, South	0.04	0.03	0.04	0.02	0.03	0.02	0.03	0.04	0.04	0.04
Laos	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malaysia	0.05	0.04	0.05	0.07	0.06	0.05	0.04	0.05	0.08	0.08
Nepal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
New Caledonia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
New Zealand	0.24	0.21	0.24	0.27	0.28	0.27	0.25	0.25	0.24	0.25
Pakistan	0.19	0.19	0.22	0.20	0.24	0.24	0.21	0.23	0.23	0.23
Papua New Guinea	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01
Philippines	0.05	0.04	0.05	0.06	0.06	0.07	0.06	0.05	0.08	0.08
Samoa	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Sri Lanka	0.03	0.03	0.04	0.04	0.05	0.03	0.04	0.04	0.04	0.05
Taiwan	0.06	0.09	0.07	0.09	0.09	0.09	0.09	0.10	0.09	0.09
Thailand	0.05	0.04	0.04	0.05	0.07	0.08	0.07	0.05	0.04	0.06
U.S. Pacific Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Vietnam	0.07	0.07	0.08	0.09	0.11	0.12	0.12	0.11	0.14	0.16
Total	**4.47**	**4.27**	**4.68**	**4.72**	**5.07**	**5.02**	**5.20**	**5.35**	**5.62**	**5.65**
World Total	**23.13**	**23.14**	**24.52**	**24.78**	**25.98**	**26.40**	**26.99**	**26.88**	**27.30**	**27.80**

[1] Preliminary.
[2] Includes hydroelectric pumped storage.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
Consumption accounts for thermal equivalent conversion losses.
Sources: See sources at the end of Section 6.

Table E6 World Net Nuclear Electric Power Consumption (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	0.93	0.88	1.02	1.17	1.06	1.00	0.88	0.76	0.79	0.78
Mexico	0.04	0.04	0.05	0.04	0.08	0.08	0.10	0.09	0.10	0.08
United States	6.58	6.61	6.52	6.84	7.18	7.17	6.68	7.16	7.74	8.01
Total	**7.55**	**7.52**	**7.59**	**8.04**	**8.31**	**8.24**	**7.66**	**8.01**	**8.62**	**8.86**
Central & South America										
Argentina	0.09	0.08	0.09	0.09	0.08	0.08	0.09	0.08	0.08	0.07
Brazil	0.01	0.02	(s)	(s)	0.02	0.02	0.03	0.03	0.04	0.05
Total	**0.10**	**0.10**	**0.09**	**0.09**	**0.11**	**0.10**	**0.12**	**0.12**	**0.12**	**0.12**
Western Europe										
Belgium	0.42	0.43	0.41	0.40	0.41	0.43	0.47	0.45	0.48	0.47
Finland	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.21	0.22	0.22
France	3.28	3.34	3.64	3.54	3.71	3.91	3.87	3.81	3.88	4.08
Germany	1.43	1.54	1.49	1.46	1.46	1.53	1.63	1.54	1.62	1.62
Netherlands	0.03	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.04	0.04
Spain	0.54	0.54	0.54	0.53	0.53	0.54	0.53	0.57	0.57	0.60
Sweden	0.74	0.61	0.59	0.70	0.67	0.70	0.67	0.70	0.67	0.55
Switzerland	0.23	0.23	0.23	0.24	0.24	0.25	0.25	0.25	0.24	0.24
United Kingdom	0.78	0.86	1.01	1.00	1.00	1.07	1.11	1.18	1.14	1.02
Former Yugoslavia	0.04	--	--	--	--	--	--	--	--	--
Slovenia	--	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.05
Total	**7.67**	**7.82**	**8.18**	**8.16**	**8.30**	**8.69**	**8.80**	**8.82**	**8.91**	**8.88**
Eastern Europe & Former U.S.S.R.										
Bulgaria	0.14	0.12	0.15	0.16	0.18	0.20	0.18	0.18	0.17	0.19
Former Czechoslovakia	0.28	0.29	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.15	0.15	0.13	0.14	0.14	0.14	0.14	0.15
Slovakia	--	--	0.14	0.14	0.13	0.13	0.12	0.13	0.15	0.16
Hungary	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.13	0.13	0.14
Romania	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.06	0.06	0.06
Former U.S.S.R.	2.31	--	--	--	--	--	--	--	--	--
Armenia	--	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02
Kazakhstan	--	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00
Lithuania	--	0.15	0.13	0.08	0.11	0.14	0.12	0.14	0.11	0.09
Russia	--	1.25	1.25	1.02	1.04	1.14	1.15	1.08	1.22	1.35
Ukraine	--	0.76	0.78	0.71	0.73	0.83	0.82	0.77	0.74	0.78
Total	**2.86**	**2.71**	**2.73**	**2.41**	**2.46**	**2.74**	**2.75**	**2.65**	**2.74**	**2.93**
Africa										
South Africa	0.09	0.09	0.07	0.10	0.11	0.12	0.13	0.14	0.13	0.13
Total	**0.09**	**0.09**	**0.07**	**0.10**	**0.11**	**0.12**	**0.13**	**0.14**	**0.13**	**0.13**
Asia & Oceania										
China	0.00	0.01	0.03	0.14	0.13	0.14	0.12	0.14	0.14	0.16
India	0.06	0.07	0.07	0.06	0.08	0.09	0.13	0.13	0.14	0.17
Japan	2.08	2.17	2.42	2.61	2.83	2.93	3.13	3.23	3.07	3.00
Korea, South	0.54	0.54	0.56	0.56	0.64	0.70	0.73	0.85	0.98	1.03
Pakistan	(s)	0.01	(s)	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Taiwan	0.33	0.32	0.33	0.33	0.34	0.36	0.34	0.35	0.36	0.37
Total	**3.01**	**3.12**	**3.41**	**3.70**	**4.02**	**4.23**	**4.45**	**4.69**	**4.70**	**4.73**
World Total	**21.29**	**21.36**	**22.07**	**22.50**	**23.31**	**24.13**	**23.90**	**24.43**	**25.21**	**25.66**

[1] Preliminary.
-- = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
Consumption accounts for thermal equivalent conversion losses.
No consumption is reported for Middle East.
Sources: See sources at the end of Section 6.

Table E7 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Consumption(Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	0.04	0.04	0.05	0.06	0.05	0.06	0.06	0.07	0.07	0.09
Mexico	0.11	0.12	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12
United States	0.92	0.97	1.00	1.02	0.96	0.99	0.95	0.94	1.04	1.02
Total	**1.07**	**1.13**	**1.16**	**1.18**	**1.13**	**1.16**	**1.12**	**1.12**	**1.23**	**1.24**
Central & South America										
Argentina	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bolivia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Brazil	0.05	0.07	0.07	0.07	0.08	0.09	0.10	0.10	0.14	0.13
Chile	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Colombia	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	(s)
Costa Rica	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Cuba	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Dominican Republic	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
El Salvador	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Guatemala	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Haiti	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jamaica	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Nicaragua	0.01	0.01	0.01	0.01	0.01	0.01	(s)	0.01	(s)	(s)
Panama	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Paraguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Peru	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Trinidad and Tobago	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Uruguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**0.10**	**0.11**	**0.11**	**0.12**	**0.13**	**0.15**	**0.16**	**0.17**	**0.20**	**0.21**
Western Europe										
Austria	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Belgium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Croatia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Denmark	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.04	0.05	0.06
Faroe Islands	0.00	0.00	0.00	(s)	(s)	(s)	(s)	0.00	0.00	0.00
Finland	0.00	0.05	0.06	0.06	0.07	0.06	0.08	0.10	0.09	0.09
France	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04
Germany	0.05	0.06	0.06	0.08	0.09	0.10	0.10	0.13	0.15	0.18
Greece	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01
Iceland	0.01	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
Ireland	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Italy	0.07	0.07	0.08	0.07	0.08	0.08	0.09	0.11	0.12	0.13
Luxembourg	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Netherlands	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.05	0.05	0.05
Norway	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Portugal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Slovenia	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)
Spain	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.06	0.06
Sweden	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04
Switzerland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Turkey	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
United Kingdom	0.01	0.02	0.05	0.05	0.06	0.06	0.06	0.08	0.09	0.09
Total	**0.24**	**0.33**	**0.38**	**0.41**	**0.46**	**0.49**	**0.57**	**0.68**	**0.76**	**0.85**
Eastern Europe & Former U.S.S.R.										
Belarus	--	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Bulgaria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Czech Republic	--	--	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01
Hungary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Poland	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01
Romania	0.00	(s)	(s)	0.00	(s)	0.00	(s)	(s)	0.00	0.00
Former U.S.S.R.	(s)	--	--	--	--	--	--	--	--	--
Estonia	--	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Total	**(s)**	**0.02**	**0.03**	**0.02**	**0.02**	**0.02**	**0.03**	**0.03**	**0.04**	**0.05**

See footnotes at end of table.

Table E7 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Consumption(Btu), 1991 - 2000(Cont

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Jordan	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**(s)**	**(s)**	**(s)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Africa										
Ethiopia	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00
Kenya	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Asia & Oceania										
Australia	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
China	0.00	0.00	0.00	(s)	0.03	0.01	0.03	0.02	0.02	0.02
India	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01
Indonesia	0.02	0.02	0.02	0.04	0.04	0.05	0.05	0.08	0.08	0.10
Japan	0.21	0.21	0.21	0.23	0.26	0.27	0.29	0.22	0.23	0.22
Korea, South	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)
New Zealand	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.05
Philippines	0.11	0.11	0.11	0.13	0.12	0.13	0.14	0.18	0.17	0.19
Thailand	0.00	0.00	0.00	0.00	(s)	(s)	0.01	0.01	0.01	0.01
Total	**0.40**	**0.42**	**0.42**	**0.47**	**0.53**	**0.55**	**0.62**	**0.61**	**0.62**	**0.64**
World Total	**1.82**	**2.02**	**2.11**	**2.22**	**2.28**	**2.38**	**2.50**	**2.61**	**2.85**	**2.99**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Data are reported as net consumption as opposed to gross. Net consumption excludes the energy consumed by the generating units.
Consumption accounts for thermal equivalent conversion losses.
Sources: See sources at the end of Section 6.

Appendix F

World Energy Production (Btu), 1991-2000

Table F1 World Primary Energy Production (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	13.94	14.48	15.40	16.36	16.85	17.24	17.54	17.50	17.73	18.20
Mexico	8.01	8.01	8.11	8.10	8.04	8.74	9.07	9.31	9.06	9.34
United States	70.56	70.10	68.41	70.88	71.34	72.63	72.58	73.11	72.20	71.60
Total	**92.52**	**92.59**	**91.92**	**95.35**	**96.23**	**98.62**	**99.19**	**99.92**	**98.98**	**99.14**
Central & South America										
Argentina	2.14	2.33	2.54	2.76	2.98	3.09	3.36	3.48	3.41	3.55
Bolivia	0.17	0.18	0.17	0.18	0.20	0.20	0.20	0.21	0.19	0.22
Brazil	3.94	4.01	4.15	4.31	4.51	4.87	5.14	5.56	5.98	6.52
Chile	0.30	0.33	0.33	0.33	0.33	0.31	0.33	0.29	0.23	0.28
Colombia	1.87	1.90	1.99	2.01	2.41	2.61	2.85	3.07	3.21	3.09
Ecuador	0.71	0.76	0.83	0.88	0.93	0.95	0.93	0.90	0.90	0.96
Paraguay	0.30	0.28	0.32	0.37	0.43	0.49	0.52	0.52	0.54	0.55
Peru	0.38	0.37	0.43	0.44	0.45	0.43	0.40	0.41	0.39	0.39
Trinidad and Tobago	0.55	0.51	0.53	0.56	0.58	0.62	0.63	0.63	0.72	0.80
Venezuela	6.96	6.96	7.27	7.70	8.08	8.62	9.49	9.41	8.50	8.93
Other	0.30	0.34	0.35	0.38	0.37	0.39	0.43	0.48	0.47	0.52
Total	**17.63**	**17.98**	**18.93**	**19.93**	**21.28**	**22.58**	**24.28**	**24.95**	**24.54**	**25.81**
Western Europe										
Austria	0.47	0.50	0.51	0.49	0.52	0.48	0.50	0.52	0.55	0.57
Belgium	0.47	0.46	0.44	0.43	0.43	0.45	0.49	0.48	0.51	0.50
Denmark	0.46	0.51	0.55	0.59	0.61	0.70	0.81	0.84	0.98	1.14
Finland	0.33	0.39	0.39	0.37	0.38	0.37	0.40	0.46	0.44	0.46
France	4.47	4.63	4.84	4.87	4.97	5.04	4.91	4.80	4.96	5.07
Germany	6.35	6.17	5.84	5.71	5.58	5.49	5.56	5.26	5.32	5.22
Greece	0.39	0.33	0.35	0.35	0.36	0.35	0.39	0.40	0.40	0.41
Italy	1.31	1.36	1.39	1.46	1.40	1.47	1.47	1.46	1.40	1.37
Netherlands	2.95	2.93	2.98	2.91	2.91	3.25	2.89	2.78	2.58	2.49
Norway	6.23	7.09	7.28	7.65	8.36	9.29	9.61	9.37	9.55	10.20
Spain	1.44	1.34	1.34	1.33	1.20	1.37	1.30	1.32	1.18	1.25
Sweden	1.41	1.40	1.38	1.33	1.40	1.26	1.41	1.50	1.45	1.40
Switzerland	0.56	0.58	0.61	0.66	0.62	0.55	0.61	0.61	0.67	0.64
Turkey	0.87	0.95	0.99	0.95	0.99	1.05	1.11	1.17	1.06	1.01
United Kingdom	9.26	9.07	9.40	10.19	10.76	11.58	11.35	11.58	11.95	11.22
Former Yugoslavia	1.29	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.05	0.03	0.03	0.06	0.03	0.03	0.03	0.03	0.03
Croatia	--	0.20	0.21	0.22	0.21	0.22	0.19	0.19	0.19	0.18
Yugoslavia	--	0.55	0.52	0.53	0.43	0.55	0.55	0.60	0.50	0.50
Other	0.25	0.41	0.45	0.48	0.47	0.54	0.52	0.52	0.45	0.50
Total	**38.49**	**38.91**	**39.52**	**40.54**	**41.66**	**44.04**	**44.10**	**43.88**	**44.17**	**44.14**
Eastern Europe & Former U.S.S.R.										
Bulgaria	0.43	0.41	0.43	0.43	0.47	0.50	0.48	0.49	0.43	0.47
Former Czechoslovakia	2.59	2.46	--	--	--	--	--	--	--	--
Czech Republic	--	--	1.27	1.18	1.13	1.21	1.11	1.04	0.95	1.04
Slovakia	--	--	0.24	0.25	0.24	0.24	0.23	0.23	0.25	0.26
Hungary	0.57	0.56	0.53	0.53	0.52	0.51	0.53	0.49	0.47	0.45
Poland	3.74	3.68	3.70	3.75	3.60	3.25	3.86	3.35	3.20	3.05
Romania	1.62	1.49	1.47	1.43	1.46	1.43	1.41	1.26	1.21	1.26
Former U.S.S.R.	66.43	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.78	0.72	0.66	0.65	0.65	0.62	0.73	0.84	0.84
Kazakhstan	--	3.77	3.39	2.57	2.28	2.36	2.44	2.38	2.33	2.94
Lithuania	--	0.15	0.14	0.09	0.12	0.15	0.13	0.15	0.12	0.11
Russia	--	48.98	45.53	42.87	41.87	42.01	40.13	40.41	42.06	43.29
Tajikistan	--	0.17	0.18	0.18	0.15	0.16	0.14	0.15	0.16	0.15
Turkmenistan	--	2.34	2.58	1.49	1.36	1.55	1.16	0.75	1.15	2.05
Ukraine	--	4.38	4.00	3.50	3.63	3.45	3.40	3.41	3.48	3.49
Uzbekistan	--	1.79	1.90	2.04	2.15	2.15	2.18	2.39	2.39	2.42
Other	0.09	0.44	0.45	0.43	0.40	0.44	0.42	0.42	0.44	0.44
Total	**75.48**	**71.40**	**66.52**	**61.40**	**60.03**	**60.07**	**58.24**	**57.65**	**59.49**	**62.26**

See footnotes at end of table.

Table F1 World Primary Energy Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	0.33	0.29	0.35	0.35	0.34	0.33	0.40	0.40	0.41	0.41
Iran	8.27	8.53	8.83	9.16	9.35	9.65	9.84	9.90	10.00	10.44
Iraq	0.69	1.02	1.21	1.33	1.35	1.39	2.60	4.71	5.47	5.62
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kuwait	0.43	2.44	4.28	4.73	4.81	4.94	4.85	5.02	4.60	5.14
Oman	1.64	1.72	1.82	1.90	1.99	2.07	2.13	2.20	2.17	2.36
Qatar	1.25	1.39	1.45	1.44	1.51	1.66	1.90	2.31	2.37	2.82
Saudi Arabia	19.75	20.39	20.11	20.00	20.25	20.39	20.82	21.00	19.64	21.12
Syria	1.29	1.29	1.45	1.47	1.48	1.53	1.51	1.53	1.52	1.47
United Arab Emirates	6.24	6.11	5.78	5.84	6.14	6.34	6.50	6.61	6.25	6.82
Yemen	0.41	0.38	0.46	0.70	0.72	0.71	0.76	0.81	0.85	0.92
Other	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Total	**40.31**	**43.57**	**45.76**	**46.94**	**47.97**	**49.03**	**51.33**	**54.50**	**53.30**	**57.13**
Africa										
Algeria	5.04	5.06	4.87	4.79	5.13	5.28	5.63	5.75	6.03	6.21
Angola	1.10	1.16	1.12	1.17	1.41	1.55	1.55	1.60	1.62	1.62
Cameroon	0.36	0.33	0.30	0.26	0.27	0.26	0.30	0.29	0.25	0.22
Congo (Brazzaville)	0.33	0.37	0.39	0.38	0.40	0.43	0.54	0.56	0.57	0.56
Congo (Kinshasa)	0.12	0.12	0.12	0.11	0.13	0.13	0.12	0.12	0.10	0.11
Egypt	2.40	2.44	2.55	2.59	2.67	2.73	2.61	2.58	2.69	2.66
Gabon	0.64	0.65	0.68	0.72	0.80	0.81	0.81	0.77	0.72	0.71
Libya	3.43	3.34	3.17	3.21	3.23	3.28	3.39	3.26	3.07	3.30
Nigeria	4.30	4.43	4.45	4.37	4.53	4.57	4.85	4.90	4.89	5.14
South Africa	5.35	5.17	5.44	5.76	6.09	6.28	7.15	7.12	7.08	7.21
Tunisia	0.23	0.25	0.23	0.21	0.20	0.22	0.25	0.25	0.25	0.25
Zambia	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.09	0.09	0.09
Zimbabwe	0.19	0.18	0.16	0.16	0.17	0.15	0.13	0.13	0.14	0.14
Other	0.27	0.27	0.28	0.30	0.31	0.40	0.48	0.54	0.75	1.10
Total	**23.84**	**23.87**	**23.85**	**24.13**	**25.41**	**26.15**	**27.89**	**27.96**	**28.25**	**29.31**
Asia & Oceania										
Australia	6.29	6.59	6.63	6.93	7.45	7.59	8.35	8.69	8.91	9.64
Bangladesh	0.17	0.20	0.22	0.24	0.26	0.27	0.27	0.30	0.32	0.35
Brunei	0.68	0.70	0.71	0.72	0.75	0.73	0.74	0.74	0.81	0.85
Burma	0.09	0.09	0.09	0.10	0.10	0.10	0.09	0.10	0.09	0.15
China	29.68	30.33	31.85	34.08	35.47	36.02	37.63	36.38	35.54	34.90
India	6.86	7.17	7.37	7.63	9.01	8.83	9.05	9.03	9.18	9.48
Indonesia	5.85	5.99	6.29	6.63	6.98	7.43	7.44	7.51	7.80	7.64
Japan	3.61	3.54	3.90	3.81	4.19	4.29	4.55	4.60	4.39	4.32
Korea, North	2.83	2.80	2.91	2.88	2.85	2.81	2.66	2.53	2.55	2.59
Korea, South	0.84	0.79	0.77	0.72	0.77	0.82	0.84	0.98	1.10	1.15
Malaysia	2.19	2.26	2.35	2.41	2.59	2.83	3.01	3.14	3.16	3.21
Mongolia	0.08	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05
New Zealand	0.62	0.61	0.63	0.65	0.64	0.67	0.70	0.66	0.67	0.66
Pakistan	0.89	0.91	0.96	0.98	1.04	1.09	1.06	1.07	1.15	1.22
Papua New Guinea	0.01	0.12	0.27	0.23	0.21	0.22	0.17	0.17	0.21	0.16
Philippines	0.20	0.21	0.22	0.23	0.22	0.23	0.23	0.26	0.28	0.31
Taiwan	0.44	0.45	0.44	0.47	0.47	0.49	0.48	0.49	0.49	0.49
Thailand	0.57	0.59	0.65	0.73	0.94	0.97	1.14	1.13	1.17	1.28
Vietnam	0.36	0.45	0.55	0.60	0.75	0.76	0.81	0.93	1.03	1.11
Other	0.10	0.09	0.10	0.11	0.11	0.10	0.10	0.11	0.11	0.11
Total	**62.36**	**63.96**	**66.96**	**70.20**	**74.86**	**76.29**	**79.38**	**78.85**	**79.01**	**79.69**
World Total	**350.64**	**352.28**	**353.46**	**358.49**	**367.44**	**376.79**	**384.42**	**387.72**	**387.73**	**397.48**

[1] Preliminary.

- - = Not applicable.

(s) = Value less than 5 trillion Btu.

Notes: Sum of components may not equal total due to independent rounding.

Primary energy production reported in this table includes petroleum (crude oil and natural gas plant liquids), dry natural gas, and coal, and net hydroelectric, nuclear, geothermal, solar, wind, and wood and waste electric power generation.

Primary energy production for the United States also includes the production of geothermal, solar, and wood and waste energy not used for electricity generation. As a result, primary energy production for the United States reported in this table might not be equal to sum of the individual fuel types reported in Tables F2-F8.

Sources: See sources at the end of Sections 3, 4, 5, and 6.

Table F2 World Crude Oil Production (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada [2]	3.28	3.41	3.56	3.70	3.83	3.91	4.08	4.20	4.04	4.20
Mexico	5.88	5.87	5.86	5.89	5.74	6.28	6.63	6.74	6.37	6.63
United States	15.70	15.22	14.49	14.10	13.89	13.72	13.66	13.24	12.45	12.36
Total	**24.86**	**24.51**	**23.92**	**23.70**	**23.46**	**23.91**	**24.37**	**24.17**	**22.87**	**23.19**
Central & South America										
Argentina	1.06	1.21	1.30	1.42	1.56	1.66	1.82	1.85	1.75	1.67
Bolivia	0.04	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.06
Brazil	1.36	1.35	1.39	1.45	1.50	1.72	1.82	2.09	2.44	2.74
Chile	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01
Colombia	0.92	0.95	1.00	0.99	1.29	1.37	1.43	1.61	1.79	1.52
Cuba	0.03	0.04	0.05	0.06	0.06	0.07	0.07	0.07	0.09	0.10
Ecuador	0.65	0.70	0.75	0.80	0.86	0.87	0.85	0.82	0.81	0.87
Peru	0.24	0.25	0.27	0.27	0.28	0.26	0.25	0.25	0.23	0.21
Trinidad and Tobago	0.33	0.30	0.30	0.29	0.29	0.29	0.27	0.27	0.27	0.27
Venezuela	5.32	5.32	5.49	5.80	6.16	6.60	7.34	7.09	6.33	6.62
Other	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.07	0.08	0.08
Total	**10.02**	**10.24**	**10.64**	**11.18**	**12.11**	**12.95**	**13.98**	**14.21**	**13.88**	**14.15**
Western Europe										
Austria	0.06	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.04
Denmark	0.30	0.34	0.36	0.38	0.39	0.43	0.48	0.49	0.62	0.75
France	0.13	0.12	0.12	0.12	0.11	0.09	0.08	0.07	0.07	0.06
Germany	0.15	0.14	0.13	0.13	0.13	0.13	0.12	0.13	0.12	0.14
Greece	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	(s)	0.01
Italy	0.18	0.19	0.19	0.19	0.21	0.23	0.25	0.24	0.18	0.20
Netherlands	0.17	0.12	0.11	0.18	0.15	0.13	0.12	0.12	0.07	0.06
Norway	3.88	4.59	4.82	5.17	5.68	6.39	6.45	6.19	6.19	6.58
Spain	0.05	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01
Sweden	(s)	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00
Turkey	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.14	0.13	0.12
United Kingdom	3.81	3.88	4.06	5.03	5.27	5.45	5.33	5.54	5.68	4.83
Former Yugoslavia	0.13	--	--	--	--	--	--	--	--	--
Croatia	--	0.08	0.08	0.08	0.07	0.06	0.06	0.07	0.05	0.05
Slovenia	--	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Yugoslavia	--	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03
Total	**9.06**	**9.80**	**10.19**	**11.60**	**12.29**	**13.19**	**13.15**	**13.11**	**13.21**	**12.89**
Eastern Europe & Former U.S.S.R.										
Albania	0.04	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.02
Bulgaria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Former Czechoslovakia	0.01	0.01	--	--	--	--	--	--	--	--
Czech Republic	--	--	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Slovakia	--	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Hungary	0.08	0.08	0.08	0.09	0.08	0.07	0.08	0.06	0.06	0.06
Poland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03
Romania	0.30	0.29	0.28	0.29	0.28	0.29	0.28	0.28	0.26	0.25
Former U.S.S.R.	21.44	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.46	0.43	0.39	0.38	0.38	0.37	0.49	0.59	0.60
Belarus	--	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08
Georgia	--	0.01	(s)	(s)	(s)	(s)	0.01	(s)	(s)	(s)
Kazakhstan	--	0.96	0.88	0.76	0.78	0.87	1.00	1.02	1.14	1.29
Kyrgyzstan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Lithuania	--	0.00	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Russia	--	16.42	14.44	13.17	12.87	12.59	12.71	12.56	13.05	13.94
Tajikistan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	0.21	0.17	0.17	0.15	0.16	0.19	0.24	0.30	0.30
Ukraine	--	0.15	0.14	0.14	0.14	0.14	0.12	0.12	0.16	0.16
Uzbekistan	--	0.08	0.10	0.16	0.25	0.25	0.24	0.25	0.22	0.20
Total	**21.88**	**18.78**	**16.66**	**15.31**	**15.06**	**14.89**	**15.14**	**15.17**	**15.92**	**16.98**

See footnotes at end of table.

Table F2 World Crude Oil Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	0.08	0.08	0.09	0.09	0.09	0.08	0.09	0.08	0.08	0.08
Iran	7.12	7.39	7.61	7.78	7.83	7.94	7.87	7.81	7.64	7.97
Iraq	0.65	0.91	1.09	1.17	1.19	1.23	2.45	4.57	5.33	5.48
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kuwait	0.41	2.29	4.00	4.38	4.45	4.47	4.34	4.51	4.10	4.61
Oman	1.50	1.59	1.66	1.74	1.82	1.90	1.94	1.93	1.95	2.02
Qatar	0.83	0.89	0.87	0.88	0.93	1.08	1.16	1.47	1.40	1.56
Saudi Arabia	17.51	18.02	17.68	17.52	17.76	17.78	18.04	18.10	16.90	18.18
Syria	1.11	1.08	1.25	1.26	1.29	1.31	1.26	1.24	1.21	1.18
United Arab Emirates	5.04	4.80	4.56	4.63	4.72	4.82	4.89	4.95	4.58	5.02
Yemen	0.41	0.38	0.46	0.70	0.72	0.71	0.76	0.81	0.85	0.92
Total	**34.65**	**37.44**	**39.27**	**40.13**	**40.80**	**41.32**	**42.80**	**45.46**	**44.05**	**47.00**
Africa										
Algeria	2.49	2.47	2.36	2.39	2.44	2.53	2.59	2.53	2.44	2.53
Angola	1.06	1.12	1.08	1.14	1.37	1.51	1.52	1.56	1.58	1.59
Benin	0.01	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Cameroon	0.33	0.31	0.28	0.23	0.24	0.24	0.27	0.26	0.22	0.18
Congo (Brazzaville)	0.33	0.37	0.38	0.38	0.40	0.43	0.53	0.56	0.57	0.56
Congo (Kinshasa)	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.05	0.05
Cote d'Ivoire (Ivory Coast)	(s)	(s)	(s)	0.01	0.02	0.03	0.04	0.04	0.03	0.02
Egypt	1.89	1.91	1.92	1.94	1.99	2.00	1.85	1.80	1.84	1.62
Equatorial Guinea	(s)	(s)	0.01	0.01	0.01	0.03	0.10	0.17	0.20	0.33
Gabon	0.63	0.64	0.67	0.71	0.78	0.79	0.80	0.76	0.71	0.70
Ghana	0.00	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.02
Libya	3.13	3.03	2.87	2.90	2.93	2.96	3.05	2.93	2.78	2.98
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nigeria	4.06	4.18	4.21	4.14	4.28	4.31	4.58	4.62	4.57	4.61
South Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.05
Sudan	0.00	(s)	(s)	(s)	(s)	(s)	0.01	0.02	0.13	0.35
Tunisia	0.22	0.23	0.20	0.19	0.18	0.18	0.17	0.17	0.17	0.16
Total	**14.22**	**14.33**	**14.05**	**14.12**	**14.72**	**15.09**	**15.59**	**15.52**	**15.36**	**15.78**
Asia & Oceania										
Australia	1.11	1.09	1.02	1.09	1.14	1.16	1.20	1.11	1.10	1.47
Bangladesh	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01
Brunei	0.35	0.35	0.35	0.36	0.35	0.33	0.34	0.34	0.39	0.41
Burma	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
China	6.08	6.12	6.20	6.31	6.42	6.74	6.87	6.86	6.86	6.99
India	1.29	1.18	1.12	1.23	1.47	1.37	1.41	1.38	1.36	1.36
Indonesia	3.34	3.16	3.17	3.16	3.15	3.25	3.18	3.18	3.08	2.99
Japan	0.03	0.04	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02
Malaysia	1.34	1.36	1.33	1.34	1.42	1.45	1.46	1.50	1.44	1.44
New Zealand	0.08	0.08	0.08	0.08	0.06	0.07	0.11	0.09	0.08	0.07
Pakistan	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.12
Papua New Guinea	(s)	0.11	0.26	0.23	0.20	0.21	0.16	0.16	0.20	0.14
Philippines	0.01	0.02	0.02	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Taiwan	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Thailand	0.11	0.12	0.12	0.13	0.12	0.14	0.17	0.17	0.19	0.25
Vietnam	0.18	0.23	0.26	0.31	0.38	0.39	0.42	0.54	0.64	0.70
Total	**14.08**	**14.02**	**14.12**	**14.43**	**14.89**	**15.28**	**15.49**	**15.50**	**15.50**	**15.98**
World Total	**128.77**	**129.13**	**128.86**	**130.46**	**133.32**	**136.64**	**140.52**	**143.15**	**140.79**	**145.97**

[1] Preliminary.
[2] Includes oil processed from Athabasca Tar Sands.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Crude oil includes lease condensate.
Sources: See sources at the end of Section 3.

Table F3 World Natural Gas Plant Liquids Production (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	0.63	0.67	0.74	0.77	0.84	0.87	0.92	0.95	0.95	1.02
Mexico	0.60	0.60	0.61	0.61	0.59	0.56	0.51	0.56	0.58	0.58
United States	2.31	2.36	2.41	2.39	2.44	2.53	2.50	2.42	2.53	2.61
Total	**3.54**	**3.63**	**3.75**	**3.77**	**3.87**	**3.96**	**3.93**	**3.93**	**4.06**	**4.21**
Central & South America										
Argentina	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.07
Bolivia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Brazil	0.03	0.04	0.04	0.05	0.06	0.05	0.05	0.05	0.05	0.06
Chile	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Colombia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cuba	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Ecuador	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Peru	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Trinidad and Tobago	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Venezuela	0.18	0.17	0.22	0.22	0.23	0.23	0.22	0.22	0.26	0.26
Total	**0.30**	**0.31**	**0.37**	**0.40**	**0.42**	**0.42**	**0.39**	**0.40**	**0.44**	**0.45**
Western Europe										
Austria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
France	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Greece	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Italy	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Netherlands	0.02	0.02	0.03	0.04	0.03	0.04	0.04	0.04	0.04	0.04
Norway	0.15	0.15	0.16	0.16	0.22	0.22	0.22	0.21	0.19	0.19
Spain	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
United Kingdom	0.23	0.26	0.28	0.36	0.44	0.43	0.38	0.39	0.39	0.38
Former Yugoslavia	0.01	--	--	--	--	--	--	--	--	--
Croatia	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.45**	**0.48**	**0.51**	**0.60**	**0.73**	**0.72**	**0.67**	**0.67**	**0.65**	**0.64**
Eastern Europe & Former U.S.S.R.										
Former Czechoslovakia	(s)	(s)	--	--	--	--	--	--	--	--
Czech Republic	--	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Hungary	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02
Poland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Romania	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Former U.S.S.R.	0.64	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Kazakhstan	--	0.13	0.12	0.10	0.08	0.08	0.08	0.08	0.11	0.16
Kyrgyzstan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	0.35	0.33	0.30	0.27	0.28	0.30	0.33	0.35	0.35
Tajikistan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	0.02	0.02	0.01	0.02	0.02	0.03	0.03	0.03	0.02
Ukraine	--	0.03	0.03	0.03	0.03	0.02	0.04	0.04	0.03	0.02
Uzbekistan	--	0.05	0.06	0.06	0.07	0.08	0.07	0.07	0.07	0.09
Total	**0.67**	**0.63**	**0.60**	**0.54**	**0.51**	**0.52**	**0.56**	**0.59**	**0.64**	**0.70**
Middle East										
Bahrain	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Iran	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.12	0.12	0.12
Iraq	0.00	(s)	0.02	0.03	0.04	0.03	0.03	0.02	0.02	0.02
Kuwait	0.00	0.05	0.08	0.13	0.15	0.13	0.17	0.18	0.18	0.18
Oman	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01
Qatar	0.07	0.08	0.08	0.07	0.08	0.07	0.10	0.12	0.15	0.18
Saudi Arabia	1.06	1.11	1.10	1.09	1.09	1.09	1.11	1.18	1.04	1.10
Syria	(s)	(s)	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
United Arab Emirates	0.24	0.24	0.24	0.25	0.26	0.27	0.26	0.28	0.26	0.33
Total	**1.47**	**1.58**	**1.65**	**1.70**	**1.76**	**1.72**	**1.82**	**1.93**	**1.81**	**1.96**

See footnotes at end of table.

Table F3 World Natural Gas Plant Liquids Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Africa										
Algeria	0.26	0.26	0.27	0.26	0.27	0.28	0.30	0.29	0.35	0.36
Egypt	0.08	0.08	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.18
Libya	0.06	0.06	0.07	0.07	0.06	0.08	0.10	0.10	0.10	0.10
South Africa	0.00	(s)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Tunisia	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)
Total	**0.41**	**0.42**	**0.46**	**0.45**	**0.46**	**0.49**	**0.54**	**0.54**	**0.60**	**0.66**
Asia & Oceania										
Australia	0.10	0.09	0.09	0.09	0.08	0.10	0.11	0.11	0.11	0.11
Bangladesh	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Brunei	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.04	0.04
Burma	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
India	0.02	0.05	0.05	0.08	0.08	0.13	0.14	0.15	0.15	0.15
Indonesia	0.11	0.11	0.12	0.12	0.11	0.12	0.13	0.13	0.13	0.13
Japan	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malaysia	0.02	0.02	0.03	0.03	0.03	0.03	0.08	0.14	0.14	0.10
New Zealand	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Pakistan	(s)	(s)	(s)	(s)	0.01	(s)	(s)	0.01	0.01	(s)
Taiwan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Thailand	0.02	0.02	0.02	0.03	0.06	0.06	0.08	0.10	0.10	0.10
Total	**0.30**	**0.32**	**0.35**	**0.39**	**0.41**	**0.48**	**0.59**	**0.69**	**0.69**	**0.66**
World Total	**7.13**	**7.38**	**7.68**	**7.85**	**8.16**	**8.31**	**8.51**	**8.75**	**8.89**	**9.28**

[1] Preliminary.
[2] Does not include China for which data are unavailable.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 3.

Table F4 World Dry Natural Gas Production (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	4.12	4.60	4.99	5.45	5.72	5.83	5.89	6.12	6.41	6.62
Mexico	1.00	0.98	1.05	1.08	1.06	1.21	1.25	1.34	1.36	1.41
United States	18.23	18.38	18.58	19.35	19.10	19.36	19.39	19.61	19.34	19.46
Total	**23.35**	**23.95**	**24.63**	**25.88**	**25.88**	**26.40**	**26.53**	**27.08**	**27.11**	**27.49**
Central & South America										
Argentina	0.74	0.74	0.79	0.82	0.92	0.98	1.01	1.09	1.28	1.38
Barbados	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bolivia	0.10	0.11	0.10	0.10	0.12	0.11	0.12	0.11	0.09	0.12
Brazil	0.14	0.15	0.15	0.16	0.17	0.19	0.20	0.21	0.23	0.27
Chile	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.07	0.04	0.04
Colombia	0.14	0.14	0.15	0.15	0.15	0.16	0.20	0.21	0.17	0.19
Cuba	(s)	(s)	(s)	(s)	(s)	(s)	0.03	0.01	0.02	0.02
Ecuador	(s)	(s)	(s)	(s)	0.01	0.01	(s)	(s)	(s)	0.01
Peru	0.02	0.02	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01
Trinidad and Tobago	0.21	0.20	0.23	0.26	0.28	0.32	0.34	0.34	0.43	0.52
Venezuela	0.95	0.91	0.97	1.04	1.06	1.14	1.18	1.32	1.13	1.14
Total	**2.35**	**2.34**	**2.49**	**2.65**	**2.80**	**3.00**	**3.17**	**3.39**	**3.40**	**3.70**
Western Europe										
Austria	0.05	0.05	0.06	0.05	0.06	0.06	0.05	0.06	0.07	0.07
Belgium	(s)	(s)	(s)	(s)	0.00	(s)	0.00	0.00	0.00	(s)
Denmark	0.15	0.16	0.17	0.19	0.21	0.25	0.30	0.30	0.31	0.32
France	0.13	0.12	0.13	0.13	0.12	0.11	0.09	0.08	0.07	0.06
Germany	0.60	0.61	0.61	0.63	0.67	0.72	0.71	0.69	0.74	0.70
Greece	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Ireland	0.08	0.08	0.10	0.10	0.10	0.10	0.08	0.06	0.05	0.04
Italy	0.62	0.65	0.69	0.73	0.72	0.72	0.70	0.69	0.63	0.59
Netherlands	2.72	2.73	2.78	2.64	2.66	3.01	2.67	2.54	2.39	2.30
Norway	1.05	1.14	1.06	1.16	1.21	1.61	1.79	1.77	1.90	1.96
Spain	0.05	0.05	0.03	0.01	0.02	0.02	0.01	(s)	0.01	0.01
Switzerland	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.02
United Kingdom	2.01	2.04	2.40	2.57	2.81	3.34	3.19	3.34	3.69	4.04
Former Yugoslavia	0.10	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	(s)	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Croatia	--	0.07	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06
Slovenia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Yugoslavia	--	0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.02
Total	**7.58**	**7.75**	**8.15**	**8.31**	**8.71**	**10.03**	**9.70**	**9.65**	**9.96**	**10.18**

See footnotes at end of table.

Table F4 World Dry Natural Gas Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bulgaria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Former Czechoslovakia	0.02	0.01	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Slovakia	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Hungary	0.17	0.17	0.17	0.17	0.17	0.16	0.15	0.13	0.12	0.11
Poland	0.12	0.11	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.15
Romania	0.88	0.78	0.75	0.69	0.68	0.63	0.61	0.51	0.50	0.50
Former U.S.S.R.	28.97	--	--	--	--	--	--	--	--	--
Azerbaijan	--	0.29	0.25	0.24	0.24	0.25	0.22	0.21	0.22	0.21
Belarus	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Georgia	--	(s)	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Kazakhstan	--	0.30	0.25	0.17	0.18	0.16	0.23	0.20	0.17	0.33
Kyrgyzstan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	22.80	21.99	21.62	21.17	21.40	20.33	21.03	20.99	20.80
Tajikistan	--	(s)	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Turkmenistan	--	2.11	2.40	1.32	1.19	1.37	0.94	0.49	0.82	1.72
Ukraine	--	0.76	0.70	0.66	0.65	0.67	0.67	0.67	0.66	0.67
Uzbekistan	--	1.53	1.61	1.69	1.72	1.72	1.77	1.97	2.00	2.03
Total	**30.16**	**28.89**	**28.29**	**26.73**	**26.18**	**26.54**	**25.08**	**25.39**	**25.65**	**26.53**
Middle East										
Bahrain	0.24	0.20	0.24	0.24	0.24	0.24	0.29	0.31	0.31	0.32
Iran	0.97	0.93	1.01	1.19	1.32	1.50	1.75	1.86	2.16	2.25
Iraq	0.04	0.11	0.09	0.12	0.12	0.12	0.11	0.11	0.12	0.12
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Kuwait	0.02	0.10	0.20	0.22	0.22	0.34	0.34	0.33	0.32	0.35
Oman	0.13	0.12	0.15	0.16	0.15	0.15	0.18	0.26	0.21	0.34
Qatar	0.34	0.42	0.50	0.50	0.50	0.51	0.64	0.72	0.82	1.08
Saudi Arabia	1.18	1.26	1.33	1.39	1.41	1.53	1.68	1.73	1.71	1.84
Syria	0.12	0.12	0.13	0.13	0.10	0.14	0.15	0.20	0.21	0.21
United Arab Emirates	0.96	1.07	0.98	0.95	1.16	1.25	1.34	1.37	1.41	1.47
Total	**4.01**	**4.33**	**4.64**	**4.91**	**5.22**	**5.79**	**6.52**	**6.90**	**7.26**	**7.98**
Africa										
Algeria	2.28	2.33	2.24	2.13	2.42	2.47	2.74	2.94	3.24	3.31
Angola	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Cote d'Ivoire (Ivory Coast)	0.00	0.00	0.00	0.00	(s)	0.02	0.02	0.03	0.05	0.05
Egypt	0.34	0.37	0.42	0.44	0.46	0.50	0.50	0.51	0.54	0.68
Equatorial Guinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Gabon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Libya	0.24	0.25	0.24	0.24	0.23	0.24	0.24	0.24	0.19	0.22
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Mozambique	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Nigeria	0.18	0.18	0.19	0.17	0.19	0.20	0.22	0.22	0.26	0.46
Senegal	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
South Africa	0.00	(s)	0.07	0.07	0.07	0.07	0.06	0.05	0.05	0.05
Tunisia	0.01	0.02	0.02	0.01	0.01	0.03	0.07	0.08	0.08	0.08
Total	**3.07**	**3.17**	**3.19**	**3.09**	**3.42**	**3.55**	**3.88**	**4.09**	**4.44**	**4.88**

See footnotes at end of table.

Table F4 World Dry Natural Gas Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Australia	0.79	0.86	0.92	0.99	1.10	1.13	1.13	1.17	1.19	1.21
Bangladesh	0.16	0.19	0.21	0.23	0.25	0.26	0.26	0.28	0.31	0.34
Brunei	0.32	0.33	0.34	0.34	0.38	0.38	0.37	0.36	0.39	0.40
Burma	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.06	0.13
China	0.61	0.61	0.64	0.68	0.70	0.78	0.87	0.91	0.99	1.11
India	0.52	0.55	0.61	0.68	0.72	0.80	0.83	0.88	0.87	0.91
Indonesia	1.90	1.97	2.15	2.41	2.44	2.57	2.58	2.47	2.73	2.57
Japan	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
Malaysia	0.78	0.83	0.93	0.97	1.07	1.30	1.43	1.44	1.50	1.58
New Zealand	0.19	0.20	0.18	0.18	0.17	0.19	0.21	0.18	0.20	0.20
Pakistan	0.50	0.51	0.54	0.59	0.60	0.65	0.65	0.66	0.73	0.80
Papua New Guinea	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	0.00	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Taiwan	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Thailand	0.24	0.25	0.31	0.34	0.37	0.42	0.53	0.56	0.61	0.64
Vietnam	(s)	0.01	0.01	0.01	0.03	0.03	0.01	0.03	0.04	0.04
Total	**6.15**	**6.48**	**7.01**	**7.61**	**8.03**	**8.69**	**9.06**	**9.15**	**9.75**	**10.08**
World Total	**76.68**	**76.90**	**78.41**	**79.17**	**80.26**	**84.01**	**83.95**	**85.65**	**87.57**	**90.83**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Note: Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 4.

Table F5 World Coal Production (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	1.78	1.62	1.71	1.83	1.90	1.92	2.08	1.99	1.91	1.82
Mexico	0.15	0.14	0.15	0.16	0.16	0.18	0.20	0.21	0.19	0.18
United States. [2]	21.59	21.63	20.25	22.11	22.03	22.68	23.21	23.94	23.19	22.62
Total	**23.52**	**23.39**	**22.11**	**24.09**	**24.09**	**24.78**	**25.50**	**26.13**	**25.29**	**24.63**
Central & South America										
Argentina	0.01	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Brazil	0.10	0.08	0.08	0.08	0.07	0.06	0.07	0.07	0.07	0.10
Chile	0.06	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.01	0.01
Colombia	0.52	0.57	0.55	0.53	0.60	0.71	0.88	0.91	0.89	1.03
Peru	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Venezuela	0.06	0.06	0.10	0.11	0.11	0.10	0.16	0.23	0.21	0.26
Total	**0.74**	**0.77**	**0.77**	**0.77**	**0.82**	**0.90**	**1.15**	**1.24**	**1.19**	**1.41**
Western Europe										
Austria	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Belgium	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
France	0.32	0.29	0.26	0.23	0.25	0.22	0.18	0.16	0.15	0.12
Germany	3.96	3.65	3.37	3.21	3.02	2.79	2.82	2.59	2.50	2.37
Greece	0.32	0.27	0.30	0.29	0.30	0.29	0.32	0.34	0.35	0.35
Ireland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Italy	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Norway	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Portugal	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00
Spain	0.50	0.50	0.47	0.45	0.36	0.36	0.36	0.33	0.30	0.29
Sweden	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	0.44	0.49	0.47	0.47	0.46	0.47	0.54	0.57	0.55	0.55
United Kingdom	2.37	1.95	1.57	1.12	1.14	1.20	1.23	0.99	0.91	0.80
Former Yugoslavia	0.81	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01
Croatia	--	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Macedonia, TFYR	--	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.06
Slovenia	--	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.05	0.05
Yugoslavia	--	0.35	0.33	0.34	0.23	0.36	0.36	0.39	0.29	0.30
Total	**8.80**	**7.71**	**6.95**	**6.28**	**5.94**	**5.85**	**5.98**	**5.54**	**5.21**	**4.96**
Eastern Europe & Former U.S.S.R.										
Albania	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bulgaria	0.27	0.27	0.26	0.26	0.26	0.27	0.27	0.28	0.24	0.25
Former Czechoslovakia	2.26	2.12	--	--	--	--	--	--	--	--
Czech Republic	--	--	1.10	0.99	0.96	1.03	0.93	0.86	0.77	0.85
Slovakia	--	--	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.04
Hungary	0.17	0.15	0.13	0.12	0.12	0.13	0.14	0.13	0.13	0.12
Poland	3.58	3.52	3.50	3.56	3.40	3.06	3.66	3.16	3.02	2.85
Romania	0.28	0.28	0.30	0.31	0.31	0.33	0.26	0.20	0.19	0.24
Former U.S.S.R.	10.65	--	--	--	--	--	--	--	--	--
Georgia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kazakhstan	--	2.31	2.05	1.45	1.16	1.18	1.06	1.02	0.85	1.09
Kyrgyzstan	--	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Moldova	--	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00	0.00
Russia	--	6.36	5.71	4.92	4.68	4.98	4.00	3.74	4.76	5.18
Tajikistan	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Ukraine	--	2.58	2.24	1.83	1.97	1.70	1.64	1.65	1.77	1.75
Uzbekistan	--	0.07	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
Total	**17.21**	**17.71**	**15.42**	**13.55**	**12.97**	**12.77**	**12.06**	**11.13**	**11.82**	**12.43**

See footnotes at end of table.

Table F5 World Coal Production (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Iran	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03
Total	**0.03**	**0.03**	**0.03**	**0.04**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**
Africa										
Algeria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Botswana	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Cameroon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Egypt	0.00	0.00	0.00	0.00	0.00	(s)	0.01	0.01	0.01	0.01
Malawi	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Morocco	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	(s)	(s)
Mozambique	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Niger	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nigeria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
South Africa	5.23	5.06	5.28	5.56	5.88	6.06	6.91	6.86	6.82	6.95
Swaziland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Tanzania	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Zambia	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Zimbabwe	0.15	0.15	0.14	0.15	0.15	0.13	0.11	0.11	0.11	0.11
Total	**5.45**	**5.28**	**5.49**	**5.77**	**6.09**	**6.24**	**7.08**	**7.03**	**6.99**	**7.12**
Asia & Oceania										
Afghanistan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Australia	4.13	4.37	4.40	4.57	4.93	5.01	5.71	6.10	6.30	6.63
Bhutan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Burma	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
China	21.71	22.24	23.43	25.23	26.29	26.43	27.74	26.33	25.21	24.33
India	4.23	4.61	4.79	4.73	5.91	5.72	5.76	5.69	5.81	6.10
Indonesia	0.38	0.62	0.74	0.83	1.15	1.35	1.40	1.55	1.66	1.72
Japan	0.20	0.18	0.17	0.16	0.14	0.13	0.09	0.08	0.08	0.07
Korea, North	2.50	2.56	2.66	2.64	2.61	2.58	2.43	2.31	2.34	2.36
Korea, South	0.27	0.21	0.17	0.13	0.10	0.09	0.08	0.08	0.08	0.08
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Malaysia	(s)	(s)	0.01	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Mongolia	0.08	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Nepal	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
New Zealand	0.06	0.07	0.07	0.06	0.07	0.08	0.07	0.07	0.08	0.08
Pakistan	0.06	0.07	0.07	0.07	0.06	0.07	0.07	0.06	0.06	0.07
Philippines	0.03	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.03
Taiwan	0.01	0.01	0.01	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Thailand	0.16	0.16	0.16	0.18	0.32	0.28	0.28	0.24	0.22	0.21
Vietnam	0.12	0.13	0.19	0.18	0.23	0.21	0.27	0.25	0.21	0.21
Total	**33.95**	**35.33**	**36.97**	**38.88**	**41.91**	**42.04**	**43.99**	**42.86**	**42.13**	**41.94**
World Total	**89.70**	**90.20**	**87.74**	**89.39**	**91.84**	**92.60**	**95.78**	**93.97**	**92.66**	**92.51**

[1] Preliminary.
[2] United States coal production is from Energy Information Administration, Monthly Energy Review, December 2001, table 1.3.
- -= Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Coal includes anthracite, subanthracite, bituminous, subbituminous, lignite, and brown coal.
Sources: See sources at the end of Section 5.

Table F6 World Net Hydroelectric Power Generation (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	3.17	3.26	3.33	3.40	3.45	3.67	3.61	3.42	3.56	3.67
Mexico	0.23	0.27	0.27	0.21	0.28	0.32	0.27	0.25	0.34	0.34
United States [2]	2.97	2.57	2.85	2.65	3.18	3.56	3.68	3.30	3.24	2.83
Total	**6.37**	**6.10**	**6.45**	**6.25**	**6.92**	**7.55**	**7.56**	**6.97**	**7.14**	**6.84**
Central & South America										
Argentina	0.20	0.25	0.31	0.35	0.35	0.30	0.36	0.37	0.22	0.35
Bolivia	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02
Brazil	2.24	2.30	2.42	2.50	2.61	2.74	2.87	3.00	3.02	3.17
Chile	0.14	0.17	0.18	0.17	0.19	0.17	0.19	0.16	0.14	0.19
Colombia	0.28	0.23	0.29	0.33	0.35	0.36	0.32	0.32	0.35	0.33
Costa Rica	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06
Dominican Republic	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Ecuador	0.05	0.05	0.06	0.07	0.05	0.06	0.07	0.07	0.07	0.08
El Salvador	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
Guatemala	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Haiti	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Honduras	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
Jamaica	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nicaragua	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	(s)	(s)
Panama	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Paraguay	0.30	0.28	0.32	0.37	0.43	0.49	0.52	0.52	0.54	0.55
Peru	0.12	0.10	0.12	0.13	0.14	0.14	0.14	0.14	0.15	0.17
Puerto Rico	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Suriname	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Uruguay	0.06	0.08	0.08	0.08	0.06	0.06	0.07	0.09	0.06	0.07
Venezuela	0.46	0.49	0.49	0.53	0.53	0.55	0.59	0.55	0.57	0.65
Other	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**4.02**	**4.13**	**4.45**	**4.73**	**4.90**	**5.06**	**5.31**	**5.42**	**5.31**	**5.77**
Western Europe										
Austria	0.32	0.36	0.38	0.37	0.38	0.35	0.37	0.38	0.42	0.43
Belgium	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Finland	0.14	0.16	0.14	0.12	0.13	0.12	0.13	0.15	0.13	0.15
France	0.59	0.70	0.66	0.80	0.73	0.67	0.64	0.64	0.75	0.69
Germany	0.15	0.18	0.18	0.21	0.22	0.23	0.18	0.18	0.20	0.20
Greece	0.03	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.05	0.03
Iceland	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.07
Ireland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Italy	0.43	0.43	0.43	0.46	0.39	0.43	0.43	0.42	0.47	0.46
Luxembourg	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Norway	1.13	1.20	1.23	1.15	1.25	1.07	1.13	1.19	1.24	1.46
Portugal	0.09	0.05	0.09	0.11	0.09	0.15	0.13	0.13	0.07	0.12
Spain	0.28	0.19	0.25	0.29	0.24	0.41	0.36	0.35	0.24	0.27
Sweden	0.65	0.77	0.77	0.61	0.70	0.53	0.71	0.77	0.74	0.81
Switzerland	0.33	0.34	0.37	0.40	0.36	0.29	0.35	0.34	0.41	0.38
Turkey	0.23	0.27	0.35	0.31	0.37	0.42	0.41	0.43	0.36	0.32
United Kingdom	0.05	0.06	0.04	0.05	0.05	0.03	0.04	0.05	0.06	0.05
Former Yugoslavia	0.20	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.03	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Croatia	--	0.04	0.04	0.05	0.05	0.07	0.05	0.06	0.07	0.06
Macedonia, TFYR	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Slovenia	--	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04
Yugoslavia	--	0.12	0.10	0.11	0.12	0.12	0.13	0.13	0.14	0.14
Other	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**4.69**	**5.02**	**5.17**	**5.19**	**5.24**	**5.08**	**5.23**	**5.42**	**5.47**	**5.73**

See footnotes at end of table.

Table F6 World Net Hydroelectric Power Generation (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.04	0.03	0.03	0.04	0.04	0.06	0.05	0.05	0.05	0.05
Bulgaria	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Former Czechoslovakia	0.03	0.04	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02
Slovakia	--	--	0.04	0.05	0.05	0.05	0.04	0.04	0.05	0.05
Hungary	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Poland	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02
Romania	0.15	0.12	0.13	0.13	0.17	0.16	0.18	0.19	0.19	0.19
Former U.S.S.R.	2.42	--	--	--	--	--	--	--	--	--
Armenia	--	0.03	0.04	0.04	0.02	0.02	0.01	0.02	0.02	0.02
Azerbaijan	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Georgia	--	0.07	0.07	0.05	0.05	0.06	0.06	0.07	0.07	0.06
Kazakhstan	--	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.06	0.07
Kyrgyzstan	--	0.10	0.09	0.12	0.11	0.13	0.11	0.10	0.13	0.14
Latvia	--	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.03	0.02
Lithuania	--	(s)	(s)	(s)	(s)	(s)	(s)	0.01	(s)	(s)
Moldova	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	1.78	1.79	1.82	1.83	1.60	1.63	1.64	1.66	1.64
Tajikistan	--	0.16	0.18	0.17	0.15	0.15	0.14	0.15	0.16	0.15
Ukraine	--	0.08	0.12	0.13	0.10	0.09	0.10	0.16	0.12	0.12
Uzbekistan	--	0.06	0.08	0.07	0.06	0.07	0.06	0.06	0.06	0.06
Other	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**2.70**	**2.65**	**2.79**	**2.85**	**2.83**	**2.59**	**2.61**	**2.69**	**2.69**	**2.66**
Middle East										
Iran	0.07	0.10	0.10	0.08	0.07	0.08	0.07	0.07	0.05	0.07
Iraq	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Lebanon	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	(s)	(s)
Syria	0.06	0.08	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.07
Total	**0.15**	**0.19**	**0.18**	**0.16**	**0.16**	**0.16**	**0.16**	**0.17**	**0.15**	**0.15**
Africa										
Algeria	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Angola	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cameroon	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Congo (Brazzaville)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.06
Cote d'Ivoire (Ivory Coast)	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
Egypt	0.09	0.09	0.11	0.11	0.11	0.12	0.12	0.13	0.16	0.17
Ethiopia	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Gabon	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ghana	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.04	0.04	0.04
Guinea	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kenya	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Madagascar	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Malawi	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Mali	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Morocco	0.01	0.01	(s)	0.01	0.01	0.02	0.02	0.02	0.02	0.01
Mozambique	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.02	0.07	0.07
Nigeria	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Reunion	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
South Africa	0.02	0.01	(s)	0.01	0.01	0.01	0.02	0.02	0.01	0.01
Sudan	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Swaziland	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Tanzania	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
Uganda	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Zambia	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Zimbabwe	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Other	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.59**	**0.58**	**0.58**	**0.58**	**0.60**	**0.65**	**0.67**	**0.63**	**0.72**	**0.73**

See footnotes at end of table.

Table F6 World Net Hydroelectric Power Generation (Btu), 1991 - 2000 (Continued)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Australia	0.16	0.16	0.17	0.17	0.16	0.16	0.17	0.16	0.17	0.18
Bangladesh	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Bhutan	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Burma	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Cambodia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
China	1.29	1.35	1.55	1.72	1.92	1.92	2.01	2.11	2.32	2.29
Fiji	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
French Polynesia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
India	0.75	0.72	0.73	0.85	0.75	0.71	0.77	0.78	0.84	0.79
Indonesia	0.10	0.10	0.09	0.07	0.09	0.09	0.09	0.11	0.12	0.14
Japan	1.00	0.85	0.98	0.69	0.85	0.83	0.92	0.95	0.89	0.90
Korea, North	0.33	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.23
Korea, South	0.04	0.03	0.04	0.02	0.03	0.02	0.03	0.04	0.04	0.04
Laos	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malaysia	0.05	0.04	0.05	0.07	0.06	0.05	0.04	0.05	0.08	0.08
Nepal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
New Caledonia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
New Zealand	0.24	0.21	0.24	0.27	0.28	0.27	0.25	0.25	0.24	0.25
Pakistan	0.19	0.19	0.22	0.20	0.24	0.24	0.21	0.23	0.23	0.23
Papua New Guinea	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01
Philippines	0.05	0.04	0.05	0.06	0.06	0.07	0.06	0.05	0.08	0.08
Samoa	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Sri Lanka	0.03	0.03	0.04	0.04	0.05	0.03	0.04	0.04	0.04	0.05
Taiwan	0.06	0.09	0.07	0.09	0.09	0.09	0.09	0.10	0.09	0.09
Thailand	0.05	0.04	0.04	0.05	0.07	0.08	0.07	0.05	0.04	0.06
U.S. Pacific Islands	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Vietnam	0.07	0.07	0.08	0.09	0.11	0.12	0.12	0.11	0.14	0.16
Total	**4.47**	**4.27**	**4.68**	**4.72**	**5.07**	**5.02**	**5.20**	**5.35**	**5.62**	**5.65**
World Total	**22.99**	**22.94**	**24.30**	**24.47**	**25.71**	**26.10**	**26.74**	**26.65**	**27.09**	**27.53**

[1] Preliminary.
[2] Includes hydroelectric pumped storage.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit and excludes generation from pumped storage.
Sources: See sources at the end of Section 6.

Table F7 World Net Nuclear Electric Power Generation (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	0.93	0.88	1.02	1.17	1.06	1.00	0.88	0.76	0.79	0.78
Mexico	0.04	0.04	0.05	0.04	0.08	0.08	0.10	0.09	0.10	0.08
United States	6.58	6.61	6.52	6.84	7.18	7.17	6.68	7.16	7.74	8.01
Total	**7.55**	**7.52**	**7.59**	**8.04**	**8.31**	**8.24**	**7.66**	**8.01**	**8.62**	**8.86**
Central & South America										
Argentina	0.09	0.08	0.09	0.09	0.08	0.08	0.09	0.08	0.08	0.07
Brazil	0.01	0.02	(s)	(s)	0.02	0.02	0.03	0.03	0.04	0.05
Total	**0.10**	**0.10**	**0.09**	**0.09**	**0.11**	**0.10**	**0.12**	**0.12**	**0.12**	**0.12**
Western Europe										
Belgium	0.42	0.43	0.41	0.40	0.41	0.43	0.47	0.45	0.48	0.47
Finland	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.21	0.22	0.22
France	3.28	3.34	3.64	3.54	3.71	3.91	3.87	3.81	3.88	4.08
Germany	1.43	1.54	1.49	1.46	1.46	1.53	1.63	1.54	1.62	1.62
Netherlands	0.03	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.04	0.04
Spain	0.54	0.54	0.54	0.53	0.53	0.54	0.53	0.57	0.57	0.60
Sweden	0.74	0.61	0.59	0.70	0.67	0.70	0.67	0.70	0.67	0.55
Switzerland	0.23	0.23	0.23	0.24	0.24	0.25	0.25	0.25	0.24	0.24
United Kingdom	0.78	0.86	1.01	1.00	1.00	1.07	1.11	1.18	1.14	1.02
Former Yugoslavia	0.04	--	--	--	--	--	--	--	--	--
Slovenia	--	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.05
Total	**7.67**	**7.82**	**8.18**	**8.16**	**8.30**	**8.69**	**8.80**	**8.82**	**8.91**	**8.88**
Eastern Europe & Former U.S.S.R.										
Bulgaria	0.14	0.12	0.15	0.16	0.18	0.20	0.18	0.18	0.17	0.19
Former Czechoslovakia	0.28	0.29	--	--	--	--	--	--	--	--
Czech Republic	--	--	0.15	0.15	0.13	0.14	0.14	0.14	0.14	0.15
Slovakia	--	--	0.14	0.14	0.13	0.13	0.12	0.13	0.15	0.16
Hungary	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.13	0.13	0.14
Romania	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.06	0.06	0.06
Former U.S.S.R.	2.31	--	--	--	--	--	--	--	--	--
Armenia	--	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02
Kazakhstan	--	0.01	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00
Lithuania	--	0.15	0.13	0.08	0.11	0.14	0.12	0.14	0.11	0.09
Russia	--	1.25	1.25	1.02	1.04	1.14	1.15	1.08	1.22	1.35
Ukraine	--	0.76	0.78	0.71	0.73	0.83	0.82	0.77	0.74	0.78
Total	**2.86**	**2.71**	**2.73**	**2.41**	**2.46**	**2.74**	**2.75**	**2.65**	**2.74**	**2.93**
Africa										
South Africa	0.09	0.09	0.07	0.10	0.11	0.12	0.13	0.14	0.13	0.13
Total	**0.09**	**0.09**	**0.07**	**0.10**	**0.11**	**0.12**	**0.13**	**0.14**	**0.13**	**0.13**
Asia & Oceania										
China	0.00	0.01	0.03	0.14	0.13	0.14	0.12	0.14	0.14	0.16
India	0.06	0.07	0.07	0.06	0.08	0.09	0.13	0.13	0.14	0.17
Japan	2.08	2.17	2.42	2.61	2.83	2.93	3.13	3.23	3.07	3.00
Korea, South	0.54	0.54	0.56	0.56	0.64	0.70	0.73	0.85	0.98	1.03
Pakistan	(s)	0.01	(s)	0.01	0.01	(s)	(s)	(s)	(s)	(s)
Taiwan	0.33	0.32	0.33	0.33	0.34	0.36	0.34	0.35	0.36	0.37
Total	**3.01**	**3.12**	**3.41**	**3.70**	**4.02**	**4.23**	**4.45**	**4.69**	**4.70**	**4.73**
World Total	**21.29**	**21.36**	**22.07**	**22.50**	**23.31**	**24.13**	**23.90**	**24.43**	**25.21**	**25.66**

[1] Preliminary.
-- = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit.
No generation is reported for Middle East.
Sources: See sources at the end of Section 6.

Table F8 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Generation (Btu), 1991 - 2000

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	0.04	0.04	0.05	0.06	0.05	0.06	0.06	0.07	0.07	0.09
Mexico	0.11	0.12	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12
United States	0.92	0.97	1.00	1.02	0.96	0.99	0.95	0.94	1.04	1.02
Total	**1.07**	**1.13**	**1.16**	**1.18**	**1.13**	**1.16**	**1.12**	**1.12**	**1.23**	**1.24**
Central & South America										
Argentina	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Bolivia	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Brazil	0.05	0.07	0.07	0.07	0.08	0.09	0.10	0.10	0.14	0.13
Chile	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Colombia	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	(s)
Costa Rica	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Cuba	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Dominican Republic	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
El Salvador	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Guatemala	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Haiti	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jamaica	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01
Nicaragua	0.01	0.01	0.01	0.01	0.01	0.01	(s)	0.01	(s)	(s)
Panama	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Paraguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Peru	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Trinidad and Tobago	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Uruguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**0.10**	**0.11**	**0.11**	**0.12**	**0.13**	**0.15**	**0.16**	**0.17**	**0.20**	**0.21**
Western Europe										
Austria	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Belgium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Croatia	--	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Denmark	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.04	0.05	0.06
Faroe Islands	0.00	0.00	0.00	(s)	(s)	(s)	(s)	0.00	0.00	0.00
Finland	0.00	0.05	0.06	0.06	0.07	0.06	0.08	0.10	0.09	0.09
France	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04
Germany	0.05	0.06	0.06	0.08	0.09	0.10	0.10	0.13	0.15	0.18
Greece	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.01
Iceland	0.01	(s)	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
Ireland	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Italy	0.07	0.07	0.08	0.07	0.08	0.08	0.09	0.11	0.12	0.13
Luxembourg	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Netherlands	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.05	0.05	0.05
Norway	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Portugal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Slovenia	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)
Spain	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.06	0.06
Sweden	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04
Switzerland	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Turkey	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
United Kingdom	0.01	0.02	0.05	0.05	0.06	0.06	0.06	0.08	0.09	0.09
Total	**0.24**	**0.33**	**0.38**	**0.41**	**0.46**	**0.49**	**0.57**	**0.68**	**0.76**	**0.85**
Eastern Europe & Former U.S.S.R.										
Belarus	--	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Bulgaria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Czech Republic	--	--	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01
Hungary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(s)	(s)	(s)
Poland	(s)	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01
Romania	0.00	(s)	(s)	0.00	(s)	0.00	(s)	(s)	0.00	0.00
Former U.S.S.R.	(s)	--	--	--	--	--	--	--	--	--
Estonia	--	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Russia	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Total	**(s)**	**0.02**	**0.03**	**0.02**	**0.02**	**0.02**	**0.03**	**0.03**	**0.04**	**0.05**

See footnotes at end of table.

Table F8 World Net Geothermal, Solar, Wind, Wood and Waste Electric Power Generation (Btu), 1991 - 2000 (Cont.)

(Quadrillion (10^{15}) Btu)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Jordan	(s)	(s)	(s)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**(s)**	**(s)**	**(s)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Africa										
Ethiopia	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00	0.00	0.00
Kenya	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Asia & Oceania										
Australia	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
China	0.00	0.00	0.00	(s)	0.03	0.01	0.03	0.02	0.02	0.02
India	(s)	(s)	(s)	(s)	(s)	0.01	0.01	0.01	0.01	0.01
Indonesia	0.02	0.02	0.02	0.04	0.04	0.05	0.05	0.08	0.08	0.10
Japan	0.21	0.21	0.21	0.23	0.26	0.27	0.29	0.22	0.23	0.22
Korea, South	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)	(s)
New Zealand	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.05
Philippines	0.11	0.11	0.11	0.13	0.12	0.13	0.14	0.18	0.17	0.19
Thailand	0.00	0.00	0.00	0.00	(s)	(s)	0.01	0.01	0.01	0.01
Total	**0.40**	**0.42**	**0.42**	**0.47**	**0.53**	**0.55**	**0.62**	**0.61**	**0.62**	**0.64**
World Total	**1.82**	**2.02**	**2.11**	**2.22**	**2.28**	**2.38**	**2.50**	**2.61**	**2.85**	**2.99**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 5 trillion Btu.
Notes: Sum of components may not equal total due to independent rounding.
Generation data consist of both utility and nonutility sources. Data are reported as net generation as opposed to gross. Net generation excludes the energy consumed by the generating unit.
Sources: See sources at the end of Section 6.

Appendix G

World Production of Crude Oil, Natural Gas Plant Liquids (NGPL), Other Liquids, and Refinery Processing Gain

Table G1 World Production of Crude Oil, NGPL, and Other Liquids, 1991 - 2000

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	1,979	2,065	2,186	2,275	2,386	2,432	2,558	2,632	2,560	2,676
Mexico	3,137	3,123	3,132	3,146	3,064	3,278	3,411	3,495	3,345	3,450
United States	9,168	8,996	8,836	8,645	8,626	8,607	8,611	8,392	8,107	8,110
Total	**14,284**	**14,185**	**14,154**	**14,066**	**14,076**	**14,318**	**14,580**	**14,519**	**14,012**	**14,236**
Central & South America										
Argentina	515	583	629	694	757	800	882	897	850	809
Barbados	1	1	1	1	1	1	1	2	2	1
Bolivia	26	28	29	30	34	37	37	43	43	40
Brazil	808	793	806	858	890	1,001	1,068	1,229	1,391	1,530
Chile	28	26	26	24	23	21	14	15	15	14
Colombia	425	439	461	455	593	631	661	741	824	703
Cuba	16	18	22	26	28	32	33	34	41	44
Ecuador	301	324	353	374	401	405	393	379	377	398
Guatemala	4	5	7	8	10	13	16	24	23	21
Peru	116	117	127	129	131	121	119	117	107	99
Suriname	4	5	5	6	7	7	5	7	10	12
Trinidad and Tobago	154	142	141	138	139	138	132	130	135	133
Venezuela	2,492	2,484	2,593	2,734	2,899	3,088	3,423	3,312	2,996	3,119
Total	**4,890**	**4,967**	**5,200**	**5,479**	**5,913**	**6,295**	**6,785**	**6,929**	**6,813**	**6,922**
Western Europe										
Austria	27	24	22	22	24	22	20	21	19	20
Denmark	143	163	174	185	186	208	230	238	300	363
France	69	70	68	69	62	55	46	40	37	36
Germany	95	85	81	79	78	78	75	77	76	88
Greece	17	14	12	11	10	9	10	7	1	6
Italy	82	86	86	89	97	105	114	110	86	94
Netherlands	84	67	67	103	87	81	77	79	59	55
Norway	1,984	2,324	2,450	2,624	2,905	3,242	3,282	3,149	3,139	3,317
Spain	33	31	24	21	17	11	8	11	6	5
Sweden	(s)	(s)	(s)	(s)	(s)	0	0	0	0	0
Turkey	88	84	76	72	67	67	68	65	59	53
United Kingdom	1,938	1,986	2,084	2,593	2,756	2,827	2,751	2,856	2,922	2,508
Former Yugoslavia	68	--	--	--	--	--	--	--	--	--
Croatia	--	42	43	46	40	36	37	38	32	29
Yugoslavia	--	23	23	24	22	22	20	18	18	16
Total	**4,629**	**4,999**	**5,210**	**5,938**	**6,350**	**6,764**	**6,736**	**6,710**	**6,754**	**6,588**
Eastern Europe & Former U.S.S.R.										
Albania	19	11	11	12	10	10	9	6	6	7
Bulgaria	1	1	1	1	1	1	1	1	1	1
Former Czechoslovakia	3	2	--	--	--	--	--	--	--	--
Czech Republic	--	--	2	3	3	4	3	4	4	6
Slovakia	--	--	1	1	1	2	2	1	1	1
Hungary	47	46	45	50	46	42	50	43	41	42
Poland	3	3	5	5	5	5	6	7	9	13
Romania	148	143	137	142	141	142	141	138	132	125
Former U.S.S.R.	10,412	--	--	--	--	--	--	--	--	--
Azerbaijan	--	222	208	192	182	182	180	237	283	286
Belarus	--	40	40	40	38	36	36	36	37	37
Estonia	--	0	0	0	0	0	7	4	3	5
Georgia	--	3	2	2	1	1	3	2	2	2
Kazakhstan	--	530	490	415	414	457	521	526	604	707
Kyrgyzstan	--	2	2	2	2	2	2	2	2	2
Lithuania	--	0	2	3	3	3	4	5	5	6
Russia	--	7,862	6,950	6,335	6,175	6,035	6,115	6,074	6,310	6,711
Tajikistan	--	1	1	1	1	1	1	1	(s)	(s)
Turkmenistan	--	110	90	85	81	88	106	127	156	158
Ukraine	--	95	87	85	85	81	85	82	98	88
Uzbekistan	--	66	85	115	160	165	157	161	147	151
Total	**10,633**	**9,137**	**8,159**	**7,487**	**7,349**	**7,256**	**7,428**	**7,458**	**7,840**	**8,349**

See footnotes at end of table.

Table G1 World Production of Crude Oil, NGPL, and Other Liquids, 1991 - 2000 (Continued)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	43	44	53	54	51	45	52	48	47	45
Iran	3,362	3,479	3,595	3,673	3,703	3,746	3,734	3,709	3,632	3,771
Iraq	305	425	527	573	585	599	1,175	2,165	2,523	2,586
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kuwait	190	1,092	1,905	2,110	2,152	2,147	2,116	2,200	2,013	2,241
Oman	708	746	781	816	861	893	910	906	916	944
Qatar	445	478	468	465	497	560	620	781	776	870
Saudi Arabia	8,795	9,045	8,902	8,818	8,933	8,915	9,074	9,144	8,499	9,109
Syria	494	483	562	568	584	590	571	561	546	528
United Arab Emirates	2,532	2,410	2,305	2,343	2,393	2,438	2,476	2,515	2,329	2,568
Yemen	197	182	220	335	345	340	362	388	409	440
Total	**17,071**	**18,384**	**19,318**	**19,754**	**20,104**	**20,273**	**21,091**	**22,417**	**21,690**	**23,103**
Africa										
Algeria	1,370	1,354	1,307	1,320	1,347	1,392	1,437	1,401	1,392	1,439
Angola	500	526	509	536	646	709	714	735	745	746
Benin	4	6	6	6	3	2	1	1	1	1
Cameroon	153	140	127	108	111	108	124	121	100	85
Congo (Brazzaville)	156	174	181	180	188	201	253	265	270	264
Congo (Kinshasa)	28	26	25	26	30	30	28	26	22	25
Cote d'Ivoire (Ivory Coast)	2	2	1	7	8	16	19	20	15	11
Egypt	919	926	945	954	980	987	927	909	927	850
Equatorial Guinea	(s)	2	5	5	5	17	52	83	102	168
Gabon	294	298	313	329	365	368	370	352	331	325
Ghana	0	1	2	1	4	6	5	5	6	7
Libya	1,523	1,473	1,402	1,419	1,430	1,450	1,506	1,450	1,379	1,470
Morocco	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Nigeria	1,892	1,943	1,960	1,931	1,993	2,001	2,132	2,153	2,130	2,144
South Africa	70	129	183	183	192	195	196	199	210	191
Sudan	0	(s)	(s)	(s)	(s)	2	5	10	69	186
Tunisia	109	114	102	96	90	88	85	81	84	82
Total	**7,021**	**7,113**	**7,067**	**7,100**	**7,392**	**7,572**	**7,856**	**7,812**	**7,783**	**7,994**
Asia & Oceania										
Australia	606	591	558	592	614	632	659	614	611	792
Bangladesh	1	1	1	2	1	2	2	2	2	3
Brunei	171	177	178	180	176	166	175	179	204	215
Burma	16	15	14	14	10	8	9	11	10	8
China	2,835	2,845	2,890	2,939	2,990	3,131	3,200	3,198	3,195	3,249
India	625	589	564	635	750	731	760	751	743	736
Indonesia	1,668	1,579	1,589	1,590	1,579	1,627	1,605	1,605	1,559	1,513
Japan	18	20	19	18	18	18	17	17	16	18
Malaysia	658	666	657	662	702	715	750	810	778	755
New Zealand	56	55	58	55	45	45	66	55	50	45
Pakistan	64	64	63	58	62	58	60	58	56	57
Papua New Guinea	(s)	53	126	110	100	103	80	79	97	70
Philippines	3	8	9	6	3	2	1	1	1	1
Taiwan	3	3	2	2	2	2	2	1	1	1
Thailand	59	65	67	78	89	96	122	135	145	170
Vietnam	80	106	120	141	173	175	191	246	290	316
Total	**6,863**	**6,838**	**6,916**	**7,081**	**7,315**	**7,513**	**7,699**	**7,763**	**7,756**	**7,949**
World Total	**65,390**	**65,625**	**66,024**	**66,905**	**68,499**	**69,991**	**72,176**	**73,608**	**72,649**	**75,141**

[1] Preliminary.

- - = Not applicable.

(s) = Value less than 500 barrels per day.

Notes: NGPL are natural gas plant liquids. Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of Section 3.

Table G2 World Production of Crude Oil, NGPL, Other Liquids, and Refinery Processing Gain, 1991 - 2000

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	2,032	2,125	2,241	2,328	2,448	2,494	2,623	2,694	2,620	2,763
Mexico	3,165	3,151	3,160	3,174	3,092	3,306	3,439	3,523	3,373	3,478
United States	9,883	9,768	9,602	9,413	9,400	9,445	9,461	9,278	8,993	9,058
Total	**15,080**	**15,045**	**15,003**	**14,915**	**14,940**	**15,245**	**15,523**	**15,494**	**14,986**	**15,298**
Central & South America										
Argentina	520	588	634	699	762	805	887	902	855	814
Barbados	1	1	1	1	1	1	1	2	2	1
Bolivia	26	28	29	30	34	37	37	43	43	40
Brazil	821	806	819	871	903	1,014	1,081	1,242	1,404	1,543
Chile	29	27	27	25	24	22	15	16	16	15
Colombia	427	441	463	457	595	633	663	743	826	705
Cuba	16	18	22	26	28	32	33	34	41	44
Dominican Republic	1	1	1	1	1	1	1	1	1	1
Ecuador	302	325	354	375	402	406	394	380	378	399
Guatemala	4	5	7	8	10	13	16	24	23	21
Netherlands Antilles	6	6	6	6	6	6	6	6	6	6
Panama	1	1	1	1	1	1	1	1	1	1
Peru	118	119	129	131	133	123	121	119	109	101
Suriname	4	5	5	6	7	7	5	7	10	12
Trinidad and Tobago	157	145	144	141	142	141	135	133	138	136
Venezuela	2,509	2,501	2,610	2,751	2,916	3,105	3,440	3,329	3,013	3,136
Virgin Islands, U.S.	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Total	**4,942**	**5,019**	**5,253**	**5,531**	**5,965**	**6,347**	**6,837**	**6,981**	**6,865**	**6,974**
Western Europe										
Austria	29	26	24	24	26	24	22	23	21	22
Belgium	12	12	12	12	12	12	12	12	12	12
Denmark	147	167	178	189	190	212	234	242	304	367
France	113	112	111	112	105	98	89	83	80	79
Germany	141	132	137	135	134	134	131	133	132	144
Greece	20	17	15	14	13	12	13	10	4	9
Ireland	1	1	1	1	1	1	1	1	1	1
Italy	124	155	147	150	158	166	175	171	147	155
Netherlands	118	101	101	137	121	115	111	113	93	89
Norway	1,987	2,327	2,453	2,627	2,908	3,245	3,285	3,152	3,142	3,320
Portugal	2	2	2	2	2	2	2	2	2	2
Spain	47	45	38	35	31	25	22	25	20	19
Sweden	4	4	4	4	4	4	4	4	4	4
Switzerland	1	1	1	1	1	1	1	1	1	1
Turkey	92	88	80	76	71	71	72	69	63	57
United Kingdom	1,986	2,032	2,129	2,638	2,801	2,872	2,796	2,901	2,967	2,553
Former Yugoslavia	68	--	--	--	--	--	--	--	--	--
Croatia	--	42	43	46	40	36	37	38	32	29
Slovenia	--	0	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Yugoslavia	--	23	23	24	22	22	20	18	18	16
Total	**4,893**	**5,287**	**5,499**	**6,227**	**6,639**	**7,053**	**7,025**	**6,999**	**7,043**	**6,877**

See footnotes at end of table.

Table G2 World Production of Crude Oil, NGPL, Other Liquids, and Refinery Processing Gain, 1991 - 2000 (Cont.)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	19	11	11	12	10	10	9	6	6	7
Bulgaria	1	1	1	1	1	1	1	1	1	1
Former Czechoslovakia	3	2	--	--	--	--	--	--	--	--
Czech Republic	--	--	2	3	3	4	3	4	4	6
Slovakia	--	--	1	1	1	2	2	1	1	1
Hungary	47	46	45	50	46	42	50	43	41	42
Poland	3	3	5	5	5	5	6	7	9	13
Romania	148	143	137	142	141	142	141	138	132	125
Former U.S.S.R.	10,412	--	--	--	--	--	--	--	--	--
Azerbaijan	--	222	208	192	182	182	180	237	283	286
Belarus	--	40	40	40	38	36	36	36	37	37
Estonia	--	0	0	0	0	0	7	4	3	5
Georgia	--	3	2	2	1	1	3	2	2	2
Kazakhstan	--	530	490	415	414	457	521	526	604	707
Kyrgyzstan	--	2	2	2	2	2	2	2	2	2
Lithuania	--	0	2	3	3	3	4	5	5	6
Russia	--	7,862	6,950	6,335	6,175	6,035	6,115	6,074	6,310	6,711
Tajikistan	--	1	1	1	1	1	1	1	(s)	(s)
Turkmenistan	--	110	90	85	81	88	106	127	156	158
Ukraine	--	95	87	85	85	81	85	82	98	88
Uzbekistan	--	66	85	115	160	165	157	161	147	151
Total	**10,633**	**9,137**	**8,159**	**7,487**	**7,349**	**7,256**	**7,428**	**7,458**	**7,840**	**8,349**
Middle East										
Bahrain	44	45	54	55	52	46	53	49	48	46
Iran	3,374	3,491	3,607	3,685	3,715	3,758	3,746	3,721	3,644	3,783
Iraq	305	426	528	574	586	600	1,176	2,166	2,524	2,587
Israel	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Jordan	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kuwait	190	1,096	1,909	2,114	2,156	2,151	2,120	2,204	2,017	2,245
Oman	708	746	781	816	861	893	910	906	916	944
Qatar	446	479	469	466	498	561	621	782	777	871
Saudi Arabia	8,810	9,060	8,917	8,833	8,948	8,930	9,089	9,159	8,514	9,124
Syria	494	483	562	568	584	590	571	561	546	528
United Arab Emirates	2,535	2,413	2,308	2,346	2,396	2,441	2,479	2,518	2,332	2,571
Yemen	197	182	220	335	345	340	362	388	409	440
Total	**17,103**	**18,421**	**19,355**	**19,791**	**20,141**	**20,310**	**21,128**	**22,454**	**21,727**	**23,140**
Africa										
Algeria	1,371	1,355	1,308	1,321	1,348	1,393	1,438	1,402	1,393	1,440
Angola	500	526	509	536	646	709	714	735	745	746
Benin	4	6	6	6	3	2	1	1	1	1
Cameroon	153	140	127	108	111	108	124	121	100	85
Congo (Brazzaville)	156	174	181	180	188	201	253	265	270	264
Congo (Kinshasa)	28	26	25	26	30	30	28	26	22	25
Cote d'Ivoire (Ivory Coast)	3	3	2	8	9	17	20	21	16	12
Egypt	920	927	946	955	981	988	928	910	928	851
Equatorial Guinea	(s)	2	5	5	5	17	52	83	102	168
Gabon	295	299	314	330	366	369	371	353	332	326
Ghana	0	1	2	1	4	6	5	5	6	7
Kenya	1	1	1	1	1	1	1	1	1	1
Libya	1,523	1,473	1,402	1,419	1,430	1,450	1,506	1,450	1,379	1,470
Morocco	1	1	1	1	1	1	1	1	1	1
Nigeria	1,897	1,948	1,965	1,936	1,998	2,006	2,137	2,158	2,135	2,149
South Africa	70	129	183	183	192	195	196	199	210	191
Sudan	0	(s)	(s)	(s)	(s)	2	5	10	69	186
Tunisia	109	114	102	96	90	88	85	81	84	82
Total	**7,032**	**7,124**	**7,078**	**7,111**	**7,403**	**7,583**	**7,867**	**7,823**	**7,794**	**8,005**

See footnotes at end of table.

Table G2 World Production of Crude Oil, NGPL, Other Liquids, and Refinery Processing Gain, 1991 - 2000 (Cont.)

(Thousand Barrels per Day)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Australia	619	604	572	606	627	645	672	627	624	805
Bangladesh	1	1	1	2	1	2	2	2	2	3
Brunei	171	177	178	180	176	166	175	179	204	215
Burma	16	15	14	14	10	8	9	11	10	8
China	2,835	2,845	2,890	2,939	2,990	3,131	3,200	3,198	3,195	3,249
India	629	593	568	639	754	735	764	755	747	740
Indonesia	1,665	1,576	1,586	1,587	1,576	1,624	1,602	1,602	1,556	1,510
Japan	76	79	82	81	81	81	80	80	79	81
Korea, South	-13	-17	-11	21	34	10	70	70	67	59
Malaysia	659	667	658	663	703	716	751	811	779	756
New Zealand	57	56	59	56	47	46	67	56	51	46
Pakistan	65	65	64	59	63	59	61	59	57	58
Papua New Guinea	(s)	53	126	110	100	103	80	79	97	70
Philippines	4	9	10	7	4	3	2	2	2	2
Singapore	4	4	4	4	4	4	4	4	4	4
Taiwan	5	5	4	4	4	4	4	3	3	3
Thailand	60	66	68	79	90	97	123	136	146	171
Vietnam	80	106	120	141	173	175	191	246	290	316
Total	**6,934**	**6,906**	**6,993**	**7,190**	**7,437**	**7,611**	**7,857**	**7,922**	**7,913**	**8,097**
World Total	**66,617**	**66,941**	**67,340**	**68,253**	**69,876**	**71,405**	**73,665**	**75,131**	**74,168**	**76,740**

[1] Preliminary.
- - = Not applicable.
(s) = Value less than 500 barrels per day.
Notes: NGPL are natural gas plant liquids. Sum of components may not equal total due to independent rounding.
Sources: See sources at the end of Section 3.

Table G3 World Oil Supply From Refinery Processing Gain and Other Liquids, 1999

(Thousand Barrels per Day)

Region Country	Refinery Processing Gain	Other Liquids
North America		
Canada	60	0
Mexico	28	0
United States	886	376
Total	**974**	**376**
Central & South America		
Argentina	5	0
Brazil	13	226
Chile	1	0
Colombia	2	0
Dominican Republic	1	0
Ecuador	1	0
Netherlands Antilles	6	0
Panama	1	0
Peru	2	0
Trinidad and Tobago	3	0
Venezuela	17	0
Virgin Islands, U.S.	(s)	0
Total	**52**	**226**
Western Europe		
Austria	2	0
Belgium	12	0
Denmark	4	0
France	43	0
Germany	56	21
Greece	3	0
Ireland	1	0
Italy	61	3
Netherlands	34	0
Norway	3	0
Portugal	2	0
Spain	14	0
Sweden	4	0
Switzerland	1	0
Turkey	4	0
United Kingdom	45	0
Total	**289**	**24**
Eastern Europe & Former U.S.S.R.		
Estonia	0	3
Total	**0**	**3**
Middle East		
Bahrain	1	0
Iran	12	0
Iraq	1	0
Kuwait	4	0
Qatar	1	0
Saudi Arabia	15	0
United Arab Emirates	3	0
Total	**37**	**0**

See footnotes at end of table.

Table G3 World Oil Supply From Refinery Processing Gain and Other Liquids, 1999 (Continued)

(Thousand Barrels per Day)

Region Country	Refinery Processing Gain	Other Liquids
Africa		
Algeria	1	0
Cote d'Ivoire (Ivory Coast)	1	0
Egypt	1	0
Gabon	1	0
Kenya	1	0
Morocco	1	0
Nigeria	5	0
South Africa	0	175
Total	**11**	**175**
Asia & Oceania		
Australia	13	0
India	4	0
Indonesia	-3	0
Japan	63	3
Korea, South	67	0
Malaysia	1	0
New Zealand	1	1
Pakistan	1	0
Philippines	1	0
Singapore	4	0
Taiwan	2	0
Thailand	1	0
Total	**156**	**4**
World Total	**1,519**	**808**

(s) = Value less than 500 barrels per day.

Note: Sum of components may not equal total due to independent rounding.

Sources: See sources at the end of Section 3.

Appendix H

World Carbon Dioxide Emissions, 1991-2000

Table H1 World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels, 1991 - 2000

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	125.19	124.71	130.30	134.66	134.67	138.17	146.04	148.54	153.31	157.95
Mexico	84.27	86.41	84.62	89.86	86.90	92.05	94.66	104.43	104.13	103.22
United States	1,342.92	1,365.89	1,393.19	1,417.31	1,430.35	1,481.02	1,502.54	1,504.16	1,526.12	1,571.14
Other	0.22	0.32	0.32	0.31	0.30	0.31	0.30	0.31	0.31	0.18
Total	**1,552.59**	**1,577.33**	**1,608.42**	**1,642.15**	**1,652.22**	**1,711.55**	**1,743.55**	**1,757.44**	**1,783.87**	**1,832.50**
Central & South America										
Argentina	29.94	30.69	33.22	32.37	33.24	35.23	35.29	36.83	36.35	36.38
Brazil	71.24	72.21	74.40	77.79	82.47	84.23	87.29	87.51	91.77	95.11
Chile	8.24	8.50	9.04	9.93	10.85	12.28	14.54	14.81	15.89	15.14
Colombia	12.98	14.48	14.90	14.55	14.59	15.37	16.97	17.40	15.60	15.81
Cuba	8.91	7.84	7.97	7.86	8.30	8.15	7.57	7.33	7.56	7.63
Venezuela	30.53	30.52	31.21	32.72	33.67	36.11	36.56	38.55	36.20	35.45
Other	42.16	44.61	47.11	48.87	52.74	52.92	55.92	60.59	62.01	63.13
Total	**204.01**	**208.85**	**217.86**	**224.10**	**235.85**	**244.29**	**254.13**	**263.03**	**265.39**	**268.65**
Western Europe										
Austria	16.41	14.99	15.62	15.69	15.99	16.59	17.01	17.02	18.40	17.56
Belgium	35.26	33.66	33.85	34.82	35.44	37.57	38.41	39.95	37.91	40.05
Denmark	17.46	16.62	15.96	17.49	18.80	19.74	20.49	17.18	16.54	15.74
Finland	14.09	13.38	14.18	15.72	12.17	13.97	15.17	13.32	12.95	13.48
France	107.76	103.93	99.96	97.00	100.69	105.84	103.66	110.08	108.92	109.44
Germany	251.55	241.59	240.88	236.55	238.73	239.79	239.25	235.46	223.09	219.72
Greece	22.32	21.83	22.80	23.28	22.99	23.43	24.61	25.90	25.83	26.76
Ireland	7.32	7.57	7.62	7.89	8.54	8.79	9.14	9.85	10.33	10.83
Italy	113.40	113.58	109.78	107.74	118.45	117.60	112.90	114.58	113.00	116.66
Netherlands	59.50	58.50	60.05	60.05	60.88	62.18	64.43	62.22	61.13	63.95
Norway	8.86	9.66	9.23	9.62	10.00	10.64	11.63	11.92	12.44	10.29
Portugal	12.25	13.02	12.52	12.58	13.53	13.01	14.20	14.97	16.52	16.73
Spain	64.38	65.64	62.48	64.37	66.93	64.03	72.64	74.09	79.25	81.20
Sweden	14.58	14.85	15.03	15.99	17.49	17.79	14.93	16.29	14.01	13.19
Switzerland	12.52	12.56	12.18	12.36	11.52	12.35	12.57	12.02	12.05	12.22
Turkey	37.63	37.53	39.17	37.87	41.19	45.76	49.38	49.66	48.50	54.98
United Kingdom	166.30	156.56	157.60	155.47	152.61	160.05	153.98	149.00	144.01	147.77
Former Yugoslavia	36.50	--	--	--	--	--	--	--	--	--
Croatia	--	4.44	4.70	4.81	4.95	4.71	5.03	5.34	5.40	5.74
Yugoslavia	--	12.60	10.88	11.31	8.25	13.21	13.31	14.02	10.69	10.21
Other	4.68	13.04	13.17	12.42	13.50	12.99	12.96	13.36	13.19	13.10
Total	**1,002.76**	**965.54**	**957.66**	**953.02**	**972.65**	**1,000.03**	**1,005.72**	**1,006.23**	**984.14**	**999.62**
Eastern Europe & Former U.S.S.R.										
Bulgaria	17.33	17.61	16.13	15.72	15.85	16.17	16.12	15.25	13.69	14.97
Former Czechoslovakia	71.46	65.50	--	--	--	--	--	--	--	--
Czech Republic	--	--	33.29	30.14	31.85	34.39	33.31	29.28	27.03	28.35
Slovakia	--	--	11.73	10.88	11.63	11.84	11.03	10.38	10.73	10.42
Hungary	17.80	17.21	16.97	16.62	16.03	16.17	16.03	16.01	15.80	14.88
Poland	88.76	88.93	92.12	87.20	82.99	78.23	91.29	84.91	81.75	81.39
Romania	36.74	34.63	33.95	31.81	33.47	34.23	32.59	27.24	23.97	24.72
Former U.S.S.R.	957.22	--	--	--	--	--	--	--	--	--
Azerbaijan	--	16.38	13.86	12.64	12.24	10.53	10.41	12.96	13.21	12.52
Belarus	--	25.35	22.34	18.04	16.86	16.40	15.92	16.19	15.76	16.47
Kazakhstan	--	66.02	54.02	42.91	39.80	37.77	31.92	30.89	28.87	34.95
Lithuania	--	6.23	4.79	4.99	4.77	4.38	4.41	4.80	3.41	3.56
Russia	--	573.50	535.63	477.28	444.52	445.14	394.65	395.84	440.00	450.70
Turkmenistan	--	5.25	5.17	4.94	5.02	4.97	5.25	4.76	5.19	5.99
Ukraine	--	155.71	144.83	120.58	121.80	109.09	102.30	100.05	105.04	104.46
Uzbekistan	--	25.96	31.41	26.45	28.40	27.97	27.96	27.49	27.78	28.56
Other	1.17	25.85	17.71	13.82	12.25	13.94	13.30	13.53	11.98	12.31
Total	**1,190.49**	**1,124.13**	**1,033.96**	**914.03**	**877.48**	**861.21**	**806.51**	**789.58**	**824.22**	**844.23**

See footnotes at end of table.

Table H1 World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels, 1991 - 2000 (Cont.)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Middle East										
Bahrain	4.31	3.67	4.34	4.29	4.35	4.36	5.24	5.39	5.53	5.73
Iran	62.29	63.97	65.27	68.03	70.80	71.00	78.64	77.83	79.72	80.82
Iraq	11.61	15.65	18.44	20.77	20.82	20.79	18.85	19.51	19.91	20.24
Israel	9.75	11.21	12.71	13.12	13.25	13.07	15.00	15.94	16.20	16.65
Kuwait	11.75	6.57	8.59	10.36	10.81	13.33	14.28	15.35	16.36	17.64
Oman	3.86	3.66	4.01	4.09	3.83	3.95	4.86	5.91	5.56	5.97
Qatar	6.16	7.08	8.16	8.29	8.39	8.57	9.10	9.33	8.86	9.47
Saudi Arabia	63.49	64.36	65.47	67.08	69.44	72.60	71.63	70.20	71.40	74.89
Syria	9.05	9.59	10.75	11.19	10.78	11.42	12.01	12.91	13.25	13.45
United Arab Emirates	25.70	27.67	25.99	25.55	27.32	28.08	30.34	31.63	32.04	30.16
Yemen	3.20	3.29	2.77	2.67	2.71	2.69	2.84	2.55	2.22	2.40
Other	6.21	6.85	7.51	8.47	8.80	9.23	9.64	10.11	10.37	10.58
Total	**217.37**	**223.57**	**234.02**	**243.91**	**251.29**	**259.09**	**272.45**	**276.66**	**281.43**	**288.01**
Africa										
Algeria	23.72	22.65	22.75	23.25	23.87	22.97	21.94	22.94	22.91	22.73
Angola	2.04	2.03	2.10	2.00	3.30	3.30	3.52	3.35	3.66	3.60
Egypt	25.99	25.69	26.28	27.10	26.82	29.38	30.62	31.74	31.67	33.18
Gabon	1.56	1.64	1.63	1.62	1.67	1.77	1.65	1.60	1.65	1.68
Libya	11.30	9.80	10.05	10.32	10.61	11.17	11.69	11.23	10.40	10.90
Morocco	6.06	6.08	6.93	7.45	7.09	7.28	7.37	7.53	8.14	7.77
Nigeria	24.18	25.55	26.36	26.02	27.26	27.69	25.04	24.14	23.07	22.58
South Africa	85.63	86.20	88.43	88.48	95.75	91.31	107.09	112.54	104.79	105.85
Zimbabwe	4.36	4.48	4.26	4.54	4.55	4.16	3.78	3.88	3.80	3.97
Other	20.08	21.58	24.47	24.96	24.76	25.27	25.62	27.05	28.03	27.88
Total	**204.93**	**205.70**	**213.26**	**215.75**	**225.69**	**224.29**	**238.31**	**246.02**	**238.11**	**240.14**
Asia & Oceania										
Australia	72.96	75.34	76.99	76.97	79.59	81.40	89.69	90.42	95.99	96.87
Bangladesh	4.03	4.47	4.78	5.25	5.82	6.16	6.43	6.54	7.29	7.73
Brunei	0.77	0.99	1.00	0.96	0.95	0.94	1.14	0.94	1.05	1.14
China	645.78	667.90	711.86	768.01	787.72	803.15	824.28	805.17	792.11	775.01
Hong Kong	11.55	12.19	13.02	12.21	12.79	12.40	9.11	12.46	16.41	14.78
India	161.50	175.97	185.73	189.98	226.26	227.50	231.44	235.42	239.99	253.28
Indonesia	43.20	47.50	53.72	55.64	58.13	64.18	66.59	64.19	66.55	68.68
Japan	279.77	285.77	283.08	298.64	297.75	308.17	308.59	300.26	307.33	313.69
Korea, North	69.96	71.22	73.77	72.99	72.06	70.75	66.93	64.48	65.38	66.06
Korea, South	72.89	77.55	91.11	99.22	109.28	111.88	117.89	100.57	104.76	115.33
Malaysia	19.17	19.85	22.75	24.20	24.20	27.41	27.51	27.81	27.91	29.90
New Zealand	7.71	8.42	8.47	8.56	9.42	8.86	8.80	8.24	8.45	9.08
Pakistan	18.46	18.94	21.11	22.98	23.71	26.01	25.86	26.70	27.92	29.53
Philippines	11.43	12.47	13.69	14.36	15.63	16.29	17.77	18.20	18.90	19.55
Singapore	17.07	19.04	21.60	22.79	22.43	26.59	27.95	29.05	30.40	31.60
Taiwan	33.64	35.40	42.57	44.32	51.77	55.66	58.31	61.32	67.40	69.47
Thailand	25.45	27.42	31.51	34.91	42.58	45.91	46.05	42.58	45.01	45.24
Vietnam	4.88	5.19	7.26	7.55	9.24	9.50	9.45	9.60	10.85	11.13
Other	9.91	9.37	9.81	10.44	10.34	10.65	10.94	11.42	12.03	12.18
Total	**1,510.12**	**1,574.99**	**1,673.86**	**1,769.99**	**1,859.67**	**1,913.40**	**1,954.74**	**1,915.37**	**1,945.73**	**1,970.22**
World Total	**5,882.27**	**5,880.12**	**5,939.03**	**5,962.94**	**6,074.86**	**6,213.86**	**6,275.41**	**6,254.33**	**6,322.90**	**6,443.38**

[1] Preliminary.

-- = Not applicable.

Notes: Sum of components may not equal total due to independent rounding.

Includes carbon dioxide emissions from the consumption of petroleum, natural gas, and coal, and the flaring of natural gas.

Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667. One ton of carbon equivalent = 3.667 tons of carbon dioxide gas.

Source: Office of Energy Markets and End Use, Energy Information Administration.

Table H2 World Carbon Dioxide Emissions from the Consumption of Petroleum, 1991 - 2000

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	57.32	58.00	58.51	60.03	60.47	61.80	66.08	67.04	69.38	70.90
Mexico	65.08	66.67	63.68	67.98	63.74	65.72	66.25	74.05	76.15	75.83
United States	576.07	586.64	587.69	600.29	596.27	618.67	624.59	634.44	649.26	657.75
Other	0.22	0.32	0.32	0.31	0.30	0.31	0.30	0.31	0.31	0.18
Total	**698.69**	**711.63**	**710.20**	**728.62**	**720.78**	**746.50**	**757.22**	**775.84**	**795.10**	**804.67**
Central & South America										
Argentina	16.26	16.96	18.86	17.26	16.84	17.37	18.19	19.03	17.90	17.50
Bolivia	0.91	0.94	0.93	1.04	1.18	1.18	1.21	1.35	1.71	1.66
Brazil	57.87	59.42	61.84	65.53	69.85	70.73	73.45	73.31	74.32	75.18
Chile	5.44	5.68	6.35	6.80	7.56	8.17	8.59	8.87	9.04	9.07
Colombia	7.64	8.64	9.02	9.08	9.58	10.14	10.53	10.73	10.22	10.02
Costa Rica	0.79	0.99	1.09	1.09	1.27	1.20	1.21	1.34	1.49	1.31
Cuba	8.81	7.78	7.89	7.76	8.21	8.11	7.07	7.04	7.21	7.28
Dominican Republic	2.41	2.66	2.34	2.63	2.92	3.07	3.24	3.33	3.73	3.57
Ecuador	3.94	4.55	4.20	4.48	4.61	4.74	4.89	5.23	4.75	4.92
El Salvador	0.75	0.87	0.88	0.98	1.25	1.18	1.26	1.47	1.48	1.43
Guatemala	0.97	1.17	1.31	1.47	1.64	1.71	1.88	2.29	2.33	2.36
Honduras	0.72	0.73	0.73	0.81	0.94	1.05	1.03	1.20	1.24	1.29
Jamaica	2.10	2.27	2.31	2.36	2.65	2.66	2.80	2.91	2.98	3.04
Netherlands Antilles	2.53	2.58	2.82	2.60	3.08	3.08	3.25	3.24	3.13	3.16
Panama	1.36	1.76	1.71	1.80	1.75	2.03	2.08	2.15	2.22	2.32
Peru	4.54	4.83	5.07	5.35	5.78	6.00	6.70	6.73	6.62	6.70
Puerto Rico	6.31	6.16	6.78	6.69	6.06	5.56	5.48	6.45	6.16	6.41
Trinidad and Tobago	0.73	0.84	0.84	0.86	0.82	0.77	0.84	0.81	0.83	0.85
Uruguay	1.20	1.29	1.41	1.25	1.26	1.34	1.41	1.73	1.91	1.70
Venezuela	14.98	15.46	15.34	15.90	16.39	15.92	15.81	16.02	15.89	16.12
Virgin Islands, U.S.	2.00	2.03	2.25	2.06	3.45	2.94	3.57	4.88	5.72	5.89
Other	4.60	4.69	5.10	5.36	5.86	5.73	6.21	6.77	6.90	6.81
Total	**146.86**	**152.28**	**159.07**	**163.16**	**172.93**	**174.70**	**180.71**	**186.88**	**187.76**	**188.60**
Western Europe										
Austria	9.15	8.85	9.01	9.09	8.86	8.93	9.05	9.37	10.78	9.93
Belgium	19.53	19.98	19.53	19.76	19.33	21.27	22.13	23.03	21.65	22.34
Denmark	7.93	7.85	8.04	8.62	9.13	9.66	9.45	9.27	9.00	8.67
Finland	8.92	8.76	8.21	8.49	6.54	7.57	8.35	7.92	8.15	7.67
France	69.26	68.66	67.27	65.05	67.01	69.83	69.17	72.45	72.31	72.09
Germany	104.51	105.12	106.81	104.61	104.16	106.73	108.13	104.31	96.21	93.96
Greece	13.27	13.70	14.03	14.43	14.37	15.08	15.32	15.71	15.24	15.84
Ireland	3.96	4.18	4.18	4.57	5.13	5.12	5.37	6.07	6.80	6.90
Italy	73.18	76.34	72.73	71.74	77.98	77.88	72.21	71.00	66.14	67.05
Luxembourg	1.57	1.59	1.60	1.58	1.48	1.52	1.59	1.65	1.79	1.85
Netherlands	27.80	28.39	28.33	28.38	28.62	28.06	28.92	26.85	27.90	28.46
Norway	6.59	6.61	6.72	6.87	7.06	7.70	8.22	8.49	8.50	7.48
Portugal	9.23	10.24	9.47	9.37	9.81	9.73	10.38	11.37	11.45	11.47
Spain	38.53	40.85	38.73	41.03	43.93	43.50	48.09	50.26	52.56	53.75
Sweden	11.87	12.57	12.21	13.05	14.56	14.98	12.02	13.59	11.34	10.53
Switzerland	11.07	11.23	10.79	10.99	9.96	10.74	11.04	10.45	10.43	10.48
Turkey	16.94	17.94	20.27	19.40	21.51	22.82	21.99	21.16	20.94	22.21
United Kingdom	66.59	66.62	66.06	66.07	66.61	67.07	65.97	62.63	58.11	57.52
Former Yugoslavia	10.11	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	1.44	0.92	0.83	0.80	0.55	0.55	0.62	0.65	0.63
Croatia	--	2.67	2.71	3.16	3.64	3.14	3.24	3.68	3.74	3.62
Macedonia, TFYR	--	0.76	0.89	0.75	0.75	0.96	0.86	0.79	0.68	0.64
Slovenia	--	1.38	1.64	1.62	1.80	2.09	2.20	2.34	2.07	2.13
Yugoslavia	--	1.99	1.36	1.17	1.09	1.80	2.38	2.18	1.96	1.88
Other	1.33	1.84	1.99	2.00	2.02	2.07	2.16	2.27	2.72	2.54
Total	**511.34**	**519.56**	**513.48**	**512.59**	**526.15**	**538.82**	**538.79**	**537.48**	**521.11**	**519.63**

See footnotes at end of table.

Table H2 World Carbon Dioxide Emissions from the Consumption of Petroleum, 1991 - 2000 (Continued)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.72	0.85	0.70	0.53	0.60	0.47	0.41	0.38	0.37	0.36
Bulgaria	5.16	5.51	4.97	5.38	5.06	4.68	3.97	3.81	3.52	3.33
Former Czechoslovakia	9.30	8.31	--	--	--	--	--	--	--	--
Czech Republic	--	--	6.21	6.09	6.40	6.72	6.43	6.32	6.42	5.87
Slovakia	--	--	2.62	2.50	2.55	2.68	2.28	2.21	2.11	1.99
Hungary	6.30	6.75	7.03	6.82	6.00	5.31	5.55	5.62	5.23	4.92
Poland	10.64	11.61	12.18	11.84	11.86	13.31	14.30	14.83	14.57	15.71
Romania	11.32	10.35	10.48	8.98	9.73	10.27	10.94	10.04	8.26	7.69
Former U.S.S.R.	330.21	--	--	--	--	--	--	--	--	--
Armenia	--	2.13	1.06	0.34	0.24	0.13	0.13	0.15	0.20	0.18
Azerbaijan	--	7.99	8.00	7.63	7.45	5.58	5.53	6.43	6.49	6.08
Belarus	--	14.74	12.40	10.02	9.37	8.41	7.47	7.54	6.21	5.66
Estonia	--	1.08	1.20	1.09	1.03	1.16	1.17	1.13	1.00	0.95
Georgia	--	1.16	0.67	0.31	0.33	0.72	0.78	0.97	0.98	1.00
Kazakhstan	--	16.53	13.95	12.40	11.39	10.23	8.66	8.27	6.17	6.46
Kyrgyzstan	--	1.32	0.78	0.36	0.46	0.49	0.42	0.55	0.46	0.47
Latvia	--	2.21	1.69	1.68	1.78	2.03	1.55	1.41	1.05	1.04
Lithuania	--	3.52	3.32	3.40	3.16	2.85	2.77	3.01	2.21	2.13
Moldova	--	2.49	1.80	0.96	0.92	0.71	0.80	0.58	0.34	0.35
Russia	--	175.45	153.75	126.65	115.57	102.56	98.36	98.72	99.38	97.90
Tajikistan	--	0.82	0.68	0.29	0.44	1.00	1.00	1.03	1.09	1.09
Turkmenistan	--	2.77	2.67	2.38	2.30	2.36	2.78	2.42	2.21	2.05
Ukraine	--	34.27	24.49	21.03	19.65	15.19	13.98	14.95	14.69	14.15
Uzbekistan	--	7.74	7.26	6.83	7.36	5.76	5.59	5.74	5.83	5.32
Total	**373.65**	**317.59**	**277.91**	**237.50**	**223.65**	**202.63**	**194.88**	**196.13**	**188.80**	**184.70**
Middle East										
Bahrain	0.80	0.84	0.82	0.84	0.89	0.86	1.00	0.98	1.06	1.17
Cyprus	1.35	1.61	1.62	1.84	1.81	1.81	1.81	1.96	2.06	2.12
Iran	43.48	44.00	45.83	45.38	45.13	42.54	46.70	43.86	41.12	40.56
Iraq	10.67	14.08	17.06	19.06	19.11	19.04	16.98	17.54	17.74	18.09
Israel	7.06	8.15	8.37	8.19	8.34	8.18	9.27	9.67	9.97	10.42
Jordan	2.55	2.95	2.98	3.28	3.41	3.70	3.53	3.86	3.83	3.89
Kuwait	3.79	4.93	5.45	6.93	7.38	8.13	9.09	10.31	11.51	12.28
Lebanon	2.24	2.20	2.70	3.10	3.28	3.43	4.01	4.01	4.19	4.27
Oman	1.56	1.59	1.60	1.65	1.76	1.92	1.99	2.02	2.16	2.19
Qatar	1.03	1.03	0.98	1.10	1.20	1.27	1.36	1.46	1.43	1.46
Saudi Arabia	39.96	40.45	41.45	41.94	42.88	44.41	47.00	44.56	46.65	48.09
Syria	7.10	7.39	8.76	9.15	9.13	9.24	9.57	9.90	10.11	10.28
United Arab Emirates	13.54	13.65	13.72	13.82	13.94	13.43	14.15	14.71	14.84	14.89
Yemen	3.20	3.29	2.77	2.67	2.71	2.69	2.84	2.55	2.22	2.40
Total	**138.31**	**146.16**	**154.09**	**158.95**	**160.97**	**160.66**	**169.32**	**167.38**	**168.90**	**172.09**

See footnotes at end of table.

Table H2 World Carbon Dioxide Emissions from the Consumption of Petroleum, 1991 - 2000 (Continued)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Africa										
Algeria	7.28	7.35	7.16	7.07	6.62	6.49	6.32	6.83	6.60	6.84
Angola	1.08	1.10	1.09	1.07	1.14	1.07	1.24	1.00	1.23	1.18
Cameroon	0.93	0.95	0.83	0.83	0.84	0.81	0.85	0.84	0.76	0.77
Congo (Brazzaville)	0.24	0.23	0.26	0.28	0.29	0.27	0.27	0.26	0.16	0.19
Congo (Kinshasa)	0.88	1.00	1.05	1.06	1.00	1.01	1.09	1.03	0.86	0.92
Cote d'Ivoire (Ivory Coast)	1.03	1.04	1.19	1.23	1.20	1.26	1.09	1.04	1.19	1.18
Egypt	19.18	18.59	18.75	19.30	19.09	20.75	21.89	22.86	22.28	21.88
Ethiopia	0.67	0.98	0.90	0.59	0.64	0.46	0.46	0.71	0.88	0.83
Gabon	0.63	0.65	0.64	0.69	0.74	0.83	0.71	0.67	0.71	0.74
Ghana	0.80	0.92	0.95	1.04	1.07	1.10	1.03	1.04	1.20	1.22
Kenya	1.50	1.66	1.70	1.81	1.87	1.96	1.82	2.08	2.12	2.15
Libya	6.83	6.10	6.65	6.82	7.14	7.48	7.87	7.42	7.50	7.61
Morocco	4.46	4.94	5.23	5.58	5.20	5.02	5.23	5.16	5.80	5.51
Nigeria	10.33	10.50	10.79	10.14	11.38	11.12	10.61	10.58	10.36	10.69
Senegal	0.64	0.79	0.80	0.95	1.02	1.03	0.95	1.00	1.11	1.20
South Africa	15.96	16.43	16.11	16.25	16.52	16.85	16.39	17.46	18.34	18.91
Sudan	1.52	1.38	1.33	1.17	1.08	1.07	1.11	1.12	1.19	1.25
Tunisia	2.71	2.81	2.93	2.92	2.68	2.78	2.91	3.04	3.05	3.08
Zimbabwe	0.89	0.80	0.89	0.90	0.98	1.12	1.19	1.23	1.23	1.27
Other	7.05	7.73	7.98	8.19	8.37	8.54	8.56	8.86	9.22	8.75
Total	**84.59**	**85.96**	**87.24**	**87.88**	**88.86**	**91.04**	**91.59**	**94.23**	**95.78**	**96.16**
Asia & Oceania										
Australia	26.57	26.74	27.94	29.27	30.54	29.02	29.41	29.84	30.81	30.78
Bangladesh	1.56	1.56	1.68	1.88	2.12	2.18	2.30	2.36	2.74	2.85
Brunei	0.38	0.27	0.37	0.38	0.39	0.48	0.62	0.50	0.44	0.49
Burma	0.64	0.68	0.71	0.77	0.75	0.81	1.03	1.22	1.50	1.56
China	102.32	107.42	121.16	124.94	132.16	137.63	140.90	147.64	155.76	170.62
Guam	0.57	0.68	0.90	1.29	0.97	0.87	0.99	0.82	0.92	0.91
Hong Kong	5.46	6.25	6.51	7.47	7.68	7.56	5.14	7.61	12.00	10.54
India	45.70	48.78	52.40	53.72	58.51	61.79	65.04	69.52	71.43	72.55
Indonesia	27.62	28.68	31.21	30.84	31.66	34.32	37.94	36.82	39.14	42.03
Japan	182.20	189.49	186.05	197.09	192.35	198.05	191.27	184.23	186.64	184.67
Korea, North	3.18	3.06	2.96	2.87	2.60	1.97	1.99	2.82	3.15	3.26
Korea, South	44.40	49.99	57.82	63.50	68.61	73.94	76.29	58.65	62.50	64.63
Malaysia	11.15	11.68	13.62	14.38	15.18	16.73	17.01	16.77	16.59	16.76
Mongolia	0.58	0.53	0.51	0.52	0.46	0.48	0.32	0.34	0.34	0.35
New Zealand	3.89	4.18	4.59	4.78	5.79	5.01	4.74	4.79	4.70	5.14
Pakistan	9.19	9.31	10.97	12.10	12.75	14.12	14.26	15.05	15.17	15.79
Papua New Guinea	0.67	0.66	0.66	0.65	0.65	0.65	0.66	0.64	0.64	0.69
Philippines	9.77	10.88	11.76	12.35	13.52	13.75	14.98	15.60	14.90	14.31
Singapore	17.05	18.43	20.77	21.94	21.60	25.79	27.15	28.25	29.60	30.80
Sri Lanka	1.41	1.49	1.71	1.80	1.92	2.17	2.41	2.44	2.60	2.56
Taiwan	21.08	21.06	25.47	25.42	28.95	30.84	30.55	32.01	33.81	33.51
Thailand	17.55	19.25	22.12	24.43	27.38	30.17	29.18	27.06	28.07	27.45
Vietnam	2.30	2.53	3.20	3.52	3.91	4.79	5.20	5.51	6.44	6.73
Other	2.91	2.69	2.73	2.75	2.80	2.95	3.00	3.18	3.22	3.28
Total	**538.12**	**566.27**	**607.85**	**638.63**	**663.25**	**696.03**	**702.39**	**693.63**	**723.11**	**742.26**
World Total	**2,491.56**	**2,499.46**	**2,509.85**	**2,527.33**	**2,556.59**	**2,610.37**	**2,634.90**	**2,651.58**	**2,680.55**	**2,708.11**

[1] Preliminary.

- - = Not applicable.

Notes: Sum of components may not equal total due to independent rounding.

Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667. One ton of carbon equivalent = 3.667 tons of carbon dioxide gas.

Source: Office of Energy Markets and End Use, Energy Information Administration.

Table H3 World Carbon Dioxide Emissions from the Consumption and Flaring of Natural Gas, 1991 - 2000

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	36.31	39.29	41.22	43.26	42.24	44.13	43.75	42.78	46.93	49.66
Mexico	15.25	15.32	16.39	17.18	17.84	20.19	21.75	23.54	21.69	21.04
United States	284.88	293.25	303.64	309.92	323.73	329.74	330.60	319.27	324.27	340.63
Total	**336.44**	**347.87**	**361.26**	**370.35**	**383.81**	**394.05**	**396.10**	**385.59**	**392.89**	**411.33**
Central & South America										
Argentina	12.98	12.93	13.67	14.00	15.43	16.92	16.13	16.83	17.64	17.95
Barbados	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Bolivia	0.43	0.75	0.91	1.17	0.89	0.79	0.94	0.69	0.65	0.79
Brazil	2.56	3.01	2.69	2.81	2.92	3.42	3.71	4.05	4.58	6.02
Chile	0.84	1.11	0.93	1.05	1.01	1.02	1.54	1.77	2.50	2.83
Colombia	2.16	2.26	2.19	2.26	2.35	2.45	3.04	3.21	2.71	2.91
Cuba	0.02	0.02	0.02	0.02	0.02	0.02	0.47	0.26	0.32	0.32
Ecuador	0.39	0.43	0.39	0.39	0.60	0.60	0.56	0.56	0.56	0.56
Peru	0.31	0.34	0.56	0.57	0.54	0.56	0.28	0.27	0.27	0.27
Puerto Rico	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Trinidad and Tobago	4.39	3.89	4.47	5.05	5.33	5.80	6.14	6.13	6.27	6.51
Uruguay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
Venezuela	15.55	15.06	15.85	16.77	17.28	20.05	20.71	21.52	19.52	19.01
Total	**39.65**	**39.81**	**41.70**	**44.10**	**46.38**	**51.63**	**53.54**	**55.32**	**55.04**	**57.39**
Western Europe										
Austria	3.48	3.42	3.60	3.71	4.01	4.31	4.15	4.26	4.34	4.15
Belgium	5.54	5.71	6.00	6.13	6.78	7.55	7.21	7.94	8.46	9.11
Denmark	1.41	1.48	1.65	1.81	2.09	2.44	2.80	2.85	3.07	3.04
Finland	1.46	1.52	1.57	1.74	1.80	1.88	1.85	2.12	2.12	2.16
France	17.74	17.94	18.08	17.99	18.36	20.27	20.10	20.59	21.61	22.34
Germany	35.97	35.41	36.64	38.57	44.28	44.32	42.43	44.06	44.50	43.77
Greece	0.09	0.08	0.06	0.03	0.03	0.03	0.11	0.46	0.77	1.08
Ireland	1.22	1.21	1.37	1.39	1.48	1.68	1.76	1.78	1.90	2.18
Italy	26.35	26.10	26.63	25.72	28.34	29.25	30.16	32.47	35.29	36.62
Luxembourg	0.28	0.30	0.31	0.31	0.35	0.39	0.40	0.40	0.42	0.43
Netherlands	22.12	21.53	22.10	21.37	21.98	24.22	22.75	22.61	22.00	22.17
Norway	1.41	2.30	1.60	1.68	1.86	1.86	2.26	2.22	2.75	1.72
Portugal	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.44	1.23	1.29
Spain	3.58	3.77	3.70	3.93	4.90	5.49	7.18	7.37	8.44	9.06
Sweden	0.34	0.39	0.43	0.42	0.43	0.44	0.45	0.43	0.47	0.44
Switzerland	1.16	1.22	1.28	1.26	1.39	1.51	1.46	1.50	1.55	1.55
Turkey	2.22	2.43	2.71	2.88	3.71	4.47	5.34	5.66	6.71	7.82
United Kingdom	33.46	31.65	37.28	39.76	41.96	49.50	47.04	47.93	50.79	52.52
Former Yugoslavia	3.77	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.25	0.20	0.21	1.24	0.07	0.07	0.10	0.10	0.15
Croatia	--	1.45	1.56	1.37	1.24	1.33	1.49	1.42	1.42	1.47
Macedonia, TFYR	--	0.14	0.15	0.00	0.00	0.00	0.00	0.01	0.02	0.05
Slovenia	--	0.34	0.41	0.40	0.48	0.69	0.49	0.52	0.54	0.55
Yugoslavia	--	1.09	0.52	0.88	0.60	1.50	1.48	1.59	0.93	0.29
Total	**161.60**	**159.74**	**167.86**	**171.59**	**187.31**	**203.20**	**201.02**	**208.72**	**219.42**	**223.96**

See footnotes at end of table.

Table H3 World Carbon Dioxide Emissions from the Consumption and Flaring of Natural Gas, 1991 - 2000 (Cont.)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.08	0.05	0.02	0.04	0.02	0.02	0.01	0.02	0.01	0.01
Bulgaria	2.85	2.65	2.45	2.40	2.97	3.11	2.58	1.92	1.69	2.75
Former Czechoslovakia	7.07	5.76	--	--	--	--	--	--	--	--
Czech Republic	--	--	3.76	3.47	4.16	4.79	4.85	4.86	4.90	4.75
Slovakia	--	--	3.18	3.01	3.99	3.52	3.57	3.63	3.68	3.71
Hungary	5.61	4.92	5.30	5.36	5.83	6.50	6.17	6.20	6.29	6.11
Poland	5.03	4.93	5.17	5.30	5.54	6.23	6.25	6.20	5.88	6.04
Romania	15.11	13.60	13.08	12.25	12.97	12.87	11.95	9.36	8.95	8.93
Former U.S.S.R.	370.23	--	--	--	--	--	--	--	--	--
Armenia	--	0.99	0.75	0.85	0.85	0.96	0.69	0.75	0.69	0.75
Azerbaijan	--	8.37	5.86	5.00	4.79	4.95	4.88	6.53	6.72	6.44
Belarus	--	9.64	8.95	7.43	6.75	7.38	7.96	8.14	9.07	10.33
Estonia	--	0.76	0.31	0.33	0.38	0.42	0.54	0.82	0.51	0.57
Georgia	--	2.66	1.28	0.85	1.12	0.96	1.01	0.99	0.62	0.64
Kazakhstan	--	10.70	7.88	7.99	5.78	7.69	7.45	7.13	7.24	7.40
Kyrgyzstan	--	1.26	1.18	0.95	0.47	0.97	1.02	1.02	1.02	1.02
Latvia	--	0.82	0.41	0.36	0.56	0.51	0.66	0.66	0.66	0.81
Lithuania	--	2.05	1.23	1.18	1.43	1.32	1.48	1.63	1.09	1.32
Moldova	--	1.19	0.97	0.76	0.76	1.08	1.30	1.25	1.14	1.15
Russia	--	244.47	239.04	224.48	210.75	210.70	195.16	204.03	203.57	205.26
Tajikistan	--	1.01	0.75	0.85	0.43	0.65	0.61	0.60	0.62	0.67
Turkmenistan	--	2.13	2.18	2.24	2.56	2.56	2.45	2.34	2.98	3.94
Ukraine	--	52.10	57.68	49.57	44.77	44.24	42.69	39.29	41.52	41.90
Uzbekistan	--	16.00	22.52	17.96	19.75	20.99	21.30	20.63	20.84	22.13
Total	**405.97**	**386.08**	**383.94**	**352.59**	**336.61**	**342.41**	**324.59**	**327.98**	**329.69**	**336.64**
Middle East										
Bahrain	3.51	2.83	3.52	3.45	3.45	3.50	4.24	4.41	4.48	4.56
Iran	17.83	19.08	18.59	21.53	24.71	27.45	30.80	32.79	37.37	39.03
Iraq	0.94	1.57	1.38	1.71	1.71	1.75	1.87	1.97	2.16	2.15
Israel	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Jordan	0.07	0.08	0.11	0.15	0.15	0.14	0.15	0.15	0.15	0.15
Kuwait	7.96	1.64	3.13	3.43	3.43	5.20	5.19	5.04	4.85	5.36
Oman	2.31	2.07	2.41	2.44	2.07	2.04	2.87	3.89	3.40	3.78
Qatar	5.13	6.04	7.19	7.19	7.19	7.29	7.74	7.87	7.43	8.02
Saudi Arabia	23.53	23.91	24.03	25.13	26.56	28.19	24.63	25.63	24.75	26.80
Syria	1.95	2.20	1.99	2.04	1.64	2.18	2.43	3.00	3.14	3.17
United Arab Emirates	12.16	14.01	12.28	11.73	13.38	14.65	16.19	16.92	17.20	15.27
Total	**75.40**	**73.46**	**74.64**	**78.82**	**84.30**	**92.39**	**96.13**	**101.70**	**104.93**	**108.30**
Africa										
Algeria	15.69	14.64	14.89	15.57	16.58	16.05	15.26	15.65	15.81	15.40
Angola	0.96	0.94	1.00	0.94	2.15	2.23	2.28	2.35	2.43	2.42
Cameroon	0.00	0.00	1.08	1.23	1.20	1.03	1.03	1.03	1.03	1.03
Congo (Brazzaville)	0.00	0.00	0.65	0.65	0.65	0.65	0.81	0.79	0.70	0.70
Cote d'Ivoire (Ivory Coast)	0.00	0.00	0.00	0.00	0.02	0.28	0.31	0.41	0.68	0.68
Egypt	6.01	6.39	6.66	6.98	7.19	7.68	7.71	7.77	8.27	10.17
Equatorial Guinea	0.00	0.00	0.25	0.25	0.25	0.39	0.40	0.42	0.46	0.46
Gabon	0.93	0.99	0.99	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Libya	4.47	3.70	3.39	3.49	3.47	3.68	3.82	3.81	2.90	3.29
Morocco	0.02	0.01	0.02	0.02	0.01	0.01	0.03	0.03	0.03	0.03
Mozambique	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03
Nigeria	13.78	14.97	15.48	15.78	15.78	16.47	14.34	13.52	12.66	11.85
Senegal	0.00	0.00	0.01	0.02	0.02	0.03	0.02	0.02	0.02	0.02
South Africa	0.00	0.02	0.96	1.04	1.04	0.98	0.96	0.85	0.82	0.82
Tunisia	0.73	0.56	1.09	1.33	1.14	1.29	1.69	1.90	1.94	1.98
Total	**42.58**	**42.21**	**46.47**	**48.24**	**50.44**	**51.70**	**49.58**	**49.52**	**48.72**	**49.82**

See footnotes at end of table.

Table H3 World Carbon Dioxide Emissions from the Consumption and Flaring of Natural Gas, 1991 - 2000 (Cont.)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.24	0.17	0.16	0.16	0.11	0.12	0.12	0.12	0.12	0.12
Australia	8.91	9.20	9.57	9.98	10.71	10.81	10.87	11.37	11.68	11.63
Bangladesh	2.34	2.79	3.07	3.34	3.67	3.80	3.80	4.08	4.50	4.83
Brunei	0.39	0.72	0.63	0.58	0.57	0.46	0.52	0.45	0.61	0.65
Burma	0.56	0.53	0.59	0.77	0.88	0.86	0.81	0.94	0.97	1.05
China	8.72	8.84	9.25	9.76	10.06	11.09	12.53	13.11	14.29	16.01
Hong Kong	0.22	0.25	0.26	0.28	0.30	0.31	0.33	0.33	0.34	0.36
India	10.55	10.56	10.18	10.93	11.85	12.87	13.22	13.94	13.79	14.49
Indonesia	11.47	13.87	16.72	17.73	19.24	19.98	20.20	18.01	20.13	19.30
Japan	29.76	30.47	30.63	32.83	33.24	35.99	36.74	38.14	39.81	41.42
Korea, South	2.00	2.62	3.27	4.35	5.26	6.95	8.45	7.91	9.63	10.79
Malaysia	6.59	6.55	7.72	8.18	7.35	8.53	8.94	9.32	9.90	10.94
New Zealand	2.64	2.85	2.54	2.60	2.45	2.80	3.02	2.68	2.82	3.04
Pakistan	7.18	7.41	7.84	8.43	8.69	9.36	9.39	9.55	10.54	11.51
Papua New Guinea	0.00	0.03	0.04	0.03	0.05	0.07	0.06	0.06	0.06	0.06
Philippines	0.00	0.00	0.00	0.00	(s)	(s)	(s)	(s)	(s)	(s)
Singapore	0.00	0.59	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Taiwan	1.51	1.65	1.60	2.02	2.17	2.26	2.69	3.15	3.17	3.45
Thailand	3.40	3.59	4.47	4.92	5.29	6.03	7.57	8.00	8.84	9.25
Vietnam	0.04	0.11	0.51	0.51	0.51	0.59	0.25	0.57	0.70	0.80
Total	**96.50**	**102.79**	**109.86**	**118.20**	**123.19**	**133.68**	**140.30**	**142.52**	**152.73**	**160.50**
World Total	**1,158.15**	**1,151.95**	**1,185.72**	**1,183.89**	**1,212.04**	**1,269.05**	**1,261.24**	**1,271.35**	**1,303.42**	**1,347.93**

[1] Preliminary.
- - = Not applicable.
Notes: Sum of components may not equal total due to independent rounding.
Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667. One ton of carbon equivalent = 3.667 tons of carbon dioxide gas.
Source: Office of Energy Markets and End Use, Energy Information Administration.

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1991 - 2000

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
North America										
Canada	31.56	27.42	30.57	31.37	31.96	32.24	36.21	38.72	37.00	37.39
Mexico	3.94	4.42	4.54	4.70	5.32	6.14	6.66	6.84	6.30	6.35
United States	481.97	485.99	501.86	507.09	510.35	532.62	547.35	550.44	552.59	572.76
Total	**517.47**	**517.83**	**536.97**	**543.17**	**547.63**	**571.00**	**590.23**	**596.01**	**595.89**	**616.50**
Central & South America										
Argentina	0.70	0.80	0.69	1.11	0.97	0.94	0.97	0.97	0.81	0.92
Brazil	10.81	9.78	9.87	9.45	9.71	10.08	10.13	10.15	12.88	13.91
Chile	1.96	1.72	1.76	2.08	2.27	3.10	4.40	4.17	4.35	3.25
Colombia	3.18	3.59	3.69	3.20	2.66	2.77	3.39	3.46	2.67	2.88
Costa Rica	(s)	0.00	0.00	0.00	(s)	0.01	(s)	(s)	(s)	(s)
Cuba	0.08	0.05	0.06	0.08	0.07	0.01	0.03	0.03	0.03	0.03
Dominican Republic	0.14	0.13	0.16	0.04	0.06	0.07	0.07	0.17	0.15	0.06
Guatemala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.15
Haiti	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Honduras	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.06	0.09
Jamaica	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Panama	0.03	0.03	0.04	0.04	0.04	0.07	0.04	0.04	0.04	0.04
Peru	0.29	0.32	0.40	0.37	0.37	0.40	0.46	0.50	0.45	0.68
Puerto Rico	0.13	0.10	0.13	0.13	0.13	0.11	0.11	0.11	0.11	0.11
Uruguay	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Venezuela	(s)	(s)	0.03	0.05	(s)	0.14	0.04	1.00	0.80	0.31
Virgin Islands, U.S.	0.09	0.15	0.18	0.20	0.17	0.17	0.16	0.14	0.14	0.14
Other	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Total	**17.50**	**16.76**	**17.09**	**16.84**	**16.54**	**17.96**	**19.88**	**20.83**	**22.59**	**22.66**
Western Europe										
Austria	3.78	2.73	3.00	2.88	3.11	3.35	3.80	3.39	3.28	3.48
Belgium	10.19	7.97	8.32	8.93	9.33	8.75	9.07	8.99	7.80	8.61
Denmark	8.13	7.28	6.27	7.06	7.57	7.65	8.25	5.06	4.47	4.02
Finland	3.71	3.11	4.40	5.49	3.83	4.52	4.98	3.29	2.69	3.65
France	20.76	17.33	14.60	13.96	15.32	15.74	14.39	17.04	15.00	15.01
Germany	111.07	101.05	97.43	93.37	90.29	88.74	88.70	87.09	82.39	81.99
Greece	8.96	8.04	8.71	8.82	8.59	8.31	9.19	9.73	9.81	9.84
Iceland	0.07	0.05	0.05	0.07	0.06	0.07	0.06	0.07	0.06	0.11
Ireland	2.14	2.18	2.08	1.94	1.93	1.98	2.01	2.00	1.63	1.75
Italy	13.88	11.14	10.42	10.28	12.14	10.47	10.53	11.10	11.57	12.98
Luxembourg	1.23	1.13	1.30	1.05	0.58	0.54	0.36	0.11	0.11	0.12
Malta	0.20	0.16	0.18	0.18	0.18	0.21	0.20	0.20	0.20	0.20
Netherlands	9.58	8.58	9.62	10.30	10.28	9.90	12.76	12.76	11.23	13.32
Norway	0.85	0.74	0.91	1.06	1.09	1.08	1.16	1.21	1.19	1.09
Portugal	3.01	2.78	3.05	3.22	3.72	3.27	3.77	3.16	3.84	3.97
Spain	22.28	21.01	20.05	19.41	18.09	15.05	17.37	16.46	18.25	18.39
Sweden	2.37	1.89	2.40	2.53	2.51	2.36	2.46	2.27	2.20	2.22
Switzerland	0.29	0.11	0.11	0.11	0.17	0.10	0.08	0.07	0.06	0.20
Turkey	18.47	17.16	16.19	15.59	15.97	18.48	22.05	22.85	20.85	24.95
United Kingdom	66.24	58.29	54.26	49.64	44.04	43.47	40.97	38.44	35.10	37.74
Former Yugoslavia	22.62	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	0.43	0.32	0.32	0.36	0.37	0.40	0.41	0.43	0.38
Croatia	--	0.32	0.43	0.28	0.07	0.24	0.30	0.25	0.25	0.65
Macedonia, TFYR	--	1.58	1.63	1.68	1.74	1.72	1.79	2.03	1.86	1.80
Slovenia	--	1.67	1.58	1.44	1.66	1.75	1.83	1.82	1.54	1.51
Yugoslavia	--	9.51	9.01	9.26	6.57	9.91	9.44	10.25	7.80	8.04
Total	**329.82**	**286.24**	**276.32**	**268.84**	**259.19**	**258.02**	**265.92**	**260.03**	**243.61**	**256.03**

See footnotes at end of table.

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1991 - 2000 (Continued)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Eastern Europe & Former U.S.S.R.										
Albania	0.38	0.21	0.16	0.04	0.04	0.02	0.02	0.01	0.01	0.01
Bulgaria	9.32	9.45	8.71	7.95	7.82	8.38	9.57	9.52	8.48	8.89
Former Czechoslovakia	55.09	51.44	--	--	--	--	--	--	--	--
Czech Republic	--	--	23.32	20.58	21.29	22.88	22.03	18.09	15.71	17.73
Slovakia	--	--	5.93	5.38	5.08	5.64	5.17	4.54	4.95	4.72
Hungary	5.89	5.53	4.64	4.44	4.21	4.37	4.31	4.19	4.29	3.85
Poland	73.08	72.39	74.77	70.07	65.59	58.69	70.74	63.88	61.30	59.65
Romania	10.32	10.68	10.39	10.58	10.78	11.09	9.70	7.84	6.76	8.10
Former U.S.S.R.	256.78	--	--	--	--	--	--	--	--	--
Armenia	--	0.10	(s)	0.02	(s)	(s)	(s)	(s)	(s)	(s)
Azerbaijan	--	0.02	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Belarus	--	0.97	0.99	0.60	0.75	0.60	0.50	0.52	0.47	0.47
Estonia	--	0.62	0.44	0.44	0.24	0.35	0.38	0.34	0.47	0.37
Georgia	--	0.26	0.17	0.16	0.14	0.09	0.06	0.01	0.01	0.01
Kazakhstan	--	38.80	32.19	22.52	22.62	19.85	15.80	15.49	15.46	21.09
Kyrgyzstan	--	1.24	0.86	0.98	0.57	0.46	0.28	0.52	0.52	0.63
Latvia	--	0.58	0.31	0.26	0.17	0.11	0.11	0.07	0.07	0.07
Lithuania	--	0.66	0.24	0.41	0.18	0.20	0.17	0.16	0.10	0.10
Moldova	--	1.87	1.33	1.27	0.66	0.57	0.29	0.24	0.09	0.09
Russia	--	153.58	142.83	126.16	118.19	131.88	101.13	93.09	137.06	147.54
Tajikistan	--	0.15	0.19	0.10	0.05	0.06	0.06	0.05	0.06	0.06
Turkmenistan	--	0.36	0.32	0.32	0.16	0.05	0.03	0.00	0.00	0.00
Ukraine	--	69.33	62.67	49.98	57.38	49.67	45.62	45.81	48.82	48.41
Uzbekistan	--	2.22	1.63	1.66	1.29	1.22	1.07	1.12	1.11	1.11
Total	**410.87**	**420.46**	**372.11**	**323.93**	**317.22**	**316.17**	**287.04**	**265.46**	**305.74**	**322.90**
Middle East										
Cyprus	(s)	0.01	0.03	0.02	0.02	0.01	0.02	0.01	0.01	0.01
Iran	0.97	0.89	0.86	1.12	0.97	1.02	1.14	1.18	1.24	1.24
Israel	2.68	3.04	4.32	4.92	4.90	4.88	5.71	6.25	6.23	6.23
Other	0.01	(s)	0.08	0.08	0.13	0.14	0.13	0.13	0.13	0.14
Total	**3.66**	**3.95**	**5.29**	**6.15**	**6.02**	**6.05**	**7.01**	**7.58**	**7.61**	**7.62**
Africa										
Algeria	0.75	0.67	0.70	0.61	0.67	0.43	0.36	0.46	0.51	0.49
Botswana	0.48	0.55	0.54	0.55	0.63	0.52	0.51	0.60	0.61	0.62
Cameroon	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Congo (Kinshasa)	0.17	0.17	0.18	0.19	0.18	0.19	0.18	0.18	0.18	0.18
Egypt	0.81	0.72	0.87	0.83	0.54	0.95	1.02	1.11	1.12	1.13
Ghana	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Kenya	0.09	0.11	0.11	0.09	0.07	0.06	0.06	0.05	0.05	0.05
Libya	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Madagascar	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malawi	0.04	0.04	0.04	0.04	0.05	0.06	0.05	0.05	0.05	0.04
Mauritania	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Mauritius	0.04	0.04	0.05	0.03	0.04	0.04	0.04	0.04	0.04	0.04
Morocco	1.58	1.13	1.69	1.86	1.88	2.25	2.11	2.34	2.31	2.23
Mozambique	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.00
Namibia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	(s)	(s)
Niger	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.09	0.10	0.10
Nigeria	0.07	0.07	0.09	0.09	0.10	0.10	0.10	0.04	0.04	0.04
South Africa	69.67	69.75	71.36	71.19	78.19	73.48	89.74	94.23	85.62	86.12
Swaziland	0.08	0.07	0.03	0.12	0.11	0.09	0.09	0.17	0.19	0.19
Tanzania	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Tunisia	0.09	0.10	0.11	0.10	0.08	0.09	0.09	0.07	0.10	0.10
Zambia	0.21	0.27	0.22	0.10	0.08	0.08	0.05	0.12	0.11	0.11
Zimbabwe	3.47	3.68	3.37	3.64	3.58	3.04	2.58	2.65	2.57	2.70
Total	**77.76**	**77.54**	**79.55**	**79.62**	**86.39**	**81.55**	**97.15**	**102.27**	**93.62**	**94.16**

See footnotes at end of table.

Table H4 World Carbon Dioxide Emissions from the Consumption of Coal, 1991 - 2000 (Continued)

(Million Metric Tons Carbon Equivalent)

Region Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000 [1]
Asia & Oceania										
Afghanistan	0.06	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Australia	37.48	39.40	39.48	37.72	38.34	41.58	49.41	49.20	53.50	54.46
Bangladesh	0.13	0.11	0.03	0.03	0.03	0.18	0.33	0.10	0.05	0.05
Bhutan	0.01	0.04	0.04	0.05	0.06	0.06	0.06	0.04	0.04	0.04
Burma	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01
China	534.75	551.64	581.44	633.31	645.49	654.43	670.85	644.42	622.06	588.37
Fiji	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Hong Kong	5.87	5.70	6.25	4.47	4.81	4.53	3.64	4.53	4.07	3.89
India	105.26	116.63	123.15	125.34	155.90	152.83	153.18	151.96	154.77	166.24
Indonesia	4.11	4.95	5.78	7.07	7.23	9.89	8.46	9.36	7.28	7.35
Japan	67.82	65.81	66.40	68.72	72.16	74.13	80.58	77.90	80.88	87.60
Korea, North	66.78	68.16	70.81	70.13	69.46	68.78	64.94	61.66	62.23	62.80
Korea, South	26.49	24.94	30.03	31.37	35.41	31.00	33.15	34.02	32.63	39.91
Laos	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	0.00	0.00
Malaysia	1.44	1.62	1.41	1.65	1.67	2.15	1.57	1.72	1.42	2.20
Mongolia	2.07	1.65	1.50	1.38	1.42	1.38	1.25	1.28	1.26	1.20
Nepal	0.05	0.07	0.05	0.10	0.08	0.08	0.08	0.20	0.22	0.22
New Caledonia	0.10	0.10	0.14	0.13	0.13	0.11	0.11	0.11	0.11	0.11
New Zealand	1.18	1.39	1.34	1.18	1.18	1.06	1.04	0.77	0.92	0.89
Pakistan	2.09	2.22	2.31	2.45	2.27	2.53	2.21	2.11	2.21	2.23
Papua New Guinea	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Philippines	1.66	1.59	1.93	2.01	2.11	2.53	2.78	2.60	3.99	5.23
Singapore	0.02	0.02	0.03	0.04	0.04	(s)	(s)	(s)	0.00	0.00
Sri Lanka	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)	(s)
Taiwan	11.05	12.69	15.50	16.88	20.64	22.57	25.07	26.17	30.41	32.51
Thailand	4.50	4.58	4.92	5.56	9.91	9.72	9.31	7.52	8.10	8.54
Vietnam	2.54	2.55	3.55	3.52	4.82	4.11	3.99	3.53	3.71	3.60
Total	**875.49**	**905.93**	**956.14**	**1,013.16**	**1,073.23**	**1,083.70**	**1,112.05**	**1,079.22**	**1,069.89**	**1,067.47**
World Total	**2,232.56**	**2,228.71**	**2,243.46**	**2,251.71**	**2,306.22**	**2,334.44**	**2,379.27**	**2,331.40**	**2,338.94**	**2,387.34**

[1] Preliminary.

-- = Not applicable.

(s) = Value less than 5,000 metric tons.

Notes: Sum of components may not equal total due to independent rounding.

Tons of carbon equivalent can be converted to tons of carbon dioxide gas by multiplying by 3.667. One ton of carbon equivalent = 3.667 tons of carbon dioxide gas.

Source: Office of Energy Markets and End Use, Energy Information Administration.

Glossary

Glossary

Acid Rain: Also called acid precipitation or acid deposition, acid rain is precipitation containing harmful amounts of nitric and sulfuric acids formed primarily by nitrogen oxides and sulfur oxides released into the atmosphere when fossil fuels are burned. It can be wet precipitation (rain, snow, or fog) or dry precipitation (absorbed gaseous and particulate matter, aerosol particles, or dust). Acid rain has a pH below 5.6. Normal rain has a pH of 5.6, which is slightly acidic. The term pH is a measure of acidity or alkalinity and ranges from 0 to 14. A pH measurement of 7 is regarded as neutral Measurements below 7 indicate increased acidity, while those above 7 indicate increased alkalinity.

Acquisition (Foreign Crude Oil): All transfers of ownership of foreign crude oil to a firm, irrespective of the terms of that transfer. Acquisitions thus include all purchases and exchange receipts as well as any and all foreign crude acquired under reciprocal buy-sell agreements or acquired as a result of a buy-back or other preferential agreement with a host government.

Afforestation: Planting of new forests on lands that have not been recently forested.

Agglomerating Character: Agglomeration describes the caking properties of coal. Agglomerating character is determined by examination and testing of the residue when a small powdered sample is heated to 950 degrees Centigrade under specified conditions. If the sample is "agglomerating," the residue will be coherent, show swelling or cell structure, and be capable of supporting a 500-gram weight without pulverizing.

Alcohol: The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group,
CH_3-$(CH_2)_n$-OH. Included are methanol, ethanol, and tertiary butyl alcohol.

Alternating Current: An electric current that reverses its direction at regularly recurring intervals, usually 50 or 60 times per second.

Ampere: The unit of measurement of electrical current produced in a circuit of 1 volt acting through a resistance of 1 ohm.

Anaerobic Decomposition: The breakdown of molecules into simpler molecules or atoms by microorganisms that can survive in the partial or complete absence of oxygen.

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.

Anthracite Briquets: See **Coal Briquets**.

Anthropogenic: Made or generated by a human or caused by human activity. The term is used in the context of global climate change to refer to gaseous emissions that are the result of human activities, as well as other potentially climate-altering activities, such as deforestation.

API: The American Petroleum Institute, a trade association.

API Gravity: An arbitrary scale expressing the gravity or density of liquid petroleum products, as established by the American Petroleum Institute (API). The measuring scale is calibrated in terms of degrees API. The higher the API gravity, the lighter the compound. Light crude oils generally exceed 38 degrees API and heavy crude oils are commonly labeled as all crude oils with an API gravity of 22 degrees or below. Intermediate crude oils fall in the range of 22 degrees to 38 degrees API gravity.

Apparent Consumption (Coal): As used here, a calculated amount equal to primary coal production plus imports of coal and coke, minus exports of coal and coke minus changes in stocks of coal and coke. *Notes*: 1) For the United States, coal consumption data are reported by major end-use sector and do not have to be calculated;

2) A net withdrawal from stocks increases consumption and a net addition to stocks decreases consumption.

Apparent Consumption (Natural Gas): As used here, a calculated amount equal to dry natural gas production, plus imports of natural gas, minus exports of natural gas, minus changes in natural gas stocks. *Note*: A net withdrawal from stocks increases consumption and a net addition to stocks decreases consumption.

Apparent Consumption of Refined Petroleum Products: See **Apparent Consumption (Petroleum)**.

Apparent Consumption (Petroleum): As used here, a calculated amount that includes domestic inland consumption, refinery fuel and loss, and international bunker fuels. Also included, where available, are liquefied petroleum gases sold directly from natural gas processing plants for fuel or chemical uses.

Ash: Impurities consisting of silica, iron, alumina, and other incombustible matter that are contained in coal. Ash increases the weight of coal, adds to the cost of handling, and can affect the burning characteristics. Ash content is measured as a percent by weight of coal on an as-received basis (i.e., containing both inherent moisture and mineral matter) or a dry (moisture-free) basis.

Asphalt: A dark brown-to-black cement-like material obtained by petroleum processing and containing bitumens as the predominant component; used primarily for road construction. It 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. *Note:* The conversion factor for asphalt is 5.5 barrels per short ton.

Asphalt (Refined): See **Asphalt**.

Associated-Dissolved Natural Gas: Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as a gas in solution with crude oil (dissolved gas). See **Natural Gas**.

Associated Gas: See **Associated-Dissolved Natural Gas** and **Natural Gas.**

Associated Natural Gas: See **Associated-Dissolved Natural Gas** and **Natural Gas**.

ASTM: The American Society for Testing and Materials, a trade association.

Atmospheric Crude Oil Distillation Unit: See **Distillation Unit (Atmospheric)**.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding gasoline into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excluded are oxygenates (alcohols, ethers), butane, and pentanes plus.

Aviation Gasoline (Finished): 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. See **Jet Fuel; Kerosene-Type Jet Fuel;** and **Naphtha-Type Jet Fuel**.

Barrel: A unit of volume equal to 42 U.S. gallons.

Barrels per Calendar Day: The amount of input that a distillation facility can process under usual operating conditions. The amount is expressed in terms of capacity during a 24-hour period and reduces the maximum processing capability of all units at the facility under continuous operation (see **Barrels per Stream Day**) to account for the following limitations that may delay, interrupt, or slow down production:

1. the capability of downstream processing units to absorb the output of crude oil processing facilities of a given refinery. No reduction is necessary for intermediate streams that are distributed to other than downstream facilities as part of refinery's normal operation;

2. the types and grades of inputs to be processed;

3. the types and grades of products expected to be manufactured;

4. the environmental constraints associated with refinery operations;

5. the reduction of capacity for scheduled downtime due to such conditions as routine inspection, maintenance, repairs, and turnaround; and

6. the reduction of capacity for unscheduled downtime due to such conditions as mechanical problems, repairs, and slowdowns.

Barrels per Stream Day: The maximum number of barrels of input that a distillation facility can process within a 24-hour period when running at full capacity under optimal crude and product slate conditions with no allowance for downtime.

Biodiesel: A renewable fuel synthesized from soybeans, other oil crops, or animal tallow that can substitute for petroleum diesel fuel.

Biofuels: Liquid fuels and blending components produced from biomass (plant) feedstocks, used primarily for transportation.

Biogas: A medium Btu gas containing methane and carbon dioxide, produced from the anaerobic decomposition of organic material in a landfill. Also called biomass gas.

Biogenic: Produced by the actions of living organisms.

Biomass: Nonfossil material of biological origin constituting a renewable energy resource. Included in **Wood and Waste**.

Biomass Gas: See **Biogas**.

Biosphere: The portion of the Earth and its atmosphere that can support life. The part of the global carbon cycle that includes living organisms and biogenic organic matter.

Bitumen: A naturally occurring viscous mixture, mainly of hydrocarbons heavier than pentane, that may contain sulfur compounds and that, in its natural occurring viscous state, is not recoverable at a commercial rate through a well.

Bituminous Briquets: See **Coal Briquets**.

Bituminous Coal: A dense coal, usually black, sometimes dark brown, 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).

Black Liquor: A byproduct of the paper production process that can be used as a source of energy.

Boiler: A device for generating steam for power, processing, or heating purposes; or for producing hot water for heating purposes or hot water supply. Heat from an external combustion source is transmitted to a fluid contained within the tubes in the boiler shell. This fluid is delivered to an end-use at a desired pressure, temperature, and quality.

Briquetting Plant: A facility where coal is converted into coal briquets. See **Coal Briquets**.

British Thermal Unit (Btu): See **Btu (British Thermal Unit)**.

Btu (British Thermal Unit): A standard unit for measuring the quantity of heat energy equal to the quantity of heat needed to raise the temperature of 1 pound of water by 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit. The Btu is a convenient measure by which to compare the energy content of various fuels. See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Bunker Fuels: Fuel supplied to ships and aircraft, both domestic and foreign, consisting primarily of residual and distillate fuel oil for ships and kerosene-type jet fuel for aircraft. The term "international bunker fuels" is used to denote the consumption of fuel for international transport activities. *Notes*: 1) For the purposes of greenhouse gas emissions inventories, data on emissions from combustion of international bunker fuels are subtracted from national emissions totals. However, because it was often difficult to separate out international bunker fuels, this adjustment was not made in estimating the carbon dioxide emissions that appear here. 2) Historically, bunker fuels have meant only ship fuel. See **Vessel Bunkering**.

Bunkers: See **Bunker Fuels**.

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 conforms to ASTM Specification D 1835 and Gas Processors Association Specifications for commercial butane.

Butylene: An olefinic hydrocarbon (C_4H_8) recovered from refinery processes.

Carbon Budget: The balance of the exchanges (incomes) and losses) of carbon between carbon sinks (e.g., atmosphere and biosphere) in the carbon cycle. See **Carbon Cycle** and **Carbon Sink**.

Carbon Cycle: All carbon sinks and exchanges of carbon from one sink to another by various chemical, physical, geological, and biological processes. See **Carbon Sink** and **Carbon Budget**.

Carbon Dioxide (CO_2): A colorless, odorless, non-poisonous gas that is a normal part of Earth's atmosphere. Carbon dioxide is a product of fossil-fuel combustion as well as other processes. It is considered a greenhouse gas as it traps heat (infrared energy) radiated

by the Earth into the atmosphere and thereby contributes to the potential for global warming. The global warming potential (GWP) of other greenhouse gases is measured in relation to that of carbon dioxide, which by international scientific convention is assigned a value of one (1). See **Global Warming Potential (GWP)** and **Greenhouse Gases**.

Carbon Dioxide Equivalent: The amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas. Carbon dioxide equivalents are computed by multiplying the weight of the gas being measured (for example, methane) by its estimated global warming potential (which is 21 for methane). "Carbon equivalent units" are defined as carbon dioxide equivalents multiplied by the carbon content of carbon dioxide (i.e., 12/44).

Carbon Intensity: The amount of carbon by weight emitted per unit of energy consumed. A common measure of carbon intensity is weight of carbon per British thermal unit (Btu) of energy. When there is only one fossil fuel under consideration, the carbon intensity and the emissions coefficient are identical. When there are several fuels, carbon intensity is based on their combined emissions coefficients weighted by their energy consumption levels. See **Emissions Coefficient** and **Carbon Output Rate**.

Carbon Output Rate: The amount of carbon by weight per kilowatthour of electricity produced.

Carbon Sequestration: The fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

Carbon Sink: A reservoir that absorbs or takes up released carbon from another part of the carbon cycle. The four sinks, which are regions of the Earth within which carbon behaves in a systematic manner, are the atmosphere, terrestrial biosphere (usually including freshwater systems), oceans, and sediments (including fossil fuels).

Catalytic Cracking: The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Catalytic Reforming: A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline.

C.I.F. (Cost, Insurance and Freight): A sales transaction in which the seller pays for the transportation and insurance of the goods up to the port of destination specified by the buyer.

Circuit: A conductor or a system of conductors through which electric current flows.

Climate: The average course or condition of the weather over a period of years as exhibited by temperature, humidity, wind velocity, and precipitation.

Climate Change: A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, "climate change" has been used synonymously with the term "global warming"; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

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. See **Coal Rank**.

Coalbed: A bed or stratum of coal. Also called a coal seam.

Coalbed Methane: Methane produced from coalbeds in the same way that natural gas is produced from other strata. See **Methane**.

Coal Briquets: Anthracite, bituminous, and lignite briquets are secondary solid fuels manufactured from coal by a process in which the coal is partly dried, warmed to expel excess moisture, and then compressed into briquets, usually without the use of a binding substance.

Coal Coke: See **Coke (Coal)**.

Coal Production: The sum of sales, mine consumption, issues to miners, and issues to coke, briquetting, and other ancillary plants at mines. Production data include quantities extracted from surface and underground mines, and normally exclude wastes removed at mines or associated preparation plants.

Coal Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the United States, the standard 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 Stocks: Coal quantities that are held in storage for future use and disposition. *Note:* When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of this period.

Cogeneration: The production of electrical energy and another form of useful energy (such as heat or steam) through the sequential use of energy.

Cogenerator: A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes. See **Electric Utility** and **Nonutility Power Producer.**

Coke (Coal): 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 from coal is grey, hard, and porous and has a heating value of 24.8 million Btu per ton.

Coke Oven Gas: The gaseous portion of volatile substances driven off in the coking process after other coal chemicals are removed.

Coke (Petroleum): 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. The conversion is 5 barrels (of 42 U.S. gallons each) per short ton. Coke from petroleum has a heating value of 6.024 million Btu per barrel.

Coke Plant: A plant where coal is carbonized in slot or beehive ovens for the manufacture of coke.

Coking Coal: Bituminous coal suitable for making coke. See **Coke (Coal)**.

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. Such designs increase the efficiency of the electric generating unit.

Combined Cycle Unit: An electric generating unit that consists of one or more combustion turbines and one or more boilers with a portion of the required energy input to the boiler(s) provided by the exhaust gas of the combustion turbine(s).

Combined Pumped-Storage Electric Power Plant: A pumped-storage hydroelectric power plant that uses both pumped water and natural stream flow to produce electricity. See **Pumped-Storage Hydroelectric Power Plant** and **Pure Pumped-Storage Hydroelectric Power Plant**.

Combustion: Chemical oxidation accompanied by the generation of light and heat.

Completion: Installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion. See **Well**.

Conference of the Parties (COP): The collection of nations that have ratified the Framework Convention on Climate Change (FCCC). The primary role of the COP is to keep implementation of the FCCC under review and make the decisions necessary for its effective implementation. See **Framework Convention on Climate Change (FCCC)**.

Consumption: See **Energy Consumption**.

Conventional Gasoline: Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock. See **Motor Gasoline (Finished)**.

Conventional Mill (Uranium): A facility engineered and built principally for processing of uraniferous ore materials mined from the earth and the recovery, by chemical treatment in the mill's circuits, of uranium and/or other valued coproduct components from the processed one.

Conventional Thermal Electricity Generation: Electricity generated by an electric power plant using coal, petroleum, or gas as its source of energy.

Conversion Factor: A number that translates units of one measurement system into corresponding values of another measurement system. (Thermal conversion factors or heat contents or heat values can be used to translate physical units of measure for various fuels into

Btu equivalents.) *Note*: For specific conversion factors, see EIA data products.

COP: See **Conference of the Parties (COP)**.

Cost, Insurance and Freight: See **C.I.F. (Cost, Insurance and Freight)**.

Cracking: The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. See **Catalytic Cracking** and **Thermal Cracking**.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include:

1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included;

2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals;

3. Drip gases, and liquid hydrocarbons produced from tar sands, Gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel, and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

Crude Oil (including Lease Condensate): See **Crude Oil.**

Crude Oil Landed Cost: The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

Crude Oil Less Lease Condensate: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Such hydrocarbons as lease condensate and natural gasoline recovered as liquids from natural gas wells in lease or field separation facilities and later mixed into the crude stream are excluded. Depending upon the characteristics of the crude stream, crude oil may also include:

1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured;
2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals.

Crude Oil Production: The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with, adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water.

Cubic Foot (cf), Natural Gas: The amount of natural gas contained at standard temperature and pressure (60 degrees Fahrenheit and 14.73 pounds standard per square inch) in a cube whose edges are one foot long.

Cull Wood: Wood logs, chips, or wood products that are burned.

Current (Electric): A flow of electrons in an electrical conductor. The strength or rate of movement of the electricity is measured in amperes.

Cycling: The practice of producing natural gas for the extraction of natural gas liquids, returning the dry residue to the producing reservoir to maintain reservoir pressure and increase the ultimate recovery of natural gas liquids.

Cycling Plants: See **Natural Gas Processing Plants**.

Czechoslovakia: Country that split into two separate countries—the Czech Republic and Slovakia—on January 1, 1993.

Deforestation: The net removal of trees from forested land.

Delayed Coking: A process by which heavier crude oil fractions can be thermally decomposed under conditions

of elevated temperature and pressure to produce a mixture of lighter oils and petroleum coke.

Demand: See **Energy Demand.**

Demand (Electric): See **Electricity Demand**.

Demonstrated Reserves: See **Energy Reserves**.

Development Well: A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

Direct Current: An electric current that flows in a constant direction. The magnitude of the current does not vary or has a slight variation.

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.

1. **No. 1 Distillate:** A light petroleum distillate that can be used as either a diesel fuel (**see No. 1 Diesel Fuel**) or a fuel oil (see **No. 1 Fuel Oil**).

    a. **No. 1 Diesel Fuel:** A light distillate fuel oil that has distillation temperatures of 550 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines, such as those in city buses and similar vehicles.

    b. **No. 1 Fuel Oil:** A light distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used primarily as fuel for portable outdoor stoves and portable outdoor heaters.

2. **No. 2 Distillate:** A petroleum distillate that can be used either as a diesel fuel (see **No. 2 Diesel Fuel**) or a fuel oil (see **No. 2 Fuel Oil**).

    a. **No. 2 Diesel Fuel:** A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines, such as those in railroad locomotives, trucks, and automobiles.

        i. **Low Sulfur No.2 Diesel Fuel:** No. 2 diesel fuel that has a sulfur level no higher than 0.05 percent by weight. It is used primarily in motor vehicle diesel engines for on-highway use.

        ii. **High Sulfur No. 2 Diesel Fuel:** No. 2 diesel fuel that has a sulfur level above 0.05 percent by weight.

    b. **No. 2 Fuel Oil (Heating Oil):** A distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing-type burners for domestic heating or for moderate capacity commercial/industrial burner units.

3. **No. 4 Fuel:** A distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It conforms to ASTM Specification D 396 or Federal Specification VV-F-815C and is used extensively in industrial plants and in commercial burner installations that are not equipped with preheating facilities. It also includes No. 4 diesel fuel used for low- and medium-speed diesel engines and conforms to ASTM Specification D 975.

    a. **No. 4 Diesel Fuel:** See **No. 4 Fuel**.

    b. **No. 4 Fuel Oil:** See **No. 4 Fuel**.

Distillation Unit (Atmospheric): The primary distillation unit that processes crude oil (including mixtures of other hydrocarbons) at approximately atmospheric conditions. It includes a pipe still for vaporizing the crude oil and a fractionation tower for separating the vaporized hydrocarbon components in the crude oil into fractions with different boiling ranges. This is done by continuously vaporizing and condensing the components to separate higher boiling point material.

The selected boiling ranges are set by the processing scheme, the properties of the crude oil,, and the product specifications.

Distribution: The delivery of energy to retail customers.

Distribution System: The portion of an electric system that is dedicated to delivering electric energy to an end user.

Domestic Inland Consumption (Petroleum): The sum of all refined petroleum products supplied for domestic use (excludes international bunker fuels). Consumption is calculated product-by-product by adding production, imports, and crude oil burned directly, and then subtracting exports and changes in primary stocks. *Note*: A net withdrawal from primary stocks increases consumption and a net addition to primary stocks decreases consumption.

Dry (Coal) Basis: Coal quality data calculated to a theoretical basis in which no moisture is associated with the sample. This basis is determined by measuring the weight loss of a sample when its inherent moisture is driven off under controlled conditions of low temperature air-drying followed by heating to just above the boiling point of water (104 to 110 degrees centigrade).

Dry Gas: See **Dry Natural Gas**.

Dry Hole: An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Dry Natural Gas: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. *Note:* Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute. See **Natural Gas**.

Dry Natural Gas Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include (1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and (2) gas vented and flared. Processing losses include (1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and (2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

Dry Production: See **Dry Natural Gas Production**.

Dual Fired Unit: A generating unit that can produce electricity using two or more input fuels. In some of these units, only the primary fuel can be used continuously; the alternate fuel(s) can be used only as a start-up fuel or in emergencies.

Electrical Generating Capacity: See **Generator Capacity**.

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

Electricity Capacity: The maximum load of electric power, commonly expressed in megawatts (MW), by which generators, turbines, transformers, transmission circuits, stations, or systems are rated.

Electricity Demand: The rate at which energy is delivered to loads and scheduling points by generation, transmission, and distribution facilities.

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).

Electricity Generation, Gross: See **Gross Generation**.

Electricity Generation, Net: See **Net Generation**.

Electricity Installed Capacity: See **Generator Nameplate Capacity (Installed)**.

Electric Plant (Physical): See **Electric Power Plant**.

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

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

Electric System: Physically connected generation, transmission, and distribution facilities operated as an integrated unit under one central management, or operating supervision.

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 for use primarily by the public. Utilities provide electricity within a designated franchised service area and file forms listed in the Code of Federal Regulations, Title 18, Part 141. *Note:* Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act (PURPA) are not considered electric utilities. See **Nonutility Power Producer.**

Emissions: Anthropogenic releases of gases to the atmosphere. In the context of global climate change, they consist of radiatively important greenhouse gases (e.g., the release of carbon dioxide during fuel combustion). See **Greenhouse Gases**.

Emissions Coefficient: A unique value for scaling emissions to activity data in terms of a standard rate of emissions per unit of activity (e.g., pounds of carbon dioxide emitted per British thermal unit (Btu) of fossil fuel consumed.)

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 a raw material input to a manufacturing process.

Energy Demand: The requirement for energy as an input to provide products and/or services.

Energy Loss (Power): See **Power Loss**.

Energy Production: See production terms associated with specific energy types.

Energy Reserves: Estimated quantities of energy sources that are demonstrated to exist with reasonable certainty on the basis of geologic and engineering data (proved reserves) or that can reasonably be expected to exist on the basis of geologic evidence that supports projections from proved reserves (probable/indicated reserves). Knowledge of the location, quantity, and grade of probable/indicated reserves is generally incomplete or much less certain that it is for proved energy reserves. *Note*: This term is equivalent to "Demonstrated Reserves" as defined in the resource/reserve classification contained in the U.S. Geological Survey Circular 831, 1980. Demonstrated reserves include measured and indicated reserves but exclude inferred reserves.

Energy Source: Any substance or natural phenomenon that can be consumed or transformed to supply heat or power. Included are petroleum, coal, natural gas, nuclear, wood and waste, electricity, wind, sunlight, geothermal, and water movement.

Energy Supply: Energy made available for future disposition. Supply can be considered and measured from the point of view of the energy provider or the receiver.

Enriched Uranium: Uranium in which the ^{235}U isotope concentration has been increased to greater than the 0.711 percent ^{235}U (by weight) present in natural uranium.

Enrichment Services: See **Separative Work Units**.

ETBE: See **Ethyl Tertiary Butyl Ether (ETBE)**.

Ethane: A normally gaseous straight-chain hydrocarbon, (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48 degrees Fahrenheit. It is extracted from natural gas and refinery gas streams.

Ether: A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes. Ethylene is used as a petrochemical feedstock for numerous chemical applications and the production of consumer goods.

Ethyl Tertiary Butyl Ether (ETBE): A colorless, flammable, oxygenated hydrocarbon blend stock. See **Oxygenates**.

EU: See **European Union (EU)**.

European Union (EU): Current members are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal,, Spain, Sweden, and United Kingdom.

Exploratory Well: A hole drilled: a) to find and produce oil or gas in an area previously considered unproductive; b) to find a new reservoir in a field previously found to be producing oil or gas from another reservoir; or c) to extend the limit of a known oil or gas reservoir.

Exports (U.S.): Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries See **United States (U.S.)**.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

Fabricated Fuel: Fuel assemblies composed of an array of fuel rods loaded with pellets of enriched uranium dioxide.

Fahrenheit: A temperature scale on which the boiling point of water is at 212 degrees above zero on the scale and the freezing point is at 32 degrees above zero at standard atmospheric pressure.

F.A.S. Value (Free Alongside Ship Value): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation in the country of exportation.

FCCC: See **Framework Convention on Climate Change (FCCC)**.

Field Separation Facility: A surface installation designed to recover lease condensate from a produced natural gas stream usually originating from more than one lease and managed by the operator of one or more these leases.

Fixed Carbon: The nonvolatile matter in coal minus the ash. Fixed carbon is the solid residue other than ash obtained by prescribed methods of destructive distillation of a coal. Fixed carbon is the part of the total carbon that remains when coal is heated in a closed vessel until all volatile matter is driven off.

Flared: Gas disposed of by burning in flares usually at the production sites or at gas processing plants.

Flared Natural Gas: See **Flared**.

Flexicoking: A thermal cracking process that converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any hydrocarbons, including those containing high concentrations of sulfur and metals.

Fluid Coking: A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade, oils into lighter products.

F.O.B. (Free On Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

Former Czechoslovakia: See **Czechoslovakia**.

Former U.S.S.R.: See **U.S.S.R.**

Former Yugoslavia: See **Socialist Federal Republic of Yugoslavia**.

Fossil Fuel: An energy source formed in the Earth's crust from decayed organic material. The common fossil fuels are petroleum, coal, and natural gas.

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.

Fossil-Fuel Electric Generation: Electric generation in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Fractionation: The process by which saturated hydrocarbons are removed from natural gas and separated into distinct products, or "fractions," such as propane, butane, and ethane.

Framework Convention on Climate Change (FCCC): An agreement opened for signature at the "Earth Summit" in Rio de Janeiro, Brazil, on June 4, 1992, which has the goal of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent significant anthropogenically forced climate change. See **Climate Change**.

Free On Board: See **F.O.B. (Free On Board).**

Fuel: Any material substance that can be consumed to supply heat or power. Included are petroleum, coal, and natural gas (the fossil fuels) and other consumable materials, such as uranium, biomass, and hydrogen. See **Energy Source**.

Fuel Cells: One or more cells capable of generating an electrical current by converting the chemical energy of a fuel directly into electrical energy. Fuel cells differ from conventional electrical cells in that the active materials such as fuel and oxygen are not contained within the cell but are supplied from outside.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C_2H_5OH) intended for motor gasoline blending. See **Oxygenates**.

Fuelwood: See **Wood Energy**.

Futures Market: A trade center for quoting prices on contracts for the delivery of a specified quantity of a commodity at a specified time and place in the future.

Gas Condensate Well: A gas well that produces from a gas reservoir containing considerable quantities of liquid hydrocarbons in the pentane and heavier range generally described as "condensate." See **Lease Condensate**.

Gas (Electric): A fuel burned under boilers and by internal combustion engines for electric generation. These include natural gas, manufactured gas, and waste gas.

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. See **Motor Gasoline (Finished)** and **Oxygenated Gasoline**.

Gas Oil: European and Asian designation for No. 2 heating oil and No. 2 diesel fuel.

Gasoline: See **Motor Gasoline (Finished)**.

Gasoline Blending: See **Motor Gasoline Blending**.

Gasoline Grades: The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three grades - Regular, Midgrade, and Premium. *Note:* Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

1. **Regular Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. *Note:* Octane requirements may vary by altitude.

2. **Midgrade Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. *Note:* Octane requirements may vary by altitude.

3. **Premium Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than 90. *Note:* Octane requirements may vary by altitude.

Gas to Liquids (GTLs): A process that combines the carbon and hydrogen elements in natural gas molecules to make synthetic liquid petroleum products, such as diesel fuel.

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 and one or more combustion chambers where liquid or gaseous fuel is burned. The hot gases expand to drive the generator and then are used to run the compressor.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

GDP: See **Gross Domestic Product (GDP)**.

Generating Facility: An existing or planned location or site at which electricity is or will be produced.

Generating Unit: Any combination of physically connected generator(s), reactor(s), boiler(s), combustion turbine(s), or other prime mover(s) operated together to produce electric power.

Generation (Electricity): See **Electricity Generation**.

Generator: A machine that converts mechanical energy into electrical energy.

Generator Capacity: The maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, adjusted for ambient conditions.

Generator Nameplate Capacity (Installed): The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.

Geothermal: Pertaining to heat within the Earth.

Geothermal Electric Power Generation: Electricity derived from heat found under the Earth's surface. Within the Earth, there are vast amounts of molten rock and metal, covered by succeeding layers of cooler material, up to the crust of the Earth's surface. Underground rivers generate steam that is liberated in the form of geysers through fissures in the Earth's surface.

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the Earth's crust. Water or stream extracted from geothermal reservoirs can be used for geothermal heat pumps, water heating, or electricity generation.

Geothermal Plant: A plant in which the prime mover is a steam turbine. The turbine is driven either by steam produced from hot water or by natural steam that derives its energy from heat found in rocks or fluids at various depths beneath the surface of the Earth. The fluids are extracted by drilling and /or pumping.

Giga: One billion (10^9).

Gigawatt (GW): One billion (10^9) watts. See **Watt**.

Gigawatthour (GWh): One billion (10^9) watthours. See **Watthour**.

Gilsonite: Trademark name for uintaite (or uintahite), a black, brilliantly lustrous natural variety of asphalt, found in parts of Utah and western Colorado.

Global Climate Change: See **Climate Change**.

Global Warming: An increase in the near surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased anthropogenic emissions of greenhouse gases. See **Climate Change**.

Global Warming Potential (GWP): An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ration of the radiative forcing that would result from the emission of one kilogram of a greenhouse gas to that from the emission of one kilogram of carbon dioxide over a fixed period of time, such as 100 years.

Greenhouse Effect: The result of water vapor, carbon dioxide, and other atmospheric gases trapping radiant (infrared) energy, thereby keeping the Earth's surface warmer than it would otherwise be. Greenhouse gases within the lower levels of the atmosphere trap this radiation, which would otherwise escape into space, and subsequent re-radiation of some of this energy back to the Earth maintains higher surface temperatures than would occur if the gases were absent. See **Greenhouse Gases**.

Greenhouse Gases: Those gases, such as water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

Grid: The layout of an electrical distribution system.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in a country. As long as the labor and property are located in the country, the supplier (that is, the workers and for property, the owners) may be either residents of that country or residents of foreign countries.

Gross Electricity Generation: See **Gross Generation**.

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

Gross Heat Content of a Quantity of Fuel: See **Heat Content of a Quantity of Fuel, Gross**.

Gross Input to Atmospheric Crude Oil Distillation Units: Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons produced from tar sands, Gilsonite, and oil shale. See **Distillation Unit (Atmospheric)**.

Gross Production, Natural Gas: See **Gross Withdrawals, Natural Gas**.

Gross Withdrawals, Natural Gas: Full well-stream volume of produced natural gas, including all natural gas plant liquids and all nonhydrocarbon gases, but excluding lease condensate.

GW: See **Gigawatt**.

GWh: See **Gigawatthour.**

Heap Leach Solutions: The separation, or dissolving-out, from mined rock of the soluble uranium constituents by the natural action of percolating a prepared chemical solution through mounded (heaped) rock material. The mounded material usually contains low grade mineralized material and/or waste rock produced from openpit or underground mines The solutions are collected after percolation is completed and processed to recover the valued component.

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. Gross heat content is also referred to as the higher heating value. Btu conversion factors typically used by the Energy Information Administration 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. Net heat content is also referred to as the lower heating value. Btu conversion factors typically used by the Energy Information Administration represent gross heat content.

Heating Value: See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Heavy Gas Oils: Petroleum distillates with an approximate boiling range from 651 degrees Fahrenheit to 1000 degrees Fahrenheit.

HFCs: See **Hydrofluorocarbons**.

High Sulfur No. 2 Diesel Fuel: No. 2 diesel fuel that has a sulfur level above 0.05 percent by weight.

High-Temperature Collector: See **Solar Thermal Collector, High-Temperature**.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in either gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (e.g., methane, a constituent of natural gas) to the very heavy and very complex.

Hydroelectric Power: The production of electricity from the kinetic energy of falling water..

Hydroelectric Power Generation: Electricity generated by an electric power plant whose turbines are driven by falling water. It includes electric utility and industrial generation of hydroelectricity, unless otherwise specified. Generation is reported on a net basis, i. e., on the amount of electric energy generated after the electric energy consumed by station auxiliaries and the losses in the transformers that are considered integral parts of the station are deducted.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

Hydroelectric Pumped Storage: Hydroelectricity that is generated during peak loads by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

Hydrofluorocarbons (HFCs): A group of man-made chemicals composed of one or two carbon atoms and varying numbers of hydrogen and fluorine atoms. Most HFCs have 100-year Global Warming Potentials in the thousands.

Hydrogen: A colorless, odorless, highly flammable gaseous element. It is the lightest of all gases and the most abundant element in the universe, occurring chiefly in combination with oxygen in water and also in acids, bases, alcohols, petroleum, and other hydrocarbons.

IEA: See **International Energy Agency (IEA)**.

Imports (U.S.): Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries. See **United States (U.S.)**.

Improved Recovery: Extraction of crude oil or natural gas by any method other than those that rely primarily on natural reservoir pressure, gas lift, or a system of pumps.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality which is a wholesale electricity producer that operates within the franchised service territory of a host electric utility and is usually authorized to sell at market-based rates. Unlike traditional electric utilities, independent power producers do not possess transmission facilities, unless authorized by law, nor do they sell electricity in the retail market. Independent power producers are considered to be nonutility power producers. See **Electric Utility** and **Nonutility Power Producer.**

Indicated Recoverable Reserves, Coal: See **Probable (Indicated) Reserves, Coal**.

Indicated Reserves: See **Probable Energy Reserves**.

In Situ Leach Mining (ISL): The recovery, by chemical leaching, of the valuable components of an orebody without physical extraction of the ore from the ground. Also referred to as “solution mining.”

Intergovernmental Panel on Climate Change (IPCC): A panel established jointly in 1988 by the World Meteorological Organization and the United Nations

Environment Program to assess the scientific information relating to climate change and to formulate realistic response strategies.

Internal Combustion Electric Power Plant: A plant in which the prime mover is an internal combustion engine. An internal combustion engine has one or more cylinders in which the process of combustion takes place, converting energy released from the rapid burning of a fuel-air mixture into mechanical energy. Diesel or gas-fired engines are the principal types used in electric plants. The plant is usually operated during periods of high demand for electricity.

International Bunker Fuels: See **Bunker Fuels**.

International Energy Agency (IEA): Current members are: Australia, Austria, Belgium, Canada, Czech Republic, Denmark Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal,, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. *Note*: Data for Guam, the former Hawaiian Trade Zone, Puerto Rico, and the U.S. Virgin Islands (usually listed here as Virgin Islands, U.S.) are included in the IEA-related data reported here.

Isopentane: A saturated branched-chain hydrocarbon (C_5H_{12}) obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Joule: The meter-kilogram-second unit of work or energy, equal to the work done by a force of one newton when its point of application moves through a distance of one meter in the direction of the force; equivalent to 10^7 ergs and one watt-second.

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 **Kerosene-Type Jet Fuel**.

Kerosene-Type Jet Fuel: A kerosene-based product having 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-8133D (Grades JP-5 and JP-8). It is used for commercial and military turbojet and turboprop aircraft engines.

Kilowatt (kW): One thousand (10^3) watts. See **Watt**.

Kilowatthour (kWh): One thousand (10^3) watthours. See **Watthou**r.

kW: See **Kilowatt (kW)**.

kWh: See **Kilowatthour (kWh).**

Kyoto Protocol: The result of negotiations at the third Conference of the Parties (COP-3) in Kyoto, Japan, in December 1997. The Kyoto Protocol sets binding greenhouse gas emissions targets for countries that sign and ratify the agreement. The gases covered under the Protocol include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride.

Landed Cost (Crude Oil): See **Crude Oil Landed Cost**.

Lease Condensate: A mixture consisting primarily of pentanes and heavier hydrocarbons which is recovered as a liquid from natural gas in lease separation facilities. This category excludes natural gas plant liquids, such as butane and propane, which are recovered at downstream natural gas processing plants or facilities.

Lease Separation Facility (Lease Separator): A facility installed at the surface for the purpose of (a) separating gases from produced crude oil and water at the temperature and pressure conditions set by the separator and/or (b) separating gases from that portion of the produced natural gas stream that liquefies at the temperature and pressure conditions set by the separator.

Light Gas Oils: Light petroleum distillates heavier than naphtha, with an approximate boiling range of 401 degrees Fahrenheit to 650 degrees Fahrenheit.

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 13 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Lignite Briquets: See **Coal Briquets**.

Liquefied Natural Gas (LNG): Natural gas (primarily methane) that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure. (The volume of the LNG is 1/600 that of the gas in its vapor state.)

Liquefied Petroleum Gases (LPG): A group of hydrogen-based gases derived from crude oil refining or natural gas fractionation. They include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane, and isobutylene. For convenience of transportation, these gases are liquefied through pressurization.

Liquefied Refinery Gases (LRG): Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained hi the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture, which is reported as petrochemical feedstock, and also excludes liquefied petroleum gases intended for blending into gasoline, which are reported as gasoline blending components.

Liquid Collector: A medium-temperature solar thermal collector, employed predominately in water heating, which uses pumped liquid as the heat transfer mechanism. See **Solar Thermal Collector, Medium-Temperature**.

LNG: See **Liquefied Natural Gas (LNG)**.

Load (Electric): The amount of electric power delivered or required at any specific point or points on an electric system. The requirement originates at the energy-consuming equipment of the consumers.

Low Sulfur No. 2 Diesel Fuel: No. 2 diesel fuel that has a sulfur level no higher than 0.05 percent by weight. It is used primarily in motor vehicle diesel engines for on-highway use.

Low-Temperature Collector: See **Solar Thermal Collector, Low-Temperature**.

LPG: See **Liquefied Petroleum Gases**.

LRG: See **Liquefied Refinery Gases**.

Lubricants: Substances used to reduce friction between bearing surfaces, or incorporated into other materials used as processing aids in the manufacture of other products, or used as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Lubricants include all grades of lubricating oils, from spindle oil to cylinder oil to those used in greases.

Manufactured Gas: A gas obtained by destructive distillation of coal, or by thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke. Examples are coal gases, coke oven gases, producer gas, blast furnace gas, blue (water) gas, and carbureted water gas

Market-Based Pricing: Prices of electric power or other forms of energy determined in an open market system of supply and demand under which prices are set solely by agreements as to what buyers will pay and sellers will accept. Such prices could recover less or more than full costs, depending upon what the buyer and seller see as their relevant opportunities and risks.

Marketed Production, Natural Gas: Gross withdrawals of natural gas from reservoirs less gas used for reinjection into reservoirs for repressuring, gas that is vented and flared, and nonhydrocarbon gases removed in treating or processing operations.

Measured Recoverable Reserves, Coal: See **Proved (Measured) Reserves, Coal** and **Proved Recoverable Reserves, Coal**.

Measured Reserves: See **Proved Energy Reserves**.

Medium-Temperature Collector: See **Solar Thermal Collector, Medium-Temperature**.

Megawatt (MW): One million (10^6) watts of electricity. See **Watt**.

Megawatthour (MWh): One million (10^6) watthours. See **Watthour**.

Metallurgical Coal: Coking coal and pulverized coal consumed in making steel.

Metallurgical Coke: A strong, hard coke produced mainly for use in the iron and steel industry, where it serves as a chemical agent and source of energy. It is used mainly in blast furnaces to absorb the oxygen contained in iron oxides and provide energy for smelting. A portion of its potential energy is captured in the gases generated in the smelting process, then recycled in the form of blast furnace gas to provide additional energy inside or outside the smelting process. Metallurgical coke is also used to some extent as a domestic fuel and as a raw material for the manufacture of gas. See **Coke (Coal)**.

Methane (CH_4): A hydrocarbon gas that is the principal constituent of natural gas. Methane has a 100-year Global Warming Potential of 21.

Methanol: A light alcohol that can be used for motor gasoline blending. See **Oxygenates**.

Methyl Tertiary Butyl Ether (MTBE): A colorless, flammable, liquid oxygenated hydrocarbon containing 18.15 percent oxygen. See **Oxygenates**.

Metric Ton: A unit of weight equal to 2,204.6 pounds.

Midgrade Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. *Note:* Octane requirements may vary by altitude. See **Gasoline Grades**.

Milling of Uranium: The processing of uranium from ore mined by conventional methods, such as underground or openpit, to separate the uranium from the undesired material in the ore.

Million Btu: One million **(**10^6) British thermal units (Btu). See **British Thermal Unit (Btu)**.

Mineral-Matter-Free Basis: Mineral matter in coal is the parent material in coal from which ash is derived. It comes from minerals present in the original plant materials that formed the coal or from extraneous sources such as sediments and precipitates from mineralized water. Mineral matter in coal cannot be analytically determined and is commonly calculated using data on ash and ash-forming constituents. Coal analyses are calculated to the mineral-matter-free basis by adjusting formulas used in calculations in order to deduct the weight of mineral matter from the total coal.

Moist (Coal) Basis: "Moist" coal contains its natural inherent or bed moisture, but does not include water adhering to the surface. Coal analyses expressed on a moist basis are performed or adjusted so as to describe the data when the coal contains only that moisture which exists in the bed in its natural state of deposition, and when the coal has not lost any moisture due to drying.

Motor Gasoline Blending: Mechanical mixing of motor gasoline blending components, and oxygenates when required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor 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. *Note:* Oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogen, and oxygenates.

Motor Gasoline, Conventional: See **Conventional Gasoline**.

Motor Gasoline (Finished): 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 degrees to 158 degrees Fahrenheit at the 10-percent recovery point to 365 degrees 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.

1. **Conventional Gasoline:** Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

2. **Oxygenated Gasoline:** Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. See **Nonattainment Area**. *Note:* Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

3. **Reformulated Gasoline:** Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. *Note:* This category includes oxygenated fuels program

reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Grades: See **Gasoline Grades**.

Motor Gasoline, Oxygenated: See **Oxygenated Gasoline**.

Motor Gasoline, Reformulated: See **Reformulated Gasoline**.

MTBE: See **Methyl Tertiary Butyl Ether**.

Municipal Solid Waste: Residential solid waste and some nonhazardous commercial, institutional, and industrial wastes.

MW: See **Megawatt (MW)**.

MWh: See **Megawatthour (MWh)**.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 degrees and 400 degrees Fahrenheit.

Naphthas: Refined or partly refined light distillates with an approximate boiling point range of 27 degrees to 221 degrees Centigrade. Blended further or mixed with other materials, they make high-grade motor gasoline or jet fuel. Also used as solvents, petrochemical feedstocks, or as raw materials for the production of town gas.

Naphtha-Type Jet Fuel: 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 Fahrenheit, 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.

Natural Gas: A gaseous mixture of hydrocarbon compounds, the primary one being methane. *Note:* The Energy Information Administration measures wet natural gas and its two sources of production, associated-dissolved natural gas and nonassociated natural gas, and dry natural gas, which is produced from wet natural gas.

1. **Wet Natural Gas:** A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane, and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen, and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate substances. *Note:* The Securities and Exchange Commission and the Financial Accounting Standards Board refer to this product as natural gas. See **Natural Gas**.
    a. **Associated-Dissolved Natural Gas:** Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as a gas in solution with crude oil (dissolved gas).
    b. **Nonassociated Natural Gas:** Natural gas that is not in contact with significant quantities of crude oil in the reservoir.
2. **Dry Natural Gas:** Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. *Note:* Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute. See **Natural Gas**.

Natural Gas, "Dry": See **Dry Natural Gas**.

Natural Gas, Dry Production: See **Dry Natural Gas**.

Natural Gas Dry Production: Gross withdrawals of natural gas from reservoirs less gas used for reinjection into reservoirs for repressuring, gas that is flared or vented, gas lost in transmission, and shrinkage. Derived by subtracting shrinkage or extraction loss from marketed production. It represents the amount of natural gas that can be marketed and consumed as a gas.

Natural Gas Gross Production: See **Gross Withdrawals, Natural Gas**.

Natural Gas Gross Withdrawals: See **Gross Withdrawals, Natural Gas**.

Natural Gas Hydrates: Solid, crystalline, wax-like substances composed of water, methane, and usually a small amount of other gases, with the gases being

trapped in the interstices of a water-ice lattice. They form beneath permafrost and on the ocean floor under conditions of moderately high pressure and at temperatures near the freezing point of water.

Natural Gas Liquids (NGL): A general term for all liquid products separated from natural gas in gas processing or cycling plants. They include natural gas plant liquids and lease condensate.

Natural Gas Marketed Production: See **Marketed Production, Natural Gas**.

Natural Gasoline: A term used in the gas processing industry to refer to a mixture of liquid hydrocarbons (mostly pentanes and heavier hydrocarbons) extracted from natural gas. It includes isopentane.

Natural Gas, Pipeline Quality: See **Pipeline Quality Natural Gas**.

Natural Gas Plant Liquids (NGPL): Those hydrocarbons in natural gas that are separated as liquids at downstream natural gas processing plants or at fractionating and cycling plants. Data on lease condensate are excluded. Products obtained include liquefied petroleum gases and pentanes plus.

Natural Gas Processing Plants: Facilities designed to recover natural gas liquids from a stream of natural gas that may or may not have passed through lease separators and/or field separation facilities. These facilities also control the quality of natural gas to be marketed. Cycling plants are classified as natural gas processing plants.

Natural Gas Production: See **Dry Natural Gas Production**.

Natural Gas, Wet: See **Wet Natural Gas**.

Net Electricity Consumption: Consumption of electricity computed as generation, plus imports, minus exports, minus transmission and distribution losses.

Net Electricity Generation: See **Net Generation**.

Net Electric Power Generation: See **Net Generation**.

Net Generation: The amount of gross generation less the electrical energy consumed at the generating station(s) for station service or auxiliaries. *Note:* Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Net Heat Content of a Quantity of Fuel: See **Heat Content of a Quantity of Fuel, Net**.

NGL: See **Natural Gas Liquids**.

NGPL: See **Natural Gas Plant Liquids**.

Nitrogen Oxides (NO_x): Compounds of nitrogen and oxygen produced by the combustion of fossil fuels.

Nitrous Oxide (N_2O): A colorless gas, naturally occurring in the atmosphere. Nitrous oxide has a 100-year Global Warming Potential of 310.

No. 1 Diesel Fuel: A light distillate fuel oil that has distillation temperatures of 550 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines generally operated under frequent speed and load changes, such as those in city buses and similar vehicles. See **No. 1 Distillate**.

No. 2 Diesel Fuel: A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines that are generally operated under uniform speed and load conditions, such as those in railroad locomotives, trucks, and automobiles. See **No. 2 Distillate**.

No. 4 Diesel Fuel: See **No. 4 Fuel**.

No. 1 Distillate: A light petroleum distillate that can be used as either a diesel fuel (see **No. 1 Diesel Fuel**) or a fuel oil (see **No. 1 Fuel Oil**).

No. 2 Distillate: A petroleum distillate that can be used either as a diesel fuel (see **No. 2 Diesel Fuel**) or a fuel oil (see **No. 2 Fuel Oil**).

No. 4 Fuel: A distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It conforms to ASTM Specification D 396 or Federal Specification VV-F-815C and is used extensively in industrial plants and in commercial burner installations that are not equipped with preheating facilities. It also includes No. 4 diesel fuel used for low- and medium-speed diesel engines and conforms to ASTM Specification D 975.

No. 1 Fuel Oil: A light distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used primarily as fuel for portable outdoor stoves and portable outdoor heaters. See **No. 1 Distillate**.

No. 2 Fuel Oil (Heating Oil): A distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing-type burners for domestic heating or for moderate capacity commercial/industrial burner units. See **No. 2 Distillate**.

No. 4 Fuel Oil: See **No. 4 Fuel**.

NO_x: See **Nitrogen Oxides**.

Nonassociated Natural Gas: Natural gas that is not in contact with significant quantities of crude oil in the reservoir. See **Natural Gas**.

Nonattainment Area: Any area that does not meet the national primary or secondary ambient air quality standard established by the U.S. Environmental Protection Agency for designated pollutants, such as carbon monoxide and ozone.

Nonconventional Plant (Uranium): A facility engineered and built principally for processing of uraniferous solutions that are produced during in situ leach mining, from heap leaching, or in the manufacture of other commodities, and the recovery, by chemical treatment in the plant's circuits, of uranium from the processed solutions.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas such as water vapor, carbon dioxide, hydrogen sulfide, nitrogen, and trace amounts of helium.

Nonutility: See **Nonutility Power Producer**.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities 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. See **Electric Utility**.

Normal Butane: See **Butane**.

Nuclear Electric Power (Nuclear Power): Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

Nuclear Fuel: Fissionable materials that have been enriched to such a composition that, when placed in a nuclear reactor, they will support a self-sustaining fission chain reaction, producing heat in a controlled manner for process use.

Nuclear Power: See **Nuclear Electric Power**.

Nuclear Power Generation: See **Nuclear Electric Power**.

Nuclear Power Plant: A single-unit or multi-unit 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.

Nuclear Reactor: An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

Octane: A flammable liquid hydrocarbon found in petroleum. Used as a standard to measure the anti-knock properties of motor fuel.

Octane Rating: A number used to indicate gasoline's antiknock performance in motor vehicle engines. The two recognized laboratory engine test methods for determining the antiknock rating, i.e., octane rating, of gasolines are the Research method and the Motor method. In the United States, to provide a single number as guidance to the consumer, the antiknock index (R+M)/2, which is the average of the Research and Motor octane numbers, was developed.

OECD: See Organization for Economic Cooperation and Development (OECD).

OECD Europe: See **Organization for Economic Cooperation and Development, Europe (OECD Europe)**.

Off Peak: Period of relatively low system demand. These periods often occur in daily, weekly, and seasonal patterns

Ohm: The unit of measurement of electrical resistance. The resistance of a circuit in which a potential difference of 1 volt produces a current of 1 ampere.

Oil: See **Crude Oil**.

Oil Reservoir: An underground pool of liquid consisting of hydrocarbons, sulfur, oxygen, and nitrogen trapped within a geological formation and protected from evaporation by the overlying mineral strata.

Oil Shale: A sedimentary rock containing kerogen, a solid organic material.

Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Oil Well (Casinghead) Gas: Associated and dissolved gas produced along with crude oil from oil completions.

OPEC: See **Organization of Petroleum Exporting Countries (OPEC)**.

Operable Nuclear Unit (Foreign): A nuclear generating unit outside the United States that generates electricity for a grid.

Operable Nuclear Unit (U.S.): A United States nuclear generating unit that has completed low-power testing and is in possession of a full-power operating license issued by the Nuclear Regulatory Commission.

Operable Unit (Electric): A unit available to provide electric power to the grid.

Organization for Economic Cooperation and Development (OECD): Current members are Australia, Austria, Belgium, Canada, Czech Republic, Denmark Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea (usually listed here as Korea, South), Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. *Note*: Data for Guam, the former Hawaiian Trade Zone, Puerto Rico, and the U.S. Virgin Islands (usually listed here as Virgin Islands, U.S.) are included in the OECD-related data reported here.

Organization for Economic Cooperation and Development, Europe (OECD Europe): Includes Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

Organization of Petroleum Exporting Countries (OPEC): Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. (Ecuador withdrew from OPEC on December 31, 1992 and Gabon withdrew on December 31, 1994.)

Other Hydrocarbons (Petroleum): Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, Gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxidize: To chemically transform a substance by combining it with oxygen.

Oxygenated Gasoline: Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. See **Nonattainment Area**. *Note:* Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline. See **Motor Gasoline (Finished)**.

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

Paraffin (Oil): A light-colored, wax-free oil obtained by pressing paraffin distillate.

Paraffin (Wax): The wax removed from paraffin distillates by chilling and pressing. When separating from solutions, it is a colorless, more or less translucent, crystalline mass, without odor and taste, slightly greasy to touch, and consisting of a mixture of solid hydrocarbons in which the paraffin series predominates.

Passive Solar Heating: A solar heating system that uses no external mechanical power, such as pumps or blowers, to move the collected solar heat.

Peak Load: The maximum load during a specified period of time.

Pentanes Plus: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Perfluorocarbons (PFCs): A group of man-made chemicals composed of one or two carbon atoms and four to six fluorine atoms, containing no chlorine. PFCs have no commercial uses and are emitted as a byproduct of aluminum smelting and semiconductor manufacturing. PFCs have very high 100-year Global Warming Potentials and are very long-lived in the atmosphere.

Petrochemical Feedstock: Feedstock derived from petroleum, used principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are naphthas (endpoint less than 401 degrees Fahrenheit) and other oils (endpoint equal to or greater than 401 degrees Fahrenheit).

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. *Note*: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Coke: See C**oke (Petroleum)**.

Petroleum Consumption: See **Apparent Consumption (Petroleum)**.

Petroleum Jelly: A semi-solid oily product produced from de-waxing lubricating oil basestocks.

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 other miscellaneous products.

Petroleum Stocks: Primary stocks of crude oil and petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

PFCs: See **Perfluorocarbons**.

Photovoltaic Cell: An electronic device consisting of layers of semiconductor materials fabricated to form a junction (adjacent layers of materials with different electronic characteristics) and electrical contacts and being capable of converting incident light directly into electricity (direct current).

Photovoltaic Energy: Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

Photovoltaic Module: An integrated assembly of interconnected photovoltaic cells designed to deliver a selected level of working voltage and current at its output terminals, packaged for protection against environmental degradation, and suited for incorporation in photovoltaic power systems. The electricity produced is used primarily in applications requiring remote power, such as radio communication, cathodic protection, and navigational aids. See **Photovoltaic Cell**.

Pipeline Quality Natural Gas: A mixture of hydrocarbon compounds existing in the gaseous phase with sufficient energy content, generally above 900 British thermal units, and a small enough share of impurities for transport through commercial gas pipelines and sale to end-users.

Plant: A term commonly used either as a synonym for an industrial establishment or a generation facility or to refer to a particular process within an establishment.

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 natural gas processing plants. Does not include lease condensate.

Plant (Electric): A facility at which are located prime movers, electric generators, and auxiliary equipment for converting mechanical chemical, and/or nuclear energy into electric energy. A plant may contain more than one type of prime mover.

Power (Electric): See **Electric Power**.

Power Loss: The difference between electricity input and output as a result of an energy transfer between two points.

Premium Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than 90. *Note:* Octane requirements may vary by altitude. See **Gasoline Grades**.

Preparation Plant: A mining facility at which coal is crushed, screened, and mechanically cleaned.

Primary Coal: All coal milled and, when necessary, washed and sorted.

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 cell(s)).

Probable Energy Reserves: Estimated quantities of energy sources that, on the basis of geologic evidence

that supports projections from proved reserves, can reasonably be expected to exist and be recoverable under existing economic and operating conditions. Site information is insufficient to establish with confidence the location, quality, and grades of the energy source. *Note*: This term is equivalent to "Indicated Reserves" as defined in the resource/reserve classification contained in the U.S. Geological Survey Circular 831, 1980. Measured and indicated reserves, when combined, constitute demonstrated reserves. See also **Energy Reserves**.

Probable (Indicated) Reserves, Coal: Reserves or resources for which tonnage and grade are computed partly from specific measurements, samples, or production data and partly from projection for a reasonable distance on the basis of geological evidence. The sites available are too widely or otherwise inappropriately spaced to permit the mineral bodies to be outlined completely or the grade established throughout. See **Probable Energy Reserves**.

Processing Gain: See **Refinery Processing Gain (Petroleum)**.

Processing Loss: See **Refinery Processing Loss (Petroleum)**.

Processing of Uranium: The recovery of uranium from solutions produced by nonconventional mining methods, i.e., in situ leach mining (ISL), a byproduct of copper or phosphate mining, or heap leaching.

Processing Plant (Natural Gas): See **Natural Gas Processing Plant**.

Production: See production terms associated with specific energy types.

Propane: A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees Fahrenheit. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D 1835.

Propylene: An olefinic hydrocarbon (C_3H_6) recovered from refinery and petrochemical processes.

Proved Energy Reserves: Estimated quantities of energy sources that analysis of geologic and engineering data demonstrates with reasonable certainty are recoverable under existing economic and operating conditions. The location, quantity, and grade of the energy source are usually considered to be well established in such reserves. *Note*: This term is equivalent to "Measured Reserves" as defined in the resource/reserve classification contained in the U.S. Geological Survey Circular 831, 1980. Measured and indicated reserves, when combined, constitute demonstrated reserves. See also **Energy Reserves**.

Proved (Measured) Reserves, Coal: Reserves or resources for which tonnage is computed from dimensions revealed in outcrops, trenches, workings, and drill holes and for which the grade is computed from the results of detailed sampling. The sites for inspection, sampling, and measurement are spaced so closely and the geologic character is so well defined that size, shape, and mineral content are well established. The computed tonnage and grade are judged to be accurate within limits that are stated, and no such limit is judged to be different from the computed tonnage or grade by more than 20 percent. See **Proved Energy Reserves**.

Proved Recoverable Reserves, Coal: Defined by the World Energy Council as the tonnage within the Proved Amount in Place that can be recovered (extracted from the earth in raw form) under present and expected local economic conditions with existing available technology. It approximates the U.S. term proved (measured) reserves, coal. **See Proved (Measured) Reserves, Coal**.

Proved Reserves, Crude Oil: The estimated quantities of all liquids defined as crude oil that geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions.

Proved Reserves, Natural Gas: The estimated quantities of natural gas that analysis of geological and engineering data demonstrates with reasonable certainty to be recoverable in future years from known oil and gas reservoirs under existing economic and operating conditions.

Public Utility Regulatory Policies Act of 1978: See **PURPA**.

Pulpwood: Roundwood, whole-tree chips, or wood residues.

Pumped Storage: See **Hydroelectric Pumped Storage**.

Pumped-Storage Hydroelectric Power Plant: A plant that usually generates electric energy during peak-load periods by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level. See **Pure Pumped-Storage Hydroelectric Power Plant** and **Combined Pumped-Storage Electric Power Plant**.

Pure Pumped-Storage Hydroelectric Power Plant: A plant that produces power only from water that has previously been pumped to an upper reservoir.

PURPA: The Public Utility Regulatory Policies Act of 1978, passed by the U.S. Congress. This statute requires States to implement utility conservation programs and create special markets for cogenerators and small producers who meet certain standards, including the requirement that States set the prices and quantities of power the utilities must buy from such facilities.

Quadrillion Btu: One quadrillion **(**10^{15}) British thermal units (Btu). See **British Thermal Unit (Btu)**.

Radiative Forcing: A change in average net radiation at the top of the troposphere (known as the tropopause) because of a change in either incoming solar or exiting infrared radiation. A positive radiative forcing tends on average to warm the Earth's surface; a negative radiative forcing on average tends to cool the Earth's surface. Greenhouse gases, when emitted into the atmosphere, trap infrared energy radiated from the Earth's surface and therefore tend to produce positive radiative forcing. See **Greenhouse Gases**.

Radiatively Active Gases: Gases that absorb incoming solar radiation or outgoing infrared radiation, affecting the vertical temperature profile of the atmosphere. See **Radiative Forcing**.

Recoverable Coal: See **Proved Recoverable Reserves, Coal** and **Proved (Measured) Reserves, Coal**.

Recoverable Reserves of Coal: See **Proved Recoverable Reserves, Coal** and **Proved (Measured) Reserves, Coal**.

Refiner Acquisition Cost of Crude Oil: The cost of crude oil, including transportation and other fees, paid by the refiner. The composite cost is the weighted average of domestic and imported crude oil costs. See **U.S. Refiner Acquisition Cost of Imported Crude Oil**. *Note:* The refiner acquisition cost does not include the cost of crude oil purchased for the Strategic Petroleum Reserve (SPR).

Refinery Fuel: Crude oil and petroleum products consumed at the refinery for all purposes.

Refinery Gain (Petroleum): See **Refinery Losses and Gains**.

Refinery Gas: See **Still Gas (Refinery Gas)**.

Refinery Input (Petroleum): The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation blending components, and finished petroleum products.

Refinery Loss (Petroleum): See **Refinery Losses and Gains (Petroleum)**.

Refinery Losses and Gains (Petroleum): Refinery processing gains and refinery processing losses that take place during the refining process itself. Excludes losses that do not take place during the refining process, e.g., spills, fire losses, and contamination during blending, transportation, or storage.

Refinery Output (Petroleum): The total amount of petroleum products produced at a refinery. Includes petroleum consumed by the refinery.

Refinery (Petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

Refinery Processing Gain (Petroleum): The amount by which the total volume of refinery output is greater than the total volume of refinery input for a given period of time. The processing gain arises when crude oil and other hydrocarbons are processed into petroleum products that are, on average, less dense than the input.

Refinery Processing Loss (Petroleum): The amount by which the total volume of refinery output is less than the total volume of refinery input for a given period of time. The processing loss arises when crude oil and other hydrocarbons are processed into petroleum products that are, on average, more dense than the input.

Reforestation: Replanting of forests on lands that have recently been harvested or otherwise cleared of trees.

Reforming, Catalytic: See **Catalytic Reforming**.

Reformulated Gasoline: Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. *Note:* This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB). See **Motor Gasoline (Finished)**.

Regular Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. *Note:* Octane requirements may vary by altitude. See **Gasoline Grades**.

Reinjected (Natural Gas): The forcing of gas under pressure into an oil reservoir in an attempt to increase recovery.

Renewable Energy Resources: 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.

Repressuring: The injection of a pressurized fluid (such as air, gas, or water) into oil or gas reservoir formations to effect greater ultimate recovery.

Reserves, Coal: Quantities of unextracted coal that comprise the demonstrated base for future production, including both proved and probable reserves. See **Proved Energy Reserves**; **Probable Energy Reserves**; **Energy Reserves**; **Proved (Measured) Reserves, Coal**; and **Probable (Indicated) Reserves, Coal**.

Reservoir: A porous and permeable underground formation containing an individual and separate natural accumulation of producible hydrocarbons (crude oil and/or natural gas) which is confined by impermeable rock or water barriers and is characterized by a single natural pressure system.

Residual Fuel Oil: A general classification for 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 D 396 and D 975 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 power plants. 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.

Residuum: Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1,000 degrees Fahrenheit.

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.

Rotary Rig: A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Roundwood: Logs, bolts, and other round timber generated from the harvesting of trees.

Secondary Coal: Solid fuels manufactured from primary coal, including coke (coal) or metallurgical coke and coal briquets.

Separative Work Units (SWU): The standard measure of uranium enrichment services.

Sequestration: See **Carbon Sequestration**.

Short Ton (Coal): A unit of weight equal to 2,000 pounds.

Shrinkage (Natural Gas): The volume of natural gas that is transformed into liquid products during processing, primarily at natural gas processing plants.

Slovakia: Short-form name used by the U.S. State Department for the Slovak Republic.

Sludge: A dense, slushy, liquid-to semifluid-product that accumulates as an end result of an industrial or technological process designed to purify a substance. Industrial sludges are produced from the processing of energy-related raw materials, chemical products, water, mined ores, sewage, and other natural and man-made products. Sludges can also form from natural processes, such as the runoff produced by rainfall, and accumulate on the bottom of bogs, streams, lakes, and tidelands.

Small Power Producer (SPP): Under the Public Utility Regulatory Policies Act (PURPA), a small power production facility (or small power producer) generates electricity using renewable energy (wood, waste, conventional hydroelectric, wind, solar, and geothermal) as a primary energy source. Fossil fuels can be used, but renewable resources must provide at least 75 percent of the total energy input. See **Nonutility Power Producer**.

SO_2: See **Sulfur Dioxide**.

Socialist Federal Republic of Yugoslavia: Country that dissolved into five separate countries--Bosnia and Herzegovina; Croatia; Macedonia, The Former Yugoslav Republic of; Slovenia; and the (Federal Republic of) Yugoslavia (formerly listed as Serbia and Montenegro)--beginning on June 25, 1991.

Solar Collector: See **Solar Thermal Collector**.

Solar Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or

electricity. Electricity produced from solar energy heats a medium that powers an electricity-generating device.

Solar Thermal Collector: A device designed to receive solar radiation and convert it to thermal energy. Normally, a solar thermal collector includes a frame, glazing, and an absorber, together with appropriate insulation. The heat collected by the solar thermal collector may be used immediately or stored for later use. Solar thermal collectors are used for space heating; domestic hot water heating; and heating swimming pools, hot tubs, or spas.

Solar Thermal Collector, High-Temperature: A solar thermal collector designed to operate at a temperature of 180 degrees Fahrenheit or higher.

Solar Thermal Collector, Low-Temperature: Metallic or nonmetallic solar thermal collectors that generally operate at temperatures below 110 degrees Fahrenheit and use pumped liquid or air as the heat transfer medium. They usually contain no glazing and no insulation, and they are often made of plastic or rubber, although some are made of metal.

Solar Thermal Collector, Medium-Temperature: Solar thermal collectors designed to operate in the temperature range of 140 degrees to 180 degrees Fahrenheit, but that can also operate at a temperature as low as 110 degrees Fahrenheit. The collector typically consists of a metal frame, metal absorption panels with integral flow channels (attached tubing for liquid collectors or integral ducting for air collectors), and glazing and insulation on the sides and back.

Solar Thermal Collector, Special: An evacuated tube collector or a concentrating (focusing) collector. Special collectors operate in the temperature range from just above ambient temperature (low concentration for pool heating) to several hundred degrees Fahrenheit (high concentration for air conditioning and specialized industrial processes).

Solar Thermal Energy: See **Solar Energy**.

Special Naphthas: All finished products within the naphtha range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D 1836 and D 484, 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.

Special Solar Thermal Collector: See **Solar Thermal Collector, Special**.

Spent Liquor: The liquid residue left after an industrial process; can be a component of waste materials used as fuel.

Spot-Market Price: See **Spot Price**.

Spot Price: The price for a one-time open market transaction for immediate delivery of a specific quantity of product at a specific location where the commodity is purchased "on the spot" at current market rates.

SPR: See **Strategic Petroleum Reserve (SPR)**.

Steam Coal: All nonmetallurgical coal.

Steam-Electric Power Plant (Conventional): 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 gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. Still gas is primarily used as a refinery fuel and as a petrochemical feedstock.

Stock Change: The difference between stocks at the beginning of the reporting period and stocks at the end of the reporting period.

Stocks: Inventories of fuel stored for future use. See **Coal Stocks** and **Petroleum Stocks**.

Strategic Petroleum Reserve (SPR): Petroleum stocks maintained by the U.S. Federal government for use during periods of major supply interruption.

Stripper Well: A well that produces 60 million cubic feet of gas per day or less for period of three consecutive months while producing at its maximum flow rate.

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 to 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 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Sulfur: A yellowish nonmetallic element, sometimes known as "brimstone." It is present at various levels of concentration in many fossil fuels whose combustion releases sulfur compounds that are considered harmful to the environment. Some of the most commonly used fossil fuels are categorized according their sulfur content, with lower sulfur fuels usually selling at a higher price. *Note:* No. 2 distillate is currently reported as having either a 0.05 percent or lower sulfur level for on-highway vehicle use or a greater than 0.05 percent sulfur level for off-highway use, home heating oil, and commercial and industrial uses. Residual fuel oil, regardless of use, is classified as having either no more than 1 percent sulfur or greater than 1 percent sulfur. Coal is also classified as being low-sulfur at concentrations of 1 percent or less or high-sulfur at concentrations greater than 1 percent.

Sulfur Dioxide (SO_2): A toxic, irritating, colorless gas soluble in water, alcohol, and ether. Used as a chemical intermediate, in paper pulping and ore refining, and as a solvent

Sulfur Hexafluoride (SF_6): A colorless gas soluble in alcohol and ether, and slightly less soluble in water. It is used as a dielectric in electronics. It possesses the highest 100-year Global Warming Potential of any gas (23,900).

Sulfur Oxides (SO_x): Compounds containing sulfur and oxygen, such as sulfur dioxide (SO_2) and sulfur trioxide (SO_3).

Supply: See **Energy Supply**.

Surface Mine (Coal): A coal-producing mine that is usually within a few hundred feet of the surface. Earth and rock above or around the coal (overburden) is removed to expose the coalbed, which is then mined with surface excavation equipment such as draglines, power shovels, bulldozers, loaders, and augers. It may also be known as an area, contour, open-pit, strip, or auger mine.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons or from coal gasification. It may easily be substituted for, or interchanged with, pipeline quality natural gas.

System (Electric): See **Electric System**.

SWU: See **Separative Units**.

Tall Oil: The oily mixture of rosin acids, fatty acids, and other materials obtained by acid treatment of the alkaline liquors from the digesting (pulping) of pine wood.

Tanker and Barge: Vessels that transport crude oil or petroleum products.

Tar Sands: Naturally occurring bitumen-impregnated sands that yield mixtures of liquid hydrocarbon and that require further processing other than mechanical blending before becoming finished petroleum products.

Therm: One hundred thousand (10^5) British thermal units.

Thermal Cracking: A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., (flexicoking).

Transmission: The movement or transfer of electric energy over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers, or is delivered to other electric systems. Transmission is considered to end when the energy is transformed for distribution to the consumer.

Transmission and Distribution Loss: Electric energy lost due to the transmission and distribution of electricity. Much of the loss is thermal in nature. See **Power Loss**.

Transmission System (Electric): An interconnected group of electric transmission lines and associated equipment for moving or transferring electric energy in bulk between points of supply and points at which it is transformed for delivery over the distribution system lines to consumers, or is delivered to other electric systems.

Troposphere: The inner layer of the atmosphere below about 15 kilometers, within which there is normally a steady decrease of temperature with increasing altitude. Nearly all clouds form and weather conditions manifest themselves within this region. Its thermal structure is caused primarily by the heating of the Earth's surface by solar radiation, followed by heat transfer through turbulent mixing and convection.

Turbine: A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam, or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction, or a mixture of the two.

Underground Mine (Coal): A mine where coal is produced by tunneling into the earth to the coalbed,

which is then mined with underground mining equipment such as cutting machines and continuous, longwall, and shortwall mining machines. Underground mines are classified according to the type of opening used to reach the coal, i.e., drift (level tunnel), slope (inclined tunnel), or shaft (vertical tunnel).

Unfinished Oils: All oils requiring further processing, except those requiring only mechanical blending. Unfinished oils are produced by partial refining of crude oil and include naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

United States (U.S.): Unless otherwise noted, United States in this publication means the 50 States and the District of Columbia. *Note*: The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 States and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands (usually listed here as Virgin Islands, U.S.), Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States." See **Exports (U.S.)** and **Imports (U.S.)**.

Uranium: A heavy, naturally radioactive, metallic element (atomic number 92). Its two principally occurring isotopes are uranium-235 (^{235}U) and uranium-238 (^{238}U). The isotope ^{235}U is indispensable to the nuclear industry because it is the only isotope existing in nature to any appreciable extent that is fissionable by thermal neutrons. The isotope ^{238}U is also important because it absorbs neutrons to produce a radioactive isotope that subsequently decays to plutonium-239 (^{239}Pu), an isotope of plutonium that is also fissionable by thermal neutrons.

Uranium Concentrate: A yellow or brown powder obtained by the milling of uranium ore, processing of in situ leach mining solutions, or as a byproduct of phosphoric acid production. See **In Situ Leach Mining (ISL)**.

Uranium Milling: See **Milling of Uranium**.

Uranium Ore: Rock containing uranium mineralization in concentrations (typically 1 to 4 pounds of U_3O_8 per ton or 0.05 to 0.20 percent U_3O_8) that can be mined economically.

Uranium Oxide: Uranium concentrate or yellowcake. Abbreviated as U_3O_8. See **Yellowcake**.

U.S.: See **United States (U.S.)**.

U.S. Refiner Acquisition Cost of Imported Crude Oil: The average price paid by U.S. refiners for imported, that is, non-U.S., crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. The refiner acquisition cost of imported crude oil includes transportation and other fees paid by the refiner. See **Refiner Acquisition Cost of Crude Oil and Imports (U.S.)**.

U.S.S.R.: The Union of Soviet Socialist Republics (or Soviet Union) consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Ukraine, and Uzbekistan. As a political entity, the U.S.S.R. disbanded on December 26, 1991.

Utility: See **Electric Utility**.

Vented: Gas released into the air on the production site or at processing plants.

Vented, Flared (Natural Gas): Gas that is disposed of by releasing (venting) or burning (flaring).

Vented Natural Gas: See **Vented**.

Vessel: A ship used to transport crude oil, petroleum products, or natural gas products. Vessel categories are as follows: Ultra Large Crude Carrier (ULCC), Very Large Crude Carrier (VLCC), Other Tanker, and Specialty Ship (LPG/LNG). See **Tanker and Barge**.

Vessel Bunkering (U.S.): Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

Visbreaking: A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Volatile Matter (Coal): Those products, exclusive of moisture, given off by a material as gas or vapor. Volatile matter is determined by heating the coal to 950 degrees Centigrade under carefully controlled conditions and measuring the weight loss, excluding weight of moisture driven off at 105 degrees Centigrade.

Waste: Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

Waste Energy: Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw used as fuel.

Water Vapor: Water in a vaporous form, especially when below boiling temperature and diffused (e.g., in the atmosphere).

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A Watt is equal to 1/746 horsepower.

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.

Waxes: Solid or semi-solid materials derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. 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. The three grades included are microcrystalline, crystalline fully refined, and crystalline-other. Waxes are used primarily as industrial coatings for surface protection.

Well: A hole drilled in the Earth for the purpose of (1) finding or producing crude oil or natural gas; or (2) producing services related to the production of crude oil or natural gas. See also **Completion**, **Development Well**, **Dry Hole**, **Exploratory Well, Gas Well,** and **Oil Well**.

Wellhead: The top of, or a structure built over, a well.

Wet Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in porous rock formations at reservoir conditions. The principal hydrocarbons normally contained in the mixture are methane, ethane, propane, butane, and pentane. Typical nonhydrocarbon gases that may be present in reservoir natural gas are water vapor, carbon dioxide, hydrogen sulfide, nitrogen, and trace amounts of helium. Under reservoir conditions, natural gas and its associated liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil and are not distinguishable at the time as separate substances. *Note:* The Securities and Exchange Commission and the Financial Accounting Standards Board refer to this product as natural gas.

White Spirit: A highly refined distillate with a boiling point range of about 150 degrees to 200 degrees Centigrade. It is used as a paint solvent and for dry-cleaning purposes.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (i.e., blades rotating from the hub) that drive generators to produce electricity.

Wood: Wood, wood waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

Wood and Waste: See **Waste** and **Wood**.

Wood Energy: Wood and wood products used as fuel, including wood waste, black liquor, red liquor, spent sulfite liquor, pitch, wood sludge, peat, railroad ties, and utility poles.

Wood Pellets: Fuel manufactured from finely ground wood fiber and used in pellet stoves.

Wood Sludge: See **Sludge**.

Yellowcake: A natural uranium concentrate that takes its name from its color and texture. Yellowcake typically contains 70 to 90 percent U_3O_8 (uranium oxide) by weight. It is used as feedstock for uranium fuel enrichment and fuel pellet fabrication. See **Uranium Concentrate**, **Uranium Oxide**, **Enriched Uranium** and **Fabricated Fuel**.