EIA Energy Information Administration Short-Term Energy Outlook

March 8, 1999

### **Highlights**

### World Oil Markets/Prices

**Prices**. Despite a modest setback in February (due once again in part to relatively mild winter weather), we still expect world oil prices to gradually rise throughout the forecast period (Figure 1). On an annual basis, we expect demand growth to outpace supply growth in both 1999 and 2000, thus reducing the current inventory overhang. Bolstering our modestly bullish view for prices is the fact that EIA has revised its estimates for U.S. oil production downward for 1998 and consequently has significantly increased the expected decline rate for 1999 (Figure 2). However, unless OPEC cuts production further than what is assumed in the mid world oil price case (no additional cuts at the March 23 OPEC meeting), the world oil price (defined as the average price U.S. refiners pay for imported crude oil) won't be likely to rise above \$15 per barrel until the end of 2000 or early 2001. If OPEC were to announce and implement additional oil production cuts at their upcoming ministerial meeting, prices would likely recover at a faster rate than is assumed in this forecast.

**Demand**. EIA's latest estimates of world oil demand indicate a growth of only 700,000 barrels per day in 1998, less than half of the average world oil demand growth seen in 1995-1997. However, beginning in 1999, world oil demand is forecasted to recover slightly, growing by about 1.3 million barrels per day in 1999, despite sizeable declines in oil demand in Russia, Brazil, and South Korea. World oil demand in 2000 is forecasted to grow by nearly 1.7 million barrels per day as the world economy is assumed to improve.

**Supply.** Following an increase of about 800,000 barrels per day in 1998, world oil supply is expected to decline by about 100,000 barrels per day in 1999, marking the first such decline since 1991. Non-OPEC, non-FSU oil production is expected to decline this year for the first time since 1989. The expected downturn is led by an anticipated decline in U.S. oil production (crude, NGLs and other liquids) of over 400,000 barrels per day. However, EIA does not forecast a collapse of total non-OPEC oil production, as monthly data from late 1998 do not indicate a precipitous decline in many major non-OPEC oil producing countries. Cuts in OPEC production agreed to in 1998 are forecasted to be implemented just enough to keep OPEC production relatively flat in 1999. In 2000, world oil production is forecasted to increase by about 1.3 million barrels per day, with over half of the increase coming from OPEC countries.

### **U.S. Energy Prices**

**Gasoline.** Pump prices for motor gasoline keep declining in both nominal and real terms. In March, self-service unleaded regular is expected to hit bottom, averaging \$0.92 per gallon, the lowest monthly national average inflation-adjusted price on record. These bargain prices are primarily the result of depressed world crude oil prices, which have lowered all domestic petroleum product prices. In addition, the warmer-than-normal winter weather in much of the U.S. has led to surplus crude oil inventories, further softening prices.

We have revised our gasoline price projections downward from the previous *Outlook* as we lowered our crude oil price projections for the near months (Figure 3). In April, as the driving

# Figure 1. U. S. Monthly Crude Oil Prices



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration



# Figure 2. Monthly U.S. Crude Oil Production



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999

# Figure 3. Retail Motor Gasoline Prices\* (Current vs Previous Outlook)



\*Pump Price, Self-Service Regular, Cash, Includes Tax Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration



season begins, pump prices should start their normal seasonal upswing, peaking in the late spring or early summer. Despite the expected seasonal increase, prices would still be at levels slightly below last year's record-low prices during the peak-driving season. On an annual basis, 1999 retail prices should decline somewhat, given the projected average crude oil price decline of about \$1.00 per barrel (Figure 4). For the year 2000, prices at the pump are projected to rise by an average of about 10 cents per gallon (Table 4). Crude oil cost increases are responsible for 6-7 cents of the increase, while general inflation and some expected recovery in refiner and distributor margins explain the remainder of the increase.

**Heating Oil**. Heating oil prices, too, have fallen to near record levels for the same reasons governing the decline in gasoline prices. Thus, our projections for heating oil prices have been revised downward by about 5 cents per gallon for the summer, reaching just above 71 cents per gallon (Figure 5). However, once the next heating season begins, retail prices are projected to rebound. By the middle of next winter, assuming the weather is normal--that means colder than the last several winters--these prices should reach nearly 90 cents per gallon, a projection only marginally lower than in the previous *Outlook*.

**Natural Gas.** Natural gas wellhead prices for 1999 are expected to remain under \$2.00 per thousand cubic feet until late in the year when the heating season begins--a forecast essentially unchanged from the previous *Outlook* (Table 4). The warm winter and high inventories have kept the lid on prices this heating season, and should result in comparatively lower prices (compared to 1998) through the third quarter (Figure 6). Next year, however, prices at the wellhead are projected to increase by 17 percent, assuming that normal winter weather facilitates reductions in storage from presently high levels.

### U.S. Petroleum Demand

**Total Petroleum.** Updated estimates for January and preliminary estimates based on weekly data for February yield a significantly lower estimate for first-quarter 1999 petroleum demand than we projected last month (Figure 7). Much of this change is due to warmer-than-estimated or warmer-than-expected weather, particularly in February (Figure 8). As a result, most of the revision was accounted for by heating-related fuels (distillate, propane and residual fuel). Our best estimate now for Q1 1999 growth is 3.5 percent above the Q1 1998 level of 18.32 million barrels per day. For all of 1999, we see expect growth to be around 2.9 percent above the reported 1998 level of 18.68 million barrels per day. It should be noted that EIA's officially reported petroleum demand statistics for 1998 are due for some revisions late this spring and, in some categories, these are likely to be significant. The pending revisions known to date are reported in <u>Table C1 of EIA's Petroleum Supply Monthly</u>. Roughly adjusting the 1998 levels for expected revisions, our currently projected petroleum demand figure for this year probably implies an annual growth rate closer to 2.3 percent for 1999.

For this *Outlook* we have incorporated upward revisions to expected income and output growth in 1999 as the sustained strength of the U.S. economy has become apparent (Figure 9). Thus, the somewhat lower Q1 1999 petroleum demand results are mostly offset by higher estimates for the rest of the year (Figure 7).

**Major Fuels.** Expected petroleum demand growth in 1999 is broadly distributed across categories, although the usual fuel types remain prominent in this year's increases. Continued growth in transportation demand makes growth in motor gasoline, diesel fuel and jet fuel a pretty safe bet. Also, despite the fact that the weather for the first quarter of the year was below expectations based on traditional views of "normal" heating degree-days (Figure 8), conditions have still been noticeably colder than last year, particularly in the U.S. Northeast (Figure 10).

### Figure 4. Quarterly Retail Motor Gasoline Prices\* (Percent Change from Year Ago)



\*Pump Price, Self-Service Regular, Cash, Includes Tax

Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999

# Figure 5. Retail Heating Oil Prices (Current vs Previous Outlook)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration



### Figure 6. Quarterly Natural Gas Wellhead Prices (Percent Change from Year Ago)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration

# Figure 7. Monthly U.S. Petroleum Demand



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration

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# Figure 8. Heating Degree-Days\* Estimates/Assumptions



\* Population-weighted heating degree-days, U.S. average.

Source: January and February: National Oceanographic and Atmospheric Administration; (NOAA); March: NOAA "Normal"

### Figure 9. Economic Growth Rate Assumptions (Current vs February 1999 Outlook)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999



# Figure 10. Quarterly Heating Degree-Days (Change from Year Ago)



Source: National Oceanographic and Atmospheric Administration; Estimates/Assumptions: Short-Term Energy Outlook, March 1999

Thus, we see fairly strong demand levels for gasoline, distillate fuel oil, and residual fuel oil and (to a lesser extent) liquefied petroleum gases (particularly propane) in 1999 (Figure 11).

**Jet Fuel.** Again, the rate of growth shown here for major petroleum products needs to be discounted somewhat in view of the pending revisions to the 1998 data. The relative significance of these revisions on ultimate growth rate estimates for 1999 may be most important for jet fuel. We believe that the apparent decline of 1.7 percent in jet fuel demand in 1998, evident from the officially reported figures for product supplied, is mostly illusory. EIA's *Prime Supplier Report* (December 1998 edition), which attempts to track monthly product flows into States, indicates a 0.7 percent increase for jet fuel in 1998. Also, the Federal Aviation Administration, which reports jet fuel consumption for the U.S. airline industry (FAA Form P-12) reports consumption figures for 1998 that suggest an annual growth rate for U.S carriers closer to 2 percent (our estimate). On the other hand, the jet fuel category reported in EIA's *Petroleum Supply Monthly* includes some product that has the characteristics of jet-quality fuel but is used for other purposes, including blending into other fuel oil products (such as diesel fuel) to enhance cold-weather properties for combustion. Thus, while a more complete view awaits final revisions, a general weakness in 1998-jet fuel growth (reported in our <u>Table 5</u>) is consistent with weather and other factors experienced last year.

**Residual Fuel.** While it is no particular surprise that gasoline and diesel fuel growth would support a fairly strong rebound in petroleum demand this year, particularly as it is combined with comparative strength in heating fuel demand, it is at least a shift from recent experience to witness the turnaround in U.S. demand for residual fuel oil, particularly in the electric utility sector. Because of apparent significant declines in residual fuel use outside of the electric power sector, total residual fuel growth in 1998 was only 20,000 barrels per day, or 2.6 percent. (Once again, expected revisions to 1998 data should ultimately reduce the non-utility decline and increase the 1998 growth rate for total residual fuel demand.) However, shipments of residual fuel to electric utilities increased by 137,000 barrels per day, or 45 percent, last year (Figure 12). In 1998, the reported cost of heavy fuel oil delivered to U.S. electric utilities fell well below the cost of natural gas (Figure 13). It is quite possible that this situation will be exacerbated in 1999. Thus, we see additional growth for residual fuel at electric utilities in 1999, muted, however, by an expected decline in overall electricity demand and output this summer compared to the very high levels seen in the steamy summer of 1998. We expect electric utility demand for residual fuel to grow by about 70,000 barrels per day in 1999 (19 percent). Assuming that further declines in nonutility residual fuel demand are avoided this year, total residual fuel growth for 1999 could be as much as 10 percent or more.

### **U.S. Petroleum Supply**

**Production.** Stubbornly low oil prices, a situation in the world oil market that was precipitated over the last two years by weak worldwide demand (mild winter weather and the reversal of previously strong growth trends in Asia) and rising production (the reintroduction of Iraq into the oil market and the OPEC decision to increase output quotas) has begun to take its toll on U.S. oil production. For this Outlook we have incorporated recently revised estimates for U.S. crude oil output which show a noticeable acceleration of production declines from the rates previously published (Figure 2). Lower 48 oil production fell an estimated 88 thousand barrels per day in 1998, with faster decline rates appearing in the second half of the year. EIA now estimates that December 1998 crude oil production was nearly 600,000 barrels per day (9.1 percent) below the same period in 1997. Lost onshore production from marginal wells was the principal source of the worsening domestic production situation, as offshore Gulf of Mexico production increased (Figure 14). The outlook for 1999 is for more of the same, with an expected decline in total U.S. crude oil production of about 390,000 barrels per day. With gradually rising prices from current low levels through the forecast, and with the assumption that comparatively few marginal wells remain that will become uneconomic in the expected price regime, the projected production decline in 2000 should ease to well under 300,000 barrels per day. Still, this puts the cumulative

### **Figure 11. Components of Petroleum Demand** Growth 600 500 Thousand Barrels per Day Total 400 Gasoline 300 Distillate 200 Residual 100 LPG 0 **Projections** -100 1998 2000 1999

Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999



# Figure 12. Annual Residual Fuel Oil Demand (Change from Year Ago)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999

# **Figure 13. Fuel Prices to Electric Utilities**



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999



## Figure 14. Components of U.S. Crude Oil Production Change, 1997-1998



### Source: Energy Information Administration, Office of Oil and Gas



expected loss of domestic production at over 800,000 barrels per day (12.8 percent) between 1997 and 2000.

**Net Imports.** Under these conditions, net imports of crude oil into the United States can be expected to rise at rates noticeably faster than previously projected (Figure 15). We currently estimate that crude oil net imports totaled 8.62 million barrels per day in 1998, which would be a 6.2 percent increase from 1997 levels. The projected levels for 1999 and 2000 are now 8.84 million barrels per day and 9.27 million barrels per day, respectively. This would represent a 14-percent increase in net crude import requirements over the 1997 to 2000 period. Total petroleum net imports (including finished products) amounted to an estimated 51.6 percent of total domestic petroleum demand in 1998. This ratio would rise to 52.2 percent in 1999 and 54.3 percent in 2000 under our current base case assumptions.

### U.S. Natural Gas Supply/Demand

**Supply.** U.S. natural gas production is estimated to have shown little or no growth in 1998 and is expected to show a decline in 1999. Although we are projecting that production will fall by less than 1 percent, there is a good chance that it could fall by between 1 and 2 percent this year. This is because of the high levels of storage and the drop off in drilling and consequent falloff in gas produced in association with oil due to low prices. Exploration and production budgets have been slashed for 1999. Perusal of publicly reported production statistics by major U.S. gas producers suggests that U.S. gas production may face a fairly strong downturn in 1999. For a compilation of 25 companies, accounting for about 42 percent of estimated 1998 U.S. total gas production, domestic gas output was down 1.6 last year (Figure 16). The situation was generally worse in the fourth quarter of 1998 than for the year as a whole. That this situation could result in at least a similar reduction in 1999 seems plausible.

**Storage.** Natural gas storage by the end of the first quarter of 1999 is still expected to be higher than a year ago, continuing to fuel expectations of weak spring and summer natural gas prices. The current outlook calls for natural gas storage on March 31 to be about 220 billion cubic feet (19 percent on a working gas basis) above the year-ago level (Figure 17).

**Demand.** The heating season just past (Q4 1998 and Q1 1999) was about 10 percent warmer than normal in terms of heating degree-days. The forecasts for U.S. natural gas demand in 1999 and 2000 have been revised downward from last month's forecast by about 530 billion cubic feet and 300 billion cubic feet, respectively. This is largely due in 1999 to lowered estimates for residential and commercial gas demand consistent with the lower estimated number of heating degree-days in the first quarter. Throughout the forecast we have lowered industrial demand for natural gas, despite the upward revisions to the economic forecast. Although it is difficult to see direct short-term evidence of significant fuel substitution in the industrial sector because of low oil prices, fuel oil is probably replacing natural gas wherever possible. Electric utility demand for natural gas is not expected to show any strength in 1999 (and may make only a modest move up in 2000) mainly because of relatively weak electricity growth patterns this year and continued relatively low oil prices over the entire forecast. This leaves residential and commercial gas as the leaders in gas demand growth in 1999 and 2000 (Figure 18). In 1999, while heating demand is expected to be considerably higher than in 1998, it would still be likely to be below normal and is expected to increase significantly again in 2000.

### U.S. Electricity Demand

**Demand.** The rate of electricity demand growth over the next year or two is not likely to rival the rate seen in 1998, which we currently estimate to have been about 3.1 percent (Figure 19). Demand is likely to expand by a rate closer to 1 percent this year, especially if normal summer weather holds. Such an outcome would imply a significant reduction in summer cooling demand

# Figure 15. Monthly Crude Oil Net Imports (Current vs Previous Outlook)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999



## Figure 16. U. S. Natural Gas Production Changes for Selected Companies

### **Included Companies**



### Source: Company quarterly reports



# Figure 17. Changes in Working Gas Storage (Change from Year Ago)



# Figure 18. Natural Gas Demand Growth



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999



# Figure 19. U.S. Electricity Demand Growth



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, March 1999 Energy Information Administration



from the comparatively blistering conditions of 1998 (Figure 20). Even if a normally cold winter period materializes in Q1 2000, we expect growth in electricity demand to be just over 2 percent next year. Economic (real GDP) growth next year of less than 2 percent would be expected to keep average electricity demand growth at a relatively modest rate.

# Figure 20. Quarterly Cooling Degree-Days (Change from Year Ago)



Source: National Oceanographic and Atmospheric Administration; Estimates/Assumptions: Short-Term Energy Outlook, March 1999

### Table HL1. U.S. Energy Supply and Demand

		Year			Annual Percentage Change			
	1997	1998	1999	2000	1997-1998	1998-1999	1999-2000	
Real Gross Domestic Product (GDP) (billion chained 1992 dollars)	7270	7550	7808	7936	3.9	3.4	1.6	
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel)	18.57	12.13	11.05	13.74	-34.7	-8.9	24.3	
<b>Petroleum Supply</b> (million barrels per day) Crude Oil Production <sup>b</sup>	6.45	6.24	5.85	5.63	-3.3	-6.3	-3.8	
Total Petroleum Net Imports (including SPR)	9.16	9.64	10.03	10.63	5.2	4.0	6.0	
Energy Demand								
World Petroleum (million barrels per day)	73.0	73.7	75.0	76.7	1.0	1.8	2.3	
Petroleum (million barrels per day)	18.62	18.68	19.23	19.56	0.3	2.9	1.7	
Natural Gas (trillion cubic feet)	21.97	21.31	21.65	22.31	-3.0	1.6	3.0	
Coal (million short tons)	1029	1042	1064	1096	1.3	2.1	3.0	
Electricity (billion kilowatthours) Utility Sales <sup>c</sup> Nonutility Own Use <sup>d</sup> Total	3140 161 3301	3237 164 3401	3274 166 3440	3344 168 3512	3.1 1.9 3.0	1.1 1.2 1.1	2.1 1.2 2.1	
Total Energy Demand <sup>e</sup> (quadrillion Btu)	94.3	94.1	95.9	98.0	-0.1	1.8	2.2	
Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar)	12.97	12.47	12.28	12.35	-3.9	-1.5	0.6	
Renewable Energy as Percent of Total <sup>f</sup>	7.5	7.2	6.9	6.8				

<sup>a</sup>Refers to the refiner acquisition cost (RAC) of imported crude oil.

<sup>b</sup>Includes lease condensate.

<sup>C</sup>Total annual electric utility sales for historical periods are derived from the sum of monthly sales figures based on submissions by electric utilities of Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions." These historical values differ from annual sales totals based on Form EIA-861, "Annual Electric Utility Report," reported in several EIA publications, but match alternate annual totals reported in EIA's *Electric Power Monthly*, DOE/EIA-0226.

Report," reported in several EIA publications, but match alternate annual totals reported in EIA's *Electric Power Monthly*, DOE/EIA-0226. <sup>d</sup>Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1997 are estimates.

<sup>e</sup>The conversion from physical units to Btu is calculated by using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER)*. Consequently, the historical data may not precisely match those published in the *MER* or the *Annual Energy Review (AER)*.

<sup>f</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy. SPR: Strategic Petroleum Reserve.

Notes: Minor discrepancies with other published EIA historical data are due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Statistics Report* DOE/EIA-0520; *Weekly Petroleum Status Report*, DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

	1998			1999				2000				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Macroeconomic <sup>a</sup>															
Real Gross Domestic Product (billion chained 1992 dollars - SAAR)	7465	7499	7566	7670	7738	7791	7836	7868	7875	7911	7956	8002	7550	7808	7936
Percentage Change from Prior Year	4.2	3.6	3.5	4.1	3.7	3.9	3.6	2.6	1.8	1.5	1.5	1.7	3.9	3.4	1.6
Annualized Percent Change from Prior Quarter	5.4	1.8	3.6	5.5	3.5	2.7	2.3	1.6	0.4	1.8	2.3	2.3			
GDP Implicit Price Deflator (Index, 1992=1.000)	1.123	1.126	1.129	1.131	1.134	1.137	1.141	1.145	1.151	1.155	1.158	1.163	1.127	1.139	1.157
Percentage Change from Prior Year	1.2	1.0	1.0	0.9	0.9	1.0	1.1	1.2	1.5	1.6	1.5	1.5	1.0	1.1	1.5
Real Disposable Personal Income (billion chained 1992 Dollars - SAAR)	5287	5322	5364	5411	5465	5500	5544	5575	5616	5654	5679	5707	5346	5521	5664
Percentage Change from Prior Year	3.0	3.0	3.2	3.4	3.4	3.3	3.4	3.0	2.8	2.8	2.4	2.4	3.1	3.3	2.6
Manufacturing Production (Index, 1992=1.000)	1.338	1.347	1.348	1.365	1.375	1.389	1.399	1.406	1.405	1.412	1.423	1.435	1.350	1.392	1.419
Percentage Change from Prior Year	6.0	5.0	3.1	2.6	2.8	3.2	3.8	3.0	2.1	1.6	1.7	2.1	4.2	3.2	1.9
OECD Economic Growth (percent) <sup>b</sup>													3.0	2.6	2.4
Weather <sup>c</sup>															
Heating Degree-Days	4070	400	60	1 160	0117	504	90	1626	2251	504	90	1626	2000	1266	4602
U.S Now England	1972	460	202	2100	2117	015	09 171	2260	2304	015	09 171	2260	3900 5947	4300 6451	4003
Middle Atlantic	2461	570	106	1779	2791	716	105	2026	3028	716	105	2026	4916	5638	5875
US Gas-Weighted	2078	548	66	1555	2234	539	81	1686	2454	539	81	1686	4247	4540	4760
Cooling Degree-Days (U.S.)	25	399	865	69	31	334	758	72	30	334	758	72	1358	1194	1193
a															

#### Table 1. U.S. Macroeconomic and Weather Assumptions

Acroeconomic projections from DRI/McGraw-Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the mid world oil price case. <sup>b</sup>OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland,

Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

c<sup>P</sup>Population-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 1990 population. Normal is used for the forecast period and is defined as the average number of degree days between 1961 and 1990 for a given period.

SAAR: Seasonally-adjusted annualized rate.

Note: Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419). Projections of OECD growth are based on WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

#### Table 2. U.S. Energy Indicators: Mid World Oil Price Case

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Macroeconomic <sup>a</sup>														<u> </u>	
Real Fixed Investment															
(billion chained 1992 dollars-SAAR)	1225	1264	1271	1316	1344	1361	1367	1372	1374	1370	1368	1373	1269	1361	1371
Real Exchange Rate															
(index)	1.142	1.161	1.181	1.118	1.106	1.115	1.119	1.113	1.106	1.099	1.091	1.083	1.151	1.113	1.095
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	30.1	23.9	19.2	18.9	14.3	11.0	10.7	9.3	-5.4	-7.5	-2.6	-0.5	23.0	11.3	-4.0
Producer Price Index															
(index, 1982=1.000)	1.251	1.248	1.244	1.234	1.232	1.236	1.242	1.250	1.257	1.261	1.263	1.267	1.244	1.240	1.262
Consumer Price Index															
(index, 1982-1984=1.000)	1.620	1.628	1.635	1.643	1.649	1.658	1.669	1.679	1.692	1.702	1.711	1.722	1.631	1.664	1.707
Petroleum Product Price Index															
(index, 1982=1.000)	0.541	0.536	0.503	0.477	0.450	0.480	0.492	0.490	0.532	0.554	0.556	0.544	0.514	0.478	0.546
Non-Farm Employment															
(millions)	124.8	125.5	126.1	126.8	127.5	128.1	128.7	129.0	129.2	129.4	129.6	129.9	125.8	128.3	129.5
Commercial Employment															
(millions)	85.7	86.3	87.0	87.6	88.5	89.1	89.7	90.1	90.3	90.5	90.8	91.3	86.7	89.4	90.7
Total Industrial Production															
(index, 1992=1.000)	1.303	1.312	1.316	1.326	1.336	1.350	1.358	1.364	1.364	1.371	1.381	1.393	1.314	1.352	1.377
Housing Stock															
(millions)	113.7	114.0	114.3	114.8	115.2	115.5	115.9	116.2	116.5	116.8	117.1	117.4	114.2	115.7	117.0
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1992=1.000)	1.175	1.171	1.158	1.157	1.156	1.162	1.167	1.167	1.163	1.168	1.178	1.186	1.166	1.163	1.173
Vehicle Miles Traveled b															
(million miles/day)	6629	7424	7600	7054	6884	7587	7769	7291	7062	7755	7926	7445	7179	7385	7548
Vehicle Fuel Efficiency															
(index, 1996=1.000)	0.994	1.018	0.994	0.997	0.996	1.002	1.005	1.015	0.999	1.006	1.007	1.018	1.001	1.004	1.007
Real Vehicle Fuel Cost															
(cents per mile)	3.33	3.13	3.07	3.10	2.88	2.97	2.99	3.07	3.16	3.19	3.14	3.19	3.16	2.98	3.17
Air Travel Capacity															
(mill. available ton-miles/day)	423.2	438.8	441.8	436.4	434.5	453.4	467.4	459.9	454.5	472.6	489.5	478.3	435.1	453.9	473.8
Aircraft Utilization															
(mill. revenue ton-miles/day)	237.5	258.9	261.4	254.9	250.8	268.9	283.3	267.4	261.5	278.7	293.8	278.9	253.2	267.7	278.3
Airline Ticket Price Index															
(index, 1982-1984=1.000)	2.058	2.053	2.070	2.029	2.071	2.097	2.118	2.157	2.201	2.217	2.231	2.264	2.053	2.111	2.228
Raw Steel Production															
(millions tons)	28.75	27.87	26.57	25.92	27.38	27.23	26.85	27.31	28.33	27.71	27.09	27.53	108.80	108.77	110.67

<sup>a</sup>Macroeconomic projections from DRI/McGraw-Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the mid world oil price case. <sup>b</sup>Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate. Note: Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

#### Table 3. International Petroleum Supply and Demand: Mid World Oil Price Case

(Million Barrels per Day, Except OECD Commercial Stocks)

	1998			1999				2000				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Demand <sup>a</sup>															
OECD															
U.S. (50 States)	18.3	18.4	19.0	18.9	19.0	19.0	19.3	19.6	19.5	19.3	19.6	19.9	18.7	19.2	19.6
U.S. Territories	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Canada	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0
Europe	14.9	14.1	14.6	14.6	15.0	14.3	14.7	14.8	15.1	14.3	15.0	15.3	14.6	14.7	14.9
Japan	6.2	5.0	5.2	5.6	6.2	5.0	5.2	5.6	6.2	5.1	5.2	5.8	5.5	5.5	5.6
Australia and New Zealand	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0
Total OECD	42.4	40.6	42.0	42.3	43.3	41.5	42.6	43.2	44.2	41.9	43.0	44.3	41.8	42.7	43.4
Non-OECD															
Former Soviet Union	4.5	4.1	4.1	4.5	4.5	4.0	4.0	4.4	4.5	4.1	4.1	4.4	4.3	4.2	4.3
Europe	1.6	1.4	1.4	1.5	1.7	1.5	1.5	1.6	1.8	1.5	1.5	1.7	1.5	1.6	1.6
China	3.9	4.0	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5	4.0	4.2	4.4
Other Asia	8.9	8.6	8.4	9.6	9.0	8.8	8.5	9.7	9.4	9.1	8.9	10.0	8.9	9.0	9.4
Other Non-OECD	13.0	13.3	13.1	13.4	13.2	13.5	13.3	13.5	13.5	13.8	13.6	13.8	13.2	13.4	13.7
Total Non-OECD	32.0	31.4	31.0	33.0	32.5	31.9	31.5	33.5	33.4	32.9	32.5	34.5	31.9	32.4	33.3
Total World Demand	74.4	72.0	73.0	75.4	75.8	73.4	74.1	76.8	77.7	74.8	75.5	78.8	73.7	75.0	76.7
Supply <sup>b</sup>															
OECD															
U.S. (50 States)	9.5	9.4	9.0	9.1	8.9	8.8	8.8	8.9	8.6	8.6	8.6	8.6	9.2	8.8	8.6
Canada	2.7	2.6	2.8	2.8	2.8	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.8
North Sea <sup>c</sup>	6.4	6.2	5.9	6.3	6.3	6.2	6.4	6.7	6.7	6.5	6.7	7.0	6.2	6.4	6.7
Other OECD	1.6	1.6	1.6	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6
Total OECD	20.1	19.8	19.3	19.6	19.4	19.2	19.4	19.9	19.7	19.5	19.7	20.1	19.7	19.5	19.8
Non-OECD	-				-	-	-		-		-		-		
OPEC	30.9	30.7	30.0	29.9	30.1	30.3	30.5	30.6	30.9	31.0	31.2	31.4	30.4	30.4	31.1
Former Soviet Union	7.3	7.2	7.2	7.3	7.3	7.2	7.2	7.3	7.3	7.3	7.3	7.4	7.2	7.2	7.3
China	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Mexico	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.6
Other Non-OECD	10.7	10.8	10.8	11.0	10.8	10.9	10.9	11.0	11.0	11.1	11.2	11.2	10.8	10.9	11.1
Total Non-OECD	55.7	55.4	54.7	54.9	54.9	55.0	55.3	55.6	55.9	56.0	56.4	56.8	55.2	55.2	56.3
Total World Supply	75.8	75.2	74.0	74.4	74.3	74.3	74.7	75.6	75.7	75.6	76.1	76.9	74.8	74.7	76.1
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.3	-0.7	0.0	0.1	0.5	-0.4	-0.3	0.6	0.7	-0.5	-0.4	0.4	-0.2	0.1	0.1
Other	-1.1	-2.4	-1.0	0.9	1.0	-0.5	-0.4	0.6	1.3	-0.3	-0.2	1.4	-0.9	0.2	0.6
Total Stock Withdrawals	-1.4	-3.1	-1.0	0.9	1.5	-0.8	-0.6	1.2	2.0	-0.8	-0.6	1.9	-1.1	0.3	0.6
OECD Comm. Stocks, End (bill. bbls.)	2.7	2.9	2.9	2.9	2.8	2.8	2.9	2.8	2.7	2.8	2.8	2.7	2.9	2.8	2.7
Non-OPEC Supply	44.9	44.5	44.0	44.5	44.3	44.0	44.3	45.0	44.8	44.6	45.0	45.5	44.5	44.4	45.0
Net Exports from Former Soviet Union	2.7	3.1	3.1	2.9	2.8	3.2	3.2	2.9	2.8	3.2	3.2	3.0	3.0	3.0	3.0

<sup>a</sup>Demand for petroleum by the OECD countries is synonymous with "petroleum product supplied," which is defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109. Demand for petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

<sup>b</sup>Includes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, refinery gains, alcohol, and liquids produced from coal and other sources.

<sup>c</sup>Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

OPEC: Organization of Petroleum Exporting Countries: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. SPR: Strategic Petroleum Reserve

Former Soviet Union: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Notes: Minor discrepancies with other published EIA historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Energy Information Administration: latest data available from EIA databases supporting the following reports: International Petroleum Statistics Report, DOE/EIA-0520; Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

### Table 4. U. S. Energy Prices (Nominal Dollars)

	1998			1999				2000				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Imported Crude Oil <sup>a</sup> (dollars per barrel)	13.45	12.40	11.87	10.85	10.09	10.76	11.25	12.08	13.08	13.75	13.83	14.25	12.13	11.05	13.74
Natural Gas Wellhead (dollars per thousand cubic feet)	2.02	2.07	1.92	1.85	1.76	1.68	1.77	2.13	2.27	2.00	1.97	2.28	1.96	1.83	2.13
Petroleum Products															
Gasoline Retail <sup>b</sup> (dollars per gallon) All Grades Regular Unleaded	1.10 1.05	1.10 1.05	1.07 1.03	1.03 0.99	0.97 0.93	1.04 1.01	1.08 1.04	1.06 1.02	1.09 1.05	1.16 1.12	1.16 1.12	1.13 1.09	1.07 1.03	1.04 1.00	1.14 1.10
No. 2 Diesel Oil, Retail (dollars per gallon)	1.08	1.05	1.02	1.00	0.96	0.97	0.99	1.05	1.06	1.07	1.06	1.11	1.04	0.99	1.07
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.47	0.43	0.40	0.38	0.34	0.34	0.38	0.45	0.48	0.49	0.50	0.53	0.42	0.38	0.50
No. 2 Heating Oil, Retail (dollars per gallon)	0.92	0.85	0.77	0.79	0.78	0.73	0.74	0.84	0.89	0.89	0.86	0.92	0.85	0.78	0.90
No. 6 Residual Fuel Oil, Retail <sup>c</sup> (dollars per barrel)	13.56	13.22	12.31	11.76	11.16	10.97	11.05	12.87	14.22	13.47	13.18	14.42	12.71	11.52	13.85
Electric Utility Fuels															
Coal (dollars per million Btu)	1.26	1.26	1.25	1.23	1.23	1.25	1.23	1.22	1.23	1.24	1.21	1.21	1.25	1.23	1.22
Heavy Fuel Oil <sup>d</sup> (dollars per million Btu)	2.12	2.17	2.07	1.92	1.78	1.81	1.84	2.11	2.24	2.21	2.18	2.36	2.07	1.88	2.24
Natural Gas (dollars per million Btu)	2.61	2.46	2.28	2.24	2.36	2.18	2.24	2.67	2.92	2.53	2.48	2.83	2.37	2.33	2.63
Other Residential															
Natural Gas (dollars per thousand cubic feet)	6.39	7.33	8.90	6.62	6.61	7.03	8.63	6.61	6.83	7.62	8.96	7.27	6.82	6.82	7.22
Electricity (cents per kilowatthour) <sup>a</sup> Refiner acquisition cost (RAC) of imported	7.93	8.42	8.54	8.04	7.63	8.22	8.49	8.03	7.46	8.08	8.34	7.85	8.25	8.10	7.94

<sup>b</sup>Average self-service cash prices.

<sup>c</sup>Average for all sulfur contents.

<sup>d</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices. Notes: Data are estimated for the third quarter of 1998. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System. Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Monthly Energy Review*, DOE/EIA-0035; *Electric Power Monthly*, DOE/EIA-0226.

### Table 5. U.S. Petroleum Supply and Demand: Mid World Oil Price Case

(Million Barrels per Day, Except Closing Stocks)

		1998		Ū	,	1999				2000				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Crude Oil Supply															
Domestic Production <sup>a</sup>	6.45	6.37	6.10	6.05	5.93	5.82	5.80	5.88	5.65	5.63	5.61	5.62	6.24	5.85	5.63
Alaska	1.23	1.17	1.13	1.18	1.16	1.10	1.06	1.10	1.02	1.02	1.01	1.01	1.17	1.10	1.01
Lower 48	5.23	5.20	4.98	4.88	4.77	4.72	4.73	4.78	4.64	4.61	4.60	4.61	5.07	4.75	4.61
Net Imports (including SPR) <sup>b</sup>	8.12	8.89	9.05	8.43	8.25	9.20	9.32	8.58	8.60	9.57	9.79	9.14	8.63	8.84	9.27
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPR Stock Withdrawn or Added (-)	0.00	0.00	0.00	-0.09	-0.01	0.00	0.00	0.12	0.00	0.00	0.00	0.00	-0.02	0.03	0.00
Other Stock Withdrawn or Added (-)	-0.35	0.04	0.25	-0.15	-0.08	-0.03	0.09	0.01	0.06	-0.04	0.05	0.02	-0.05	0.00	0.02
Product Supplied and Losses	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01
Unaccounted-for Crude Oil	0.10	-0.15	-0.06	0.28	0.42	0.23	0.23	0.22	0.22	0.23	0.24	0.22	0.04	0.27	0.23
Total Crude Oil Supply	14.32	15.14	15.34	14.53	14.48	15.21	15.43	14.80	14.53	15.38	15.67	14.99	14.84	14.98	15.14
Other Supply															
NGL Production	1.85	1.80	1.67	1.70	1.73	1.74	1.75	1.75	1.76	1.77	1.76	1.77	1.75	1.74	1.77
Other Hydrocarbon and Alcohol Inputs	0.34	0.36	0.38	0.39	0.37	0.34	0.35	0.37	0.38	0.36	0.37	0.38	0.37	0.36	0.37
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Processing Gain	0.83	0.84	0.89	0.94	0.83	0.88	0.88	0.85	0.84	0.88	0.90	0.86	0.88	0.86	0.87
Net Product Imports <sup>c</sup>	0.93	1.04	0.99	1.09	1.02	1.17	1.26	1.29	1.34	1.34	1.32	1.42	1.01	1.19	1.36
Product Stock Withdrawn or Added (-) <sup>d</sup> .	0.03	-0.75	-0.24	0.29	0.55	-0.32	-0.34	0.50	0.67	-0.47	-0.43	0.42	-0.17	0.10	0.05
Total Supply	18.30	18.43	19.03	18.94	18.98	19.03	19.34	19.57	19.53	19.27	19.60	19.85	18.68	19.23	19.56
Demand															
Motor Gasoline	7.77	8.21	8.49	8.32	8.05	8.53	8.59	8.44	8.23	8.68	8.74	8.60	8.20	8.40	8.56
Jet Fuel	1.55	1.55	1.54	1.65	1.61	1.57	1.62	1.65	1.63	1.59	1.65	1.67	1.57	1.61	1.63
Distillate Fuel Oil	3.58	3.37	3.39	3.43	3.73	3.47	3.42	3.66	3.90	3.51	3.46	3.70	3.44	3.57	3.64
Residual Fuel Oil	0.81	0.81	0.89	0.76	0.93	0.89	0.91	0.93	1.05	0.85	0.87	0.90	0.82	0.91	0.92
Other Oils <sup>e</sup>	4.62	4.49	4.71	4.78	4.64	4.57	4.81	4.89	4.71	4.64	4.88	4.98	4.65	4.73	4.80
Total Demand	18.32	18.43	19.03	18.94	18.96	19.03	19.34	19.57	19.53	19.27	19.60	19.85	18.68	19.23	19.56
Total Petroleum Net Imports	9.05	9.93	10.04	9.52	9.27	10.38	10.59	9.87	9.94	10.91	11.11	10.56	9.64	10.03	10.63
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	336	333	310	323	330	333	325	324	319	323	318	316	323	324	316
Total Motor Gasoline	215	221	207	216	217	214	215	214	210	204	206	207	216	214	207
Finished Motor Gasoline	166	178	165	172	169	171	171	171	167	164	164	165	172	171	165
Blending Components	49	44	43	44	48	43	44	43	44	41	42	42	44	43	42
Jet Fuel	43	44	46	45	43	43	46	45	42	43	46	45	45	45	45
Distillate Fuel Oil	124	139	153	156	124	125	140	143	106	116	136	144	156	143	144
Residual Fuel Oil	41	40	40	44	38	40	39	42	33	37	38	42	44	42	42
Other Oils <sup>e</sup>	265	313	334	292	281	310	325	274	265	299	314	264	292	274	264
Total Stocks (excluding SPR)	1025	1090	1089	1076	1033	1065	1088	1042	976	1023	1058	1017	1076	1042	1017
Crude Oil in SPR	563	563	563	571	572	572	572	561	561	561	561	561	571	561	561
Total Stocks (including SPR)	1588	1654	1653	1647	1605	1637	1660	1603	1537	1584	1619	1578	1647	1603	1578

<sup>a</sup>Includes lease condensate.

<sup>b</sup>Net imports equals gross imports plus SPR imports minus exports.

<sup>c</sup>Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

<sup>d</sup>Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

<sup>e</sup>Includes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109, and Weekly Petroleum Status Report, DOE/EIA-0208.

		+ 10	0% Prices	+ 10	% Weather <sup>e</sup>
Demand Sector	+1% GDP	Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer <sup>f</sup>
Petroleum					
Total	0.6%	-0.3%	0.1%	1.1%	0.1%
Motor Gasoline	0.1%	-0.3%	0.0%	0.0%	0.0%
Distillate Fuel	0.8%	-0.2%	0.0%	2.7%	0.1%
Residual Fuel	1.6%	-3.4%	2.6%	2.0%	2.7%
Natural Gas					
Total	1.1%	0.3%	-0.4%	4.4%	1.0%
Residential	0.1%	0.0%	0.0%	8.2%	0.0%
Commercial	0.9%	0.0%	0.0%	7.3%	0.0%
Industrial	1.7%	0.2%	-0.5%	1.3%	0.0%
Electric Utility	1.8%	1.6%	-1.5%	1.0%	4.0%
Coal					
Total	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Utility	0.6%	0.0%	0.0%	1.9%	1.9%
Electricity					
Total	0.6%	0.0%	0.0%	1.5%	1.7%
Residential	0.1%	0.0%	0.0%	3.2%	3.6%
Commercial	0.9%	0.0%	0.0%	1.0%	1.4%
Industrial	0.8%	0.0%	0.0%	0.3%	0.2%

### Table 6. Approximate Energy Demand Sensitivities<sup>a</sup> for the STIFS<sup>b</sup> Model

(Percent Deviation Base Case)

<sup>a</sup>Percent change in demand quantity resulting from specified percent changes in model inputs.

<sup>b</sup>Short-Term Integrated Forecasting System.

<sup>c</sup>Refiner acquisitions cost of imported crude oil.

<sup>d</sup>Average unit value of marketed natural gas production reported by States.

eRefers to percent changes in degree-days.

<sup>f</sup>Response during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days. Response during the spring/summer period refers to change in cooling degree-days.

### Table 7. Forecast Components for U.S. Crude Oil Production

(Million Barrels per Day)

				Difference	
	High Price Case	Low Price Case	Total	Uncertainty	Price Impact
United States	5.92	5.17	0.75	0.09	0.66
Lower 48 States	4.90	4.17	0.72	0.08	0.64
Alaska	1.02	1.00	0.03	0.01	0.01

Note: Components provided are for the fourth quarter 2000. Totals may not add to sum of components due to independent rounding. Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

#### Table 8. U.S. Natural Gas Supply and Demand: Mid world Oil Price Case

(Trillion cubic Feet)

	1998			1999				2000				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Total Dry Gas Production	4.72	4.73	4.75	4.76	4.69	4.71	4.72	4.74	4.74	4.71	4.73	4.74	18.96	18.86	18.93
Net Imports	0.75	0.71	0.75	0.79	0.77	0.74	0.74	0.81	0.82	0.79	0.79	0.86	2.99	3.05	3.26
Supplemental Gaseous Fuels	0.03	0.02	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.12	0.13	0.13
Total New Supply	5.50	5.47	5.52	5.58	5.50	5.47	5.49	5.58	5.60	5.53	5.55	5.64	22.07	22.05	22.32
Underground Working Gas Storage															
Opening	6.52	5.52	6.44	7.28	7.04	5.74	6.50	7.34	6.83	5.38	6.21	7.13	6.52	7.04	6.83
Closing	5.52	6.44	7.28	7.04	5.74	6.50	7.34	6.83	5.38	6.21	7.13	6.71	7.04	6.83	6.71
Net Withdrawals	1.00	-0.92	-0.84	0.24	1.30	-0.75	-0.84	0.50	1.45	-0.83	-0.92	0.42	-0.52	0.21	0.12
Total Supply	6.50	4.54	4.68	5.82	6.80	4.72	4.66	6.08	7.05	4.70	4.63	6.06	21.55	22.26	22.43
Balancing Item <sup>a</sup>	0.14	0.15	-0.05	-0.47	-0.03	0.09	-0.19	-0.47	0.27	0.17	-0.14	-0.43	-0.23	-0.60	-0.13
Total Primary Supply	6.63	4.70	4.63	5.35	6.77	4.81	4.46	5.61	7.32	4.87	4.50	5.63	21.31	21.65	22.31
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.31	0.31	0.31	0.32	1.25	1.24	1.25
Pipeline Use	0.23	0.16	0.16	0.18	0.23	0.17	0.15	0.19	0.24	0.16	0.15	0.19	0.73	0.74	0.74
Residential	2.13	0.78	0.36	1.25	2.25	0.81	0.33	1.39	2.49	0.82	0.33	1.41	4.52	4.78	5.06
Commercial	1.21	0.58	0.47	0.83	1.29	0.64	0.46	0.91	1.44	0.65	0.46	0.92	3.08	3.29	3.47
Industrial (Incl. Cogenerators)	2.22	1.97	1.99	2.11	2.14	1.95	1.93	2.12	2.24	1.98	1.92	2.10	8.28	8.15	8.23
Cogenerators	0.51	0.49	0.54	0.60	0.53	0.50	0.55	0.61	0.54	0.51	0.56	0.63	2.14	2.19	2.23
Electricity Production															
Electric Utilities	0.50	0.86	1.29	0.62	0.52	0.89	1.23	0.62	0.55	0.91	1.27	0.64	3.26	3.27	3.37
Nonutilities (Excl. Cogen.)	0.04	0.04	0.05	0.05	0.04	0.04	0.05	0.05	0.05	0.04	0.05	0.05	0.18	0.18	0.19
Total Demand	6.63	4.70	4.63	5.35	6.77	4.81	4.46	5.61	7.32	4.87	4.50	5.63	21.31	21.65	22.31

<sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

<sup>b</sup>Quarterly estimates and projections for gas consumption by nonutility generators are based on estimates for quarterly gas-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Annual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by CNEAF.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Oil and Gas, Reserves and Natural Gas Division.

### Table 9. U.S. Coal Supply and Demand: Mid World Oil Price Case

(Million Short Tons)

X	1998			1999				2000				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Production	279.2	271.6	276.0	284.6	271.7	282.5	278.8	282.2	296.0	276.6	276.7	287.0	1111.4	1115.1	1136.3
Appalachia	119.1	111.6	110.3	119.2	114.1	120.1	109.1	116.2	122.7	115.4	106.1	116.3	460.2	459.6	460.6
Interior	41.0	41.5	41.2	43.1	38.2	39.4	39.8	40.8	39.9	36.9	37.6	39.7	166.7	158.2	154.0
Western	119.1	118.5	124.5	122.3	119.3	123.0	129.9	125.1	133.4	124.3	133.0	131.0	484.4	497.3	521.7
Primary Stock Levels <sup>a</sup>															
Opening	34.0	41.0	38.3	34.2	34.1	42.4	41.4	39.0	36.6	42.7	43.0	32.9	34.0	34.1	36.6
Closing	41.0	38.3	34.2	34.1	42.4	41.4	39.0	36.6	42.7	43.0	32.9	32.6	34.1	36.6	32.6
Net Withdrawals	-7.0	2.7	4.2	(S)	-8.2	1.0	2.4	2.4	-6.0	-0.3	10.1	0.3	-0.2	-2.5	4.1
Imports	1.8	2.2	2.1	2.5	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	8.7	8.6	9.0
Exports	18.3	20.5	19.7	18.6	18.8	18.8	19.0	19.0	17.8	18.1	18.3	18.2	77.2	75.5	72.5
Total Net Domestic Supply	255.7	256.0	262.6	268.5	246.9	266.9	264.3	267.8	274.4	260.4	270.7	271.4	1042.8	1045.8	1076.9
Secondary Stock Levels <sup>b</sup>															
Opening	101.4	114.1	124.7	111.3	128.6	118.5	135.0	119.3	120.8	120.5	125.6	111.4	101.4	128.6	120.8
Closing	114.1	124.7	111.3	128.6	118.5	135.0	119.3	120.8	120.5	125.6	111.4	112.5	128.6	120.8	112.5
Net Withdrawals	-12.7	-10.6	13.5	-17.3	10.1	-16.5	15.8	-1.6	0.3	-5.0	14.1	-1.0	-27.2	7.7	8.4
Waste Coal Supplied to IPPs <sup>c</sup>	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	10.0	10.6	11.2
Total Supply	245.5	247.8	278.5	253.7	259.6	253.0	282.7	268.9	277.5	258.2	287.7	273.1	1025.6	1064.1	1096.5
Demand															
Coke Plants	6.9	6.9	7.1	7.0	7.3	7.1	7.0	7.2	7.3	7.2	7.0	7.3	28.0	28.6	28.8
Electricity Production															
Electric Utilities	220.5	218.7	252.8	220.0	225.0	221.2	251.0	234.3	242.8	226.4	256.0	238.5	912.1	931.5	963.7
Nonutilities (Excl. Cogen.) <sup>d</sup>	6.2	6.2	6.2	6.2	6.6	6.6	6.6	6.6	7.0	7.0	7.0	7.0	25.0	26.5	28.0
Retail and General Industry e	20.1	18.3	18.0	20.4	20.6	18.1	18.1	20.7	20.4	17.6	17.6	20.4	76.8	77.5	76.0
Total Demand	253.8	250.2	284.2	253.7	259.6	253.0	282.7	268.9	277.5	258.2	287.7	273.1	1041.9	1064.1	1096.5
Discrepancy <sup>f</sup>	-8.3	-2.3	-5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	0.0	0.0

<sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

<sup>b</sup>Secondary stocks are held by users.

<sup>c</sup>Estimated independent power producers (IPPs) consumption of waste coal for 1994 is 7.9 million tons, 8.5 million tons in 1995, and 8.8 million tons in 1996.

<sup>d</sup>Consumption of coal by IPPs. In 1995, IPP consumption was estimated to be 5.290 million tons per quarter. Quarterly estimates and projections for coal consumption by nonutility generators are based on estimates for annual coal-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Data for third quarter 1998 are estimates.

<sup>e</sup>Synfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level in 1994, 1995, 1996, 1997 and 1998.

<sup>f</sup>The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

(S) indicates amounts of less than 50,000 tons in absolute value.

Notes: Rows and columns may not add due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121, and *Electric Power Monthly*, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

### Table 10. U.S. Electricity Supply and Demand: Mid World Oil Price Case

(Billion Kilowatthours)

		1998				1999				2000				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Net Utility Generation															
Coal	437.0	434.9	501.3	434.9	447.5	441.6	498.1	465.4	486.2	452.5	508.0	473.9	1808.1	1852.6	1920.6
Petroleum	20.9	28.5	37.3	23.8	31.7	30.8	36.2	29.0	33.3	28.0	33.7	27.7	110.5	127.8	122.8
Natural Gas	47.9	80.7	120.8	59.4	49.8	85.2	117.8	59.6	52.8	86.7	121.4	60.8	308.9	312.4	321.7
Nuclear	162.6	154.7	179.1	177.3	174.3	154.5	181.4	163.5	171.8	155.9	183.0	164.4	673.7	673.6	675.1
Hydroelectric	86.7	88.6	69.7	60.3	76.5	77.9	65.6	64.0	74.3	77.2	64.7	64.1	305.3	284.0	280.4
Geothermal and Other <sup>a</sup>	1.9	1.4	1.9	2.0	1.6	1.5	2.0	2.1	1.7	1.5	2.0	2.1	7.2	7.2	7.2
Subtotal	757.0	789.0	910.0	757.6	781.4	791.5	901.0	783.6	820.1	801.8	912.9	793.0	3213.6	3257.6	3327.7
Nonutility Generation <sup>b</sup>															
Coal	14.9	14.3	15.5	17.4	15.1	14.4	15.7	17.6	15.3	14.6	15.9	17.8	62.0	62.8	63.7
Petroleum	3.9	3.8	4.1	4.6	4.0	3.9	4.2	4.7	4.1	4.0	4.3	4.8	16.4	16.8	17.2
Natural Gas	49.8	47.7	51.9	58.1	50.9	48.7	53.0	59.4	51.9	49.8	54.1	60.6	207.6	212.0	216.5
Other Gaseous Fuels <sup>c</sup>	3.0	2.9	3.1	3.5	2.9	2.8	3.1	3.4	2.9	2.7	3.0	3.3	12.5	12.2	11.9
Hvdroelectric	4.2	4.0	4.3	4.9	4.3	4.1	4.5	5.0	4.5	4.3	4.7	5.2	17.4	18.0	18.7
Geothermal and Other <sup>d</sup>	17.9	17.1	18.6	20.8	17.8	17.0	18.5	20.8	17.7	17.0	18.5	20.7	74.4	74.1	73.9
Subtotal	93.6	89.7	97.6	109.3	95.0	91.0	99.1	110.9	96.4	92.4	100.5	112.6	390.3	396.0	401.9
Total Generation	850.6	878.7	1007.7	866.9	876.4	882.6	1000.1	894.5	916.5	894.2	1013.4	905.6	3604.0	3653.6	3729.6
Net Imports <sup>e</sup>	5.8	6.9	10.9	7.3	6.8	7.9	11.2	7.8	7.1	8.4	11.3	8.1	31.0	33.7	34.8
Total Supply	856.4	885.6	1018.6	874.3	883.2	890.4	1011.3	902.3	923.6	902.6	1024.7	913.6	3634.9	3687.3	3764.5
Losses and Unaccounted for <sup>f</sup>	48.1	75.7	57.2	53.3	45.9	73.2	63.9	64.7	47.9	74.3	64.8	65.5	234.4	247.7	252.4
Demand															
Electric Litility Sales															
Residential	275.8	250.7	347.9	258.6	289.7	254.3	330.8	265.9	311.8	260.9	338.6	271.5	1133.0	1140.7	1182.8
Commercial	217.4	230.9	271.7	230.3	228.9	234.5	272.3	235.5	238.7	237.2	274.5	237.3	950.3	971.2	987.7
Industrial	252.2	266.3	273.8	260.7	253.4	265.1	275.1	263.9	258.4	265.9	276.5	265.9	1053.0	1057.5	1066.8
Other	23.7	24.3	27.1	25.5	25.6	25.1	27.7	25.8	26.4	25.5	28.1	26.3	100.6	104.3	106.3
Subtotal	769.1	772.3	920.5	775.1	797.5	779.1	905.9	791.2	835.3	789.6	917.8	801.0	3236.9	3273.6	3343.6
Nonutility Gener, for Own Use <sup>b</sup>	39.2	37.6	40.9	45.8	39.8	38.1	41.5	46.5	40.4	38.7	42.1	47.2	163.6	166.0	168.5
Total Demand	808.3	809.9	961.4	821.0	837.3	817.2	947.4	837.7	875.7	828.3	959.9	848.1	3400.5	3439.6	3512.1
				-					-						-
Memo:															
Nonutility Sales to															
Electric Utilities <sup>b</sup>	54.4	52.1	56.7	63.5	55.2	52.9	57.5	64.4	56.0	53.7	58.4	65.4	226.7	230.1	233.4
a															

<sup>a</sup>"Other" includes generation from wind, wood, waste, and solar sources.

<sup>b</sup>Electricity from nonutility sources, including cogenerators and small power producers. Quarterly estimates and projections for nonutility net sales, own use, and

generation by fuel source supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867, "Annual Nonutility Power Producer Report."

<sup>c</sup>Includes refinery still gas and other process or waste gases, and liquefied petroleum gases.

<sup>d</sup>Includes geothermal, solar, wind, wood, waste, nuclear, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

<sup>e</sup>Data for 1997 are estimates.

<sup>t</sup>Balancing item, mainly transmission and distribution losses.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

### Table 11. U.S. Renewable Energy Use by Sector : Mid World Oil Price Case

(Quadrillion Btu)

· · · · · · · · · · · · · · · · · · ·		Year			Annua	l Percentage C	Change
	1997	1998	1999	2000	1997-1998	1998-1999	1999-2000
Electric Utilities							
Hydroelectric Power <sup>a</sup>	3.530	3.196	2.973	2.935	-9.5	-7.0	-1.3
Geothermal, Solar and Wind Energy <sup>b</sup>	0.115	0.109	0.109	0.109	-5.2	0.0	0.0
Biofuels <sup>c</sup>	0.021	0.021	0.021	0.021	0.0	0.0	0.0
Total	3.665	3.325	3.103	3.065	-9.3	-6.7	-1.2
Nonutility Power Generators							
Hydroelectric Power <sup>a</sup>	0.185	0.179	0.186	0.193	-3.2	3.9	3.8
Geothermal, Solar and Wind Energy <sup>b</sup>	0.235	0.253	0.254	0.255	7.7	0.4	0.4
Biofuels <sup>c</sup>	0.578	0.585	0.582	0.579	1.2	-0.5	-0.5
Total	0.998	1.018	1.022	1.027	2.0	0.4	0.5
Total Power Generation	4.663	4.343	4.125	4.092	-6.9	-5.0	-0.8
Other Sectors <sup>d</sup>							
Residential and Commercial <sup>e</sup>	0.553	0.568	0.574	0.583	2.7	1.1	1.6
Industrial <sup>f</sup>	1.498	1.515	1.542	1.569	1.1	1.8	1.8
Transportation <sup>g</sup>	0.087	0.094	0.091	0.094	8.0	-3.2	3.3
Total	2.138	2.178	2.208	2.246	1.9	1.4	1.7
Net Imported Electricity h	0.297	0.252	0.274	0.283	-15.2	8.7	3.3
Total Renewable Energy Demand	7.098	6.773	6.606	6.621	-4.6	-2.5	0.2

<sup>a</sup>Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

<sup>b</sup>Also includes photovoltaic and solar thermal energy.

<sup>C</sup>Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

<sup>d</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy. SPR: Strategic Petroleum Reserve.

<sup>e</sup>Includes biofuels and solar energy consumed in the residential and commercial sectors.

<sup>f</sup>onsists primarily of biofuels for use other than in electricity cogeneration.

<sup>g</sup>Ethanol blended into gasoline.

<sup>h</sup>Represents 78.6 percent of total electricity net imports, which is the proportion of total 1994 net imported electricity (0.459 quadrillion Btu) attributable to renewable sources (0.361 quadrillion Btu).

(S) Less than 500 billion Btu.

NM indicates percent change calculations are not meaningful or undefined at the precision level of this table.

Notes: Minor discrepancies with other published EIA historical data are due to independent rounding. Historical data are printed in bold, forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

#### Table A1. Annual U.S. Energy Supply and Demand

								Year							
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Real Gross Domestic Product (GDP)															
(billion chained 1992 dollars)	5488	5649	5865	6062	6136	6079	6244	6390	6611	6762	6995	7270	7550	7808	7936
Imported Crude Oil Price <sup>a</sup>															
(nominal dollars per barrel)	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.57	12.13	11.05	13.74
Petroleum Supply															
Crude Oil Production <sup>b</sup>															
(million barrels per day)	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.24	5.85	5.63
Total Petroleum Net Imports (including SPR)															
(million barrels per day)	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.64	10.03	10.63
Energy Demand															
World Petroleum															
(million barrels per day)	61.8	63.1	64.9	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.3	73.0	73.7	75.0	76.7
U.S. Petroleum															
(million barrels per day)	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.68	19.23	19.56
Natural Gas										- ·					
(trillion cubic feet)	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.31	21.65	22.31
(million short tons)	797	830	877	891	897	898	907	944	951	962	1006	1029	1042	1064	1096
Electricity (billion kilowatthours)															
Utility Sales <sup>c</sup>	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3140	3237	3274	3344
Nonutility Own Use <sup>d</sup>	NA	NA	NA	97	113	122	137	138	150	158	158	161	164	166	168
Total	2369	2457	2578	2744	2826	2884	2901	2999	3085	3171	3256	3301	3401	3440	3512
Total Energy Demand <sup>e</sup>															
(quadrillion Btu)	NA	NA	NA	NA	84.2	84.3	85.6	87.4	89.3	90.9	93.9	94.3	94.1	95.9	98.0
Total Energy Demand per Dollar of GDP															
(thousand Btu per 1992 Dollar)	NA	NA	NA	NA	13.72	13.86	13.71	13.68	13.50	13.45	13.43	12.97	12.47	12.28	12.35

<sup>a</sup>Refers to the imported cost of crude oil to U.S. refiners.

<sup>b</sup>Includes lease condensate.

<sup>C</sup>Total annual electric utility sales for historical periods are derived from the sum of monthly sales figures based on submissions by electric utilities of Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions." These historical values differ from annual sales totals based on Form EIA-861, reported in several EIA publications, but match alternate annual totals reported in EIA's *Electric Power Monthly*, DOE/EIA-0226.

<sup>d</sup> Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1997 are estimates.

<sup>e</sup> "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1997, DOE/EIA-0384(97) (AER), Table 1.1. Prior to 1990, some components of renewable energy consumption, particularly relating to consumption at nonutility electric generating facilities, were not available. For those years, a less compehensive measure of total energy demand can be found in EIA's AER. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy* Review (MER). Consequently, the historical data may not precisely match those published in the *MER* or the *AER*.

Notes: SPR: Strategic Petroleum Reserve. Minor discrepancies with other published EIA historical data are due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Statistics Report* DOE/EIA-520; Weekly Petroleum Status Report DOE/EIA-0226. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Macroaconomic															
Real Gross Domestic Product															
(billion chained 1992 dollars)	5488	5640	5865	6062	6136	6070	6244	6300	6611	6762	6005	7270	7550	7808	7036
CDP Implicit Price Deflator	J400	3043	3003	0002	0150	0073	0244	0330	0011	0/02	0335	1210	7550	7000	7350
(Index 1992–1 000)	0.806	0 831	0 861	0 897	0 936	0 973	1 000	1 026	1 051	1 075	1 095	1 1 1 6	1 1 2 7	1 1 20	1 157
Real Disposable Personal Income	0.000	0.001	0.001	0.007	0.550	0.575	1.000	1.020	1.001	1.075	1.000	1.110	1.127	1.100	1.107
(billion chained 1992 Dollars)	4077	4155	4325	4412	4490	1181	4605	4667	4773	4906	5043	5183	5346	5521	5664
Manufacturing Production	4077	4155	4525	7712	4430		4005	4007	4//5	4300	5045	5105	5540	0027	0004
(Index 1987-1 000)	0 881	0 928	0 971	0 990	0 985	0 962	1 000	1 037	1 099	1 1 5 9	1 214	1 296	1 350	1 392	1 419
Real Fixed Investment	0.001	0.520	0.571	0.550	0.303	0.302	1.000	1.007	1.055	1.155	1.217	1.250	1.550	1.002	1.415
(billion chained 1992 dollars)	805	799	818	832	806	741	783	843	916	966	1051	1138	1269	1361	1371
Real Exchange Rate	000	100	010	001	000	141	100	040	510	000	1001	1100	1200	1001	1011
(Index 1990=1000)	NA	NA	NA	NA	0.999	1.007	1.013	1.057	1.033	0.961	1.017	1.104	1.151	1 113	1 095
Business Inventory Change					0.000					0.001				1.110	1.000
(billion chained 1992 dollars)	-4.2	5.1	9.5	19.2	6.6	-6.1	-9.2	6.1	11.1	11.2	12.0	20.1	23.0	11.3	-4.0
Producer Price Index		••••	••		•.•	••••	•	•					_0.0		
(index. 1982=1.000)	1.002	1.028	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.240	1.262
Consumer Price Index															
(index. 1982-1984=1.000)	1.097	1.137	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.631	1.664	1.707
Petroleum Product Price Index		-		-			-								
(index, 1982=1.000)	0.532	0.568	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.514	0.478	0.546
Non-Farm Employment															
(millions)	99.3	102.0	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	128.3	129.5
Commercial Employment															
(millions)	62.9	65.2	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.7	89.4	90.7
Total Industrial Production															
(index, 1987=1.000)	0.890	0.931	0.974	0.991	0.990	0.970	1.000	1.034	1.091	1.144	1.196	1.267	1.314	1.352	1.377
Housing Stock															
(millions)	98.0	99.8	101.6	102.9	103.5	104.5	105.5	106.8	108.2	109.6	111.0	112.5	114.2	115.7	117.0
Weather <sup>a</sup>															
Heating Degree-Days															
IIS	4295	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3088	4366	4603
New England	429J 6517	4334	4033	6887	58/8	4200 5060	68//	6728	440J 6672	4JJ1 6550	6670	4342	5900	4300 6451	4003 6660
Middle Atlantic	5665	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4916	5638	5875
U.S. Gas-Weighted	4442	4301	4804	4856	4130	4337	4458	4754	4650	4707	5040	4886	4247	4540	4760
Cooling Degree-Days (U.S.)	1249	1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1156	1358	1194	1193

### Table A2. Annual U.S. Macroeconomic and Weather Indicators

<sup>a</sup>Population-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 1990 population. Normal is used for the forecast period and is defined as the average number of degree days between 1961 and 1990 for a given period.

Notes: Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

#### Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Demand <sup>a</sup>															
OECD															
U.S. (50 States)	16.3	16.7	17.3	17.4	17.0	16.8	17.1	17.2	17.7	17.7	18.3	18.6	18.7	19.2	19.6
Europe <sup>b</sup>	12.1	12.3	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.6	14.7	14.9
Japan	4.4	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.5	5.6
Other OECD	2.5	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2	3.3
Total OECD	35.3	36.0	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	41.8	42.7	43.4
Non-OECD															
Former Soviet Union	9.0	9.0	8.9	8.7	8.4	8.3	6.8	5.6	4.8	4.6	4.0	4.3	4.3	4.2	4.3
Europe	2.2	2.2	2.2	2.1	1.9	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.5	1.6	1.6
China	2.0	2.1	2.3	2.4	2.3	2.5	2.7	3.0	3.1	3.3	3.5	3.8	4.0	4.2	4.4
Other Asia	3.8	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.5	8.8	8.9	9.0	9.4
Other Non-OECD	9.5	9.7	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.1	12.4	12.8	13.2	13.4	13.7
Total Non-OECD	26.5	27.1	27.7	28.3	28.5	28.5	28.0	28.1	28.4	29.3	29.9	31.2	31.9	32.4	33.3
Total World Demand	61.8	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.3	69.9	71.3	73.0	73.7	75.0	76.7
Supply <sup>c</sup>															
U.S. (50 States)	11.0	107	10.5	99	97	99	9.8	9.6	94	94	94	95	92	8.8	86
Canada	1.8	2.0	2.0	2.0	2.0	2.0	21	2.2	23	2.4	2.5	2.6	27	27	2.8
North Sea <sup>d</sup>	3.8	3.8	3.8	37	3.9	4 1	4.5	4.8	5.5	59	6.3	6.2	6.2	64	6.7
	1 /	1 /	1.5	1 /	1.5	1.5	1.0	4.0	1.5	1.5	1.5	1.6	1.6	1.6	1.6
	17.0	17.9	17.8	17 1	17.1	17.5	17 0	18.0	18.7	10.2	10.7	10.0	10.7	10.5	10.8
Non-OECD	17.5	17.5	17.0			17.5	11.5	10.0	10.7	10.2	10.7	10.5	10.1	10.0	10.0
OPEC	10.3	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	20.0	30 /	30 1	31 1
Former Soviet Union	12.3	12.5	125	12.5	11 /	10 /	20.0	20.0	73	71	7 1	7 1	7 2	72	73
China	2.5	27	27	2.1	2.8	2.8	2.8	2.0	20	3.0	3.1	3.2	3.2	3.2	32
Mexico	2.0	2.7	2.7	2.0	2.0	3.2	2.0	2.5	3.2	3.1	3.3	3.4	3.5	3.5	3.6
	6.8	11 3	73	2.5	8.0	8.1	8.4	87	0.2	9.1	10.2	10.5	10.8	10.0	11 1
Total Non-OECD	/3.0	44.6	47.0	18 9	19.7	/0.1	/0.4	10.7	19.6	50.7	52.0	54.2	55.2	55.2	56.3
Total World Supply	61.8	62.5	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	74.8	74.7	76.1
Tatal Steels With drawala		0.6	0.4		• •	0.4	0.0	0.2	0.4		0.4			0.2	0.6
I OTAL STOCK WITHORAWAIS	0.0	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.3	0.1	0.0	-0.4	-1.1	-1.1	0.3	0.6
OECD Comm. Stocks, End (bill. bbls.)	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.9	2.8	2.7
Net Exports from Former Soviet Union	3.4	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.5	3.0	2.9	3.0	3.0	3.0

<sup>a</sup>Demand for petroleum by the OECD countries is synonymous with "petroleum product supplied," which is defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109. Demand for petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

<sup>b</sup>OECD Europe includes the former East Germany.

C Includes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, refinery gains, alcohol, and liquids produced from coal and other sources.

<sup>d</sup>Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

OPEC: Organization of Petroleum Exporting Countries: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

SPR: Strategic Petroleum Reserve

Former Soviet Union: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Notes: Minor discrepancies with other published EIA historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Energy Information Administration: latest data available from EIA databases supporting the following reports: International Petroleum Statistics Report, DOE/EIA-0520, and Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

### Table A4. Annual Average U. S. Energy Prices

(Nominal Dollars)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Imported Crude Oil <sup>a</sup> (dollars per barrel)	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.57	12.13	11.05	13.74
Natural Gas Wellhead (dollars per thousand cubic feet)	1.94	1.66	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.16	2.32	1.96	1.83	2.13
<b>Petroleum Products</b> Gasoline Retail <sup>b</sup> (dollars per gallon)															
All Grades Regular Unleaded No. 2 Diesel Oil Retail	0.88 0.88	0.91 0.91	0.92 0.91	1.02 0.99	1.17 1.13	1.15 1.10	1.14 1.09	1.13 1.07	1.13 1.08	1.16 1.11	1.25 1.20	1.24 1.20	1.07 1.03	1.04 1.00	1.14 1.10
(dollars per gallon) No. 2 Heating Oil, Wholesale	0.88	0.93	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.11	1.23	1.19	1.04	0.99	1.07
(dollars per gallon) No. 2 Heating Oil, Retail	0.49	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.38	0.50
(dollars per gallon) No. 6 Residual Fuel Oil, Retail <sup>C</sup>	0.84	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.89	0.87	0.99	0.99	0.85	0.78	0.90
	14.40	17.70	14.04	10.20	10.00	14.32	14.21	14.00	14.79	10.49	10.97	17.00	12.71	11.52	13.00
Electric Utility Fuels Coal															
(dollars per million Btu) Heavy Fuel Oil <sup>d</sup>	1.58	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.23	1.22
(dollars per million Btu) Natural Gas	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.07	1.88	2.24
(dollars per million Btu)	2.35	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.37	2.33	2.63
Other Residential Natural Gas															
(dollars per thousand cubic feet)	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.82	6.82	7.22
(cents per kilowatthour)	7.4	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.4	8.4	8.4	8.3	8.1	7.9

<sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil.

<sup>b</sup>Average self-service cash prices.

<sup>c</sup>Average for all sulfur contents. <sup>d</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Petroleum Marketing Monthly, DOE/EIA-0380; Natural Gas Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0226.

### Table A5. Annual U.S. Petroleum Supply and Demand

(Million Barrels per Day, Except Closing Stocks)

1986         1987         1988         1989         1991         1991         1992         1993         1996         1997         1998         1999         2000           Crude OII Supply         Domesite Froquetion *         8.68         8.35         8.14         7.61         7.36         7.42         7.17         6.85         6.66         6.56         6.46         6.45         6.24         5.68         5.63           Alaska         1.87         1.96         2.02         1.87         1.77         1.80         1.71         1.58         1.56         1.48         1.39         1.30         1.17         1.10         1.01           Lower 48         6.61         6.39         6.12         5.74         5.58         5.67         5.99         6.68         6.68         7.14         7.40         8.12         8.63         8.44         9.27           Other SPR Supply         0.00 <th></th> <th colspan="12">Year</th> <th></th>		Year														
Supply Corde OI Supply Maska         8.68         8.35         8.14         7.61         7.36         7.42         7.17         6.85         6.66         6.56         6.46         6.45         6.24         5.85         5.63           Alaska         1.87         1.96         2.02         1.87         1.77         1.80         1.71         1.15         1.56         1.56         5.07         5.76         5.99         6.69         6.56         7.44         7.40         8.14         1.39         1.77         1.80         1.71         1.55         1.56         5.07         5.79         5.79         6.696         6.74         7.44         8.12         8.63         8.64         9.27           Other SPR Supply         0.00		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Crude Oil Supply         8.68         8.35         8.14         7.61         7.36         7.42         7.17         6.85         6.66         6.56         6.46         6.45         6.24         6.85         5.63           Alaska         1.87         1.87         1.77         1.80         1.71         1.58         1.56         1.48         1.39         1.30         1.17         1.10         1.01           Lower 48         6.81         6.39         6.12         5.74         5.57         5.59         5.62         5.46         5.26         5.10         5.07         4.74         7.40         8.12         8.83         8.84         9.27           Other SPR Supply         0.00	Supply															
	Crude Oil Supply															
$ \begin{array}{c} \mbox{Alaska} & 1.87 & 1.96 & 2.02 & 1.87 & 1.77 & 1.80 & 1.74 & 1.58 & 1.56 & 1.48 & 1.39 & 1.30 & 1.17 & 1.10 & 1.01 \\ \mbox{Lower 44} & 6.81 & 6.39 & 6.12 & 5.74 & 5.58 & 5.62 & 5.46 & 5.26 & 5.61 & 5.08 & 5.07 & 5.16 & 5.07 & 5.17 & 5.07 & 5.$	Domestic Production <sup>a</sup>	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.24	5.85	5.63
$ \begin{array}{c} \mbox{Lewer 48} \\ \mbox{Net monts finduling SFN}^{0} \\ \mbox{A102} \\ \mbox{A22} \\ $	Alaska	1.87	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.10	1.01
Net imports (including SPR)         4.02         4.52         4.52         5.79         5.67         5.99         6.68         5.64         6.96         7.14         7.40         8.12         8.63         8.84         9.27           Other SPR Supply         0.00         0.01         0.01         0.01         0.01	Lower 48	6.81	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.07	4.75	4.61
Other SPR Supply,         0.00 <td>Net Imports (including SPR) <sup>b</sup></td> <td>4.02</td> <td>4.52</td> <td>4.95</td> <td>5.70</td> <td>5.79</td> <td>5.67</td> <td>5.99</td> <td>6.69</td> <td>6.96</td> <td>7.14</td> <td>7.40</td> <td>8.12</td> <td>8.63</td> <td>8.84</td> <td>9.27</td>	Net Imports (including SPR) <sup>b</sup>	4.02	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.63	8.84	9.27
Stock Draw (including SPR)	Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Product Supplied and Losses       -0.05       -0.03       -0.04       -0.03       -0.02       -0.01       0.01<	Stock Draw (Including SPR)	-0.08	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.06	-0.05	0.00	0.02
Unaccounted-for Crude Oil         0.14         0.14         0.20         0.20         0.26         0.27         0.27         0.19         0.22         0.14         0.04         0.27         0.23           Total Crude Oil Supply         12.72         12.85         13.25         13.40         13.41         13.51         13.87         13.97         14.19         14.66         14.84         14.98         15.14           Other Supply         1.55         1.59         1.62         1.55         1.56         1.66         1.70         1.74         1.73         1.76         1.83         1.82         1.75         1.74         1.77           Chther Hydroarbon and Alcohol Inputs.         0.15         0.62         0.64         0.66         0.66         0.70         0.71         0.76         0.77         0.77         0.44         0.85         0.86         0.87           Verdouct Imports <sup>6</sup> 1.41         1.39         1.63         1.50         1.38         0.96         0.94         0.93         1.09         0.75         1.10         1.04         1.01         1.11         1.36           Product Stock Withdrawn         -0.12         0.09         0.03         0.13         -0.14         0.06	Product Supplied and Losses	-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01
Total Crude Oil Supply	Unaccounted-for Crude Oil	0 14	0 14	0.20	0.20	0.26	0.20	0.26	0 17	0.27	0.19	0.22	0 14	0.04	0.27	0.23
Total Crude Oil Supply       12.72       12.85       13.25       13.40       13.41       13.30       13.41       13.61       13.87       13.97       14.19       14.66       14.84       14.98       15.14         Other Supply       NGL Production       1.55       1.59       1.62       1.55       1.56       1.66       1.70       1.74       1.73       1.76       1.83       1.82       1.75       1.74       1.77       1.76       1.83       1.82       1.75       1.74       1.77       1.76       1.83       1.82       1.75       1.74       1.77       1.76       1.83       1.82       1.75       1.74       1.77       1.76       1.83       1.82       1.75       1.74       1.77       1.76       0.31       0.34       0.37       0.36       0.37       0.02       0.01       0.01       0.01       0.00       0.00       0.01<		0.14	0.14	0.20	0.20	0.20	0.20	0.20	0.11	0.27	0.10	0.22	0.14	0.04	0.27	0.20
Other Supply NGL Production         1.55         1.59         1.62         1.55         1.56         1.66         1.70         1.74         1.73         1.76         1.83         1.82         1.75         1.74         1.77           Other Hydrocarbon and Alcohol Inputs         0.01         0.02         0.02         0.02         0.02         0.03         0.34         0.37         0.38         0.37           Crude Cil Product Supplied         0.05         0.03         0.04         0.03         0.02         0.02         0.01         0.01         0.01         0.00         0.00         0.01         0.01         0.01         0.00         0.00         0.01         0.01         0.01         0.01         0.00         0.00         0.01         0.01         0.01         0.00         0.00         0.01         0.01         0.01         0.01         0.00         0.00         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.03         0.01         0.01         0.05         0.03         0.09         0.17         0.10         0.25         0.26	Total Crude Oil Supply	12.72	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.84	14.98	15.14
NGL Production       1.55       1.59       1.62       1.55       1.56       1.66       1.70       1.74       1.73       1.76       1.83       1.82       1.75       1.74       1.77         Other Hydrocarbon and Alcohol Inputs       0.11       0.12       0.11       0.11       0.13       0.15       0.20       0.25       0.26       0.30       0.31       0.34       0.37       0.36       0.37	Other Supply															
Other Hydrocarbon and Alcohol Inputs       0.11       0.12       0.11       0.11       0.12       0.11       0.13       0.15       0.20       0.25       0.26       0.30       0.31       0.34       0.37       0.36       0.37         Crude Oil Product Supplied	NGL Production	1.55	1.59	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.75	1.74	1.77
Crude Oil Product Supplied       0.05       0.03       0.04       0.03       0.02       0.02       0.01	Other Hydrocarbon and Alcohol Inputs	0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.37	0.36	0.37
Processing Gain       0.62       0.64       0.66       0.66       0.70       0.71       0.77       0.77       0.84       0.85       0.88       0.86       0.87         Net Product Imports <sup>6</sup> 1.41       1.33       1.63       1.50       1.38       0.96       0.94       0.93       1.09       0.75       1.10       1.04       1.01       1.19       1.38         Product Stock Withdrawn       -0.12       0.09       0.03       0.13       -0.14       -0.04       0.06       -0.05       0.00       0.15       0.03       -0.09       -0.17       0.10       0.05         Total Supply       16.33       16.72       17.33       17.37       17.05       16.76       17.10       17.25       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Demand       Motor Gasoline <sup>d</sup> 6.94       7.19       7.36       7.40       7.31       7.23       7.38       7.48       7.60       7.79       7.89       8.02       8.20       8.40       8.56       9.36       9.36       9.40       3.56       3.64       9.23       1.51       1.58       1.60       1.57       1.61       1.63       1.61       1.63 </td <td>Crude Oil Product Supplied</td> <td>0.05</td> <td>0.03</td> <td>0.04</td> <td>0.03</td> <td>0.02</td> <td>0.02</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.00</td> <td>0.00</td> <td>0.01</td> <td>0.01</td>	Crude Oil Product Supplied	0.05	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01
Net Product Imports °       1.41       1.39       1.63       1.50       1.38       0.96       0.94       0.93       1.09       0.75       1.10       1.04       1.01       1.19       1.36         Product Stock Withdrawn       -0.12       0.09       0.03       0.13       -0.14       -0.04       0.06       -0.05       0.00       0.15       0.03       -0.09       -0.17       0.10       0.05         Total Supply       16.33       16.72       17.33       17.37       17.05       16.76       17.10       17.25       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Demand       6.94       7.19       7.36       7.40       7.31       7.23       7.38       7.48       7.60       7.79       7.89       8.02       8.40       8.56         Jet Fuel       1.31       1.38       1.45       1.49       1.52       1.47       1.45       1.47       1.53       1.51       1.58       1.60       1.57       1.61       1.63         Distillate Fuel Oil       1.42       1.26       1.38       1.37       1.23       1.16       1.09       1.08       1.02       0.85       0.80       0.82	Processing Gain	0.62	0.64	0.66	0.66	0.70	0.71	0.77	0.76	0.77	0.77	0.84	0.85	0.88	0.86	0.87
Product Stock Withdrawn       -0.12       0.09       0.03       0.13       -0.14       -0.04       0.06       -0.05       0.00       0.15       0.03       -0.09       -0.17       0.10       0.05         Total Supply       16.33       16.72       17.33       17.37       17.05       16.76       17.10       17.25       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Demand       Motor Gasoline <sup>d</sup> 6.94       7.19       7.36       7.40       7.31       7.23       7.38       7.48       7.60       7.79       7.89       8.02       8.20       8.40       8.56         Jet Fuel       1.31       1.38       1.45       1.49       1.52       1.47       1.45       1.47       1.53       1.51       1.58       1.60       1.57       1.61       1.63         Distillate Fuel Oil       2.91       2.98       3.12       3.16       3.02       2.92       2.98       3.04       3.16       3.21       3.37       3.44       3.44       3.57       3.64       3.66       3.21       3.37       3.44       3.44       3.57       3.90       4.03       3.95       3.99       4.20       4.17	Net Product Imports <sup>c</sup>	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.01	1.19	1.36
Total Supply       16.33       16.72       17.33       17.37       17.05       16.76       17.10       17.25       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Demand Motor Gasoline <sup>d</sup> 6.94       7.19       7.36       7.40       7.31       7.23       7.38       7.48       7.60       7.79       7.89       8.02       8.20       8.40       8.56         Jet Fuel       1.31       1.38       1.45       1.49       1.52       1.47       1.45       1.47       1.51       1.58       1.60       1.57       1.61       1.63         Distillate Fuel Oil       2.91       2.98       3.12       3.16       3.02       2.92       2.98       3.04       3.16       3.21       3.37       3.44       3.47       3.47       3.44       3.67       3.64         Residual Fuel Oil       1.42       1.26       1.38       1.37       1.23       1.16       1.09       1.08       1.02       0.85       0.85       0.80       0.82       0.91       0.92         Other Oils <sup>6</sup> 3.75       3.90       4.03       3.95       3.99       4.20       4.17       4.41       4.36       4.63	Product Stock Withdrawn	-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.10	0.05
Total Supply16.3316.7217.3317.3717.0516.7617.1017.2517.7218.3118.6218.6819.2319.56DemandMotor Gasoline $d$ 6.947.197.367.407.317.237.387.487.607.797.898.028.208.408.56Jet Fuel1.311.381.451.491.521.471.451.471.531.511.581.601.571.611.63Distillate Fuel Oil2.912.983.123.163.022.922.983.043.163.213.373.443.443.573.64Residual Fuel Oil1.421.261.381.371.231.161.091.081.020.850.850.800.820.910.92Other Oils $e^{e}$ 3.753.904.033.953.953.994.204.174.414.364.634.774.654.734.80Total Demand16.3316.7217.3417.3717.0416.7717.1017.2217.7218.3118.6218.6819.2319.56Total Petroleum Net Imports5.445.916.597.207.166.636.947.628.057.898.509.169.6410.0310.63Closing Stocks (million barrels)Crude Oil (excluding SPR)331349330341323325318 <td></td> <td></td> <td></td> <td></td> <td></td> <td>••••</td> <td></td>						••••										
Demand         Motor Gasoline <sup>d</sup> 6.94         7.19         7.36         7.40         7.31         7.23         7.38         7.48         7.60         7.79         7.89         8.02         8.20         8.40         8.56           Jet Fuel         1.31         1.38         1.45         1.49         1.52         1.47         1.45         1.47         1.53         1.51         1.58         1.60         1.57         1.61         1.63           Distillate Fuel Oil         2.91         2.98         3.12         3.16         3.02         2.92         2.98         3.04         3.16         3.21         3.37         3.44         3.44         3.57         3.64           Residual Fuel Oil         1.42         1.26         1.38         1.37         1.23         1.16         1.09         1.08         0.85         0.80         0.82         0.91         0.92           Other Oils <sup>e</sup> 3.75         3.90         4.03         3.95         3.99         4.20         4.17         4.41         4.36         4.63         4.77         4.65         4.73         4.80           Total Demand         16.33         16.72         17.34         17.37         17.04         16.77 <td>Total Supply</td> <td>16.33</td> <td>16.72</td> <td>17.33</td> <td>17.37</td> <td>17.05</td> <td>16.76</td> <td>17.10</td> <td>17.25</td> <td>17.72</td> <td>17.72</td> <td>18.31</td> <td>18.62</td> <td>18.68</td> <td>19.23</td> <td>19.56</td>	Total Supply	16.33	16.72	17.33	17.37	17.05	16.76	17.10	17.25	17.72	17.72	18.31	18.62	18.68	19.23	19.56
Motor Gasoline <sup>d</sup> 6.94       7.19       7.36       7.40       7.31       7.23       7.38       7.48       7.60       7.79       7.89       8.02       8.20       8.40       8.56         Jet Fuel       1.31       1.38       1.45       1.49       1.52       1.47       1.45       1.47       1.53       1.51       1.58       1.60       1.57       1.61       1.63         Distillate Fuel Oil       2.91       2.98       3.12       3.16       3.02       2.92       2.98       3.04       3.16       3.21       3.37       3.44       3.44       3.57       3.64         Residual Fuel Oil       1.42       1.26       1.38       1.37       1.23       1.16       1.09       1.08       1.02       0.85       0.80       0.82       0.91       0.92         Other Oils <sup>e</sup> 3.75       3.90       4.03       3.95       3.99       4.20       4.17       4.41       4.36       4.63       4.77       4.65       4.73       4.80         Total Demand       16.33       16.72       17.34       17.37       17.04       16.77       17.10       17.24       17.72       18.31       18.62       18.68       19.23       19.	Demand															
Jet Fuel1.311.381.451.491.521.471.451.471.531.511.581.601.571.611.63Distillate Fuel Oil2.912.983.123.163.022.922.983.043.163.213.373.443.443.573.64Residual Fuel Oil1.421.261.381.371.231.161.091.081.020.850.850.800.820.910.92Other Oils $^{\circ}$ 3.753.904.033.953.953.994.204.174.414.364.634.774.654.734.80Total Demand16.3316.7217.3417.3717.0416.7717.1017.2417.7217.7218.3118.6218.6819.2319.56Total Petroleum Net Imports5.445.916.597.207.166.636.947.628.057.898.509.169.6410.0310.63Closing Stocks (million barrels)Crude Oil (excluding SPR)331349330341323325318335337303284305323324316Total Motor Gasoline233226228213220219216226215202195210216214207Jet Fuel505044415249434047404445 <td>Motor Gasoline <sup>d</sup></td> <td>6.94</td> <td>7.19</td> <td>7.36</td> <td>7.40</td> <td>7.31</td> <td>7.23</td> <td>7.38</td> <td>7.48</td> <td>7.60</td> <td>7.79</td> <td>7.89</td> <td>8.02</td> <td>8.20</td> <td>8.40</td> <td>8.56</td>	Motor Gasoline <sup>d</sup>	6.94	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.20	8.40	8.56
Distillate Fuel Oil	Jet Fuel	1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.57	1.61	1.63
Residual Fuel Oil       1.42       1.26       1.38       1.37       1.23       1.16       1.09       1.08       1.02       0.85       0.85       0.80       0.82       0.91       0.92         Other Oils <sup>6</sup> 3.75       3.90       4.03       3.95       3.95       3.99       4.20       4.17       4.41       4.36       4.63       4.77       4.65       4.73       4.80         Total Demand       16.33       16.72       17.34       17.37       17.04       16.77       17.10       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Total Petroleum Net Imports       5.44       5.91       6.59       7.20       7.16       6.63       6.94       7.62       8.05       7.89       8.50       9.16       9.64       10.03       10.63         Closing Stocks (million barrels)       Crude Oil (excluding SPR)       331       349       330       341       323       325       318       335       337       303       284       305       323       324       316         Total Motor Gasoline       233       226       228       213       220       219       216       226       215       202	Distillate Fuel Oil	2.91	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.44	3.57	3.64
Other Oils <sup>e</sup> 3.75       3.90       4.03       3.95       3.99       4.20       4.17       4.41       4.36       4.63       4.77       4.65       4.73       4.80         Total Demand       16.33       16.72       17.34       17.37       17.04       16.77       17.10       17.24       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Total Petroleum Net Imports       5.44       5.91       6.59       7.20       7.16       6.63       6.94       7.62       8.05       7.89       8.50       9.16       9.64       10.03       10.63         Closing Stocks (million barrels)       Crude Oil (excluding SPR)       331       349       330       341       323       325       318       335       337       303       284       305       323       324       316         Total Motor Gasoline       233       226       228       213       220       219       216       226       215       202       195       210       216       214       207         Jet Fuel       50       50       44       41       52       49       43       40       47       40       44       45 <td>Residual Fuel Oil</td> <td>1.42</td> <td>1.26</td> <td>1.38</td> <td>1.37</td> <td>1.23</td> <td>1.16</td> <td>1.09</td> <td>1.08</td> <td>1.02</td> <td>0.85</td> <td>0.85</td> <td>0.80</td> <td>0.82</td> <td>0.91</td> <td>0.92</td>	Residual Fuel Oil	1.42	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.82	0.91	0.92
Total Demand       16.33       16.72       17.34       17.37       17.04       16.77       17.10       17.24       17.72       17.72       18.31       18.62       18.68       19.23       19.56         Total Petroleum Net Imports       5.44       5.91       6.59       7.20       7.16       6.63       6.94       7.62       8.05       7.89       8.50       9.16       9.64       10.03       10.63         Closing Stocks (million barrels)       Crude Oil (excluding SPR)       331       349       330       341       323       325       318       335       337       303       284       305       323       324       316         Crude Oil (excluding SPR)       233       226       228       213       220       219       216       226       215       202       195       210       216       214       207         Jet Fuel       50       50       44       41       52       49       43       40       47       40       40       44       45       45       45       45       45       45       45       45       45       45       45       45       45       45       45       45       45       45 <td>Other Oils<sup>e</sup></td> <td>3.75</td> <td>3.90</td> <td>4.03</td> <td>3.95</td> <td>3.95</td> <td>3.99</td> <td>4.20</td> <td>4.17</td> <td>4.41</td> <td>4.36</td> <td>4.63</td> <td>4.77</td> <td>4.65</td> <td>4.73</td> <td>4.80</td>	Other Oils <sup>e</sup>	3.75	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.65	4.73	4.80
Total Demand       16.33       16.72       17.34       17.37       17.04       16.77       17.10       17.24       17.72       18.31       18.62       18.68       19.23       19.56         Total Petroleum Net Imports       5.44       5.91       6.59       7.20       7.16       6.63       6.94       7.62       8.05       7.89       8.50       9.16       9.64       10.03       10.63         Closing Stocks (million barrels)       Crude Oil (excluding SPR)       331       349       330       341       323       325       318       335       337       303       284       305       323       324       316         Total Motor Gasoline       233       226       228       213       220       219       216       226       215       202       195       210       216       214       207         Jet Fuel       50       50       44       41       52       49       43       40       47       40       40       44       45       45       45         Distillate Fuel Oil       155       134       124       106       132       144       141       141       145       130       127       138       1																
Total Petroleum Net Imports       5.44       5.91       6.59       7.20       7.16       6.63       6.94       7.62       8.05       7.89       8.50       9.16       9.64       10.03       10.63         Closing Stocks (million barrels)       Crude Oil (excluding SPR)       331       349       330       341       323       325       318       335       337       303       284       305       323       324       316         Total Motor Gasoline       233       226       228       213       220       219       216       226       215       202       195       210       216       214       207         Jet Fuel       50       50       44       41       52       49       43       40       47       40       44       45       45       45         Distillate Fuel Oil       155       134       124       106       132       144       141       141       145       130       127       138       156       143       144         Residual Fuel Oil       47       47       45       44       49       50       43       44       42       37       46       40       44       42 <td< td=""><td>Total Demand</td><td>16.33</td><td>16.72</td><td>17.34</td><td>17.37</td><td>17.04</td><td>16.77</td><td>17.10</td><td>17.24</td><td>17.72</td><td>17.72</td><td>18.31</td><td>18.62</td><td>18.68</td><td>19.23</td><td>19.56</td></td<>	Total Demand	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.68	19.23	19.56
Closing Stocks (million barrels)         Crude Oil (excluding SPR)         Total Motor Gasoline         233       226       228       213       220       219       216       226       215       202       195       210       216       214       207         Jet Fuel       50       50       44       41       52       49       43       40       47       40       40       44       45       45       45         Distillate Fuel Oil       155       134       124       106       132       144       141       141       145       130       127       138       156       143       144         Residual Fuel Oil       47       47       45       44       49       50       43       44       42       37       46       40       44       42       42	Total Petroleum Net Imports	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.64	10.03	10.63
Crude Oil (excluding SPR)331349330341323325318335337303284305323324316Total Motor Gasoline233226228213220219216226215202195210216214207Jet Fuel505044415249434047404044454545Distillate Fuel Oil155134124106132144141141145130127138156143144Residual Fuel Oil474745444950434442374640444242	Closing Stocks (million barrels)															
Total Motor Gasoline233226228213220219216226215202195210216214207Jet Fuel505044415249434047404044454545Distillate Fuel Oil155134124106132144141141145130127138156143144Residual Fuel Oil474745444950434442374640444242	Crude Oil (excluding SPR)	331	349	330	341	323	325	318	335	337	303	284	305	323	324	316
Jet Fuel505044415249434047404044454545Distillate Fuel Oil155134124106132144141141145130127138156143144Residual Fuel Oil474745444950434442374640444242	Total Motor Gasoline	233	226	228	213	220	219	216	226	215	202	195	210	216	214	207
Distillate Fuel Oil	Jet Fuel	50	50	44	41	52	49	43	40	47	40	40	44	45	45	45
Residual Fuel Oil	Distillate Fuel Oil	155	134	124	106	132	144	141	141	145	130	127	138	156	143	144
	Residual Fuel Oil	47	47	45	44	49	50	43	44	42	37	46	40	44	42	42
Other Oils <sup>1</sup>	Other Oils <sup>f</sup>	265	260	267	257	261	267	263	273	275	258	250	259	292	274	264

<sup>a</sup>Includes lease condensate.

Includes lease condensate. Net imports equals gross imports plus SPR imports minus exports. Chlodudes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing. For years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, *Short-Term Energy Outlook*, EIA/DOE-0202(93/3Q), for details on this adjustment. f Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil. Includes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special perpethas lube oils way coke asphalt road oil and miscellaneous oils.

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109, and Weekly Petroleum Status Report, DOE/EIA-0208.

### Table A6. Annual U.S. Natural Gas Supply and Demand

(Trillion Cubic Feet)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Total Dry Gas Production	16.06	16.62	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.79	18.90	18.96	18.86	18.93
Net Imports	0.69	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.05	3.26
Supplemental Gaseous Fuels	0.11	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.12	0.13	0.13
Total New Supply	16.86	17.66	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.69	21.84	22.07	22.05	22.32
Total Underground Storage															
Opening	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	7.04	6.83
Closing	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	7.04	6.83	6.71
Net Withdrawals	-0.12	0.02	-0.10	0.33	-0.61	0.16	0.14	-0.01	-0.32	0.46	-0.01	-0.01	-0.52	0.21	0.12
Total Supply	16.74	17.68	18.32	19.02	18.77	19.61	20.02	20.42	21.08	21.86	21.68	21.84	21.55	22.26	22.43
Balancing Item <sup>a</sup>	-0.52	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.29	0.13	-0.23	-0.60	-0.13
Total Primary Supply	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.31	21.65	22.31
Demand															
Lease and Plant Fuel	0.92	1.15	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.25	1.24	1.25
Pipeline Use	0.49	0.52	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.73	0.74	0.74
Residential	4.31	4.31	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.78	5.06
Commercial	2.32	2.43	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.22	3.08	3.29	3.47
Industrial (Incl. Nonutilities)	5.58	5.95	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.84	8.46	8.33	8.42
Cogenerators <sup>b</sup>	NA	NA	NA	NA	1.30	1.41	1.70	1.80	1.98	2.18	2.30	2.16	2.14	2.19	2.23
Other Nonutil. Gen. <sup>b</sup>	NA	NA	NA	NA	0.09	0.16	0.18	0.22	0.16	0.17	0.16	0.18	0.18	0.18	0.19
Electric Utilities	2.60	2.84	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.27	3.37
Total Demand	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.31	21.65	22.31

<sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

<sup>b</sup>Annual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by the office of Coal, Nuclear, Electric and Alternative Fuels, Energy Information Administration.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Oil and Gas, Reserves and Natural Gas Division.

### Table A7. Annual U.S. Coal Supply and Demand

(Million Short Tons)

							Year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Production	890.3	918.8	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1111.4	1115.1	1136.3
Appalachia	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.2	459.6	460.6
Interior	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	166.7	158.2	154.0
Western	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	484.4	497.3	521.7
Primary Stock Levels <sup>a</sup>															
Opening	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	34.1	36.6
Closing	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	34.1	36.6	32.6
Net Withdrawals	1.0	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-0.2	-2.5	4.1
Imports	2.2	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	8.6	9.0
Exports	85.5	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	77.2	75.5	72.5
Total Net Domestic Supply	808.0	844.7	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1042.8	1045.8	1076.9
Secondary Stock Levels															
Opening	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	101.4	128.6	120.8
Closing	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	101.4	128.6	120.8	112.5
Net Withdrawals	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	21.6	-27.2	7.7	8.4
Waste Coal Supplied to IPPs <sup>c</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	8.5	8.8	8.1	10.0	10.6	11.2
Total Supply	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	954.0	960.4	1006.7	1038.2	1025.6	1064.1	1096.5
Demand															
Coke Plants	35.9	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.0	28.6	28.8
Electricity Production															
Electric Utilities	685.1	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	912.1	931.5	963.7
Nonutilities (Excl. Cogen.)	NA	NA	NA	0.9	1.6	10.2	14.8	17.8	20.9	21.2	22.2	21.6	25.0	26.5	28.0
Retail and General Industry <sup>e</sup>	75.6	75.2	76.3	82.3	83.1	81.5	80.2	81.1	81.2	78.9	76.9	77.1	76.8	77.5	76.0
Total Demand	796.6	830.0	876.5	890.6	897.1	897.8	907.3	943.7	951.1	962.0	1005.6	1029.2	1041.9	1064.1	1096.5
Discrepancy <sup>f</sup>	6.5	4.4	5.8	5.9	2.4	-6.4	-5.4	-13.5	2.9	-1.6	1.2	9.0	-16.3	0.0	0.0

<sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

<sup>b</sup>Secondary stocks are held by users.

<sup>c</sup>Estimated independent power producers (IPPs) consumption of waste coal for 1994 is 7.9 million tons, 8.5 million tons in 1995, and 8.8 million tons in 1996.

<sup>d</sup>Consumption of coal by IPPs. In 1995, IPP consumption was estimated to be 5.290 million tons per quarter. Quarterly estimates and projections for coal consumption by nonutility generators are based on estimates for annual coal-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Data for third quarter 1998 are estimates.

eSynfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level in 1994, 1995, 1996, 1997 and 1998.

<sup>f</sup>The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period. Prior to 1994, discrepancy may include some waste coal supplied to IPPs that has not been specifically identified.

(S) indicates amounts of less than 50,000 tons in absolute value.

Notes: Rows and columns may not add due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System. Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Quarterly Coal Report, DOE/EIA-0121, and Electric Power Monthly, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

#### Table A8. Annual U.S. Electricity Supply and Demand

(Billion Kilowatthours)

							Year								
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Net Utility Generation															
Coal	1385.8	1463.8	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1787.8	1808.1	1852.6	1920.6
Petroleum	136.6	118.5	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	77.8	110.5	127.8	122.8
Natural Gas	248.5	272.6	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	283.6	308.9	312.4	321.7
Nuclear	414.0	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	673.6	675.1
Hydroelectric	290.8	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	305.3	284.0	280.4
Geothermal and Other	11.5	12.3	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.2	7.2	7.2
Subtotal	2487.3	2572.1	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3213.6	3257.6	3327.7
Nonutility Generation <sup>b</sup>	NA	NA	NA	187.0	221.5	253.3	301.8	325.2	354.9	375.9	382.4	384.7	390.3	396.0	401.9
Total Generation	NA	NA	NA	2971.3	3029.6	3078.3	3099.0	3207.8	3265.6	3370.4	3459.9	3507.2	3604.0	3653.6	3729.6
Net Imports	35.9	46.3	31.8	11.0	2.0	22.3	28.3	28.4	44.6	37.6	38.0	36.6	31.0	33.7	34.8
Total Supply	NA	NA	NA	2982.3	3031.6	3100.6	3127.3	3236.2	3310.3	3408.0	3497.9	3543.8	3634.9	3687.3	3764.5
Losses and Unaccounted for <sup>c</sup>	NA	NA	NA	238.3	205.8	216.9	226.6	237.0	225.5	236.8	242.3	242.8	234.4	247.7	252.4
Demand															
Electric Utility Sales															
Residential	819.1	850.4	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.8	1133.0	1140.7	1182.8
Commercial	630.5	660.4	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.4	950.3	971.2	987.7
Industrial	830.5	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1030.4	1032.7	1053.0	1057.5	1066.8
Other	88.6	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	100.6	104.3	106.3
Subtotal	2368.8	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3097.8	3139.8	3236.9	3273.6	3343.6
Nonutility Own Use <sup>b</sup>	NA	NA	NA	97.2	113.2	121.7	137.3	137.8	150.2	158.0	157.8	161.2	163.6	166.0	168.5
Total Demand	NA	NA	NA	2744.0	2825.8	2883.7	2900.7	2999.2	3084.8	3171.3	3255.6	3301.0	3400.5	3439.6	3512.1
Memo:															
New With Orles															
Nonutility Sales															
to Electric Utilities <sup>d</sup>	39.9	50.0	68.0	89.8	108.2	131.6	164.4	187.5	204.7	217.9	224.6	223.5	226.7	230.1	233.4

<sup>a</sup>Other includes generation from wind, wood, waste, and solar sources.

<sup>b</sup>For 1989 to 1991, estimates for nonutility generation are estimates made by the Energy Markets and Contingency Information Division, based on Form EIA-867 (Annual Nonutility Power Producer Report ) data. Historical data and Projections for the same items are from the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration, based on Form EIA-867.

<sup>C</sup>Balancing item, mainly transmission and distribution losses.

<sup>d</sup>Historical data for nonutility sales to electric utilities are from the Energy Information Administration, Annual Energy Review, DOE/EIA-0389, Table 8.1, for 1982 to 1988; from Form EIA-867 (Annual Nonutility Power Producer Report) for 1989 to 1996.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: *Electric Power Monthly*, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.