

February 8, 1999

Highlights

World Oil Markets/Prices

Prices. During the rest of this year and next year, we expect a slight rise in oil prices from their historically low levels. By the end of 2000, the world oil price for crude oil (defined as the average price U.S. refiners pay for imported oil) is estimated to be \$14.25, a little less than \$4 per barrel above the average January 1999 price. The key underlying assumptions behind this forecast are listed below.

1. A slight growth in Asian oil demand in 1999, with a little more growth in 2000. After increasing by an average of 800,000 barrels per day between 1992 and 1997, Asian (including [China](#) and [Japan](#)) oil demand is estimated to have *declined* by 70,000 barrels per day in 1998. Our forecast assumes demand growth of just 250,000 barrels per day in 1999 and of less than 500,000 barrels per day in 2000.
2. No large increases in [Iraqi](#) oil exports in 1999 and 2000. After increasing by about 600,000 barrels per day in 1997 and by another 1.0 million barrels per day in 1998, Iraqi oil exports are assumed in our forecast to increase on average by about 400,000 barrels per day in 1999 and by about 50,000 barrels per day on average in 2000.
3. Normal weather, particularly in the winter.
4. No significant growth in [OPEC](#) and [non-OPEC](#) oil production in 1999. Total world oil production in 1999 is expected to increase by only about 400,000 barrels per day (almost all as a result of Iraqi production increases), which is about 1/4 of the amount it might normally increase.

Of course, changes in any of these assumptions could alter our outlook. It should be noted that some of the factors that would enhance the likelihood of oil prices rising in the short run have faded. Despite a wintry start, January turned out to be slightly warmer than normal in the United States. (So far February does not seem particularly frigid either.) Also, estimated end-January petroleum stocks remain relatively high, with total U.S. inventories (crude and products) at about 50 million barrels (3 percent) above the end-January 1998 level (see EIA's [Weekly Petroleum Status Report](#)). On the other hand, the U.S. economy has shown surprising strength of late (see the latest release of GDP information from the [Bureau of Economic Analysis](#)). On balance, while the general tendency toward tighter net supply conditions continues to frame our short-term outlook, the risk has increased that prices may remain lower than previously projected for the near term.

Note: To convert our world oil price forecast to the price of West Texas Intermediate crude oil, add a little more than \$2 per barrel; to convert to the price of Brent crude oil, add about \$0.50 to

our world oil price forecast.

World Oil Supply. In the 4 years preceding 1997 (1993-1996), the largest growth in oil supply came from the North Sea, with an increase of nearly 2 million barrels per day ([Figure 1](#)). Other significant increases came from Latin America, Africa and the Middle East non-OPEC countries, Asia (excluding OPEC member [Indonesia](#)), and OPEC (excluding Iraq). Significant decreases in oil supply came from the Former Soviet Union (FSU) and Eastern Europe, and to a lesser extent, the United States.

However, from 1997 through 2000, the largest growth in oil supply is expected to come from Iraq, with oil production increasing by 2 million barrels per day in these 4 years, with almost all of this increase having occurred in 1997 and 1998. This assumes current sanctions remain in place and that Iraqi oil exports are not disrupted for any significant length of time. Over this 4 year period, significant increases are also expected from Latin America and the rest of OPEC (excluding Iraq), although most of the increases have already occurred in 1997 and 1998.

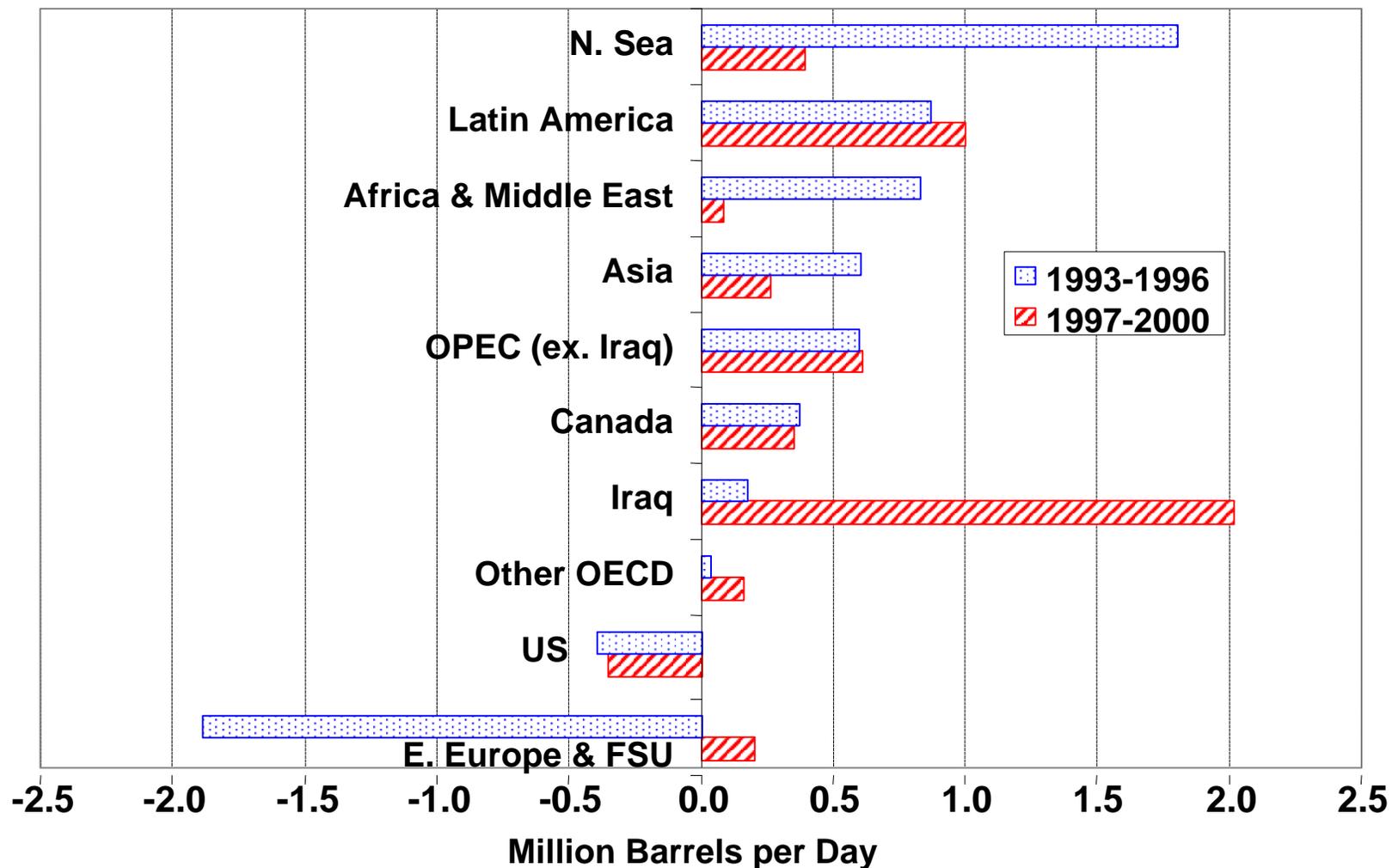
World Oil Demand. In the 4 years preceding 1997 (1993-1996), Asia (which includes Japan, [Australia](#), and New Zealand, but excludes China) was the engine for oil demand growth worldwide, contributing nearly 2.7 million barrels per day of increased oil demand in this time period ([Figure 2](#)). Other than Asia, only North America (primarily the United States) showed an increase of over 1 million barrels per day, although every region depicted showed significant growth, with the exception of the Former Soviet Union (FSU) and Eastern Europe (due to their collapsing economies during this period).

However, in the period 1997-2000, Asian (excluding China) oil demand growth is expected to be only one-sixth as much as it was in the 1993-1996 period. This is a direct result of the Asian economic crisis. The largest growth in oil demand in the period 1997-2000 is expected to be North America (again, primarily the United States). China is expected to add about 1 million barrels per day to world oil demand over this period, while Latin America and Western Europe each add another 750,000 barrels per day.

A shift in the engine for oil demand growth from Asia to the United States is a significant fallout of the Asian economic crisis.

OECD Stock Levels. During the 1990s, there seems to have been an inverse relationship between oil inventories in countries belonging to the Organization for Economic Cooperation and Development (OECD) and world oil prices. When OECD oil inventories increased between 1990 and 1994, world oil prices fell over \$6 per barrel ([Figure 3](#)). Then in 1995 and 1996 OECD oil inventories were drawn down, while at the same time world oil prices increased to over \$20 per barrel in 1996. Then in 1997 and 1998, OECD oil inventories rose substantially as world oil supply far exceeded world oil demand in those years. It was during this period (1997 & 1998) when world oil prices fell over \$8 per barrel. Our forecast shows that OECD oil inventories are expected to be drawn down in 1999 and 2000, and EIA expects oil prices to slowly increase throughout 1999 and 2000 (although the 1999 average price is less than the 1998 average price because of how low prices were at the beginning of 1999).

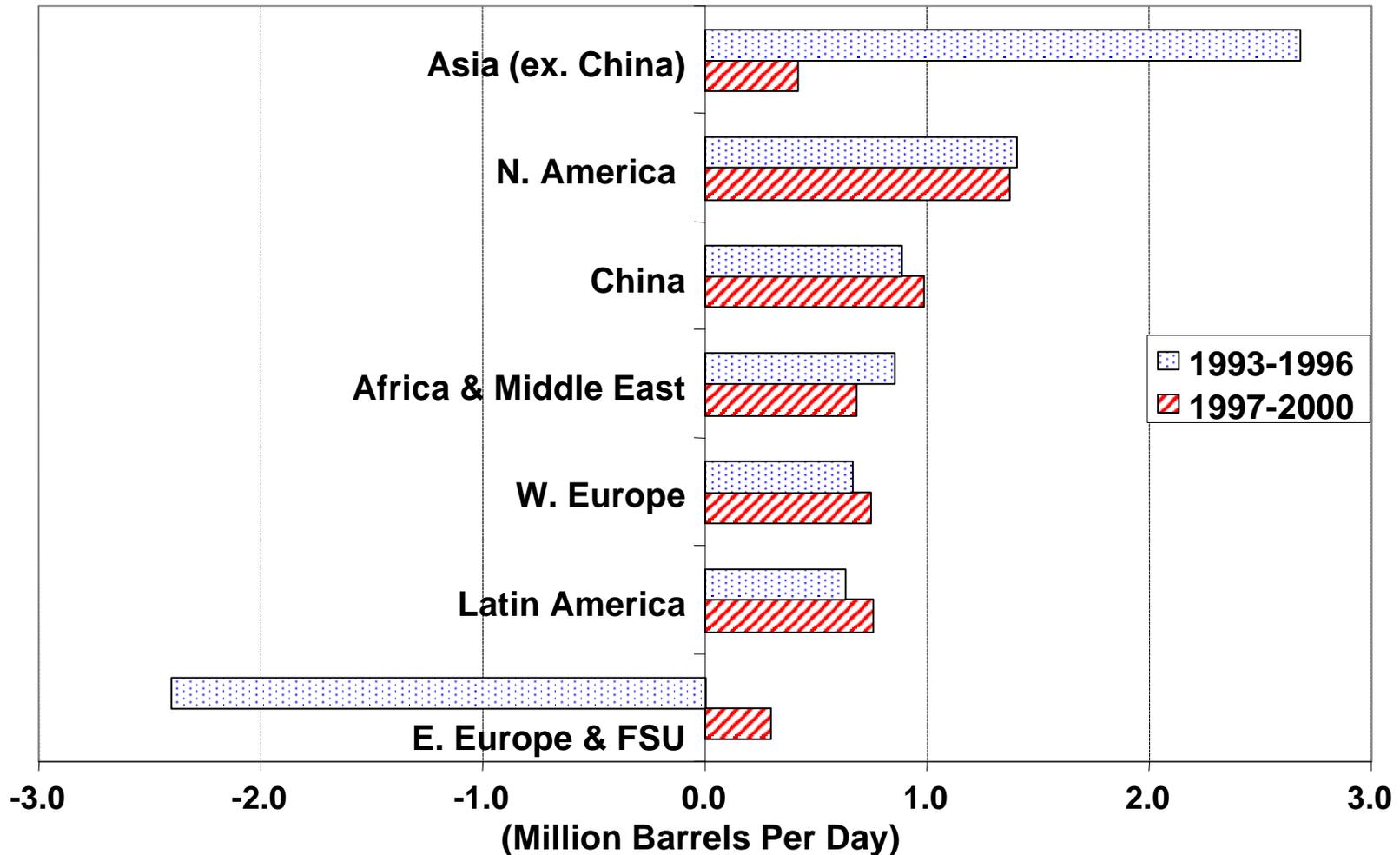
Figure 1. Regional World Oil Supply Growth, 1993-1996 vs. 1997-2000



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



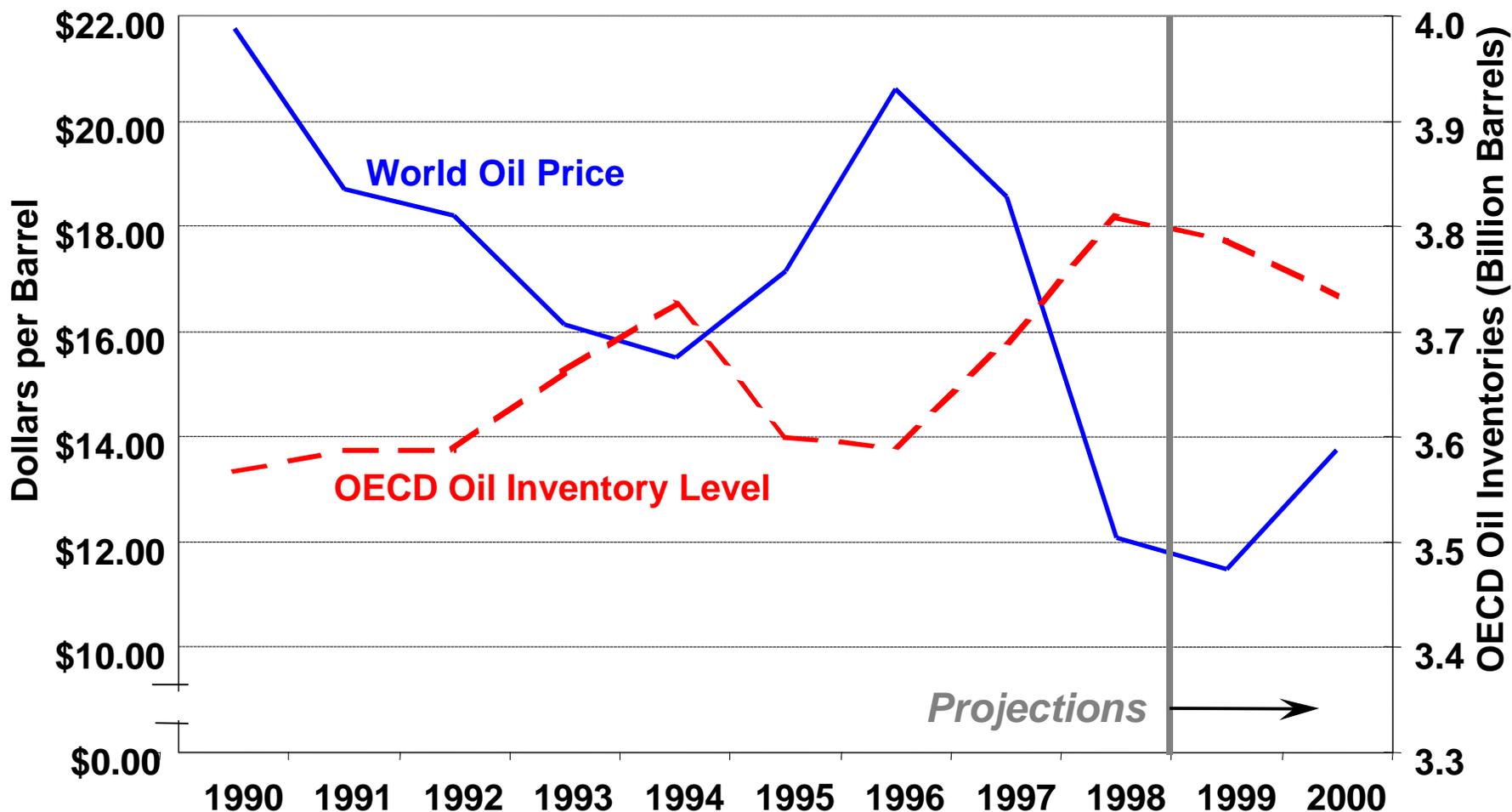
Figure 2. Regional World Oil Demand Growth, 1993-1996 vs. 1997-2000



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



Figure 3. OECD Oil Inventories and World Oil Prices, 1990-2000



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



U.S. Energy Prices

Heating Oil. The continued depression of world crude oil prices ([Figure 4](#)), as well as the recent warmer-than-normal winter weather in much of the U.S., has left domestic petroleum product prices reeling. Prices this winter were more than 10 percent lower than prices last winter ([Figure 5](#)). Currently, retail heating oil prices are at levels usually associated with summertime. Consumers can be expected to pay an average of just 80 cents per gallon (excluding taxes) this winter ([Table 4](#)). On an annual level, heating oil prices are projected to dip slightly in 1999, given the lower crude oil price path and the mild January weather that occurred on the East Coast. Next year, we not only assume "normal" winter weather, we also project that world crude oil prices emerge somewhat from their present doldrums. Thus, annual average heating oil prices are projected to rebound by about 10 cents per gallon. Given these assumptions, the weather and crude oil price will each be responsible for about 5 cents per gallon of the projected retail heating oil price increase.

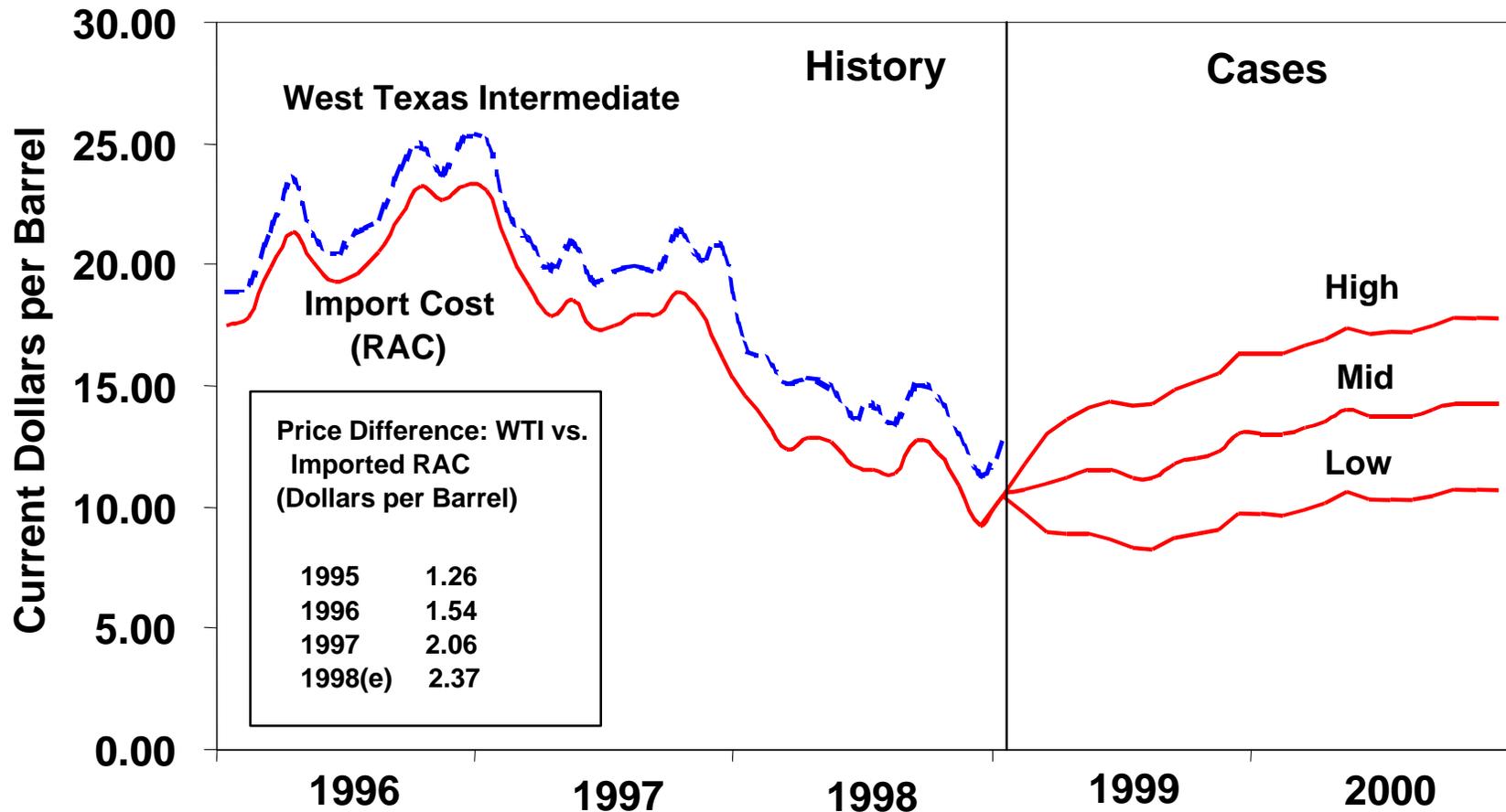
Gasoline. Pump prices for motor gasoline continue to fall to record low (inflation-adjusted) levels. In January, self-service unleaded regular and the average of all grades averaged \$0.94 and \$0.98 per gallon, respectively, the lowest annual inflation-adjusted prices on record ([Figure 6](#)). As the driving season begins, prices at the pump should start their normal seasonal ascent, peaking in the summer at levels close to last year's relatively low prices. On an annual basis, 1999 retail prices should remain more or less flat, given the projected crude oil price decrease of about \$0.40 per barrel. For the year 2000, prices at the pump are projected to rise by an average of about 8 cents per gallon. Crude oil cost increases are responsible for 5-6 cents of the increase, and general inflation is responsible for the remainder of the increase.

Natural Gas. Our natural gas wellhead price projections for 1999 are essentially unchanged from the previous Outlook. Prices above \$2.00 per thousand cubic feet are not expected to appear until the fourth quarter ([Table 4](#)). Prices this current winter are expected to average about 17-percent less than prices in the prior winter ([Figure 7](#)). Underground storage levels will be more than adequate for most of the year, especially given warm winter weather. In the year 2000, however, prices at the wellhead are projected to increase by 17 percent (about 5 cents per thousand cubic feet higher than our previous forecast), assuming normal winters, allowing storage levels to decline from the previous year's high levels. In fact, on a quarterly basis, wellhead prices are not projected to dip below \$2.00 per thousand cubic feet for the entire year.

U.S. Petroleum Demand

Petroleum demand rose only 0.3 percent in 1998 but is expected to grow by an average of more than 2 percent per year during the forecast interval. Part of the smaller-than-expected increase last year can be attributed to the warm weather in the first and last quarters of the year. In the northeastern United States, the principal market for heating oil, heating-degree days were almost 15 percent lower than in 1997. In addition, jet fuel demand was weaker than expected. Declines in international air travel activity, especially across the Pacific, and labor disputes that halted operations at two major carriers contributed to that weakness. Much of the 3-percent growth in 1999 is brought about by higher growth in motor gasoline demand, an assumed return to normal

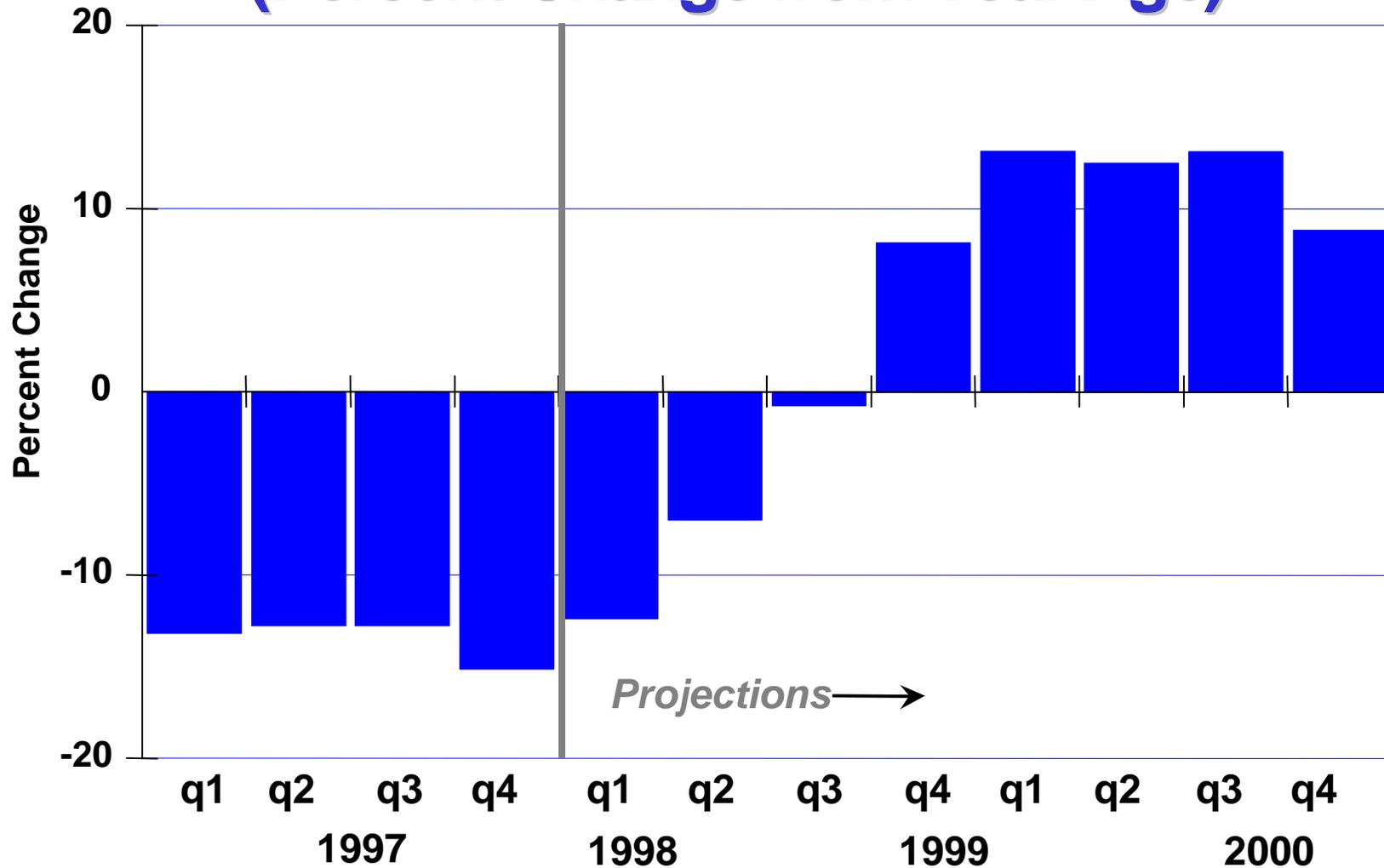
Figure 4. U. S. Monthly Crude Oil Prices



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



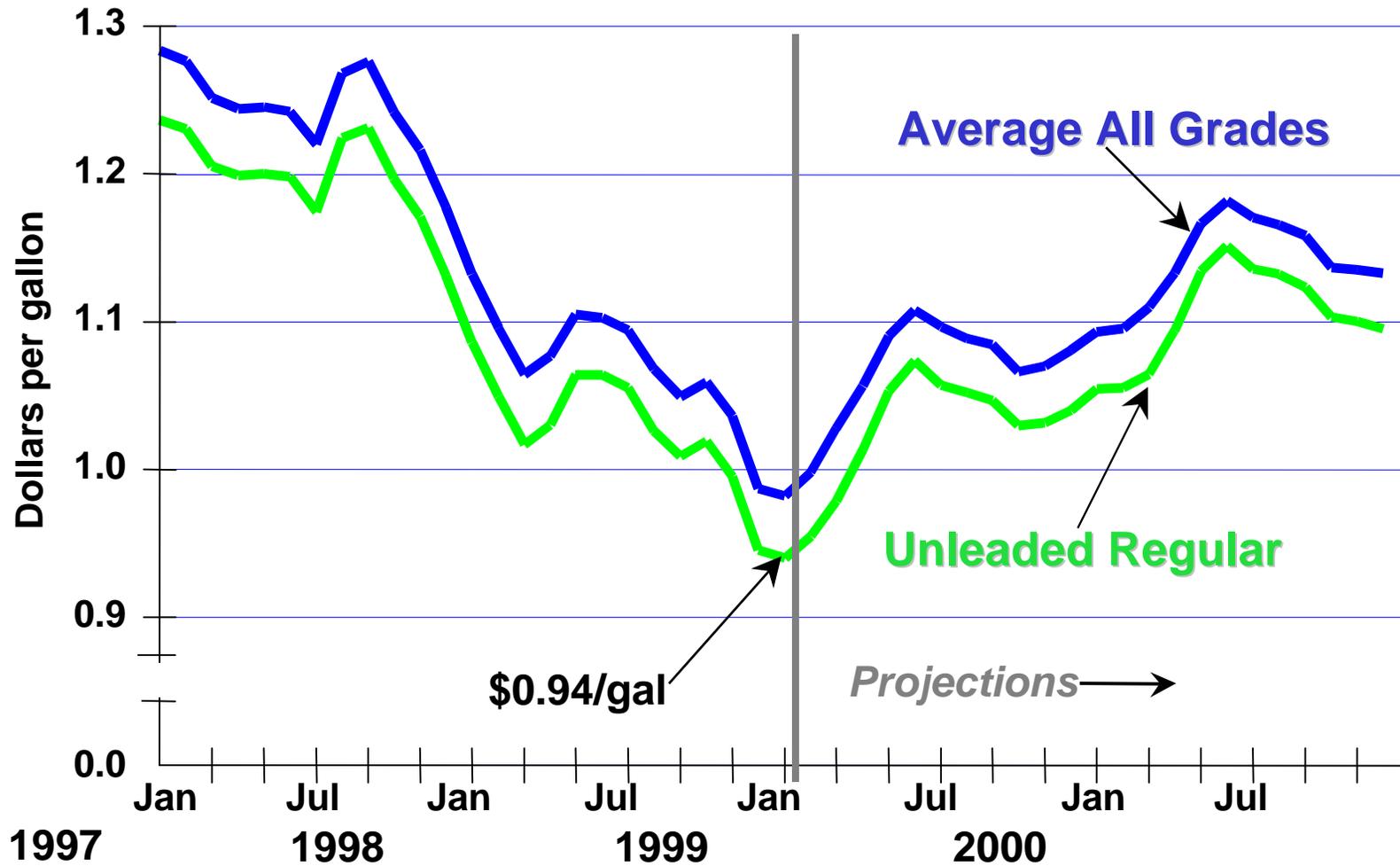
Figure 5. Quarterly Retail Heating Oil Prices (Percent Change from Year Ago)



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



Figure 6. Retail Motor Gasoline Prices*

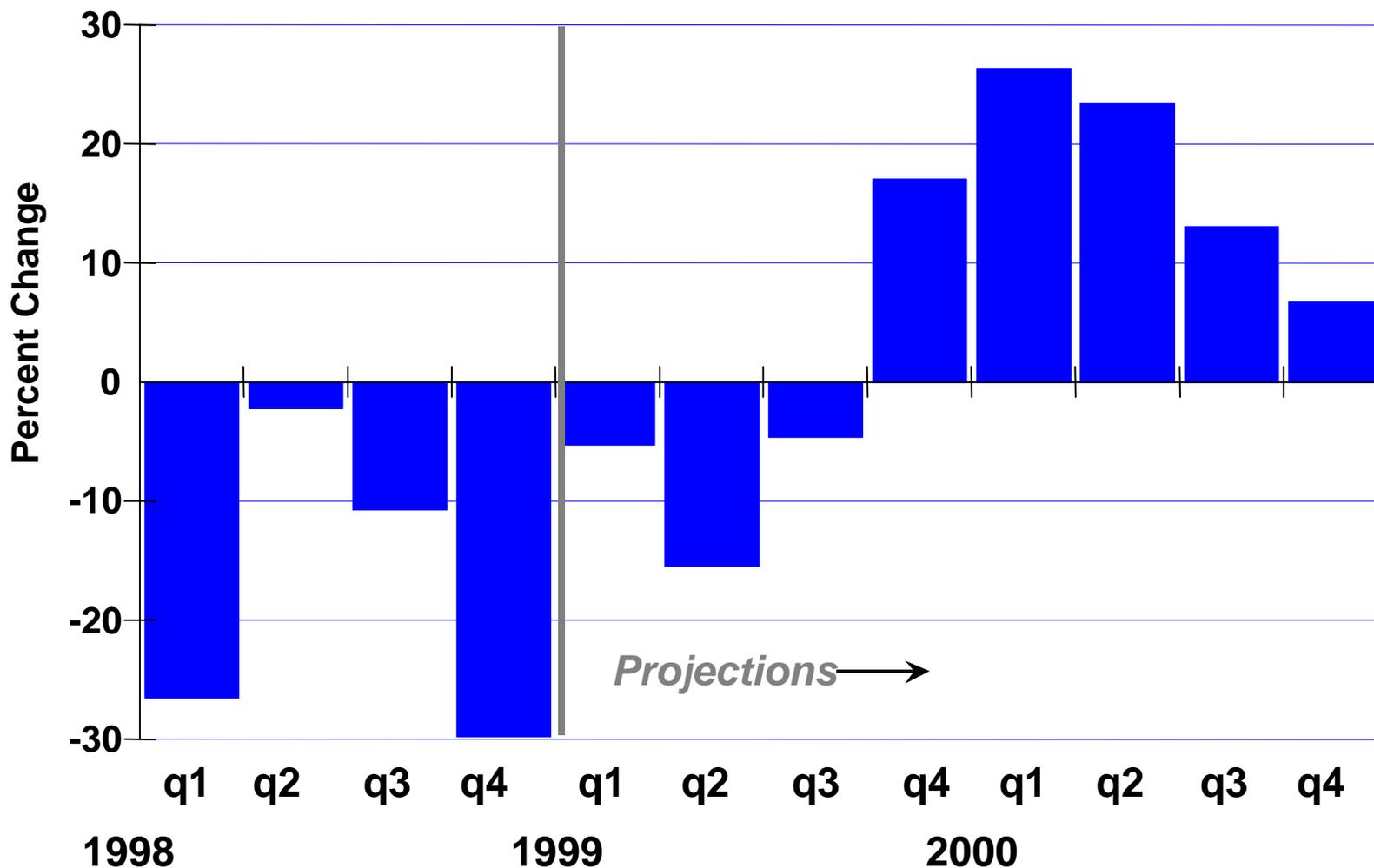


*Pump Price, Self-Service, Cash, Includes Tax

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



Figure 7. Quarterly Natural Gas Wellhead Prices (Percent Change from Year Ago)



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



weather patterns, and a projected recovery in jet fuel markets. A slowdown in petroleum demand growth in 2000 is based primarily on a slowing economy and weather patterns similar to those of the previous year.

U.S. Natural Gas Demand/Supply

January was 5 percent warmer than normal in terms of heating degree-days, but still not as warm as January 1998, which was almost 20 percent warmer than normal ([Figure 8](#)). Overall, the forecast for U.S. natural gas demand has changed little from last month's forecast. Production growth over the year is expected to be minimal due to exploration and production budgets being slashed for 1999, reduced capital spending, and normal natural gas production declines.

The surplus of working gas in storage compared to last year slipped by mid-January. However, natural gas storage by the end of the first quarter of 1999 is still expected to be higher than year-ago, but by less than previously forecasted ([Figure 9](#)). The current outlook calls for natural gas storage on March 31 to be 234 billion cubic feet, or 4.2 percent, above the year-ago level, compared with the 390 billion cubic feet, or 7.1 percent, higher storage forecast in our last outlook.

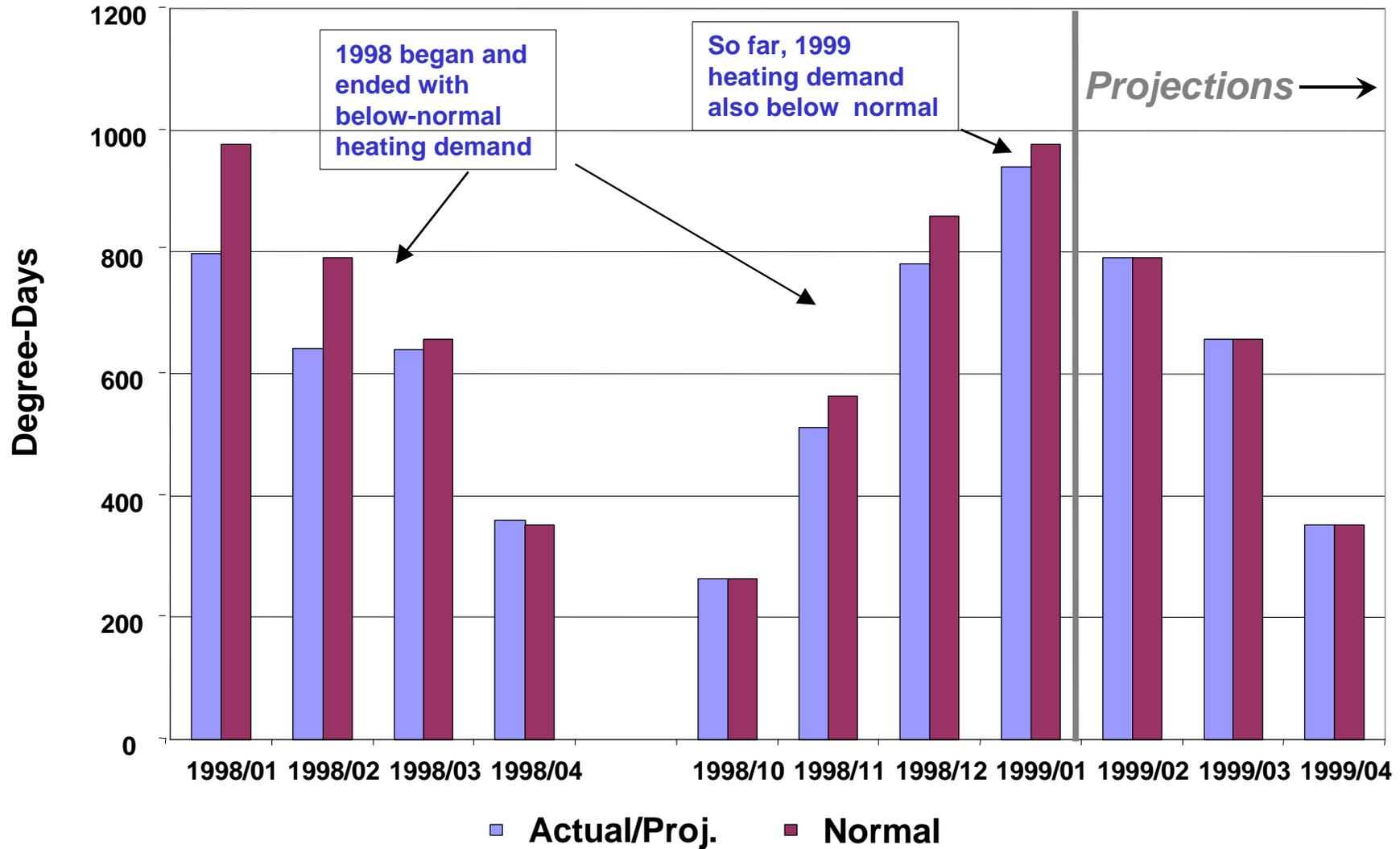
U.S. Coal Demand/Supply

The forecasts for total coal demand have been raised slightly, as electricity sector coal consumption increases in 1999 and 2000. The current forecast has electricity sector coal consumption of 932.5 million short tons in 1999, and 962.9 million short tons in 2000. Last month's outlook had consumption of 929.2 million short tons in 1999, and 957.8 million short tons in 2000.

U.S. Electricity Demand/Supply

Our electricity demand and supply forecasts are essentially unchanged from last month's outlook. Electricity demand in 1999 and 2000 is still expected to rise by 1.0 and 2.0 percent, respectively. Coal is, however, expected to make up a slightly larger share of incremental demand increases.

Figure 8. Monthly Heating Degree-Days*



*U.S. gas-weighted heating degree-days

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

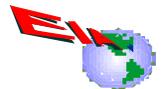
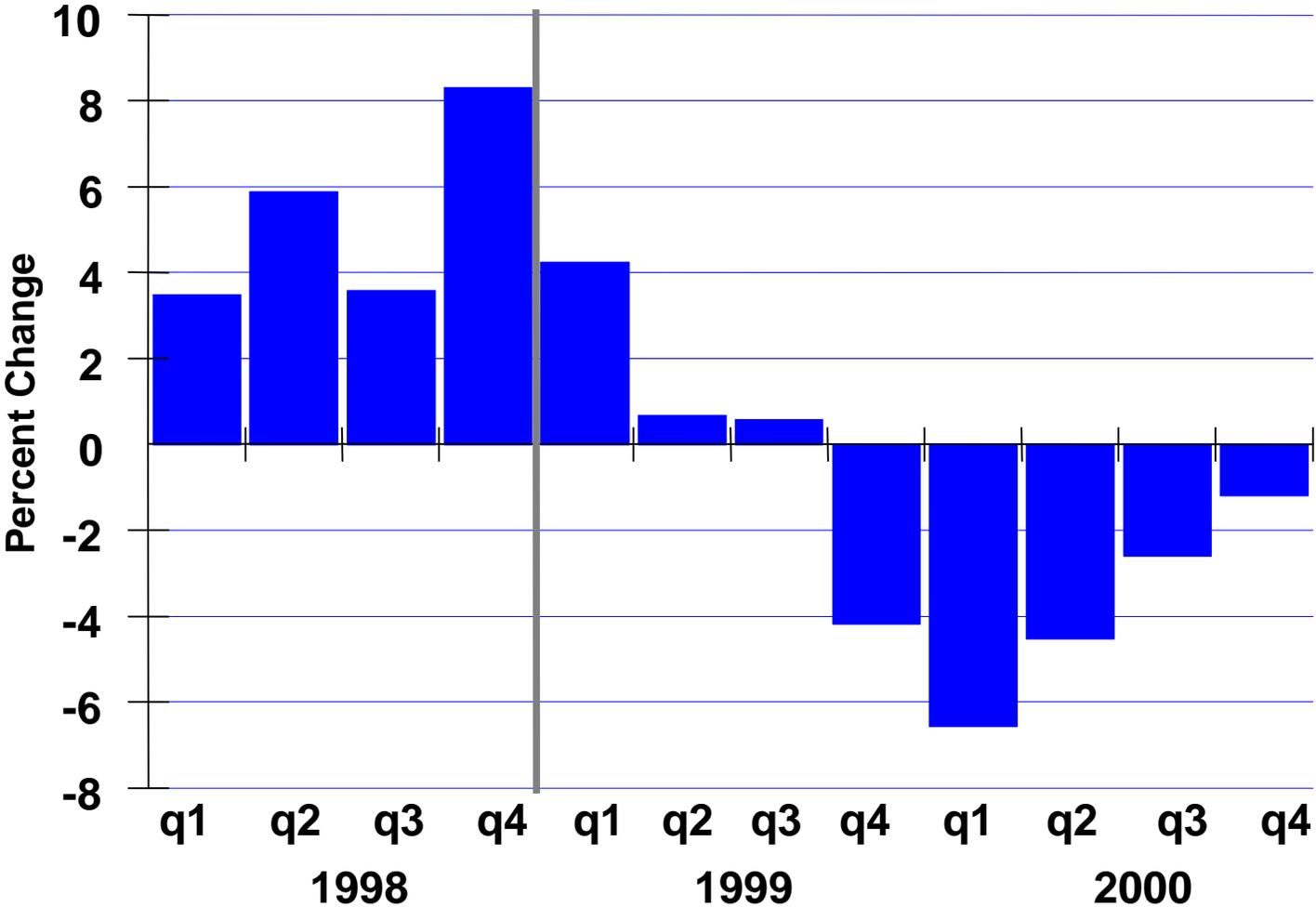


Figure 9. Natural Gas Storage (Percent Change from Year Ago)



Sources: History: EIA estimates; Projections: Short-Term Energy Outlook, February 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	7541	<i>7714</i>	<i>7846</i>	3.7	2.3	1.7
Imported Crude Oil Price ^a (nominal dollars per barrel)	18.57	12.09	<i>11.50</i>	<i>13.74</i>	-34.9	-4.9	19.5
Petroleum Supply (million barrels per day) Crude Oil Production ^b	6.45	6.34	<i>6.27</i>	<i>6.05</i>	-1.7	-1.1	-3.5
Total Petroleum Net Imports (including SPR)	9.16	9.45	<i>9.60</i>	<i>10.11</i>	3.2	1.6	5.3
Energy Demand							
World Petroleum (million barrels per day).....	73.2	73.9	<i>75.2</i>	<i>76.7</i>	1.0	1.8	2.0
Petroleum (million barrels per day).....	18.62	18.68	<i>19.24</i>	<i>19.50</i>	0.3	3.0	1.4
Natural Gas (trillion cubic feet)	21.97	21.35	<i>22.18</i>	<i>22.61</i>	-2.8	3.9	1.9
Coal (million short tons)	1029	1042	<i>1065</i>	<i>1096</i>	1.3	2.2	2.9
Electricity (billion kilowatthours) Utility Sales ^c	3115	3235	<i>3265</i>	<i>3330</i>	3.9	0.9	2.0
Nonutility Own Use ^d	161	164	<i>166</i>	<i>168</i>	1.9	1.2	1.2
Total	3276	3398	<i>3431</i>	<i>3499</i>	3.7	1.0	2.0
Total Energy Demand ^e (quadrillion Btu).....	94.3	94.2	<i>96.4</i>	<i>98.1</i>	-0.1	2.4	1.8
Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar).....	12.97	12.49	<i>12.50</i>	<i>12.50</i>	-3.7	0.1	0.0
Renewable Energy as Percent of Total ^f	7.5	7.2	<i>6.8</i>	<i>6.7</i>			

^a Refers to the refiner acquisition cost (RAC) of imported crude oil.

^b Includes lease condensate.

^c 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.

^d 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.

^e 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)*.

^f 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.

Table 1. U.S. Macroeconomic and Weather Assumptions

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 1992 dollars - SAAR)	7465	7499	7570	7632	7663	7687	7731	7773	7794	7829	7863	7898	7541	7714	7846
Percentage Change from Prior Year	4.2	3.6	3.5	3.6	2.7	2.5	2.1	1.9	1.7	1.9	1.7	1.6	3.7	2.3	1.7
Annualized Percent Change from Prior Quarter	5.4	1.8	3.8	3.3	1.6	1.2	2.3	2.2	1.1	1.8	1.7	1.8			
GDP Implicit Price Deflator (Index, 1992=1.000)	1.123	1.126	1.128	1.131	1.137	1.142	1.148	1.154	1.162	1.168	1.173	1.179	1.127	1.145	1.170
Percentage Change from Prior Year	1.2	1.0	0.9	0.9	1.2	1.5	1.8	2.0	2.2	2.2	2.2	2.2	1.0	1.6	2.2
Real Disposable Personal Income (billion chained 1992 Dollars - SAAR)	5287	5322	5362	5403	5437	5465	5513	5544	5585	5619	5635	5658	5343	5490	5624
Percentage Change from Prior Year	3.0	3.0	3.2	3.2	2.8	2.7	2.8	2.6	2.7	2.8	2.2	2.1	3.1	2.7	2.5
Manufacturing Production (Index, 1992=1.000)	1.338	1.347	1.349	1.360	1.372	1.376	1.381	1.388	1.398	1.407	1.414	1.420	1.349	1.379	1.410
Percentage Change from Prior Year	6.0	5.0	3.2	2.2	2.5	2.2	2.4	2.0	1.9	2.2	2.4	2.4	4.1	2.3	2.2
OECD Economic Growth (percent) ^b													3.0	2.6	2.4
Weather ^c															
Heating Degree-Days															
U.S.	1972	480	68	1468	2281	524	89	1636	2354	524	89	1636	3988	4530	4603
New England	2766	769	203	2109	3215	915	171	2269	3306	915	171	2269	5847	6569	6660
Middle Atlantic	2461	570	106	1779	2944	716	105	2026	3028	716	105	2026	4916	5791	5875
U.S. Gas-Weighted	2078	548	66	1555	2389	539	81	1686	2454	539	81	1686	4247	4695	4760
Cooling Degree-Days (U.S.)	25	399	865	69	28	334	758	72	30	334	758	72	1358	1191	1193

^a 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.

^b 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 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 ^a															
Real Fixed Investment (billion chained 1992 dollars-SAAR)	1225	1264	1269	<i>1297</i>	<i>1306</i>	<i>1309</i>	<i>1311</i>	<i>1318</i>	<i>1331</i>	<i>1334</i>	<i>1331</i>	<i>1332</i>	1264	<i>1311</i>	<i>1332</i>
Real Exchange Rate (index).....	1.142	1.161	1.181	<i>1.120</i>	<i>1.130</i>	<i>1.119</i>	<i>1.109</i>	<i>1.102</i>	<i>1.096</i>	<i>1.091</i>	<i>1.086</i>	<i>1.082</i>	1.151	<i>1.115</i>	<i>1.089</i>
Business Inventory Change (billion chained 1992 dollars-SAAR)	30.1	23.9	21.1	<i>3.0</i>	<i>4.3</i>	<i>-0.5</i>	<i>-0.5</i>	<i>-1.9</i>	<i>-6.7</i>	<i>-3.3</i>	<i>0.5</i>	<i>0.9</i>	19.5	<i>0.4</i>	<i>-2.1</i>
Producer Price Index (index, 1982=1.000).....	1.251	1.249	1.243	<i>1.238</i>	<i>1.242</i>	<i>1.248</i>	<i>1.254</i>	<i>1.260</i>	<i>1.270</i>	<i>1.276</i>	<i>1.280</i>	<i>1.286</i>	1.245	<i>1.251</i>	<i>1.278</i>
Consumer Price Index (index, 1982-1984=1.000).....	1.620	1.628	1.635	<i>1.644</i>	<i>1.657</i>	<i>1.667</i>	<i>1.678</i>	<i>1.690</i>	<i>1.704</i>	<i>1.716</i>	<i>1.727</i>	<i>1.739</i>	1.632	<i>1.673</i>	<i>1.722</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.541	0.536	0.503	<i>0.483</i>	<i>0.478</i>	<i>0.501</i>	<i>0.501</i>	<i>0.503</i>	<i>0.535</i>	<i>0.556</i>	<i>0.558</i>	<i>0.549</i>	0.516	<i>0.496</i>	<i>0.549</i>
Non-Farm Employment (millions).....	124.8	125.5	126.1	<i>126.7</i>	<i>126.9</i>	<i>127.4</i>	<i>128.0</i>	<i>128.6</i>	<i>129.0</i>	<i>129.3</i>	<i>129.5</i>	<i>129.9</i>	125.8	<i>127.7</i>	<i>129.4</i>
Commercial Employment (millions).....	85.7	86.3	87.0	<i>87.6</i>	<i>88.0</i>	<i>88.5</i>	<i>89.2</i>	<i>89.9</i>	<i>90.1</i>	<i>90.4</i>	<i>90.7</i>	<i>91.1</i>	86.7	<i>88.9</i>	<i>90.6</i>
Total Industrial Production (index, 1992=1.000).....	1.303	1.313	1.317	<i>1.324</i>	<i>1.334</i>	<i>1.337</i>	<i>1.342</i>	<i>1.348</i>	<i>1.357</i>	<i>1.365</i>	<i>1.372</i>	<i>1.378</i>	1.314	<i>1.340</i>	<i>1.368</i>
Housing Stock (millions).....	113.7	113.9	114.1	<i>114.4</i>	<i>114.8</i>	<i>115.1</i>	<i>115.4</i>	<i>115.7</i>	<i>116.1</i>	<i>116.4</i>	<i>116.7</i>	<i>117.0</i>	114.0	<i>115.2</i>	<i>116.5</i>
Miscellaneous															
Gas Weighted Industrial Production (index, 1992=1.000).....	1.175	1.171	1.161	<i>1.152</i>	<i>1.157</i>	<i>1.163</i>	<i>1.170</i>	<i>1.175</i>	<i>1.185</i>	<i>1.195</i>	<i>1.203</i>	<i>1.208</i>	1.165	<i>1.166</i>	<i>1.198</i>
Vehicle Miles Traveled ^b (million miles/day).....	6580	7316	7533	<i>7039</i>	<i>6819</i>	<i>7517</i>	<i>7704</i>	<i>7227</i>	<i>6996</i>	<i>7691</i>	<i>7860</i>	<i>7377</i>	7119	<i>7319</i>	<i>7482</i>
Vehicle Fuel Efficiency (index, 1996=1.000).....	0.994	1.019	1.002	<i>1.001</i>	<i>0.994</i>	<i>1.013</i>	<i>1.017</i>	<i>1.016</i>	<i>1.003</i>	<i>1.018</i>	<i>1.020</i>	<i>1.020</i>	1.004	<i>1.010</i>	<i>1.016</i>
Real Vehicle Fuel Cost (cents per mile).....	3.36	3.17	3.10	<i>3.09</i>	<i>3.00</i>	<i>3.09</i>	<i>3.03</i>	<i>3.10</i>	<i>3.17</i>	<i>3.19</i>	<i>3.13</i>	<i>3.17</i>	3.18	<i>3.05</i>	<i>3.17</i>
Air Travel Capacity (mill. available ton-miles/day).....	423.2	438.8	441.8	<i>417.6</i>	<i>424.3</i>	<i>446.7</i>	<i>461.6</i>	<i>454.6</i>	<i>450.2</i>	<i>468.8</i>	<i>485.5</i>	<i>474.1</i>	430.4	<i>446.9</i>	<i>469.7</i>
Aircraft Utilization (mill. revenue ton-miles/day).....	237.5	258.9	261.4	<i>253.5</i>	<i>250.2</i>	<i>267.0</i>	<i>280.9</i>	<i>264.9</i>	<i>260.6</i>	<i>278.1</i>	<i>292.6</i>	<i>276.8</i>	252.9	<i>265.8</i>	<i>277.1</i>
Airline Ticket Price Index (index, 1982-1984=1.000).....	2.058	2.053	2.070	<i>2.067</i>	<i>2.110</i>	<i>2.124</i>	<i>2.138</i>	<i>2.170</i>	<i>2.211</i>	<i>2.223</i>	<i>2.235</i>	<i>2.267</i>	2.062	<i>2.136</i>	<i>2.234</i>
Raw Steel Production (millions tons).....	28.75	27.87	26.57	<i>25.85</i>	<i>27.13</i>	<i>26.85</i>	<i>26.42</i>	<i>26.88</i>	<i>27.99</i>	<i>27.44</i>	<i>26.82</i>	<i>27.21</i>	108.73	<i>107.29</i>	<i>109.47</i>

^aMacroeconomic projections from DRI/McGraw-Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the mid world oil price case.

^bIncludes 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^a															
OECD															
U.S. (50 States).....	18.3	18.4	19.0	18.9	19.2	19.0	19.3	19.5	19.5	19.3	19.5	19.7	18.7	19.2	19.5
U.S. Territories	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Canada	1.9	1.8	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.1	2.1	1.9	2.0	2.0
Europe	14.9	14.1	14.6	14.9	15.0	14.3	14.7	15.1	15.3	14.5	15.0	15.3	14.6	14.8	15.0
Japan.....	6.2	5.0	5.2	5.8	6.2	5.0	5.3	5.9	6.2	5.0	5.3	5.9	5.5	5.6	5.6
Australia and New Zealand.....	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0
Total OECD	42.3	40.5	41.9	42.8	43.5	41.3	42.4	43.7	44.1	41.9	43.1	44.3	41.9	42.7	43.4
Non-OECD															
Former Soviet Union	4.7	4.3	4.1	4.5	4.7	4.2	4.1	4.5	4.7	4.2	4.1	4.5	4.4	4.4	4.4
Europe	1.6	1.4	1.4	1.5	1.7	1.4	1.4	1.6	1.7	1.5	1.5	1.6	1.5	1.5	1.6
China	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5	4.5	4.6	4.1	4.3	4.5
Other Asia.....	8.5	8.4	8.3	9.4	8.5	8.5	8.3	9.6	8.6	8.6	8.5	9.8	8.7	8.7	8.9
Other Non-OECD	13.2	13.6	13.2	13.5	13.4	13.8	13.5	13.8	13.7	14.1	13.8	14.2	13.4	13.6	13.9
Total Non-OECD	32.1	31.7	31.1	33.1	32.5	32.2	31.7	33.8	33.2	33.0	32.5	34.8	32.0	32.5	33.4
Total World Demand.....	74.4	72.2	73.0	75.9	76.0	73.5	74.1	77.5	77.3	74.9	75.6	79.1	73.9	75.2	76.7
Supply^b															
OECD															
U.S. (50 States).....	9.5	9.4	9.2	9.3	9.3	9.3	9.2	9.2	9.1	9.1	9.1	9.0	9.3	9.3	9.1
Canada	2.7	2.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.7	2.8	2.8
North Sea ^c	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	1.5	1.6	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Total OECD	20.2	19.8	19.4	19.9	20.1	19.9	20.0	20.4	20.3	20.0	20.3	20.6	19.8	20.1	20.3
Non-OECD															
OPEC	30.9	30.7	30.0	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.0	31.2	30.4	30.4	31.0
Former Soviet Union	7.3	7.2	7.2	7.3	7.3	7.2	7.2	7.3	7.3	7.2	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	3.6	3.6	3.6	3.7	3.7	3.7	3.5	3.5	3.7
Other Non-OECD	10.7	10.7	10.7	10.8	10.8	10.8	10.9	10.9	11.0	11.1	11.2	11.2	10.7	10.9	11.1
Total Non-OECD	55.6	55.3	54.6	54.7	54.9	55.0	55.3	55.6	55.9	56.0	56.3	56.6	55.1	55.2	56.2
Total World Supply	75.8	75.1	74.0	74.7	75.0	74.8	75.3	76.0	76.2	76.0	76.6	77.2	74.9	75.3	76.5
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.3	-0.7	0.0	0.1	0.7	-0.4	-0.3	0.6	0.7	-0.5	-0.3	0.5	-0.2	0.1	0.1
Other.....	-1.0	-2.2	-1.0	1.2	0.3	-0.9	-0.9	0.8	0.5	-0.6	-0.6	1.4	-0.8	-0.2	0.2
Total Stock Withdrawals	-1.4	-2.9	-1.0	1.2	0.9	-1.3	-1.2	1.4	1.2	-1.1	-1.0	1.9	-1.0	-0.1	0.2
OECD Comm. Stocks, End (bill. bbls.).....	2.7	2.9	2.9	2.9	2.8	2.9	2.9	2.8	2.8	2.8	2.9	2.8	2.9	2.8	2.8
Non-OPEC Supply	44.9	44.4	44.0	44.7	44.8	44.5	44.9	45.4	45.4	45.2	45.6	46.1	44.5	44.9	45.5
Net Exports from Former Soviet Union	2.6	2.9	3.1	2.8	2.6	2.9	3.1	2.8	2.6	3.0	3.1	2.8	2.8	2.8	2.9

^aDemand 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.

^bIncludes 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.

^cIncludes 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 ^a															
(dollars per barrel).....	13.44	12.39	11.87	10.79	10.75	11.42	11.41	12.41	13.08	13.75	13.83	14.25	12.09	11.50	13.74
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.88	1.92	1.91	1.84	1.78	1.62	1.81	2.14	2.21	1.97	2.03	2.27	1.89	1.84	2.12
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades.....	1.10	1.10	1.07	1.03	1.00	1.09	1.09	1.07	1.10	1.16	1.16	1.13	1.07	1.06	1.14
Regular Unleaded.....	1.05	1.05	1.03	0.99	0.96	1.05	1.05	1.03	1.06	1.13	1.13	1.10	1.03	1.02	1.10
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.08	1.05	1.02	1.00	0.97	0.99	1.00	1.06	1.06	1.07	1.07	1.11	1.04	1.01	1.08
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.47	0.43	0.40	0.38	0.40	0.40	0.40	0.47	0.49	0.49	0.50	0.54	0.42	0.42	0.50
No. 2 Heating Oil, Retail															
(dollars per gallon)	0.92	0.85	0.77	0.79	0.80	0.79	0.77	0.86	0.91	0.89	0.87	0.93	0.85	0.81	0.91
No. 6 Residual Fuel Oil, Retail ^c															
(dollars per barrel).....	13.56	13.22	12.31	11.96	12.44	11.79	11.36	13.19	14.35	13.59	13.21	14.39	12.76	12.21	13.91
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.26	1.26	1.25	1.24	1.24	1.26	1.24	1.23	1.23	1.24	1.22	1.21	1.25	1.24	1.23
Heavy Fuel Oil ^d															
(dollars per million Btu).....	2.12	2.17	2.07	1.97	1.97	1.94	1.87	2.17	2.26	2.23	2.17	2.37	2.08	1.98	2.25
Natural Gas															
(dollars per million Btu).....	2.61	2.46	2.28	2.14	2.39	2.15	2.30	2.69	2.87	2.53	2.54	2.84	2.35	2.35	2.65
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	6.39	7.33	8.90	6.67	6.66	7.07	8.63	6.64	6.84	7.60	8.97	7.30	6.83	6.86	7.24
Electricity															
(cents per kilowatthour).....	7.93	8.42	8.54	7.86	7.53	8.19	8.49	8.06	7.51	8.14	8.42	7.94	8.21	8.07	8.01

^a Refiner acquisition cost (RAC) of imported crude oil.

^b Average self-service cash prices.

^c Average for all sulfur contents.

^d 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				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Crude Oil Supply															
Domestic Production ^a	6.48	6.39	6.22	6.29	6.37	6.27	6.21	6.25	6.10	6.07	6.03	6.00	6.34	6.27	6.05
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	1.18	1.10	1.01
Lower 48.....	5.25	5.22	5.10	5.11	5.20	5.17	5.14	5.16	5.08	5.06	5.02	4.99	5.17	5.17	5.04
Net Imports (including SPR) ^b	7.81	8.61	8.89	8.48	7.96	8.74	8.90	8.20	8.13	9.13	9.34	8.78	8.45	8.45	8.85
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	-0.06	-0.03	0.00	0.00	0.12	0.00	0.00	0.00	0.00	-0.01	0.02	0.00
Other Stock Withdrawn or Added (-).....	-0.35	0.04	0.25	-0.16	-0.07	-0.03	0.09	0.01	0.06	-0.02	0.06	0.02	-0.05	0.00	0.03
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.....	0.38	0.11	-0.03	-0.04	0.25	0.23	0.23	0.22	0.22	0.23	0.23	0.23	0.10	0.23	0.23
Total Crude Oil Supply.....	14.32	15.14	15.34	14.56	14.48	15.21	15.41	14.79	14.50	15.40	15.66	15.01	14.85	14.98	15.14
Other Supply															
NGL Production.....	1.85	1.80	1.67	1.75	1.77	1.78	1.78	1.78	1.80	1.80	1.79	1.80	1.77	1.78	1.80
Other Hydrocarbon and Alcohol Inputs.....	0.34	0.36	0.38	0.38	0.37	0.34	0.35	0.37	0.38	0.36	0.37	0.37	0.36	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	0.91	0.83	0.88	0.88	0.86	0.85	0.89	0.91	0.87	0.87	0.86	0.88
Net Product Imports ^c	0.93	1.04	0.99	1.02	1.01	1.20	1.21	1.19	1.30	1.30	1.20	1.24	0.99	1.15	1.26
Product Stock Withdrawn or Added (-) ^d	0.03	-0.75	-0.24	0.29	0.75	-0.42	-0.36	0.48	0.64	-0.51	-0.40	0.45	-0.17	0.11	0.05
Total Supply.....	18.30	18.43	19.03	18.91	19.22	18.99	19.29	19.48	19.48	19.25	19.54	19.74	18.67	19.24	19.50
Demand															
Motor Gasoline.....	7.77	8.21	8.49	8.30	8.05	8.49	8.55	8.40	8.18	8.64	8.70	8.54	8.20	8.37	8.51
Jet Fuel.....	1.55	1.55	1.54	1.64	1.62	1.56	1.62	1.64	1.63	1.58	1.64	1.67	1.57	1.61	1.63
Distillate Fuel Oil.....	3.58	3.37	3.39	3.41	3.84	3.45	3.39	3.63	3.89	3.50	3.44	3.68	3.44	3.58	3.63
Residual Fuel Oil.....	0.81	0.81	0.89	0.76	0.97	0.85	0.87	0.88	1.03	0.84	0.84	0.85	0.82	0.89	0.89
Other Oils ^e	4.62	4.49	4.71	4.79	4.74	4.64	4.86	4.94	4.75	4.70	4.92	5.00	4.65	4.80	4.84
Total Demand.....	18.32	18.43	19.03	18.91	19.22	18.99	19.29	19.48	19.48	19.25	19.54	19.74	18.68	19.24	19.50
Total Petroleum Net Imports.....	8.74	9.66	9.88	9.50	8.97	9.94	10.11	9.38	9.43	10.43	10.55	10.01	9.45	9.60	10.11
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	336	333	310	324	330	333	325	324	319	321	315	313	324	324	313
Total Motor Gasoline.....	215	221	207	213	213	210	212	211	208	203	205	207	213	211	207
Finished Motor Gasoline.....	166	178	165	170	168	169	169	169	165	162	163	164	170	169	164
Blending Components.....	49	44	43	43	45	41	43	42	44	41	42	42	43	42	42
Jet Fuel.....	43	44	46	45	42	41	44	45	42	43	46	45	45	45	45
Distillate Fuel Oil.....	124	139	153	157	114	123	138	142	106	119	135	139	157	142	139
Residual Fuel Oil.....	41	40	40	44	37	40	39	42	33	37	38	42	44	42	42
Other Oils ^e	265	313	334	296	279	309	324	273	265	298	314	263	296	273	263
Total Stocks (excluding SPR).....	1025	1090	1089	1077	1015	1056	1082	1037	973	1021	1052	1008	1077	1037	1008
Crude Oil in SPR.....	563	563	563	569	571	571	571	560	560	560	560	560	569	560	560
Total Stocks (including SPR).....	1588	1654	1653	1646	1587	1628	1653	1597	1533	1581	1613	1569	1646	1597	1569

^aIncludes lease condensate.

^bNet imports equals gross imports plus SPR imports minus exports.

^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

^dIncludes 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.

^eIncludes 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.

Table 6. Approximate Energy Demand Sensitivities^a for the STIFS^b Model
(Percent Deviation Base Case)

Demand Sector	+1% GDP	+ 10% Prices		+ 10% Weather ^e	
		Crude Oil ^c	N.Gas Wellhead ^d	Fall/Winter ^f	Spring/Summer ^f
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%

^aPercent change in demand quantity resulting from specified percent changes in model inputs.

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

^dAverage unit value of marketed natural gas production reported by States.

^eRefers to percent changes in degree-days.

^fResponse 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)

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States.....	6.31	5.56	0.75	0.09	0.66
Lower 48 States.....	5.29	4.56	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	4.70	4.76	4.78	4.73	4.71	4.77	4.79	4.76	4.72	4.77	4.80	18.95	18.99	19.05
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	3.00	3.06	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	5.43	5.53	5.60	5.53	5.48	5.54	5.63	5.62	5.53	5.60	5.69	22.06	22.17	22.44
Underground Working Gas Storage															
Opening	6.52	5.52	6.44	7.28	7.06	5.81	6.55	7.36	6.83	5.38	6.22	7.14	6.52	7.06	6.83
Closing	5.52	6.44	7.28	7.06	5.81	6.55	7.36	6.83	5.38	6.22	7.14	6.72	7.06	6.83	6.72
Net Withdrawals.....	1.00	-0.92	-0.84	0.22	1.25	-0.74	-0.81	0.53	1.45	-0.83	-0.92	0.42	-0.54	0.23	0.11
Total Supply	6.49	4.51	4.69	5.82	6.78	4.74	4.72	6.16	7.07	4.70	4.68	6.11	21.52	22.40	22.55
Balancing Item ^a	0.16	0.18	-0.06	-0.44	0.31	0.15	-0.20	-0.48	0.32	0.24	-0.10	-0.39	-0.17	-0.23	0.06
Total Primary Supply.....	6.65	4.69	4.63	5.38	7.09	4.89	4.52	5.67	7.38	4.94	4.58	5.71	21.35	22.18	22.61
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.32	0.31	0.31	0.31	0.32	0.31	0.31	0.31	0.32	1.25	1.24	1.24
Pipeline Use.....	0.23	0.16	0.16	0.19	0.24	0.17	0.16	0.19	0.24	0.16	0.15	0.19	0.74	0.75	0.75
Residential	2.13	0.78	0.36	1.27	2.39	0.82	0.34	1.40	2.50	0.83	0.34	1.41	4.54	4.94	5.08
Commercial	1.21	0.57	0.47	0.83	1.36	0.64	0.46	0.91	1.45	0.65	0.47	0.93	3.08	3.38	3.50
Industrial (Incl. Cogenerators).....	2.24	1.97	1.99	2.11	2.22	2.03	1.99	2.17	2.30	2.04	1.99	2.17	8.30	8.41	8.50
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	0.61	0.54	0.89	1.22	0.63	0.55	0.90	1.26	0.64	3.26	3.27	3.35
Nonutilities (Excl. Cogen.) ^b	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.....	6.65	4.69	4.63	5.38	7.09	4.89	4.52	5.67	7.38	4.94	4.58	5.71	21.35	22.18	22.61

^aThe balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

^bQuarterly 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)

	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	275.4	276.0	283.9	273.0	275.1	285.9	294.1	277.6	280.7	287.8	1102.2	1117.9	1140.2
Appalachia.....	119.1	111.6	110.0	115.8	119.3	116.0	107.7	117.9	122.0	115.9	107.6	116.6	456.6	460.9	462.2
Interior	41.0	41.5	41.1	41.8	39.9	38.1	39.3	41.4	39.6	37.0	38.2	39.8	165.4	158.6	154.5
Western.....	119.1	118.5	124.2	118.4	124.6	118.9	128.2	126.7	132.4	124.7	134.9	131.4	480.3	498.4	523.4
Primary Stock Levels ^a															
Opening.....	34.0	41.0	38.3	34.2	34.1	39.4	38.4	31.5	30.6	36.7	37.0	29.9	34.0	34.1	30.6
Closing	41.0	38.3	34.2	34.1	39.4	38.4	31.5	30.6	36.7	37.0	29.9	29.6	34.1	30.6	29.6
Net Withdrawals.....	-7.0	2.7	4.2	(S)	-5.2	1.0	6.9	0.9	-6.0	-0.3	7.1	0.3	-0.2	3.5	1.1
Imports	1.8	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	8.3	8.6	9.0
Exports	18.3	20.5	19.7	19.3	18.8	19.2	19.4	19.3	18.1	18.8	19.0	18.9	77.8	76.7	74.9
Total Net Domestic Supply.....	255.7	256.0	261.9	258.9	262.1	257.0	264.7	269.6	272.1	260.7	271.1	271.5	1032.5	1053.4	1075.4
Secondary Stock Levels ^b															
Opening.....	106.4	114.1	124.7	111.3	118.8	120.4	128.1	113.8	118.2	116.0	121.3	107.5	106.4	118.8	118.2
Closing	114.1	124.7	111.3	118.8	120.4	128.1	113.8	118.2	116.0	121.3	107.5	108.9	118.8	118.2	108.9
Net Withdrawals.....	-7.7	-10.6	13.5	-7.6	-1.5	-7.8	14.3	-4.4	2.3	-5.4	13.8	-1.4	-12.4	0.6	9.3
Waste Coal Supplied to IPPs ^c	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	250.5	247.8	277.9	253.8	263.2	251.8	281.7	267.9	277.2	258.1	287.7	272.8	1030.1	1064.6	1095.8
Demand															
Coke Plants	6.9	6.9	7.1	7.0	7.3	6.9	6.9	7.1	7.2	7.1	7.0	7.2	28.0	28.1	28.4
Electricity Production															
Electric Utilities.....	220.5	218.7	252.8	220.2	228.7	220.2	250.1	233.5	242.5	226.2	255.9	238.2	912.3	932.5	962.9
Nonutilities (Excl. Cogen.) ^d	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	20.3	20.6	18.1	18.1	20.8	20.5	17.8	17.8	20.5	76.8	77.5	76.5
Total Demand.....	253.8	250.2	284.2	253.8	263.2	251.8	281.7	267.9	277.2	258.1	287.7	272.8	1042.1	1064.6	1095.8
Discrepancy ^f	-3.3	-2.3	-6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.0	0.0	0.0

^aPrimary stocks are held at the mines, preparation plants, and distribution points.

^bSecondary stocks are held by users.

^cEstimated 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.

^dConsumption 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.

^fThe 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	455.0	438.8	496.4	464.4	484.4	451.3	507.9	473.4	1808.1	1854.6	1917.1
Petroleum.....	20.9	28.5	37.3	23.6	30.6	29.1	34.4	26.4	32.5	27.7	32.4	25.4	110.3	120.5	118.0
Natural Gas.....	47.9	80.7	120.8	59.0	51.2	84.7	116.3	60.1	52.7	85.9	120.4	61.2	308.4	312.4	320.2
Nuclear.....	162.6	154.7	179.1	176.9	174.3	154.5	181.4	163.5	171.8	155.9	183.0	164.4	673.3	673.6	675.1
Hydroelectric.....	86.7	88.6	69.7	60.8	76.5	77.9	65.6	64.0	74.3	77.2	64.7	64.1	305.8	284.0	280.4
Geothermal and Other ^a	1.9	1.4	1.9	1.9	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.6	7.1	6.8	6.6
Subtotal.....	757.0	789.0	910.0	757.1	789.3	786.7	895.9	780.1	817.3	799.6	910.2	790.2	3213.1	3251.9	3317.3
Nonutility Generation ^b															
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 ^c	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
Hydroelectric.....	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 ^d	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	866.4	884.3	877.7	994.9	891.0	913.8	892.0	1010.7	902.8	3603.4	3647.9	3719.2
Net Imports ^e	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	873.7	891.1	885.6	1006.1	898.8	920.8	900.3	1022.0	910.8	3634.4	3681.6	3754.0
Losses and Unaccounted for ^f	48.1	75.7	57.2	55.1	47.2	73.5	64.3	65.7	48.5	74.8	65.4	66.6	236.2	250.7	255.3
Demand															
Electric Utility Sales															
Residential.....	275.8	250.7	347.9	260.0	296.7	253.5	329.8	264.9	310.7	260.1	337.7	270.5	1134.4	1145.0	1179.0
Commercial.....	217.4	230.9	271.7	228.5	228.4	231.6	268.9	233.0	236.3	234.9	271.8	234.4	948.5	961.9	977.4
Industrial.....	252.2	266.3	273.8	259.1	253.6	263.9	274.1	263.0	258.7	266.5	277.0	266.0	1051.4	1054.6	1068.2
Other.....	23.7	24.3	27.1	25.2	25.5	24.9	27.5	25.6	26.2	25.4	27.9	26.1	100.2	103.5	105.6
Subtotal.....	769.1	772.3	920.5	772.8	804.1	773.9	900.3	786.6	831.9	786.8	914.5	797.1	3234.6	3265.0	3330.2
Nonutility Gener. for Own Use ^b	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	818.6	843.9	812.1	941.8	833.1	872.3	825.5	956.6	844.2	3398.2	3430.9	3498.7
Memo:															
Nonutility Sales to															
Electric Utilities ^b	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"Other" includes generation from wind, wood, waste, and solar sources.

^bElectricity 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."

^cIncludes refinery still gas and other process or waste gases, and liquefied petroleum gases.

^dIncludes geothermal, solar, wind, wood, waste, nuclear, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

^eData for 1997 are estimates.

^fBalancing 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				Annual Percentage Change		
	1997	1998	1999	2000	1997-1998	1998-1999	1999-2000
Electric Utilities							
Hydroelectric Power ^a	3.530	3.201	<i>2.973</i>	<i>2.935</i>	-9.3	<i>-7.1</i>	<i>-1.3</i>
Geothermal, Solar and Wind Energy ^b	0.115	0.108	<i>0.102</i>	<i>0.095</i>	-6.1	<i>-5.6</i>	<i>-6.9</i>
Biofuels ^c	0.021	0.020	<i>0.020</i>	<i>0.021</i>	-4.8	<i>0.0</i>	<i>5.0</i>
Total	3.665	3.330	<i>3.095</i>	<i>3.051</i>	-9.1	<i>-7.1</i>	<i>-1.4</i>
Nonutility Power Generators							
Hydroelectric Power ^a	0.185	0.179	<i>0.186</i>	<i>0.193</i>	-3.2	<i>3.9</i>	<i>3.8</i>
Geothermal, Solar and Wind Energy ^b	0.235	0.253	<i>0.254</i>	<i>0.255</i>	7.7	<i>0.4</i>	<i>0.4</i>
Biofuels ^c	0.578	0.585	<i>0.582</i>	<i>0.579</i>	1.2	<i>-0.5</i>	<i>-0.5</i>
Total	0.998	1.018	<i>1.022</i>	<i>1.027</i>	2.0	<i>0.4</i>	<i>0.5</i>
Total Power Generation.....	4.663	4.348	<i>4.117</i>	<i>4.078</i>	-6.8	<i>-5.3</i>	<i>-0.9</i>
Other Sectors ^d							
Residential and Commercial ^e	0.553	0.568	<i>0.574</i>	<i>0.583</i>	2.7	<i>1.1</i>	<i>1.6</i>
Industrial ^f	1.498	1.515	<i>1.542</i>	<i>1.569</i>	1.1	<i>1.8</i>	<i>1.8</i>
Transportation ^g	0.087	0.094	<i>0.091</i>	<i>0.094</i>	8.0	<i>-3.2</i>	<i>3.3</i>
Total	2.138	2.177	<i>2.207</i>	<i>2.246</i>	1.8	<i>1.4</i>	<i>1.8</i>
Net Imported Electricity ^h	0.297	0.252	<i>0.274</i>	<i>0.283</i>	-15.2	<i>8.7</i>	<i>3.3</i>
Total Renewable Energy Demand.....	7.098	6.777	<i>6.598</i>	<i>6.607</i>	-4.5	<i>-2.6</i>	<i>0.1</i>

^aConventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

^bAlso includes photovoltaic and solar thermal energy.

^cBiofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

^dRenewable 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.

^eIncludes biofuels and solar energy consumed in the residential and commercial sectors.

^fonsists primarily of biofuels for use other than in electricity cogeneration.

^gEthanol blended into gasoline.

^hRepresents 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	7541	<i>7714</i>	<i>7846</i>
Imported Crude Oil Price ^a (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	12.09	<i>11.50</i>	<i>13.74</i>
Petroleum Supply															
Crude Oil Production ^b (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	6.34	<i>6.27</i>	<i>6.05</i>
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	9.45	<i>9.60</i>	<i>10.11</i>
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	71.5	73.2	73.9	75.2	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	<i>19.24</i>	<i>19.50</i>
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	21.35	<i>22.18</i>	<i>22.61</i>
Coal (million short tons).....	797	830	877	891	897	898	907	944	951	962	1006	1029	1042	<i>1065</i>	<i>1096</i>
Electricity (billion kilowatthours)															
Utility Sales ^c	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3115	3235	<i>3265</i>	<i>3330</i>
Nonutility Own Use ^d	NA	NA	NA	97	113	122	137	138	150	158	158	161	164	<i>166</i>	<i>168</i>
Total.....	2369	2457	2578	2744	2826	2884	2901	2999	3085	3171	3256	3276	3398	<i>3431</i>	<i>3499</i>
Total Energy Demand ^e (quadrillion Btu).....	NA	NA	NA	NA	84.2	84.3	85.6	87.4	89.3	90.9	93.9	94.3	94.2	<i>96.4</i>	<i>98.1</i>
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	12.49	<i>12.50</i>	<i>12.50</i>

^a Refers to the imported cost of crude oil to U.S. refiners.

^b Includes lease condensate.

^c 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.

^d 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.

^e "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 comprehensive 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-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1298.

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

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Macroeconomic															
Real Gross Domestic Product (billion chained 1992 dollars).....	5488	5649	5865	6062	6136	6079	6244	6390	6611	6762	6995	7270	7541	<i>7714</i>	<i>7846</i>
GDP Implicit Price Deflator (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	1.116	1.127	<i>1.145</i>	<i>1.170</i>
Real Disposable Personal Income (billion chained 1992 Dollars).....	4077	4155	4325	4412	4490	4484	4605	4667	4773	4906	5043	5183	5343	<i>5490</i>	<i>5624</i>
Manufacturing Production (Index, 1987=1.000).....	0.881	0.928	0.971	0.990	0.985	0.962	1.000	1.037	1.099	1.159	1.214	1.296	1.349	<i>1.379</i>	<i>1.410</i>
Real Fixed Investment (billion chained 1992 dollars).....	805	799	818	832	806	741	783	843	916	966	1051	1138	1264	<i>1311</i>	<i>1332</i>
Real Exchange Rate (Index, 1990=1.000).....	NA	NA	NA	NA	0.999	1.007	1.013	1.057	1.033	0.961	1.017	1.104	1.151	<i>1.115</i>	<i>1.089</i>
Business Inventory Change (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	19.5	<i>0.4</i>	<i>-2.1</i>
Producer Price Index (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	1.245	<i>1.251</i>	<i>1.278</i>
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	1.632	<i>1.673</i>	<i>1.722</i>
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	0.516	<i>0.496</i>	<i>0.549</i>
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	<i>127.7</i>	<i>129.4</i>
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	<i>88.9</i>	<i>90.6</i>
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	<i>1.340</i>	<i>1.368</i>
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	114.0	<i>115.2</i>	<i>116.5</i>
Weather ^a															
Heating Degree-Days															
U.S.....	4295	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3988	<i>4530</i>	<i>4603</i>
New England.....	6517	6546	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5847	<i>6569</i>	<i>6660</i>
Middle Atlantic.....	5665	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4916	<i>5791</i>	<i>5875</i>
U.S. Gas-Weighted.....	4442	4391	4804	4856	4139	4337	4458	4754	4659	4707	5040	4886	4247	<i>4695</i>	<i>4760</i>
Cooling Degree-Days (U.S.).....	1249	1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1156	1358	<i>1191</i>	<i>1193</i>

^aPopulation-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^a															
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	19.5
Europe ^b	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	14.8	15.0
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	5.6	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	3.0	3.0	3.1	3.2
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	41.9	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	4.4	4.4	4.4	4.4	4.4
Europe.....	2.2	2.2	2.2	2.1	1.9	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.5	1.5	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	3.9	4.1	4.3	4.5
Other Asia.....	3.8	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.3	8.8	8.7	8.7	8.9
Other Non-OECD.....	9.5	9.7	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.2	12.5	13.0	13.4	13.6	13.9
Total Non-OECD.....	26.5	27.1	27.7	28.3	28.5	28.5	28.0	28.1	28.4	29.4	30.1	31.4	32.0	32.5	33.4
Total World Demand.....	61.8	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.3	69.9	71.5	73.2	73.9	75.2	76.7
Supply^c															
OECD															
U.S. (50 States).....	11.0	10.7	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.3	9.1
Canada.....	1.8	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.8
North Sea ^d	3.8	3.8	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.2	6.4	6.7
Other OECD.....	1.4	1.4	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Total OECD.....	17.9	17.9	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	19.8	20.1	20.3
Non-OECD															
OPEC.....	19.3	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	30.4	31.0
Former Soviet Union.....	12.3	12.5	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.2	7.3
China.....	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.2
Mexico.....	2.8	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.5	3.7
Other Non-OECD.....	6.8	11.3	7.3	7.7	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.4	10.7	10.9	11.1
Total Non-OECD.....	43.9	44.6	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.1	55.1	55.2	56.2
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	74.0	74.9	75.3	76.5
Total Stock Withdrawals.....	0.0	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.3	0.1	0.1	-0.2	-0.8	-1.0	-0.1	0.2
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	2.8
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	2.7	2.7	2.8	2.8	2.9

^a 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.

^b 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.

^d 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 ^a															
(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	12.09	11.50	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	1.89	1.84	2.12
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades.....	0.88	0.91	0.92	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.06	1.14
Regular Unleaded.....	0.88	0.91	0.91	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.02	1.10
No. 2 Diesel Oil, Retail (dollars per gallon)	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	1.01	1.08
No. 2 Heating Oil, Wholesale (dollars per gallon)	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	0.42	0.50
No. 2 Heating Oil, Retail (dollars per gallon)	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	0.81	0.91
No. 6 Residual Fuel Oil, Retail ^c (dollars per barrel).....	14.46	17.76	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	18.97	17.80	12.76	12.21	13.91
Electric Utility Fuels															
Coal															
(dollars per million Btu)	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	1.24	1.23
Heavy Fuel Oil ^d (dollars per million Btu)	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.08	1.98	2.25
Natural Gas (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	2.35	2.35	2.65
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	6.83	6.86	7.24
Electricity (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	8.5	8.2	8.1	8.0

^aRefiner acquisition cost (RAC) of imported crude oil.

^bAverage self-service cash prices.

^cAverage for all sulfur contents.

^dIncludes 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)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Crude Oil Supply															
Domestic Production ^a	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.34	6.27	6.05
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	1.18	1.10	1.01
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	5.17	5.17	5.04
Net Imports (including SPR) ^b	4.02	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.45	8.45	8.85
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
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	0.03
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
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	0.10	0.23	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	14.85	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	1.77	1.78	1.80
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	0.36	0.36	0.37
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
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	0.87	0.86	0.88
Net Product Imports ^c	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	0.99	1.15	1.26
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	0.11	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	18.67	19.24	19.50
Demand															
Motor Gasoline ^d	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	8.37	8.51
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	3.58	3.63
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	0.89	0.89
Other Oils ^e	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	4.80	4.84
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	19.24	19.50
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	9.45	9.60	10.11
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	331	349	330	341	323	325	318	335	337	303	284	305	324	324	313
Total Motor Gasoline.....	233	226	228	213	220	219	216	226	215	202	195	210	213	211	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	157	142	139
Residual Fuel Oil.....	47	47	45	44	49	50	43	44	42	37	46	40	44	42	42
Other Oils ^f	265	260	267	257	261	267	263	273	275	258	250	259	296	273	263

^a Includes lease condensate.

^b Net imports equals gross imports plus SPR imports minus exports.

^c Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

^d 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.

^e 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.

^f 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.

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	18.95	<i>18.99</i>	<i>19.05</i>
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	3.00	<i>3.06</i>	<i>3.26</i>
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	<i>0.13</i>	<i>0.13</i>
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	22.06	<i>22.17</i>	<i>22.44</i>
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	<i>7.06</i>	<i>6.83</i>
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	7.06	<i>6.83</i>	<i>6.72</i>
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	-0.54	<i>0.23</i>	<i>0.11</i>
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	21.52	<i>22.40</i>	<i>22.55</i>
Balancing Item ^a	-0.52	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.29	0.13	-0.17	<i>-0.23</i>	<i>0.06</i>
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	21.35	<i>22.18</i>	<i>22.61</i>
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	<i>1.24</i>	<i>1.24</i>
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	0.74	<i>0.75</i>	<i>0.75</i>
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	4.54	<i>4.94</i>	<i>5.08</i>
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	<i>3.38</i>	<i>3.50</i>
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	8.48	<i>8.59</i>	<i>8.69</i>
Cogenerators ^b	NA	NA	NA	NA	1.30	1.41	1.70	1.80	1.98	2.18	2.30	2.16	2.14	<i>2.19</i>	<i>2.23</i>
Other Nonutil. Gen. ^b	NA	NA	NA	NA	0.09	0.16	0.18	0.22	0.16	0.17	0.16	0.18	0.18	<i>0.18</i>	<i>0.19</i>
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	<i>3.27</i>	<i>3.35</i>
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	21.35	<i>22.18</i>	<i>22.61</i>

^aThe balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

^bAnnual 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	1102.2	<i>1117.9</i>	<i>1140.2</i>
Appalachia	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	456.6	<i>460.9</i>	<i>462.2</i>
Interior.....	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	165.4	<i>158.6</i>	<i>154.5</i>
Western.....	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	480.3	<i>498.4</i>	<i>523.4</i>
Primary Stock Levels ^a															
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	<i>34.1</i>	<i>30.6</i>
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	<i>30.6</i>	<i>29.6</i>
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	<i>3.5</i>	<i>1.1</i>
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	8.3	<i>8.6</i>	<i>9.0</i>
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	77.8	<i>76.7</i>	<i>74.9</i>
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	1032.5	<i>1053.4</i>	<i>1075.4</i>
Secondary Stock Levels ^b															
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	106.4	<i>118.8</i>	<i>118.2</i>
Closing.....	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	118.8	<i>118.2</i>	<i>108.9</i>
Net Withdrawals.....	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-12.4	<i>0.6</i>	<i>9.3</i>
Waste Coal Supplied to IPPs ^c	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	<i>10.6</i>	<i>11.2</i>
Total Supply	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	954.0	960.4	1006.7	1033.2	1030.1	<i>1064.6</i>	<i>1095.8</i>
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	<i>28.1</i>	<i>28.4</i>
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	912.3	<i>932.5</i>	<i>962.9</i>
Nonutilities (Excl. Cogen.) ^d	NA	NA	NA	0.9	1.6	10.2	14.8	17.8	20.9	21.2	22.2	21.6	25.0	<i>26.5</i>	<i>28.0</i>
Retail and General Industry ^e	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	<i>77.5</i>	<i>76.5</i>
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	1042.1	<i>1064.6</i>	<i>1095.8</i>
Discrepancy ^f	6.5	4.4	5.8	5.9	2.4	-6.4	-5.4	-13.5	2.9	-1.6	1.2	4.0	-12.0	<i>0.0</i>	<i>0.0</i>

^aPrimary stocks are held at the mines, preparation plants, and distribution points.
^bSecondary stocks are held by users.
^cEstimated 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.
^dConsumption 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.
^fThe 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	<i>1854.6</i>	<i>1917.1</i>
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	110.3	<i>120.5</i>	<i>118.0</i>
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	308.4	<i>312.4</i>	<i>320.2</i>
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	673.3	<i>673.6</i>	<i>675.1</i>
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	305.8	<i>284.0</i>	<i>280.4</i>
Geothermal and Other ^a	11.5	12.3	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.1	<i>6.8</i>	<i>6.6</i>
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	3213.1	<i>3251.9</i>	<i>3317.3</i>
Nonutility Generation ^b	NA	NA	NA	187.0	221.5	253.3	301.8	325.2	354.9	375.9	382.4	384.7	390.3	<i>396.0</i>	<i>401.9</i>
Total Generation	NA	NA	NA	2971.3	3029.6	3078.3	3099.0	3207.8	3265.6	3370.4	3459.9	3507.2	3603.4	<i>3647.9</i>	<i>3719.2</i>
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	<i>33.7</i>	<i>34.8</i>
Total Supply	NA	NA	NA	2982.3	3031.6	3100.6	3127.3	3236.2	3310.3	3408.0	3497.9	3543.8	3634.4	<i>3681.6</i>	<i>3754.0</i>
Losses and Unaccounted for ^c	NA	NA	NA	238.3	205.8	216.9	226.6	237.0	225.5	236.8	242.3	267.7	236.2	<i>250.7</i>	<i>255.3</i>
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	1071.6	1134.4	<i>1145.0</i>	<i>1179.0</i>
Commercial.....	630.5	660.4	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	913.3	948.5	<i>961.9</i>	<i>977.4</i>
Industrial.....	830.5	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1030.4	1032.5	1051.4	<i>1054.6</i>	<i>1068.2</i>
Other.....	88.6	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	97.5	100.2	<i>103.5</i>	<i>105.6</i>
Subtotal	2368.8	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3097.8	3114.9	3234.6	<i>3265.0</i>	<i>3330.2</i>
Nonutility Own Use ^b	NA	NA	NA	97.2	113.2	121.7	137.3	137.8	150.2	158.0	157.8	161.2	163.6	<i>166.0</i>	<i>168.5</i>
Total Demand.....	NA	NA	NA	2744.0	2825.8	2883.7	2900.7	2999.2	3084.8	3171.3	3255.6	3276.1	3398.2	<i>3430.9</i>	<i>3498.7</i>
Memo:															
Nonutility Sales															
to Electric Utilities ^d	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	<i>230.1</i>	<i>233.4</i>

^aOther includes generation from wind, wood, waste, and solar sources.

^bFor 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.

^cBalancing item, mainly transmission and distribution losses.

^dHistorical 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.