



# **Short-Term Energy Outlook**

March 1998 (Released March 6, 1998)

Energy Information Administration

### *Highlights*

#### **Oil Prices/Supply**

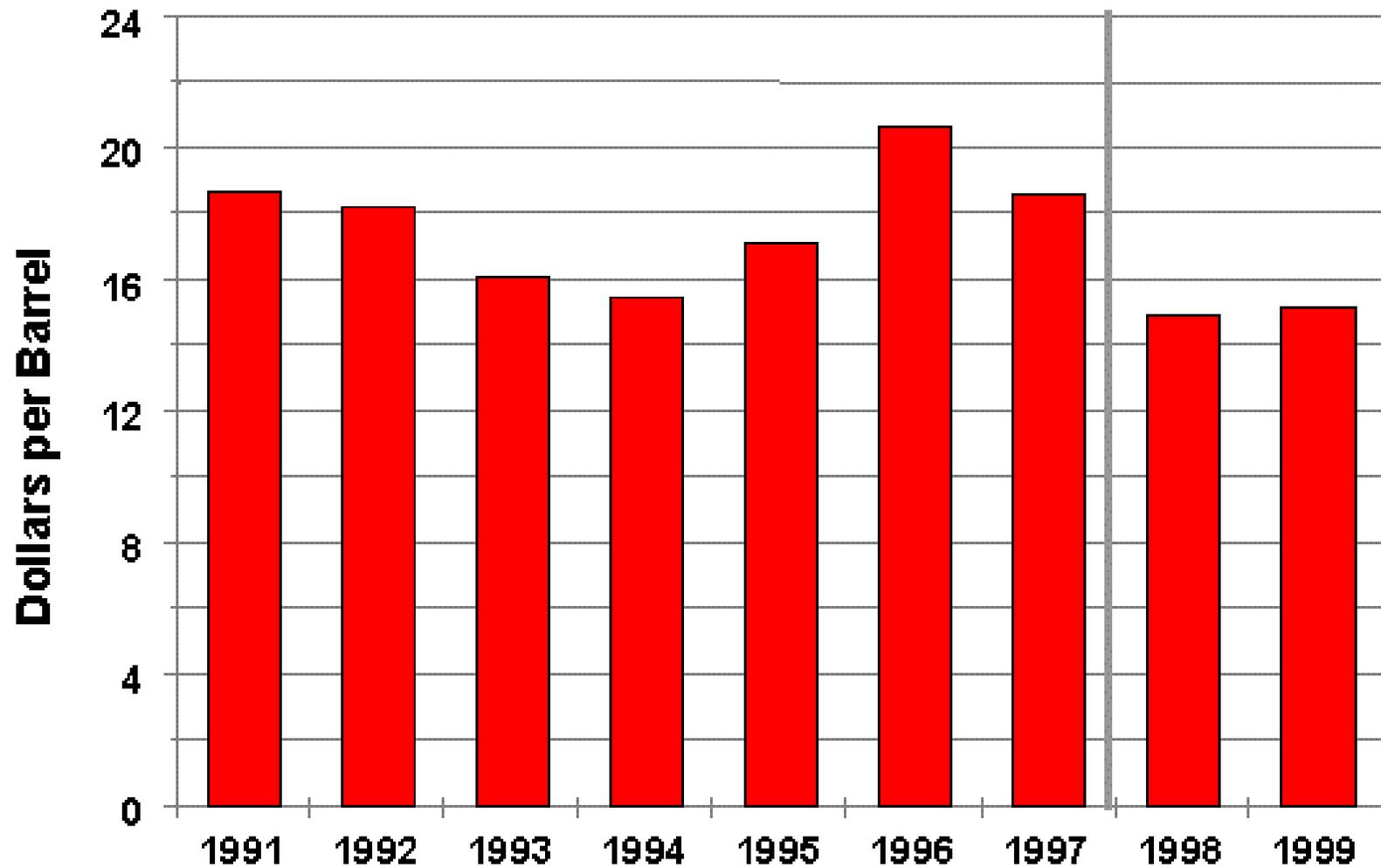
International oil markets remain in a condition of relative oversupply, maintaining for the short- to medium-term the prospects for average crude oil prices remaining below average levels experienced during the 1991 to 1997 period ([Figure 1](#)). Expected price levels for imported crude oil delivered to U.S. refiners range between \$14.50- to \$15.50-per-barrel range through 1999. Current estimates for the first quarter 1998 yield an average of \$14.76 per barrel, \$6.28 per barrel (15 cents per gallon) below the 1997 first-quarter average. Expected averages of \$14.90 per barrel for all of 1998 and \$15.20 per barrel in 1999 are based in part on the assumption that Iraqi oil exports continue at current volumes of about 1 million barrels per day over the forecast period. Even with this fairly conservative assumption, the average U.S. cost of imported crude oil in 1998 projected in this month's base case would be the lowest annual price since 1987. As of the release of this update, details of the plan between Iraq and the United Nations (under U.N. Security Council Resolution 986) to more than double the allowable export revenues Iraq may receive in each 180-day period, have yet to be worked out. It is in any case unclear just how much additional oil Iraq will be able to export in the short run than it is already doing. Thus, we will postpone increasing Iraqi output in the base case until such plans and capabilities are more apparent. Our overall net supply picture over the next 2 years includes continuing net world oil stock builds, although these should accrue at a declining rate ([Figure 2](#)). Our usual uncertainty range for crude oil prices is illustrated in [Figure 3](#).

#### **U.S. Energy Prices and Expenditures**

Currently, low world oil prices, which from the demand side are being held down by weak heating demand in the Atlantic Basin as well as relatively weak overall demand in Asia due to the economic crisis there, combined with quantity reductions associated with mild weather, continue to generate significant reductions in consumer fuel costs, and not just for heating fuels. (As to the weather, for the peak heating period of December to February, U.S. population-weighted heating degree-days were the lowest this year since at least the 1975-1976 winter, as shown in [Figure 4](#)). Our current estimates of expected reductions in consumer spending for petroleum products for the first quarter 1998, compared to the same period in 1997, yield per-household savings of about 32 dollars. Overall per-household energy savings (including those related to natural gas and electricity) amount to an expected 41 dollars for the quarter ([Figure 5](#)). This translates into total consumer savings, compared to unchanged weather conditions and prices of nearly \$5 billion in nominal terms for the first quarter 1998.

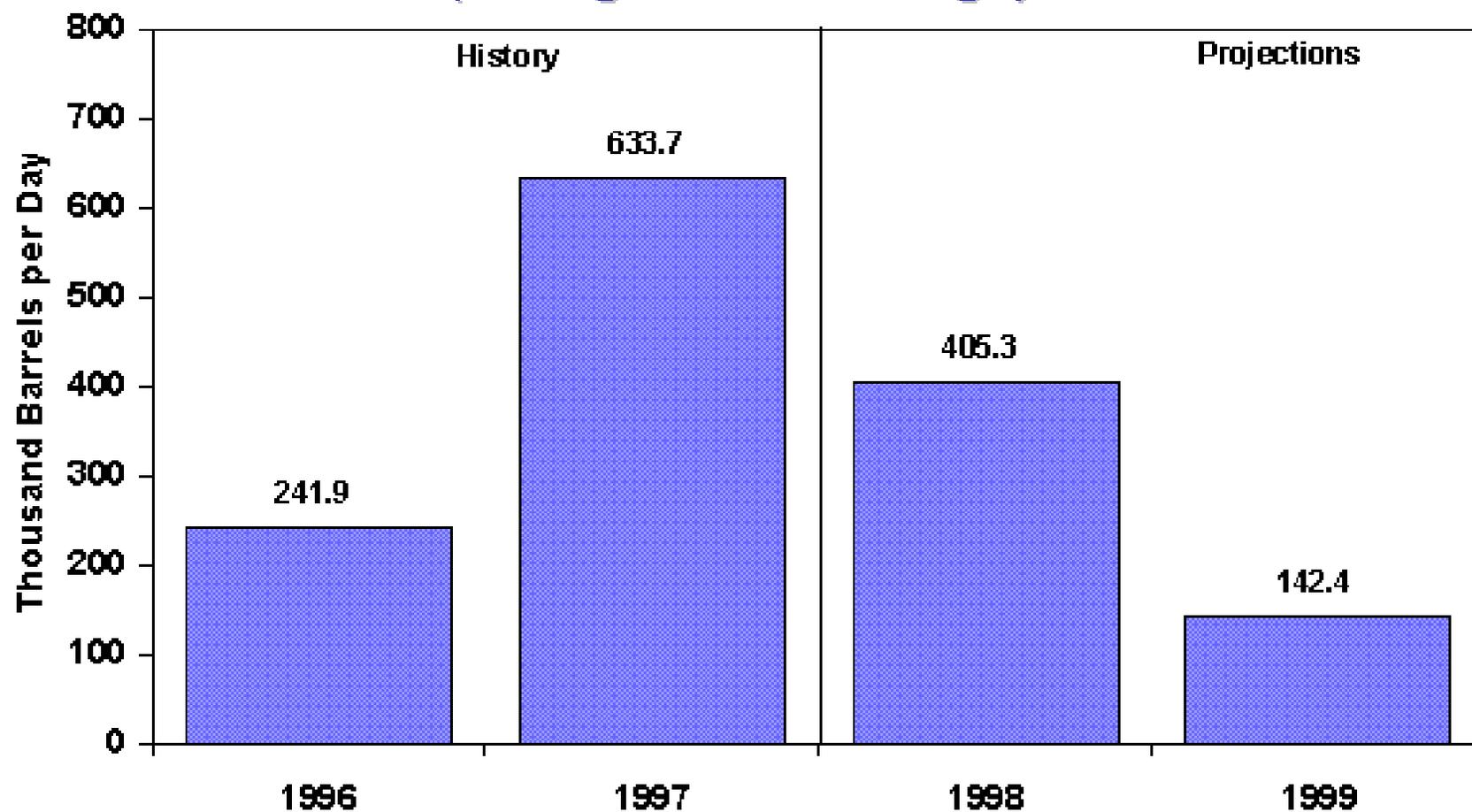
The energy price outlook, in terms of expected annual average changes in 1998 (see [Figure 6](#)), breaks down as follows: retail motor gasoline: down 9 cents per gallon (7.2 percent) from the 1997 average; residential heating oil: 11 cents lower (14 percent);

**Figure 1. Annual Imported Crude Oil Costs**



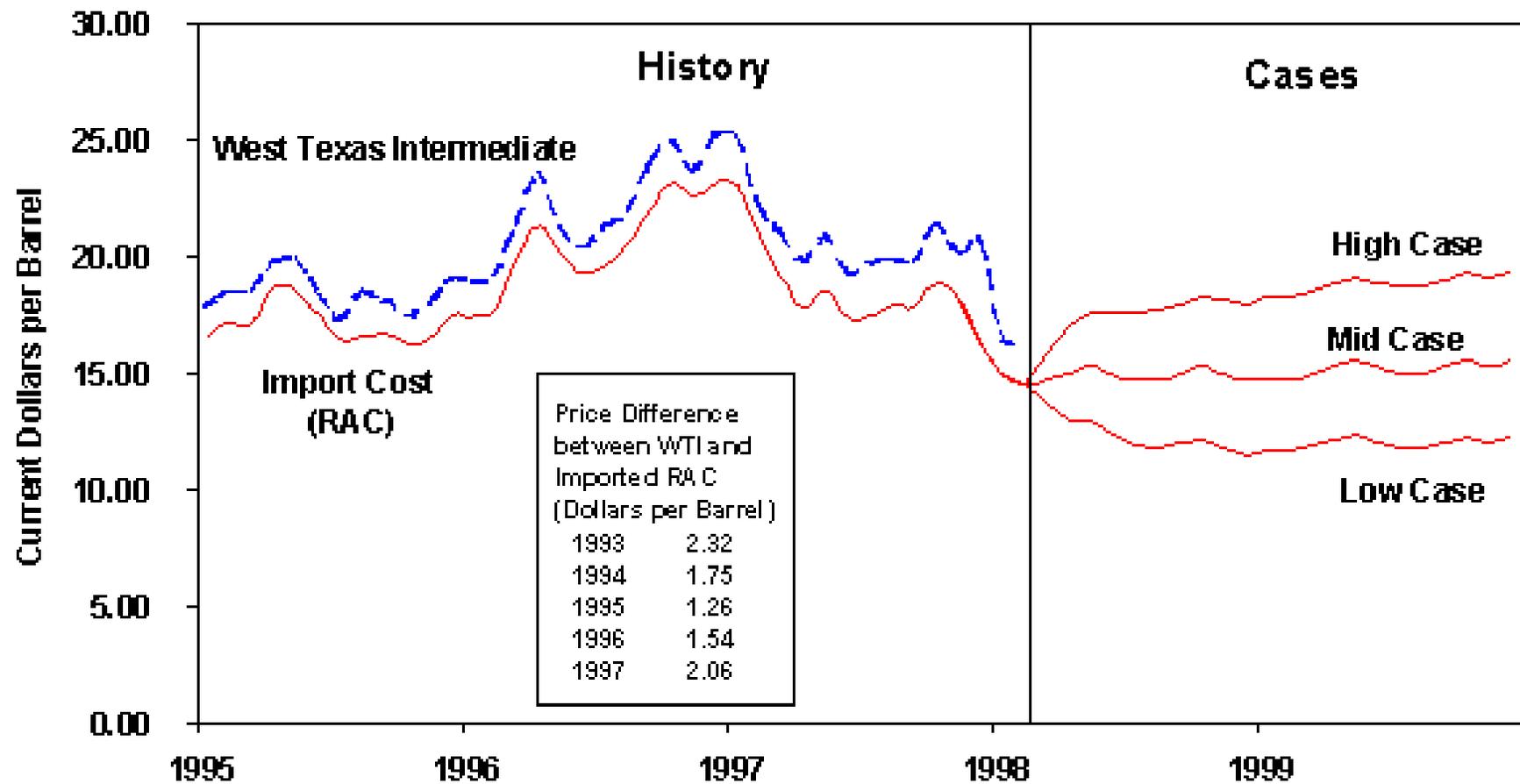
*Source: Energy Information Administration, Short-Term Energy Model, March 1998*

## Figure 2. OECD Commercial Stocks (Change from Year Ago)



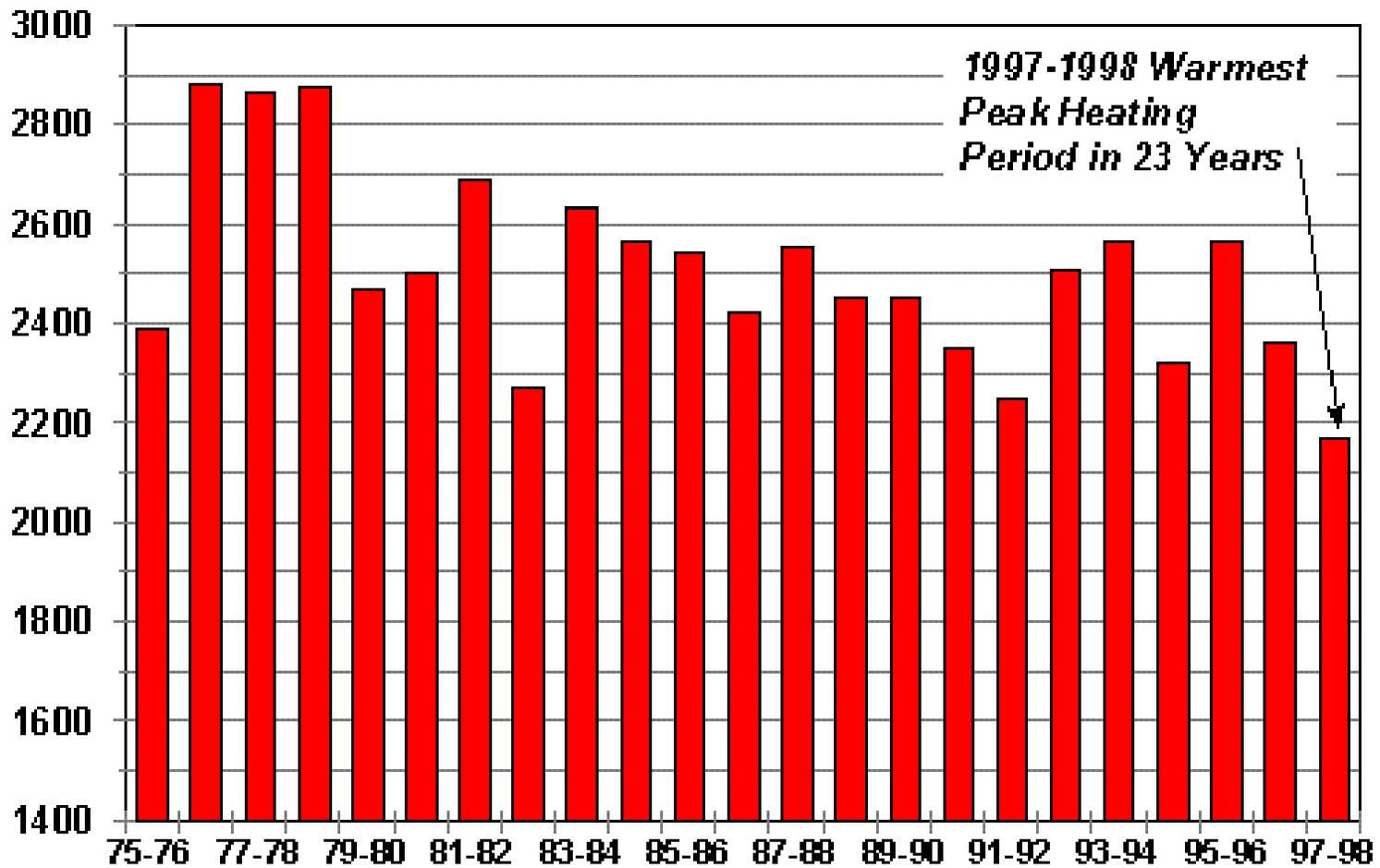
Source: Energy Information Administration, Short-Term Energy Model, March 1998

## Figure 3. World Oil Price Cases



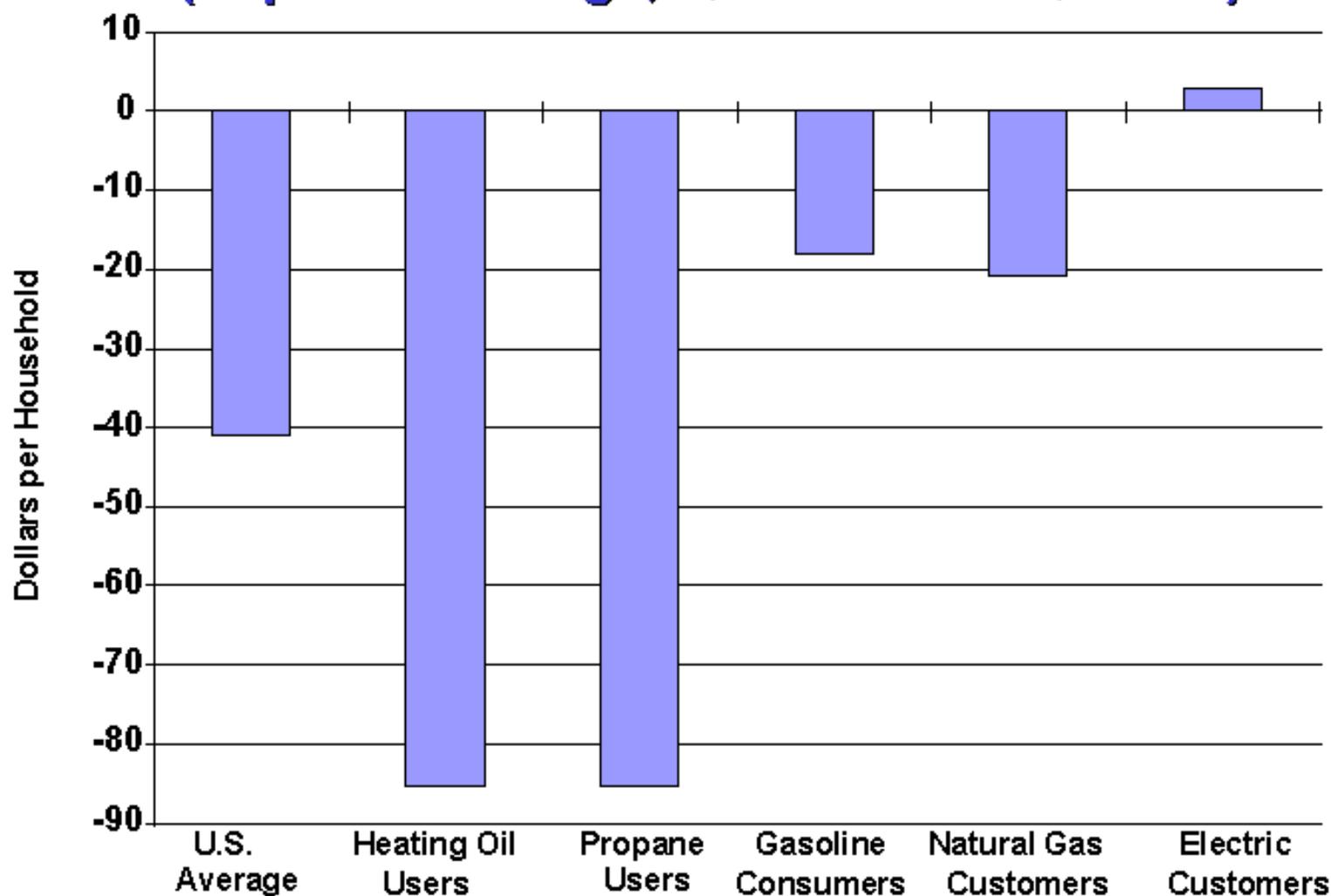
Source: Energy Information Administration, Short-Term Energy Model, March 1998

# Figure 4. Heating Degree Days: Dec. to Feb.



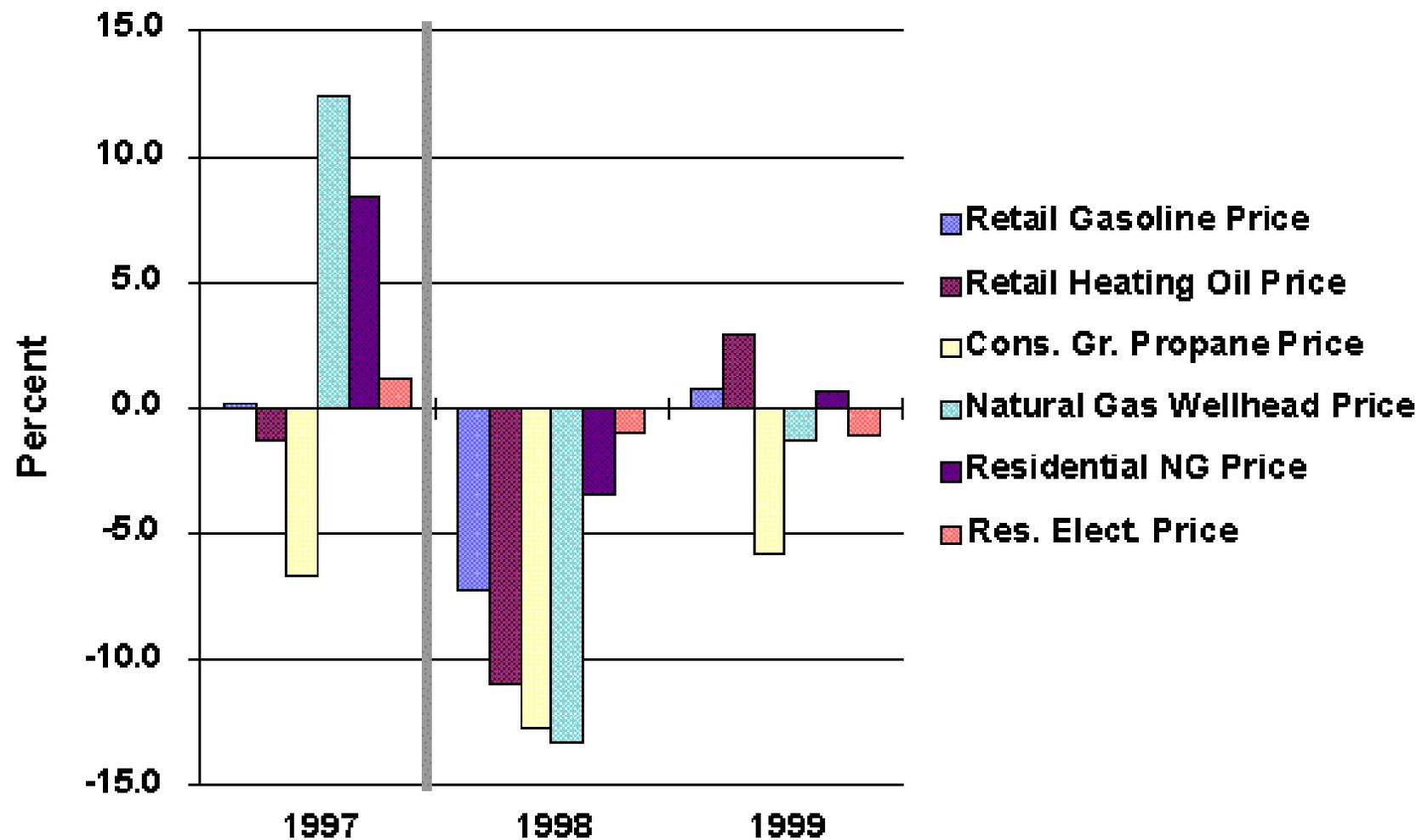
Source: National Oceanographic and Atmospheric Administration

**Figure 5. Per-Household Energy Expenditures  
(Expected Change, Q1 1998 over Q1 1997)**



**Source: Energy Information Administration, Short-Term Energy Model, March 1998**

# Figure 6. Expected Energy Price Changes (Percent Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, March 1998

propane: 5 cents lower (9 percent); natural gas at the wellhead: down 32 cents per thousand cubic feet (13 percent); residential natural gas: 22 cents lower (3.3 percent); and residential electricity price: about 1 percent lower in 1998. These lower prices contribute into energy expenditure reductions of about \$11 billion dollars for all of 1998.

In 1999, most petroleum product prices are projected to inch up slightly, if only because of slightly higher crude oil prices. The residential price for natural gas is projected to increase but by less than 1 percent. Overall, real (inflation-adjusted) energy expenditures would fall in 1999 in the base case.

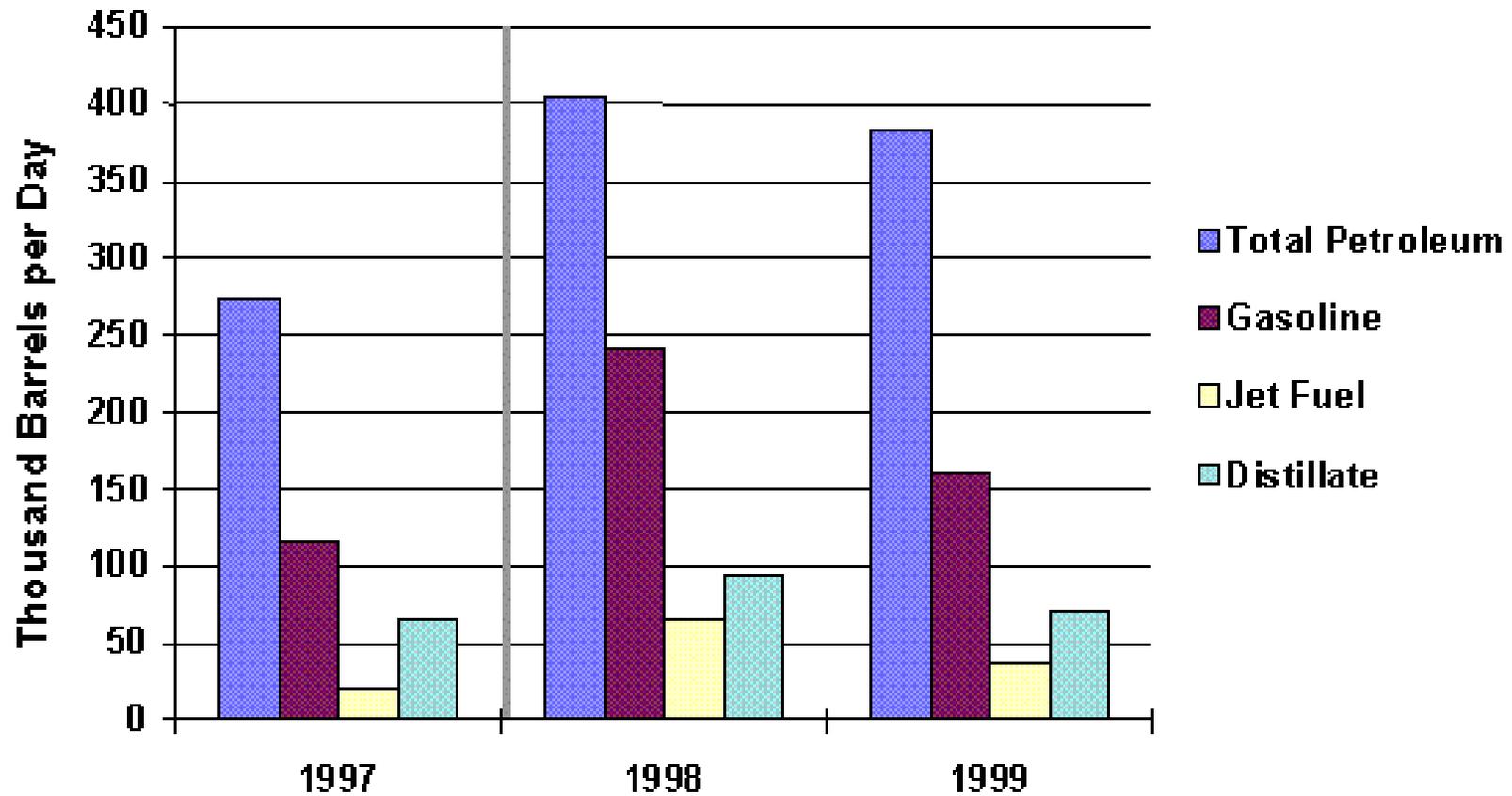
### **U.S. Petroleum Demand**

Despite the restraints on U.S. petroleum demand so far this year from lower heating demand, the outlook for growth in U.S. demand in 1998 is a solid 2.2 percent in our base case. With partial data through most of February, we are currently projecting demand for the first quarter to be up nearly 500,000 barrels per day (2.5 percent) from the same period in 1997. It will be no surprise that the principal sector causing this growth is the transportation sector, principally motor gasoline, jet fuel and distillate (highway diesel) fuel ([Figure 7](#)). Continued economic strength (particularly growth in income and manufacturing production - see [Figure 8](#)) and low prices are contributing to the expected petroleum demand increases. Looking ahead to the driving season, there are ample indications that this year will bring growth in highway travel and gasoline demand well above recent averages. A return to declining real gasoline prices after a hiatus of sorts during the 1995 and 1996 seasons, and continued growth in income result in expected increases in travel and gasoline demand this year of 3.8 percent and 3.0 percent, respectively ([Figure 9](#)). While these growth rates seem high in comparison to recent experience, the reduction in real fuel costs and the expected growth in real income this year are above average as well ([Figure 10](#)).

With regards to fuel price reductions, it is interesting to note that, at least so far as gasoline is concerned, real prices may be headed for record lows this year. Aside from the temporary impetus toward an all-time low real price caused by the short-term crude oil price downturn, reductions in real before-tax margins on gasoline have been the trend since the early 1980's, despite increases in motor gasoline quality. This is illustrated in our [Gasoline Price Analysis Sheet](#).

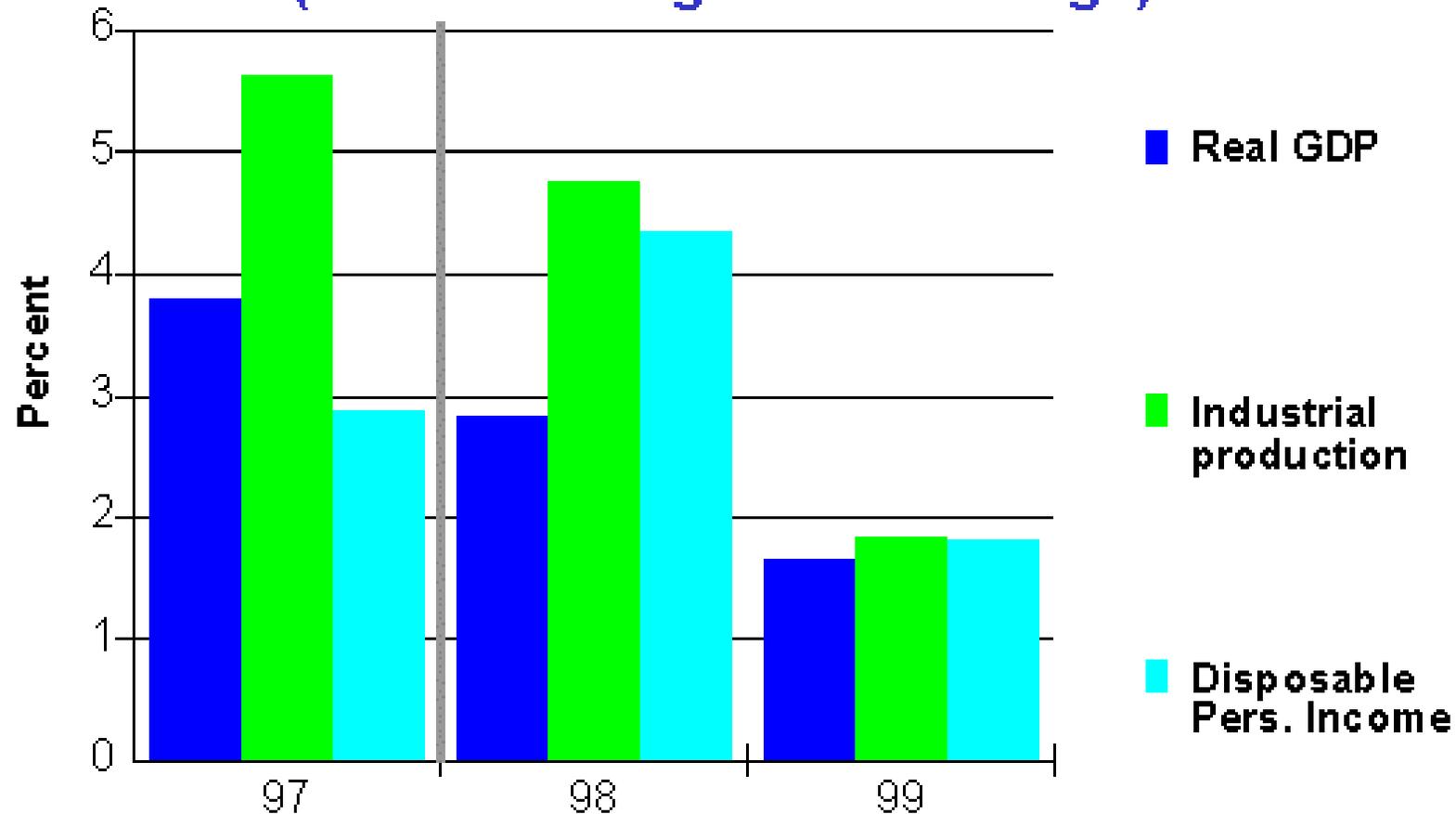
Our natural gas wellhead price and dry gas production projections have not changed by much since the previous Outlook. Unless the weather turns unusually cool in the next several weeks, the wellhead price is projected to continue to decline from the winter peaks throughout the spring and into the early summer, as heating demand tails off. Relatively cold weather did appear in early March and this has pushed spot prices above the average February spot price. Underground storage levels, however, ended the month of February about 200 million barrels above year-ago levels ([Figure 11](#)). Thus, solid year-over-year growth in March will be needed to keep prices from falling further.

## Figure 7. Petroleum Demand Growth (Change from Year Ago)



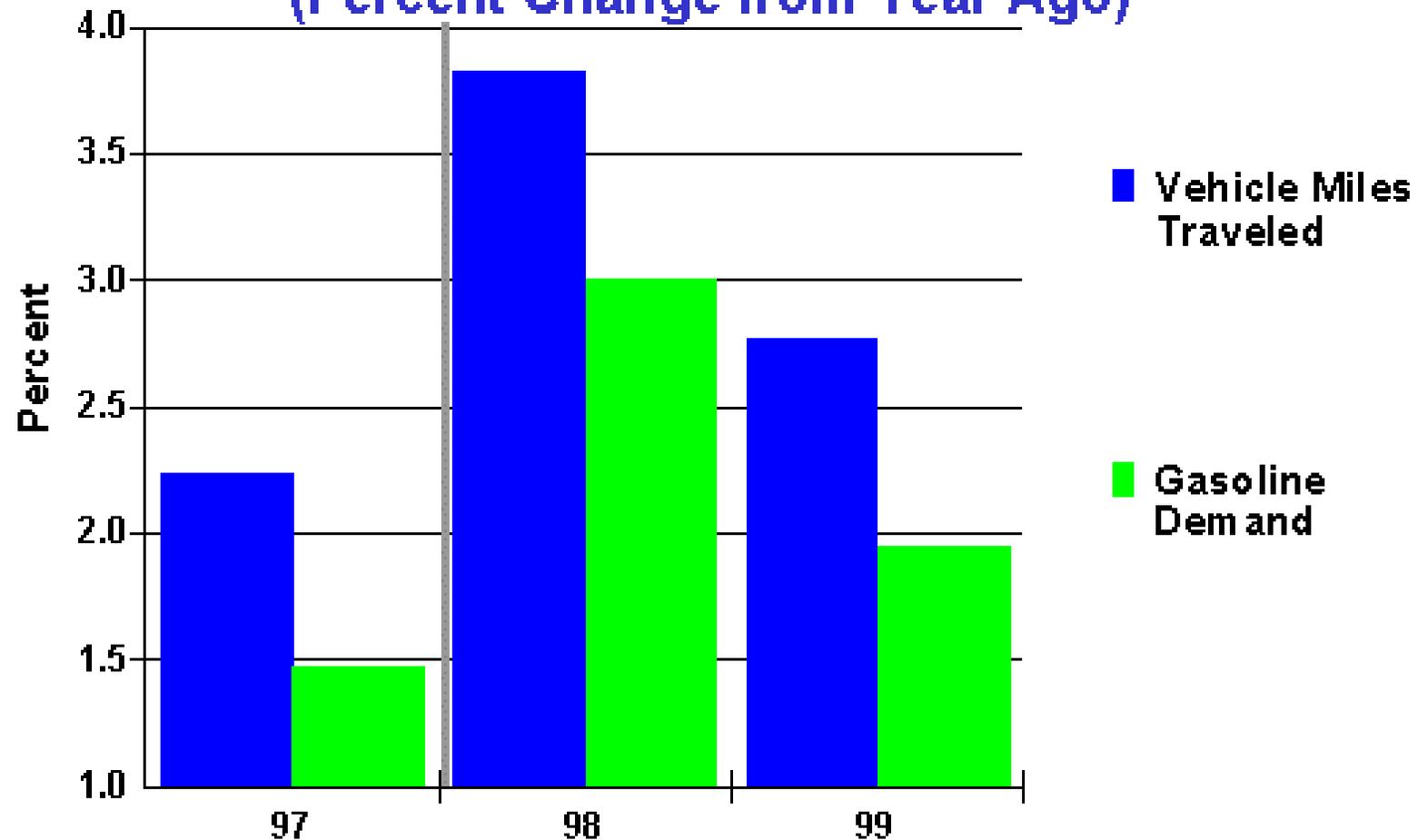
Source: Energy Information Administration, Short-Term Energy Model, March 1998

## Figure 8. Macroeconomic Indicators (Percent Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, March 1998

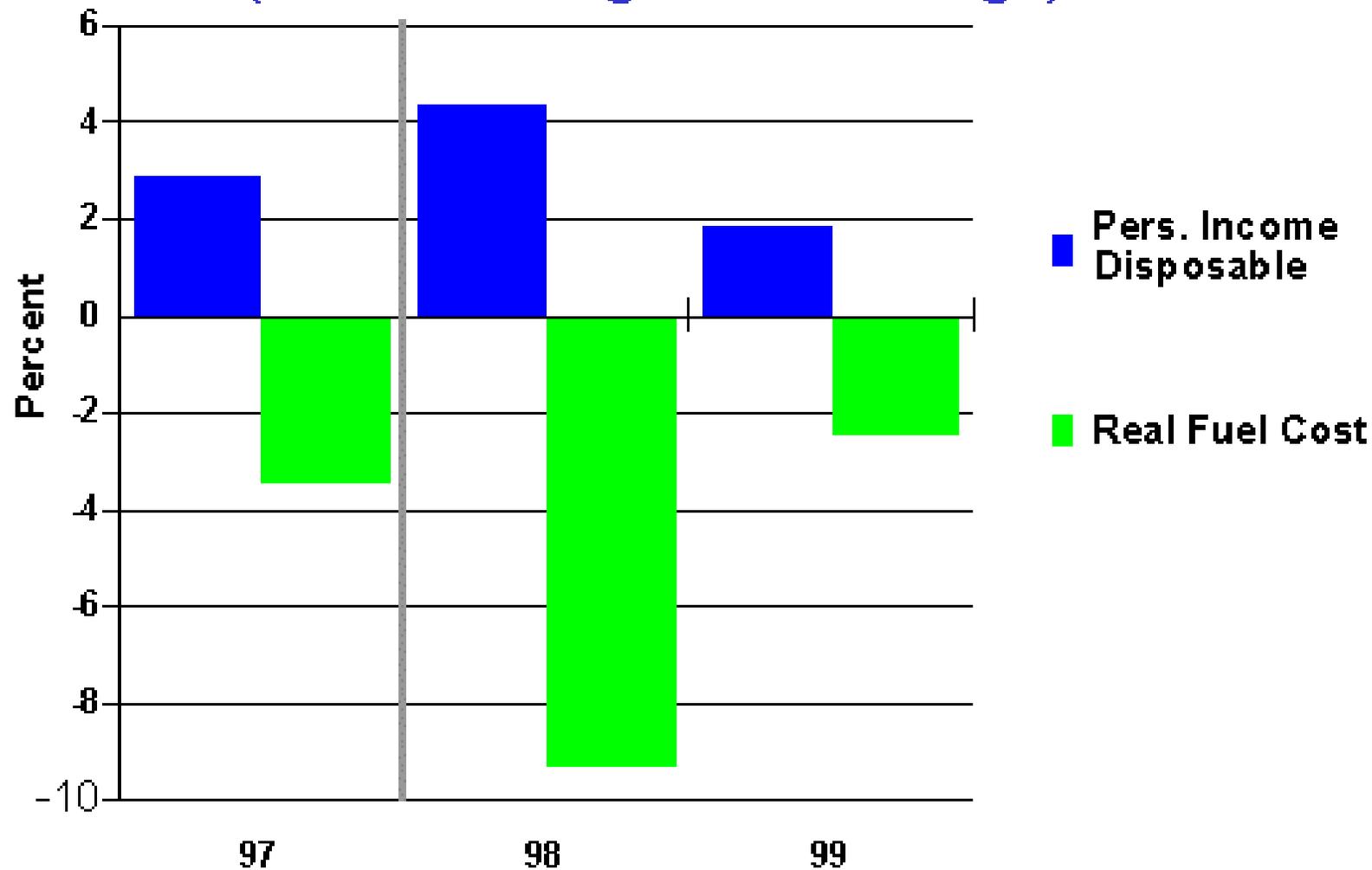
# Figure 9. Gasoline Market Indicators (Percent Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, March 1998

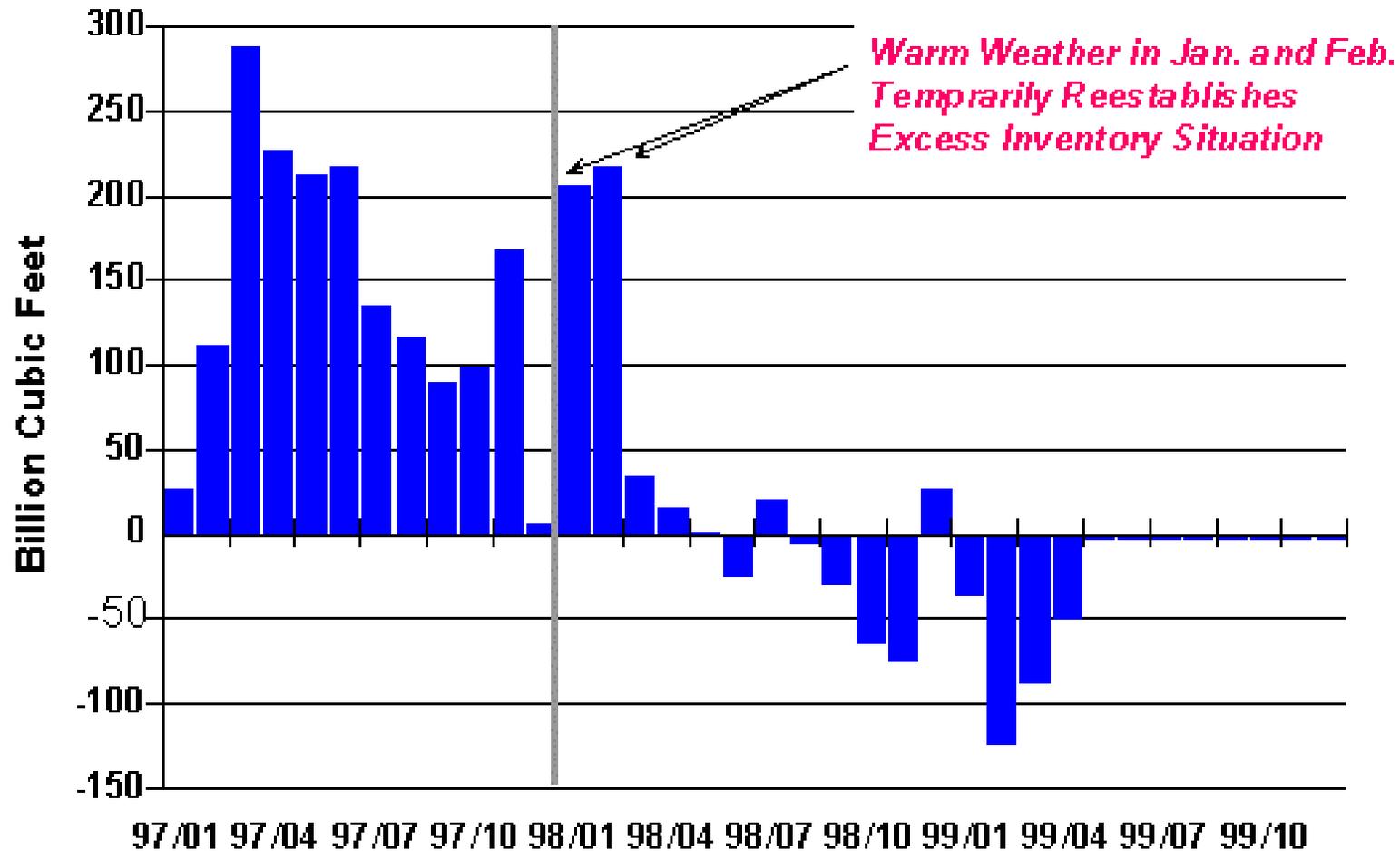
# Figure 10. Gasoline Market Drivers

(Percent Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, March 1998

# Figure 11. Gas in Underground Storage (Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, March 1998

## **Natural Gas**

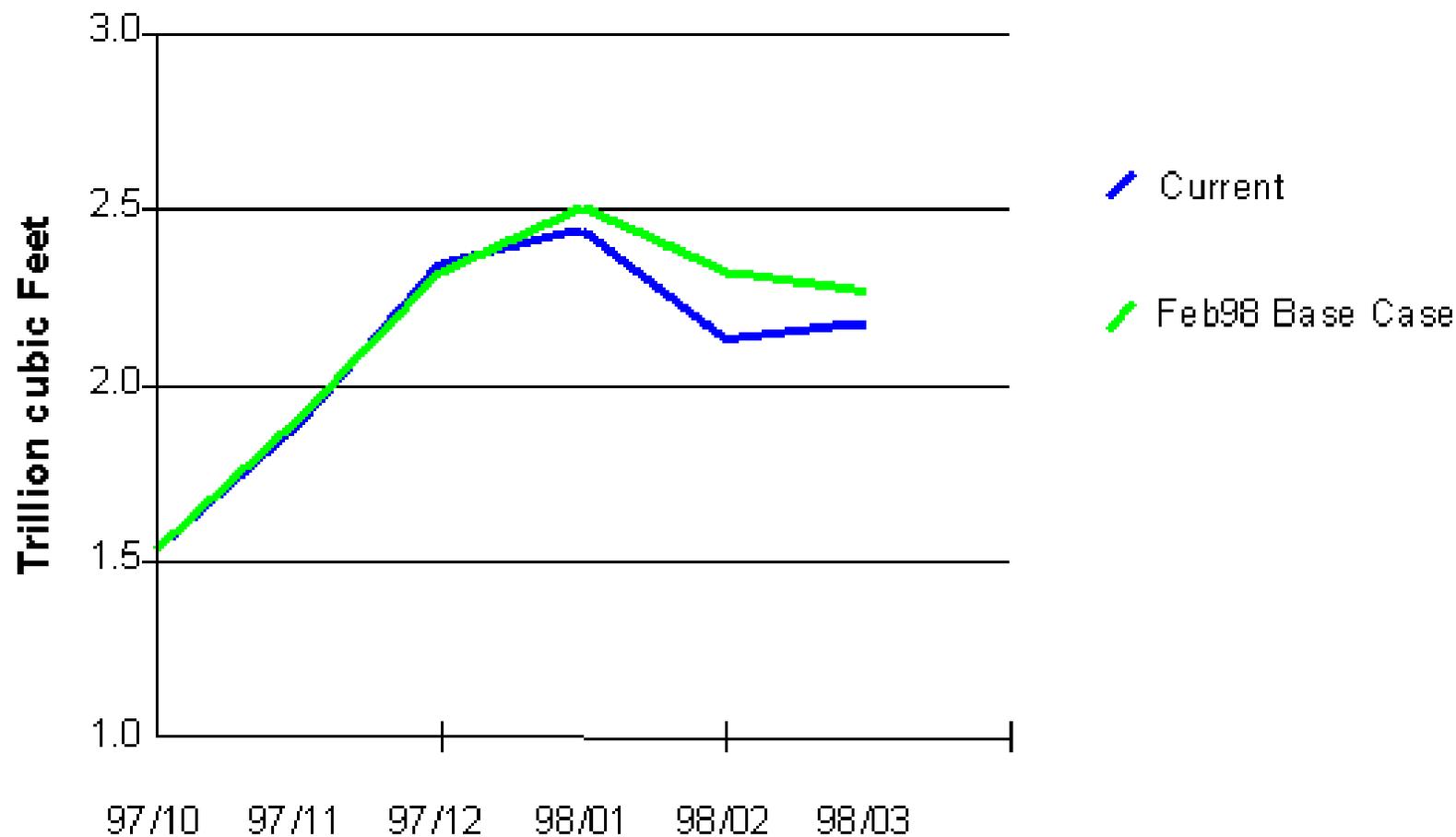
Expectations about natural gas demand have been lowered for 1998 primarily because of the weather-related drop in residential (and to some extent commercial) demand for gas heating in the first quarter of 1998 ([Figure 12](#)). Natural gas prices however, are expected to remain at or above those in the previous forecast due to the tightening link between supply and demand. Canadian pipeline capacity to the US is almost fully utilized until new pipeline is opened up starting in November 1998, and domestic drilling faces increasing cost constraints, particularly for deep-water drilling, where significant production increases have been made. Thus, slowly-growing supply is facing expected increasing demand, particularly for electricity generation, due to expectations of normal weather this coming summer and next winter, and in the industrial sector, due to increased expectations for economic growth.

## **Electricity**

Electricity sales to the residential sector in the first quarter of 1998 are now expected to be more than 2% below the previous forecast due to the above-normal temperatures thus far this winter ([Figure 13](#)). In the commercial and industrial sectors, electricity use, which is driven more by the economy than by the weather, remains near previously-expected levels. Coal- and gas-fired electricity generation for the first quarter is somewhat lower than previously expected, in line with lower overall demand for electricity.

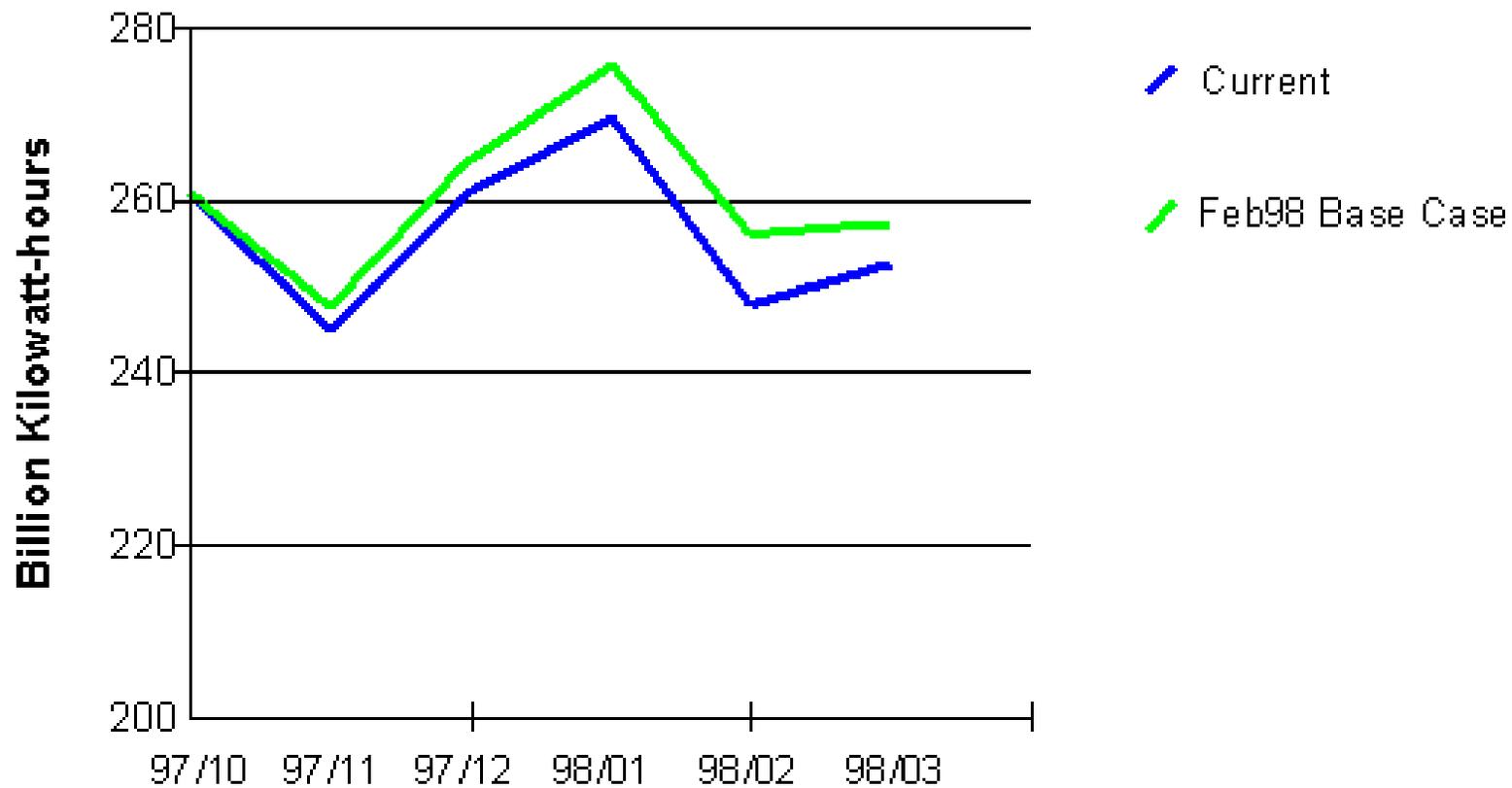
In 1998, industrial demand for electricity is expected to be somewhat higher than previously projected due to assumptions of increased economic growth.

## Figure 12. Natural Gas Demand



Source: Energy Information Administration, Short-Term Energy Model, March 1998

## Figure 13. Electricity Sales



Source: Energy Information Administration, Short-Term Energy Model, March 1998

**Table HL1. U.S. Energy Supply and Demand Summary**

	Year				Annual Percentage Change		
	1996	1997	1998	1999	1996-1997	1997-1998	1998-1999
<b>Real Gross Domestic Product (GDP)</b>							
(billion chained 1992 dollars) .....	<b>6928</b>	<b>7192</b>	<i>7397</i>	<i>7520</i>	<b>3.8</b>	<i>2.9</i>	<i>1.7</i>
<b>Imported Crude Oil Price <sup>a</sup></b>							
(nominal dollars per barrel).....	<b>20.61</b>	<b>18.58</b>	<i>14.92</i>	<i>15.17</i>	<b>-9.8</b>	<i>-19.7</i>	<i>1.7</i>
<b>Petroleum Supply</b>							
Crude Oil Production <sup>b</sup> .....	<b>6.46</b>	<b>6.41</b>	<i>6.37</i>	<i>6.29</i>	<b>-0.8</b>	<i>-0.6</i>	<i>-1.3</i>
<b>Total Petroleum Net Imports (including SPR)</b>							
(million barrels per day) .....	<b>8.50</b>	<b>8.90</b>	<i>9.12</i>	<i>9.73</i>	<b>4.7</b>	<i>2.5</i>	<i>6.7</i>
<b>Energy Demand</b>							
<b>World Petroleum</b>							
(million barrels per day) .....	<b>71.5</b>	<b>73.4</b>	<i>75.3</i>	<i>77.5</i>	<b>2.7</b>	<i>2.6</i>	<i>2.9</i>
<b>Petroleum</b>							
(million barrels per day) .....	<b>18.31</b>	<b>18.58</b>	<i>18.99</i>	<i>19.37</i>	<b>1.5</b>	<i>2.2</i>	<i>2.0</i>
<b>Natural Gas</b>							
(trillion cubic feet) .....	<b>21.96</b>	<b>21.94</b>	<i>22.27</i>	<i>23.29</i>	<b>-0.1</b>	<i>1.5</i>	<i>4.6</i>
<b>Coal</b>							
(million short tons) .....	<b>1007</b>	<b>1033</b>	<i>1046</i>	<i>1077</i>	<b>2.6</b>	<i>1.3</i>	<i>3.0</i>
<b>Electricity (billion kilowatthours)</b>							
Utility Sales <sup>c</sup> .....	<b>3098</b>	<b>3119</b>	<i>3194</i>	<i>3272</i>	<b>0.7</b>	<i>2.4</i>	<i>2.4</i>
Nonutility Own Use <sup>d</sup> .....	<b>164</b>	<b>169</b>	<i>173</i>	<i>178</i>	<b>3.0</b>	<i>2.4</i>	<i>2.9</i>
Total .....	<b>3262</b>	<b>3288</b>	<i>3367</i>	<i>3450</i>	<b>0.8</b>	<i>2.4</i>	<i>2.5</i>
<b>Adjusted Total Energy Demand <sup>e</sup></b>							
(quadrillion Btu) .....	<b>93.9</b>	<b>94.5</b>	<i>95.7</i>	<i>98.3</i>	<b>0.6</b>	<i>1.3</i>	<i>2.7</i>
<b>Adjusted Total Energy Demand per Dollar of GDP</b>							
(thousand Btu per 1992 Dollar) .....	<b>13.56</b>	<b>13.14</b>	<i>12.94</i>	<i>13.07</i>	<b>-3.1</b>	<i>-1.5</i>	<i>1.0</i>
<b>Renewable Energy as Percent of Total.....</b>	<b>7.7</b>	<b>7.8</b>	<i>7.3</i>	<i>7.0</i>			

<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.

<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)*.

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 CONTROL0298.

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

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Macroeconomic <sup>a</sup></b>															
Real Gross Domestic Product (billion chained 1992 dollars - SAAR)....	<b>7102</b>	<b>7160</b>	<b>7218</b>	7290	7341	7386	7411	7449	7473	7500	7530	7578	7192	7397	7520
Percentage Change from Prior Year.....	<b>4.0</b>	<b>3.4</b>	<b>3.9</b>	3.9	3.4	3.2	2.7	2.2	1.8	1.5	1.6	1.7	3.8	2.8	1.7
Annualized Percent Change from Prior Quarter.....	<b>4.8</b>	<b>3.3</b>	<b>3.2</b>	4.0	2.8	2.5	1.3	2.1	1.3	1.4	1.6	2.5			
GDP Implicit Price Deflator (Index, 1992=1.000) .....	<b>1.118</b>	<b>1.123</b>	<b>1.127</b>	1.131	1.135	1.141	1.146	1.151	1.156	1.161	1.167	1.172	1.125	1.143	1.164
Percentage Change from Prior Year.....	<b>2.3</b>	<b>2.2</b>	<b>1.9</b>	1.8	1.6	1.6	1.7	1.8	1.8	1.8	1.9	1.9	2.0	1.7	1.8
Real Disposable Personal Income (billion chained 1992 Dollars - SAAR) ...	<b>5161</b>	<b>5201</b>	<b>5235</b>	5295	5387	5438	5474	5504	5525	5543	5559	5577	5223	5451	5551
Percentage Change from Prior Year.....	<b>2.2</b>	<b>2.8</b>	<b>2.8</b>	3.7	4.4	4.6	4.6	4.0	2.6	1.9	1.5	1.3	2.9	4.4	1.8
Manufacturing Production (Index, 1992=1.000) .....	<b>1.243</b>	<b>1.257</b>	<b>1.276</b>	1.301	1.315	1.329	1.336	1.340	1.343	1.349	1.356	1.369	1.269	1.330	1.354
Percentage Change from Prior Year.....	<b>5.8</b>	<b>5.0</b>	<b>5.3</b>	6.3	5.8	5.7	4.7	3.0	2.2	1.5	1.5	2.1	5.6	4.8	1.8
OECD Economic Growth (percent) <sup>b</sup>													3.1	2.7	2.2
<b>Weather <sup>c</sup></b>															
Heating Degree-Days															
U.S. ....	<b>2156</b>	<b>635</b>	<b>122</b>	1692	1971	524	89	1636	2327	524	89	1636	4605	4220	4576
New England.....	<b>3108</b>	<b>1047</b>	<b>281</b>	2329	2866	915	171	2269	3267	915	171	2269	6765	6220	6621
Middle Atlantic.....	<b>2777</b>	<b>866</b>	<b>187</b>	2070	2503	716	105	2026	2993	716	105	2026	5900	5350	5839
U.S. Gas-Weighted.....	<b>2275</b>	<b>711</b>	<b>127</b>	1773	2081	539	81	1686	2426	539	81	1686	4886	4387	4732
Cooling Degree-Days (U.S.) .....	<b>50</b>	<b>289</b>	<b>716</b>	68	25	334	758	72	30	334	758	72	1123	1188	1193

<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>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. Mexico is also a member but is not yet included in OECD data.

<sup>c</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 CONTROL0298.

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

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Macroeconomic <sup>a</sup></b>															
Real Fixed Investment (billion chained 1992 dollars-SAAR).....	<b>1079</b>	<b>1111</b>	<b>1148</b>	1150	1176	1200	1219	1230	1238	1245	1248	1252	1122	1206	1246
Real Exchange Rate (index) .....	<b>1.085</b>	<b>1.096</b>	<b>1.106</b>	1.115	1.141	1.139	1.119	1.098	1.060	1.048	1.039	1.034	1.101	1.124	1.045
Business Inventory Change (billion chained 1992 dollars-SAAR).....	<b>20.9</b>	<b>29.0</b>	<b>16.9</b>	21.1	12.0	5.1	-4.8	-6.6	-5.6	-3.3	-1.1	3.1	22.0	1.4	-1.7
Producer Price Index (index, 1980-1984=1.000).....	<b>1.285</b>	<b>1.268</b>	<b>1.272</b>	1.279	1.264	1.265	1.267	1.270	1.274	1.278	1.282	1.285	1.276	1.267	1.280
Consumer Price Index (index, 1980-1984=1.000).....	<b>1.597</b>	<b>1.601</b>	<b>1.609</b>	1.618	1.620	1.625	1.634	1.643	1.655	1.665	1.676	1.688	1.606	1.631	1.671
Petroleum Product Price Index (index, 1980-1984=1.000).....	<b>0.722</b>	<b>0.675</b>	<b>0.667</b>	0.652	0.591	0.586	0.585	0.585	0.586	0.583	0.584	0.587	0.679	0.587	0.585
Non-Farm Employment (millions) .....	<b>121.1</b>	<b>121.9</b>	<b>122.6</b>	123.5	124.5	125.2	125.7	126.2	126.5	126.7	126.9	127.2	122.3	125.4	126.8
Commercial Employment (millions) .....	<b>82.5</b>	<b>83.2</b>	<b>83.7</b>	84.5	85.4	86.0	86.5	87.0	87.3	87.6	87.8	88.1	83.5	86.2	87.7
Total Industrial Production (index, 1992=1.000) .....	<b>1.220</b>	<b>1.233</b>	<b>1.251</b>	1.274	1.286	1.298	1.305	1.309	1.311	1.317	1.323	1.334	1.244	1.300	1.321
Housing Stock (millions) .....	<b>112.1</b>	<b>112.5</b>	<b>112.9</b>	113.3	113.6	114.0	114.4	114.8	115.1	115.5	115.9	116.2	112.7	114.2	115.7
<b>Miscellaneous</b>															
Gas Weighted Industrial Production (index, 1992=1.000) .....	<b>1.140</b>	<b>1.152</b>	<b>1.155</b>	1.171	1.176	1.183	1.185	1.189	1.192	1.198	1.203	1.212	1.154	1.183	1.201
Vehicle Miles Traveled <sup>b</sup> (million miles/day).....	<b>6463</b>	<b>7138</b>	<b>7309</b>	6818	6672	7418	7592	7110	6903	7619	7783	7286	6934	7200	7400
Vehicle Fuel Efficiency (index, 1996=1.000) .....	<b>1.038</b>	<b>0.998</b>	<b>0.996</b>	1.002	1.023	1.011	1.011	1.018	1.044	1.017	1.015	1.022	1.008	1.016	1.024
Real Vehicle Fuel Cost (cents per mile).....	<b>4.06</b>	<b>3.85</b>	<b>3.83</b>	3.89	3.60	3.55	3.48	3.54	3.50	3.47	3.39	3.45	3.91	3.54	3.45
Air Travel Capacity (mill. available ton-miles/day) .....	<b>402.1</b>	<b>417.1</b>	<b>433.5</b>	425.5	428.0	446.5	463.6	454.7	449.2	466.2	482.9	472.8	419.6	448.3	467.9
Aircraft Utilization (mill. revenue ton-miles/day).....	<b>230.5</b>	<b>248.0</b>	<b>260.6</b>	248.6	244.0	260.0	275.0	259.0	254.1	270.4	285.2	270.9	247.0	259.6	270.2
Aircraft Yield (cents per ton-mile).....	<b>14.16</b>	<b>13.61</b>	<b>13.04</b>	13.78	14.61	14.44	13.73	14.54	15.25	14.92	14.10	14.85	13.65	14.33	14.78
Raw Steel Production (millions tons).....	<b>26.47</b>	<b>26.59</b>	<b>26.52</b>	27.68	28.48	28.53	28.38	28.96	29.43	29.23	28.78	29.36	106.96	114.34	116.80

<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 CONTROL0298.

**Table 3. International Petroleum Supply and Demand: Mid World Oil Price Case**  
(Million Barrels per Day, Except OECD Commercial Stocks)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Demand<sup>a</sup></b>															
OECD															
U.S. (50 States).....	<b>18.2</b>	<b>18.5</b>	<b>18.7</b>	18.9	18.7	18.8	19.1	19.3	19.3	19.1	19.4	19.7	<b>18.6</b>	19.0	19.4
U.S. Territories.....	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	<b>0.2</b>	0.2	0.2
Canada.....	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	<b>1.9</b>	1.9	2.0
Europe.....	<b>14.3</b>	<b>14.2</b>	<b>14.4</b>	14.8	14.5	14.3	14.6	14.9	14.7	14.6	14.8	15.1	<b>14.4</b>	14.6	14.8
Japan.....	<b>6.4</b>	<b>5.2</b>	<b>5.4</b>	6.3	6.4	5.2	5.4	6.3	6.4	5.2	5.5	6.4	<b>5.8</b>	5.8	5.9
Australia and New Zealand.....	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	<b>1.0</b>	1.0	1.0
Total OECD.....	<b>41.9</b>	<b>40.7</b>	<b>41.5</b>	43.2	42.6	41.3	42.2	43.8	43.6	42.0	42.9	44.5	<b>41.8</b>	42.5	43.3
Non-OECD															
Former Soviet Union.....	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	4.7	4.9	4.5	4.5	4.9	5.1	4.7	4.7	5.1	<b>4.5</b>	4.7	4.9
Europe.....	<b>1.5</b>	<b>1.3</b>	<b>1.3</b>	1.4	1.6	1.4	1.4	1.5	1.7	1.5	1.5	1.6	<b>1.4</b>	1.5	1.6
China.....	<b>3.8</b>	<b>3.9</b>	<b>3.9</b>	4.0	4.1	4.1	4.2	4.2	4.4	4.4	4.5	4.5	<b>3.9</b>	4.2	4.4
Other Asia.....	<b>8.9</b>	<b>8.7</b>	<b>8.2</b>	9.4	9.3	9.0	8.5	9.7	9.6	9.4	8.9	10.2	<b>8.8</b>	9.1	9.5
Other Non-OECD.....	<b>12.8</b>	<b>13.1</b>	<b>12.8</b>	13.1	13.2	13.5	13.2	13.5	13.6	14.0	13.6	13.9	<b>13.0</b>	13.4	13.8
Total Non-OECD.....	<b>31.8</b>	<b>31.4</b>	<b>30.7</b>	32.6	33.0	32.6	31.9	33.9	34.4	33.9	33.2	35.3	<b>31.6</b>	32.9	34.2
Total World Demand.....	<b>73.6</b>	<b>72.1</b>	<b>72.2</b>	75.8	75.7	73.9	74.1	77.7	78.0	75.9	76.1	79.8	<b>73.4</b>	75.3	77.5
<b>Supply<sup>b</sup></b>															
OECD															
U.S. (50 States).....	<b>9.4</b>	<b>9.4</b>	<b>9.4</b>	9.5	9.4	9.4	9.4	9.4	9.4	9.3	9.3	9.4	<b>9.4</b>	9.4	9.4
Canada.....	<b>2.6</b>	<b>2.5</b>	<b>2.6</b>	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.8	2.8	<b>2.6</b>	2.7	2.7
North Sea <sup>c</sup> .....	<b>6.5</b>	<b>6.1</b>	<b>6.0</b>	6.4	6.5	6.3	6.5	6.8	7.0	6.8	7.0	7.3	<b>6.2</b>	6.5	7.0
Other OECD.....	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	<b>1.6</b>	1.7	1.7
Total OECD.....	<b>20.1</b>	<b>19.6</b>	<b>19.6</b>	20.1	20.1	20.0	20.2	20.6	20.8	20.6	20.8	21.2	<b>19.9</b>	20.2	20.8
Non-OECD															
OPEC.....	<b>29.5</b>	<b>29.7</b>	<b>30.1</b>	30.3	30.4	30.4	30.5	30.6	30.9	31.0	31.1	31.2	<b>29.9</b>	30.5	31.0
Former Soviet Union.....	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.5	<b>7.2</b>	7.3	7.4
China.....	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	<b>3.2</b>	3.3	3.3
Mexico.....	<b>3.4</b>	<b>3.4</b>	<b>3.5</b>	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	<b>3.4</b>	3.6	3.6
Other Non-OECD.....	<b>10.4</b>	<b>10.5</b>	<b>10.3</b>	10.5	10.7	10.9	11.0	11.1	11.2	11.4	11.5	11.8	<b>10.4</b>	10.9	11.5
Total Non-OECD.....	<b>53.6</b>	<b>54.0</b>	<b>54.4</b>	54.9	55.2	55.4	55.6	55.8	56.3	56.6	56.9	57.3	<b>54.2</b>	55.5	56.8
Total World Supply.....	<b>73.7</b>	<b>73.5</b>	<b>74.0</b>	75.0	75.3	75.5	75.8	76.4	77.0	77.2	77.7	78.4	<b>74.1</b>	75.7	77.6
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	<b>-0.1</b>	<b>-0.7</b>	<b>-0.2</b>	0.3	0.2	-0.3	-0.1	0.6	0.3	-0.6	-0.3	0.6	<b>-0.1</b>	0.1	0.0
Other.....	<b>0.0</b>	<b>-0.8</b>	<b>-1.6</b>	0.5	0.2	-1.2	-1.6	0.7	0.7	-0.7	-1.3	0.8	<b>-0.5</b>	-0.5	-0.1
Total Stock Withdrawals.....	<b>0.0</b>	<b>-1.5</b>	<b>-1.8</b>	0.8	0.4	-1.5	-1.7	1.3	1.0	-1.3	-1.6	1.4	<b>-0.6</b>	-0.4	-0.1
OECD Comm. Stocks, End (bill. bbls.).....	<b>2.7</b>	<b>2.7</b>	<b>2.8</b>	2.7	2.7	2.7	2.8	2.7	2.7	2.8	2.8	2.8	<b>2.7</b>	2.7	2.8
Non-OPEC Supply.....	<b>44.2</b>	<b>43.9</b>	<b>43.9</b>	44.7	44.9	45.0	45.3	45.8	46.2	46.3	46.7	47.3	<b>44.2</b>	45.3	46.6
Net Exports from Former Soviet Union.....	<b>2.3</b>	<b>2.9</b>	<b>2.9</b>	2.5	2.3	2.8	2.8	2.4	2.2	2.7	2.7	2.3	<b>2.7</b>	2.6	2.5

<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. Mexico is also a member, but is not yet included in OECD data.

OPEC: Organization of Petroleum Exporting Countries: Algeria, Gabon, 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)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Imported Crude Oil</b> <sup>a</sup>															
(dollars per barrel).....	<b>21.03</b>	<b>17.93</b>	<b>17.80</b>	17.79	14.75	15.08	14.83	15.00	14.83	15.33	15.08	15.42	<b>18.58</b>	14.92	15.17
<b>Natural Gas Wellhead</b>															
(dollars per thousand cubic feet).....	<b>2.66</b>	<b>2.01</b>	<b>2.20</b>	2.85	2.16	1.97	1.99	2.32	2.19	1.91	1.94	2.29	<b>2.43</b>	2.11	2.08
<b>Petroleum Products</b>															
Gasoline Retail <sup>b</sup>															
(dollars per gallon).....	<b>1.31</b>	<b>1.29</b>	<b>1.30</b>	1.27	1.17	1.22	1.22	1.19	1.18	1.23	1.23	1.20	<b>1.29</b>	1.20	1.21
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	<b>1.25</b>	<b>1.18</b>	<b>1.15</b>	1.17	1.10	1.08	1.07	1.12	1.09	1.09	1.08	1.12	<b>1.19</b>	1.09	1.10
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	<b>0.65</b>	<b>0.57</b>	<b>0.54</b>	0.57	0.48	0.46	0.48	0.51	0.50	0.50	0.50	0.54	<b>0.59</b>	0.49	0.51
No. 2 Heating Oil, Retail															
(dollars per gallon).....	<b>1.05</b>	<b>0.97</b>	<b>0.88</b>	0.93	0.90	0.85	0.81	0.87	0.90	0.88	0.84	0.90	<b>0.99</b>	0.88	0.89
No. 6 Residual Fuel Oil, Retail <sup>c</sup>															
(dollars per barrel).....	<b>19.00</b>	<b>16.84</b>	<b>17.04</b>	18.16	14.73	14.23	13.98	14.91	15.15	14.33	13.97	15.45	<b>17.80</b>	14.47	14.75
<b>Electric Utility Fuels</b>															
Coal															
(dollars per million Btu) .....	<b>1.29</b>	<b>1.29</b>	<b>1.26</b>	1.25	1.26	1.27	1.25	1.25	1.25	1.26	1.24	1.23	<b>1.27</b>	1.26	1.24
Heavy Fuel Oil <sup>d</sup>															
(dollars per million Btu) .....	<b>2.91</b>	<b>2.59</b>	<b>2.71</b>	2.95	2.34	2.33	2.30	2.43	2.40	2.35	2.30	2.52	<b>2.80</b>	2.35	2.39
Natural Gas															
(dollars per million Btu) .....	<b>3.11</b>	<b>2.45</b>	<b>2.60</b>	3.25	2.58	2.31	2.30	2.66	2.63	2.27	2.26	2.64	<b>2.78</b>	2.42	2.40
<b>Other Residential</b>															
Natural Gas															
(dollars per thousand cubic feet).....	<b>6.67</b>	<b>6.91</b>	<b>8.57</b>	6.78	6.52	6.90	8.09	6.33	6.37	7.01	8.26	6.66	<b>6.89</b>	6.65	6.70
Electricity															
(cents per kilowatthour).....	<b>8.04</b>	<b>8.69</b>	<b>8.79</b>	8.29	7.94	8.52	8.72	8.25	7.84	8.42	8.67	8.18	<b>8.46</b>	8.37	8.28

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

<sup>b</sup>Average for all grades and services.

<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 fourth quarter of 1997. 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)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup> .....	<b>6.45</b>	<b>6.41</b>	<b>6.33</b>	6.45	6.41	6.40	6.33	6.35	6.33	6.27	6.25	6.32	<b>6.41</b>	6.37	6.29
Alaska.....	<b>1.36</b>	<b>1.30</b>	<b>1.24</b>	1.28	1.21	1.18	1.15	1.21	1.24	1.19	1.16	1.19	<b>1.30</b>	1.19	1.19
Lower 48.....	<b>5.09</b>	<b>5.11</b>	<b>5.09</b>	5.17	5.20	5.22	5.18	5.14	5.09	5.09	5.09	5.13	<b>5.12</b>	5.18	5.10
Net Imports (including SPR) <sup>b</sup> .....	<b>7.32</b>	<b>8.11</b>	<b>8.17</b>	7.95	7.57	8.11	8.29	8.12	7.97	8.55	8.70	8.30	<b>7.89</b>	8.02	8.38
Other SPR Supply .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	0.00	0.00
SPR Stock Withdrawn or Added (-) .....	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.00	0.08	0.12	0.00	0.00	0.00	0.00	0.00	<b>0.01</b>	0.05	0.00
Other Stock Withdrawn or Added (-) .....	<b>-0.34</b>	<b>-0.08</b>	<b>0.20</b>	-0.02	-0.26	0.02	0.16	0.05	-0.06	-0.02	0.06	0.02	<b>-0.06</b>	-0.01	0.00
Product Supplied and Losses .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	<b>0.00</b>	-0.01	-0.01
Unaccounted-for Crude Oil .....	<b>0.24</b>	<b>0.41</b>	<b>0.46</b>	0.39	0.47	0.28	0.29	0.28	0.28	0.29	0.29	0.28	<b>0.38</b>	0.33	0.28
Total Crude Oil Supply.....	<b>13.71</b>	<b>14.84</b>	<b>15.16</b>	14.78	14.18	14.88	15.17	14.81	14.50	15.08	15.29	14.92	<b>14.63</b>	14.76	14.95
Other Supply															
NGL Production.....	<b>1.87</b>	<b>1.84</b>	<b>1.86</b>	1.80	1.87	1.87	1.86	1.87	1.89	1.88	1.87	1.87	<b>1.84</b>	1.87	1.88
Other Hydrocarbon and Alcohol Inputs.....	<b>0.31</b>	<b>0.34</b>	<b>0.36</b>	0.35	0.32	0.33	0.34	0.35	0.36	0.34	0.35	0.36	<b>0.34</b>	0.34	0.35
Crude Oil Product Supplied .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<b>0.00</b>	0.01	0.01
Processing Gain.....	<b>0.78</b>	<b>0.84</b>	<b>0.87</b>	0.90	0.79	0.85	0.87	0.84	0.81	0.86	0.87	0.85	<b>0.85</b>	0.84	0.85
Net Product Imports <sup>c</sup> .....	<b>1.30</b>	<b>1.22</b>	<b>0.82</b>	0.73	1.11	1.22	1.14	0.94	1.42	1.49	1.38	1.11	<b>1.02</b>	1.10	1.35
Product Stock Withdrawn or Added (-) <sup>d</sup> ..	<b>0.26</b>	<b>-0.63</b>	<b>-0.38</b>	0.36	0.45	-0.33	-0.30	0.52	0.31	-0.55	-0.36	0.54	<b>-0.10</b>	0.08	-0.01
Total Supply .....	<b>18.23</b>	<b>18.46</b>	<b>18.69</b>	18.92	18.73	18.82	19.08	19.34	19.30	19.10	19.41	19.66	<b>18.58</b>	18.99	19.37
<b>Demand</b>															
Motor Gasoline.....	<b>7.59</b>	<b>8.15</b>	<b>8.23</b>	8.05	7.94	8.36	8.41	8.27	8.05	8.54	8.59	8.44	<b>8.01</b>	8.25	8.41
Jet Fuel .....	<b>1.57</b>	<b>1.56</b>	<b>1.65</b>	1.61	1.63	1.62	1.69	1.71	1.68	1.64	1.72	1.75	<b>1.60</b>	1.66	1.70
Distillate Fuel Oil.....	<b>3.58</b>	<b>3.33</b>	<b>3.23</b>	3.58	3.68	3.43	3.37	3.62	3.87	3.46	3.40	3.65	<b>3.43</b>	3.52	3.60
Residual Fuel Oil .....	<b>0.90</b>	<b>0.77</b>	<b>0.77</b>	0.75	0.85	0.85	0.83	0.90	0.99	0.85	0.84	0.89	<b>0.80</b>	0.86	0.89
Other Oils <sup>e</sup> .....	<b>4.61</b>	<b>4.65</b>	<b>4.81</b>	4.93	4.60	4.56	4.77	4.84	4.71	4.61	4.85	4.93	<b>4.75</b>	4.70	4.77
Total Demand .....	<b>18.24</b>	<b>18.46</b>	<b>18.69</b>	18.93	18.71	18.82	19.08	19.34	19.30	19.10	19.41	19.66	<b>18.58</b>	18.99	19.37
Total Petroleum Net Imports.....	<b>8.62</b>	<b>9.32</b>	<b>8.99</b>	8.68	8.68	9.33	9.42	9.06	9.39	10.04	10.08	9.41	<b>8.90</b>	9.12	9.73
<b>Closing Stocks (million barrels)</b>															
Crude Oil (excluding SPR).....	<b>314</b>	<b>322</b>	<b>303</b>	305	329	327	312	307	313	315	309	307	<b>305</b>	307	307
Total Motor Gasoline.....	<b>200</b>	<b>205</b>	<b>199</b>	210	213	206	201	195	214	208	207	200	<b>210</b>	195	200
Finished Motor Gasoline.....	<b>154</b>	<b>164</b>	<b>158</b>	166	167	164	160	154	173	168	166	159	<b>166</b>	154	159
Blending Components.....	<b>46</b>	<b>41</b>	<b>41</b>	44	47	42	41	41	42	40	41	41	<b>44</b>	41	41
Jet Fuel .....	<b>39</b>	<b>43</b>	<b>45</b>	44	40	40	41	41	42	43	45	44	<b>44</b>	41	44
Distillate Fuel Oil.....	<b>102</b>	<b>118</b>	<b>139</b>	139	113	120	134	133	97	111	129	131	<b>139</b>	133	131
Residual Fuel Oil .....	<b>41</b>	<b>39</b>	<b>35</b>	40	33	36	38	42	34	38	39	42	<b>40</b>	42	42
Other Oils <sup>e</sup> .....	<b>253</b>	<b>286</b>	<b>309</b>	261	253	281	297	252	248	286	299	251	<b>261</b>	252	251
Total Stocks (excluding SPR).....	<b>949</b>	<b>1013</b>	<b>1030</b>	998	982	1010	1024	970	948	1000	1027	975	<b>998</b>	970	975
Crude Oil in SPR.....	<b>563</b>	<b>563</b>	<b>563</b>	563	563	556	545	545	545	545	545	545	<b>563</b>	545	545
Total Stocks (including SPR).....	<b>1512</b>	<b>1577</b>	<b>1594</b>	1562	1545	1566	1569	1516	1493	1545	1573	1521	<b>1562</b>	1516	1521

<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.

**Table 6. Approximate Energy Demand Sensitivities<sup>a</sup> for the STIFS<sup>b</sup> Model**  
(Deviation Base Case)

Demand Sector	+1% GDP	+ 10% Prices		+ 10% Weather <sup>e</sup>	
		Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer <sup>f</sup>
<b>Petroleum</b>					
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%
<b>Natural Gas</b>					
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%
<b>Coal</b>					
Total .....	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Utility .....	0.6%	0.0%	0.0%	1.9%	1.9%
<b>Electricity</b>					
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%

<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.

<sup>e</sup>Refers 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)

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
<b>United States</b> .....	6.66	5.92	0.74	0.11	0.63
<b>Lower 48 States</b> .....	5.44	4.76	0.68	0.08	0.60
<b>Alaska</b> .....	1.22	1.16	0.06	0.03	0.03

Note: Components provided are for the fourth quarter 1999. 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)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Supply</b>															
Total Dry Gas Production.....	<b>4.74</b>	<b>4.70</b>	<b>4.73</b>	4.79	4.78	4.75	4.78	4.85	4.84	4.81	4.84	4.91	<b>18.96</b>	19.16	19.40
Net Imports .....	<b>0.74</b>	<b>0.68</b>	<b>0.68</b>	0.72	0.73	0.73	0.74	0.81	0.82	0.79	0.80	0.86	<b>2.81</b>	3.01	3.27
Supplemental Gaseous Fuels .....	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	<b>0.12</b>	0.13	0.13
Total New Supply .....	<b>5.51</b>	<b>5.40</b>	<b>5.44</b>	5.54	5.55	5.51	5.55	5.69	5.70	5.63	5.67	5.80	<b>21.89</b>	22.30	22.80
Underground Working Gas Storage															
Opening .....	<b>6.51</b>	<b>5.34</b>	<b>6.09</b>	7.03	6.52	5.37	6.06	7.00	6.55	5.28	6.06	7.00	<b>6.51</b>	6.52	6.55
Closing .....	<b>5.34</b>	<b>6.09</b>	<b>7.03</b>	6.52	5.37	6.06	7.00	6.55	5.28	6.06	7.00	6.55	<b>6.52</b>	6.55	6.55
Net Withdrawals.....	<b>1.18</b>	<b>-0.75</b>	<b>-0.95</b>	0.51	1.15	-0.69	-0.94	0.46	1.26	-0.78	-0.94	0.46	<b>-0.01</b>	-0.03	0.00
Total Supply .....	<b>6.68</b>	<b>4.65</b>	<b>4.49</b>	6.05	6.70	4.82	4.61	6.14	6.96	4.85	4.73	6.26	<b>21.88</b>	22.27	22.80
Balancing Item <sup>a</sup> .....	<b>0.18</b>	<b>0.15</b>	<b>0.01</b>	-0.28	0.07	0.15	0.01	-0.23	0.50	0.23	0.00	-0.24	<b>0.05</b>	0.00	0.49
Total Primary Supply .....	<b>6.86</b>	<b>4.81</b>	<b>4.50</b>	5.77	6.77	4.97	4.62	5.91	7.46	5.09	4.73	6.02	<b>21.94</b>	22.27	23.29
<b>Demand</b>															
Lease and Plant Fuel .....	<b>0.31</b>	<b>0.31</b>	<b>0.31</b>	0.32	0.31	0.30	0.31	0.32	0.31	0.31	0.31	0.32	<b>1.25</b>	1.24	1.24
Pipeline Use .....	<b>0.22</b>	<b>0.16</b>	<b>0.15</b>	0.19	0.22	0.16	0.14	0.19	0.22	0.15	0.14	0.19	<b>0.71</b>	0.70	0.71
Residential .....	<b>2.28</b>	<b>0.88</b>	<b>0.38</b>	1.49	2.16	0.86	0.37	1.42	2.48	0.87	0.38	1.44	<b>5.02</b>	4.81	5.17
Commercial .....	<b>1.26</b>	<b>0.62</b>	<b>0.42</b>	0.93	1.23	0.63	0.42	0.92	1.43	0.64	0.43	0.93	<b>3.23</b>	3.20	3.43
Industrial (Incl. Cogenerators).....	<b>2.27</b>	<b>2.07</b>	<b>2.05</b>	2.18	2.30	2.13	2.11	2.36	2.41	2.17	2.15	2.42	<b>8.57</b>	8.90	9.15
Cogenerators <sup>b</sup> .....	<b>0.53</b>	<b>0.56</b>	<b>0.56</b>	0.63	0.57	0.55	0.60	0.67	0.59	0.56	0.61	0.69	<b>2.28</b>	2.39	2.46
Electricity Production															
Electric Utilities .....	<b>0.47</b>	<b>0.72</b>	<b>1.15</b>	0.62	0.51	0.85	1.22	0.65	0.56	0.90	1.27	0.67	<b>2.96</b>	3.22	3.39
Nonutilities (Excl. Cogen.).....	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.06	<b>0.20</b>	0.20	0.21
Total Demand.....	<b>6.86</b>	<b>4.81</b>	<b>4.50</b>	5.77	6.77	4.97	4.62	5.91	7.46	5.09	4.73	6.02	<b>21.94</b>	22.27	23.29

<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)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Supply</b>															
Production .....	<b>273.9</b>	<b>269.7</b>	<b>271.4</b>	275.6	276.2	272.4	280.8	281.7	289.7	278.8	286.2	286.2	<b>1090.6</b>	1111.2	1140.8
Appalachia .....	<b>119.0</b>	<b>117.8</b>	<b>112.0</b>	118.0	118.0	115.0	113.6	118.5	121.7	115.7	113.4	118.1	<b>466.9</b>	465.1	468.9
Interior .....	<b>42.9</b>	<b>41.4</b>	<b>44.4</b>	43.3	41.7	40.1	44.2	42.2	42.2	39.3	43.1	40.7	<b>172.0</b>	168.2	165.3
Western.....	<b>112.0</b>	<b>110.5</b>	<b>114.9</b>	114.3	116.5	117.3	123.1	121.1	125.8	123.8	129.7	127.4	<b>451.7</b>	477.9	506.7
Primary Stock Levels <sup>a</sup>															
Opening.....	<b>28.6</b>	<b>37.5</b>	<b>42.5</b>	39.1	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	<b>28.6</b>	34.0	31.0
Closing.....	<b>37.5</b>	<b>42.5</b>	<b>39.1</b>	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	30.0	<b>34.0</b>	31.0	30.0
Net Withdrawals.....	<b>-8.9</b>	<b>-5.0</b>	<b>3.4</b>	5.1	(S)	(S)	2.0	1.0	-3.0	(S)	2.0	2.0	<b>-5.4</b>	3.0	1.0
Imports .....	<b>1.3</b>	<b>1.7</b>	<b>2.2</b>	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	<b>7.1</b>	7.2	7.3
Exports .....	<b>20.0</b>	<b>20.6</b>	<b>22.4</b>	20.6	20.7	21.3	21.6	21.5	20.8	21.4	21.6	21.5	<b>83.5</b>	85.1	85.3
Total Net Domestic Supply .....	<b>246.4</b>	<b>245.8</b>	<b>254.6</b>	261.9	257.3	252.9	263.1	263.1	267.7	259.3	268.4	268.5	<b>1008.8</b>	1036.3	1063.9
Secondary Stock Levels <sup>b</sup>															
Opening.....	<b>123.0</b>	<b>119.8</b>	<b>128.1</b>	110.2	105.5	112.2	119.2	105.4	106.9	107.9	116.1	102.9	<b>123.0</b>	105.5	106.9
Closing.....	<b>119.8</b>	<b>128.1</b>	<b>110.2</b>	105.5	112.2	119.2	105.4	106.9	107.9	116.1	102.9	105.4	<b>105.5</b>	106.9	105.4
Net Withdrawals.....	<b>3.2</b>	<b>-8.2</b>	<b>17.9</b>	4.7	-6.8	-7.0	13.8	-1.5	-1.0	-8.2	13.3	-2.6	<b>17.6</b>	-1.5	1.5
Total Supply .....	<b>249.5</b>	<b>237.6</b>	<b>272.6</b>	266.7	250.6	245.9	276.8	261.5	266.7	251.1	281.6	265.9	<b>1026.3</b>	1034.9	1065.4
<b>Demand</b>															
Coke Plants.....	<b>7.6</b>	<b>7.4</b>	<b>7.9</b>	8.2	7.7	7.5	7.8	8.3	8.0	7.8	7.7	8.0	<b>31.0</b>	31.3	31.5
Electricity Production															
Electric Utilities .....	<b>218.2</b>	<b>207.4</b>	<b>243.1</b>	229.9	218.2	215.7	246.6	228.2	233.3	220.5	251.1	232.3	<b>898.5</b>	908.7	937.2
Nonutilities (Excl. Cogen.) <sup>c</sup> .....	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	6.5	7.0	7.0	7.0	7.0	7.5	7.5	7.5	7.5	<b>26.0</b>	28.0	30.0
Retail and General Industry <sup>d</sup> .....	<b>20.2</b>	<b>18.3</b>	<b>18.2</b>	20.7	20.4	18.5	18.3	20.9	20.9	18.3	18.3	21.1	<b>77.5</b>	78.0	78.7
Total Demand .....	<b>252.5</b>	<b>239.5</b>	<b>275.7</b>	265.3	253.4	248.7	279.6	264.3	269.7	254.1	284.6	268.9	<b>1033.0</b>	1046.1	1077.4
Discrepancy <sup>e</sup> .....	<b>-2.9</b>	<b>-2.0</b>	<b>-3.2</b>	1.4	-2.8	-2.8	-2.8	-2.8	-3.0	-3.0	-3.0	-3.0	<b>-6.7</b>	-11.2	-12.0

<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>Consumption of coal by Independent Power Producers (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 fourth quarter 1997 are estimates.

<sup>d</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>e</sup>Historical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference. Estimated IPP consumption not included in production (waste coal) has been netted out of the discrepancy. The estimated annual consumption for 1995 is 8.496 million tons, 9.600 million tons in 1996, and the estimate for 1997 is 10.400 million tons, and 11.200 million tons in 1998.

(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)

	1997				1998				1999				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
<b>Supply</b>															
Net Utility Generation															
Coal .....	<b>434.0</b>	<b>414.0</b>	<b>480.5</b>	460.2	435.7	432.8	492.4	456.2	468.1	442.2	501.0	463.9	<b>1788.7</b>	1817.0	1875.3
Petroleum .....	<b>17.6</b>	<b>15.4</b>	<b>24.6</b>	21.4	24.8	20.9	25.3	20.3	26.4	21.0	25.6	20.0	<b>79.0</b>	91.4	93.0
Natural Gas .....	<b>45.6</b>	<b>69.1</b>	<b>109.6</b>	59.3	48.7	81.6	116.9	62.3	54.0	86.3	121.7	63.9	<b>283.6</b>	309.5	325.9
Nuclear .....	<b>160.0</b>	<b>144.4</b>	<b>171.0</b>	154.0	163.9	153.0	178.5	161.2	171.2	154.2	179.8	162.4	<b>629.4</b>	656.6	667.7
Hydroelectric .....	<b>94.3</b>	<b>96.0</b>	<b>77.7</b>	69.3	78.5	80.6	65.6	64.0	73.8	77.2	63.7	63.5	<b>337.3</b>	288.7	278.2
Geothermal and Other <sup>a</sup> .....	<b>1.6</b>	<b>1.8</b>	<b>2.0</b>	2.0	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.6	<b>7.5</b>	6.9	6.4
Subtotal .....	<b>753.1</b>	<b>740.8</b>	<b>865.4</b>	766.2	753.3	770.6	880.4	765.7	795.1	782.5	893.5	775.4	<b>3125.5</b>	3170.1	3246.5
Nonutility Generation <sup>b</sup>															
Coal .....	<b>15.3</b>	<b>16.3</b>	<b>16.4</b>	18.4	16.6	15.9	17.3	19.3	17.0	16.3	17.7	19.8	<b>66.4</b>	69.1	70.8
Petroleum .....	<b>4.0</b>	<b>4.2</b>	<b>4.2</b>	4.7	4.4	4.2	4.6	5.1	4.7	4.5	4.9	5.5	<b>17.1</b>	18.4	19.6
Natural Gas .....	<b>49.2</b>	<b>52.5</b>	<b>52.8</b>	59.1	53.7	51.4	55.9	62.6	55.2	52.9	57.6	64.5	<b>213.7</b>	223.7	230.2
Other Gaseous Fuels <sup>c</sup> .....	<b>2.9</b>	<b>3.1</b>	<b>3.1</b>	3.5	3.0	2.9	3.1	3.5	3.0	2.9	3.1	3.5	<b>12.5</b>	12.5	12.6
Hydroelectric .....	<b>3.9</b>	<b>4.2</b>	<b>4.2</b>	4.7	4.4	4.2	4.5	5.1	4.6	4.4	4.7	5.3	<b>17.1</b>	18.2	19.0
Geothermal and Other <sup>d</sup> .....	<b>19.0</b>	<b>20.3</b>	<b>20.4</b>	22.9	20.3	19.4	21.2	23.7	20.5	19.6	21.3	23.9	<b>82.6</b>	84.6	85.3
Subtotal .....	<b>94.3</b>	<b>100.6</b>	<b>101.2</b>	113.3	102.3	98.0	106.7	119.4	104.9	100.5	109.4	122.5	<b>409.4</b>	426.4	437.4
Total Generation .....	<b>847.4</b>	<b>841.4</b>	<b>966.6</b>	879.5	855.6	868.6	987.0	885.2	900.0	883.0	1003.0	897.9	<b>3534.9</b>	3596.5	3683.9
Net Imports <sup>e</sup> .....	<b>7.5</b>	<b>8.9</b>	<b>11.8</b>	7.8	7.0	8.6	11.5	7.6	7.2	9.2	11.7	7.9	<b>36.1</b>	34.7	36.0
Total Supply.....	<b>854.9</b>	<b>850.3</b>	<b>978.4</b>	887.3	862.6	877.3	998.5	892.7	907.2	892.2	1014.7	905.8	<b>3571.0</b>	3631.2	3719.9
Losses and Unaccounted for <sup>f</sup> .....	<b>53.3</b>	<b>82.0</b>	<b>74.6</b>	73.4	50.3	75.2	69.7	68.5	53.3	76.4	70.8	69.5	<b>283.2</b>	263.8	270.0
<b>Demand</b>															
Electric Utility Sales															
Residential.....	<b>276.8</b>	<b>226.2</b>	<b>309.8</b>	257.7	275.4	245.9	319.9	258.3	300.6	252.7	328.1	264.3	<b>1070.5</b>	1099.5	1145.7
Commercial.....	<b>214.5</b>	<b>217.6</b>	<b>256.0</b>	224.4	219.1	226.8	263.3	228.0	229.0	230.4	266.3	229.8	<b>912.6</b>	937.2	955.6
Industrial.....	<b>248.0</b>	<b>259.5</b>	<b>269.8</b>	259.6	250.3	263.9	274.3	263.6	256.1	266.3	276.8	266.4	<b>1036.9</b>	1052.0	1065.7
Other.....	<b>23.4</b>	<b>23.6</b>	<b>26.7</b>	25.5	25.9	25.7	28.1	25.8	25.6	25.5	28.2	26.0	<b>99.2</b>	105.5	105.3
Subtotal .....	<b>762.8</b>	<b>726.9</b>	<b>862.2</b>	767.2	770.7	762.3	885.5	775.7	811.2	774.9	899.5	786.6	<b>3119.2</b>	3194.2	3272.2
Nonutility Gener. for Own Use <sup>b</sup> .....	<b>38.8</b>	<b>41.4</b>	<b>41.7</b>	46.6	41.5	39.8	43.3	48.5	42.6	40.9	44.5	49.8	<b>168.6</b>	173.1	177.7
Total Demand.....	<b>801.6</b>	<b>768.4</b>	<b>903.9</b>	813.9	812.3	802.1	928.8	824.2	853.9	815.8	943.9	836.3	<b>3287.7</b>	3367.4	3449.9
<b>Memo:</b>															
Nonutility Sales to															
Electric Utilities <sup>b</sup> .....	<b>55.5</b>	<b>59.2</b>	<b>59.5</b>	66.6	60.7	58.2	63.3	70.9	62.3	59.7	65.0	72.7	<b>240.8</b>	253.2	259.7

<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>f</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				Annual Percentage Change		
	1996	1997	1998	1999	1996-1997	1997-1998	1998-1999
<b>Electric Utilities</b>							
Hydroelectric Power <sup>a</sup> .....	<b>3.411</b>	<b>3.509</b>	<i>3.002</i>	<i>2.894</i>	<b>2.9</b>	<i>-14.4</i>	<i>-3.6</i>
Geothermal, Solar and Wind Energy <sup>b</sup> .....	<b>0.110</b>	<b>0.114</b>	<i>0.105</i>	<i>0.094</i>	<b>3.6</b>	<i>-7.9</i>	<i>-10.5</i>
Biofuels <sup>c</sup> .....	<b>0.020</b>	<b>0.020</b>	<i>0.020</i>	<i>0.020</i>	<b>0.0</b>	<i>0.0</i>	<i>0.0</i>
Total.....	<b>3.541</b>	<b>3.643</b>	<i>3.126</i>	<i>3.007</i>	<b>2.9</b>	<i>-14.2</i>	<i>-3.8</i>
<b>Nonutility Power Generators</b>							
Hydroelectric Power <sup>a</sup> .....	<b>0.170</b>	<b>0.175</b>	<i>0.187</i>	<i>0.195</i>	<b>2.9</b>	<i>6.9</i>	<i>4.3</i>
Geothermal, Solar and Wind Energy <sup>b</sup> .....	<b>0.257</b>	<b>0.280</b>	<i>0.288</i>	<i>0.293</i>	<b>8.9</b>	<i>2.9</i>	<i>1.7</i>
Biofuels <sup>c</sup> .....	<b>0.597</b>	<b>0.634</b>	<i>0.647</i>	<i>0.650</i>	<b>6.2</b>	<i>2.1</i>	<i>0.5</i>
Total.....	<b>1.024</b>	<b>1.089</b>	<i>1.122</i>	<i>1.138</i>	<b>6.3</b>	<i>3.0</i>	<i>1.4</i>
Total Power Generation .....	<b>4.565</b>	<b>4.733</b>	<i>4.248</i>	<i>4.145</i>	<b>3.7</b>	<i>-10.2</i>	<i>-2.4</i>
<b>Other Sectors</b>							
Residential and Commercial <sup>d</sup> .....	<b>0.713</b>	<b>0.695</b>	<i>0.697</i>	<i>0.697</i>	<b>-2.5</b>	<i>0.3</i>	<i>0.0</i>
Industrial <sup>e</sup> .....	<b>1.546</b>	<b>1.586</b>	<i>1.620</i>	<i>1.620</i>	<b>2.6</b>	<i>2.1</i>	<i>0.0</i>
Transportation <sup>f</sup> .....	<b>0.082</b>	<b>0.104</b>	<i>0.109</i>	<i>0.115</i>	<b>26.8</b>	<i>4.8</i>	<i>5.5</i>
Total.....	<b>2.341</b>	<b>2.385</b>	<i>2.425</i>	<i>2.431</i>	<b>1.9</b>	<i>1.7</i>	<i>0.2</i>
Net Imported Electricity <sup>g</sup> .....	<b>0.307</b>	<b>0.291</b>	<i>0.280</i>	<i>0.291</i>	<b>-5.2</b>	<i>-3.8</i>	<i>3.9</i>
Total Renewable Energy Demand .....	<b>7.214</b>	<b>7.409</b>	<i>6.953</i>	<i>6.867</i>	<b>2.7</b>	<i>-6.2</i>	<i>-1.2</i>

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

<sup>e</sup>Consists primarily of biofuels for use other than in electricity cogeneration.

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

<sup>g</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.

Sources: Historical data: Estimates derived from Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration, *Renewable Energy Annual, 1995*; Projections: Renewables growth in sectors other than electric utilities taken from Energy Information Administration, *Annual Energy Outlook* database and Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration.

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

	Year														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Real Gross Domestic Product (GDP)</b> (billion chained 1992 dollars) .....	<b>5324</b>	<b>5488</b>	<b>5649</b>	<b>5865</b>	<b>6062</b>	<b>6136</b>	<b>6079</b>	<b>6244</b>	<b>6390</b>	<b>6611</b>	<b>6742</b>	<b>6928</b>	<b>7192</b>	<i>7397</i>	<i>7520</i>
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel) .....	<b>26.99</b>	<b>14.00</b>	<b>18.13</b>	<b>14.57</b>	<b>18.08</b>	<b>21.75</b>	<b>18.70</b>	<b>18.20</b>	<b>16.14</b>	<b>15.52</b>	<b>17.14</b>	<b>20.61</b>	<b>18.58</b>	<i>14.92</i>	<i>15.17</i>
<b>Petroleum Supply</b>															
Crude Oil Production <sup>b</sup> (million barrels per day) .....	<b>8.97</b>	<b>8.68</b>	<b>8.35</b>	<b>8.14</b>	<b>7.61</b>	<b>7.36</b>	<b>7.42</b>	<b>7.17</b>	<b>6.85</b>	<b>6.66</b>	<b>6.56</b>	<b>6.46</b>	<b>6.41</b>	<i>6.37</i>	<i>6.29</i>
Total Petroleum Net Imports (including SPR) (million barrels per day) .....	<b>4.29</b>	<b>5.44</b>	<b>5.91</b>	<b>6.59</b>	<b>7.20</b>	<b>7.16</b>	<b>6.63</b>	<b>6.94</b>	<b>7.62</b>	<b>8.05</b>	<b>7.89</b>	<b>8.50</b>	<b>8.90</b>	<i>9.12</i>	<i>9.73</i>
<b>Energy Demand</b>															
World Petroleum (million barrels per day) .....	<b>60.1</b>	<b>61.8</b>	<b>63.1</b>	<b>64.9</b>	<b>65.9</b>	<b>66.0</b>	<b>66.6</b>	<b>66.8</b>	<b>67.0</b>	<b>68.3</b>	<b>69.9</b>	<b>71.5</b>	<b>73.4</b>	<i>75.3</i>	<i>77.5</i>
U.S. Petroleum (million barrels per day) .....	<b>15.78</b>	<b>16.33</b>	<b>16.72</b>	<b>17.34</b>	<b>17.37</b>	<b>17.04</b>	<b>16.77</b>	<b>17.10</b>	<b>17.24</b>	<b>17.72</b>	<b>17.72</b>	<b>18.31</b>	<b>18.58</b>	<i>18.99</i>	<i>19.37</i>
Natural Gas (trillion cubic feet) .....	<b>17.28</b>	<b>16.22</b>	<b>17.21</b>	<b>18.03</b>	<b>18.80</b>	<b>18.72</b>	<b>19.03</b>	<b>19.54</b>	<b>20.28</b>	<b>20.71</b>	<b>21.58</b>	<b>21.96</b>	<b>21.94</b>	<i>22.27</i>	<i>23.29</i>
Coal (million short tons) .....	<b>818</b>	<b>804</b>	<b>837</b>	<b>884</b>	<b>891</b>	<b>897</b>	<b>894</b>	<b>907</b>	<b>944</b>	<b>951</b>	<b>962</b>	<b>1007</b>	<b>1033</b>	<i>1046</i>	<i>1077</i>
Electricity (billion kilowatthours) Utility Sales <sup>c</sup> .....	<b>2324</b>	<b>2369</b>	<b>2457</b>	<b>2578</b>	<b>2647</b>	<b>2713</b>	<b>2762</b>	<b>2763</b>	<b>2861</b>	<b>2935</b>	<b>3013</b>	<b>3098</b>	<b>3119</b>	<i>3194</i>	<i>3272</i>
Nonutility Own Use <sup>d</sup> .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>108</b>	<b>113</b>	<b>122</b>	<b>132</b>	<b>138</b>	<b>150</b>	<b>158</b>	<b>164</b>	<b>169</b>	<i>173</i>	<i>178</i>
Total .....	<b>2324</b>	<b>2369</b>	<b>2457</b>	<b>2578</b>	<b>2755</b>	<b>2826</b>	<b>2884</b>	<b>2895</b>	<b>3000</b>	<b>3085</b>	<b>3171</b>	<b>3262</b>	<b>3288</b>	<i>3367</i>	<i>3450</i>
Total Energy Demand <sup>e</sup> (quadrillion Btu) .....	<b>74.0</b>	<b>74.3</b>	<b>76.9</b>	<b>80.2</b>	<b>81.3</b>	<b>81.2</b>	<b>81.1</b>	<b>82.4</b>	<b>84.2</b>	<b>85.9</b>	<b>87.5</b>	<b>89.7</b>	<b>90.6</b>	<i>92.0</i>	<i>94.5</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar) .....	<b>13.90</b>	<b>13.54</b>	<b>13.61</b>	<b>13.68</b>	<b>13.42</b>	<b>13.23</b>	<b>13.33</b>	<b>13.20</b>	<b>13.17</b>	<b>12.99</b>	<b>12.98</b>	<b>12.95</b>	<b>12.60</b>	<i>12.44</i>	<i>12.57</i>
Adjusted Total Energy Demand <sup>e</sup> (quadrillion Btu) .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>84.1</b>	<b>84.0</b>	<b>85.5</b>	<b>87.3</b>	<b>89.2</b>	<b>90.9</b>	<b>93.9</b>	<b>94.5</b>	<i>95.7</i>	<i>98.3</i>
Adjusted Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar) .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>13.70</b>	<b>13.82</b>	<b>13.70</b>	<b>13.67</b>	<b>13.49</b>	<b>13.49</b>	<b>13.56</b>	<b>13.14</b>	<i>12.94</i>	<i>13.07</i>

<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*, 1995, DOE/EIA-0384(95), Table 1.1 for the period 1960 to 1989. Adjusted "Total Energy Demand" refers to the aggregate energy demand concept reported in the same table for 1990 and beyond. The former concept is extended here in order to provide a more consistent long-term energy demand series. The latter concept is more comprehensive and is intended as the primary energy demand aggregate for assessing energy intensity trends since 1990. The adjusted measure incorporates information on renewable energy consumption among households, commercial establishments, and electricity generating facilities other than electric utilities (including industrial cogenerators). 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 CONTROL0298.

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

	Year														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 1992 dollars) .....	<b>5324</b>	<b>5488</b>	<b>5649</b>	<b>5865</b>	<b>6062</b>	<b>6136</b>	<b>6079</b>	<b>6244</b>	<b>6390</b>	<b>6611</b>	<b>6742</b>	<b>6928</b>	<b>7192</b>	<i>7397</i>	<i>7520</i>
GDP Implicit Price Deflator (Index, 1992=1.000) .....	<b>0.786</b>	<b>0.806</b>	<b>0.831</b>	<b>0.861</b>	<b>0.897</b>	<b>0.936</b>	<b>0.973</b>	<b>1.000</b>	<b>1.026</b>	<b>1.051</b>	<b>1.078</b>	<b>1.102</b>	<b>1.125</b>	<i>1.143</i>	<i>1.164</i>
Real Disposable Personal Income (billion chained 1992 Dollars).....	<b>3972</b>	<b>4101</b>	<b>4168</b>	<b>4332</b>	<b>4417</b>	<b>4498</b>	<b>4500</b>	<b>4627</b>	<b>4704</b>	<b>4805</b>	<b>4964</b>	<b>5077</b>	<b>5223</b>	<i>5451</i>	<i>5551</i>
Manufacturing Production (Index, 1987=1.000) .....	<b>0.857</b>	<b>0.881</b>	<b>0.928</b>	<b>0.971</b>	<b>0.990</b>	<b>0.985</b>	<b>0.962</b>	<b>1.000</b>	<b>1.038</b>	<b>1.100</b>	<b>1.160</b>	<b>1.202</b>	<b>1.269</b>	<i>1.330</i>	<i>1.354</i>
Real Fixed Investment (billion chained 1992 dollars) .....	<b>799</b>	<b>805</b>	<b>799</b>	<b>818</b>	<b>832</b>	<b>806</b>	<b>741</b>	<b>783</b>	<b>843</b>	<b>916</b>	<b>962</b>	<b>1042</b>	<b>1122</b>	<i>1206</i>	<i>1246</i>
Real Exchange Rate (Index, 1990=1.000) .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>1.000</b>	<b>1.006</b>	<b>1.012</b>	<b>1.056</b>	<b>1.033</b>	<b>0.960</b>	<b>1.015</b>	<b>1.101</b>	<i>1.124</i>	<i>1.045</i>
Business Inventory Change (billion chained 1992 dollars) .....	<b>-4.5</b>	<b>-4.2</b>	<b>5.1</b>	<b>9.5</b>	<b>19.2</b>	<b>6.6</b>	<b>-6.1</b>	<b>-9.2</b>	<b>6.1</b>	<b>11.1</b>	<b>7.8</b>	<b>9.9</b>	<b>22.0</b>	<i>1.4</i>	<i>-1.7</i>
Producer Price Index (index, 1980-1984=1.000) .....	<b>1.032</b>	<b>1.002</b>	<b>1.028</b>	<b>1.069</b>	<b>1.122</b>	<b>1.163</b>	<b>1.165</b>	<b>1.172</b>	<b>1.189</b>	<b>1.205</b>	<b>1.248</b>	<b>1.277</b>	<b>1.276</b>	<i>1.267</i>	<i>1.280</i>
Consumer Price Index (index, 1980-1984=1.000) .....	<b>1.076</b>	<b>1.097</b>	<b>1.137</b>	<b>1.184</b>	<b>1.240</b>	<b>1.308</b>	<b>1.363</b>	<b>1.404</b>	<b>1.446</b>	<b>1.483</b>	<b>1.525</b>	<b>1.570</b>	<b>1.606</b>	<i>1.631</i>	<i>1.671</i>
Petroleum Product Price Index (index, 1980-1984=1.000) .....	<b>0.832</b>	<b>0.532</b>	<b>0.568</b>	<b>0.539</b>	<b>0.612</b>	<b>0.748</b>	<b>0.671</b>	<b>0.647</b>	<b>0.620</b>	<b>0.591</b>	<b>0.608</b>	<b>0.701</b>	<b>0.679</b>	<i>0.587</i>	<i>0.585</i>
Non-Farm Employment (millions) .....	<b>97.4</b>	<b>99.3</b>	<b>102.0</b>	<b>105.2</b>	<b>107.9</b>	<b>109.4</b>	<b>108.3</b>	<b>108.6</b>	<b>110.7</b>	<b>114.1</b>	<b>117.2</b>	<b>119.5</b>	<b>122.3</b>	<i>125.4</i>	<i>126.8</i>
Commercial Employment (millions) .....	<b>60.8</b>	<b>62.9</b>	<b>65.2</b>	<b>67.8</b>	<b>70.0</b>	<b>71.3</b>	<b>70.8</b>	<b>71.2</b>	<b>73.2</b>	<b>76.1</b>	<b>78.8</b>	<b>81.0</b>	<b>83.5</b>	<i>86.2</i>	<i>87.7</i>
Total Industrial Production (index, 1987=1.000).....	<b>0.880</b>	<b>0.890</b>	<b>0.931</b>	<b>0.973</b>	<b>0.990</b>	<b>0.989</b>	<b>0.969</b>	<b>1.000</b>	<b>1.035</b>	<b>1.092</b>	<b>1.145</b>	<b>1.185</b>	<b>1.244</b>	<i>1.300</i>	<i>1.321</i>
Housing Stock (millions) .....	<b>96.3</b>	<b>98.0</b>	<b>99.8</b>	<b>101.6</b>	<b>102.9</b>	<b>103.5</b>	<b>104.5</b>	<b>105.5</b>	<b>106.8</b>	<b>108.2</b>	<b>109.8</b>	<b>111.2</b>	<b>112.7</b>	<i>114.2</i>	<i>115.7</i>
<b>Weather <sup>a</sup></b>															
Heating Degree-Days															
U.S. ....	<b>4642</b>	<b>4295</b>	<b>4334</b>	<b>4653</b>	<b>4726</b>	<b>4016</b>	<b>4200</b>	<b>4441</b>	<b>4700</b>	<b>4483</b>	<b>4531</b>	<b>4713</b>	<b>4605</b>	<i>4220</i>	<i>4576</i>
New England .....	<b>6571</b>	<b>6517</b>	<b>6546</b>	<b>6715</b>	<b>6887</b>	<b>5848</b>	<b>5960</b>	<b>6844</b>	<b>6728</b>	<b>6672</b>	<b>6559</b>	<b>6679</b>	<b>6765</b>	<i>6220</i>	<i>6621</i>
Middle Atlantic .....	<b>5660</b>	<b>5665</b>	<b>5699</b>	<b>6088</b>	<b>6134</b>	<b>4998</b>	<b>5177</b>	<b>5964</b>	<b>5948</b>	<b>5934</b>	<b>5831</b>	<b>5986</b>	<b>5900</b>	<i>5350</i>	<i>5839</i>
U.S. Gas-Weighted .....	<b>4856</b>	<b>4442</b>	<b>4391</b>	<b>4779</b>	<b>4856</b>	<b>4139</b>	<b>4337</b>	<b>4458</b>	<b>4754</b>	<b>4659</b>	<b>4707</b>	<b>5040</b>	<b>4886</b>	<i>4387</i>	<i>4732</i>
Cooling Degree-Days (U.S.) .....	<b>1194</b>	<b>1249</b>	<b>1269</b>	<b>1283</b>	<b>1156</b>	<b>1260</b>	<b>1331</b>	<b>1040</b>	<b>1218</b>	<b>1220</b>	<b>1293</b>	<b>1180</b>	<b>1123</b>	<i>1188</i>	<i>1193</i>

<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 CONTROL0298.

**Table A3. Annual International Petroleum Supply and Demand Balance**  
(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Demand<sup>a</sup></b>															
OECD															
U.S. (50 States).....	15.8	16.3	16.7	17.3	17.4	17.0	16.8	17.1	17.2	17.7	17.7	18.3	18.6	19.0	19.4
Europe <sup>b</sup> .....	11.7	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
Japan.....	4.4	4.4	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.8	5.8	5.9
Other OECD.....	2.5	2.5	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.0	3.1	3.2
Total OECD.....	34.3	35.3	36.0	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	42.5	43.3
Non-OECD															
Former Soviet Union.....	9.0	9.0	9.0	8.9	8.7	8.4	8.3	6.8	5.6	4.8	4.6	4.4	4.5	4.7	4.9
Europe.....	2.2	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	1.6
China.....	1.9	2.0	2.1	2.3	2.4	2.3	2.5	2.7	3.0	3.1	3.3	3.5	3.9	4.2	4.4
Other Asia.....	3.6	3.8	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.3	8.8	9.1	9.5
Other Non-OECD.....	9.1	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	13.8
Total Non-OECD.....	25.8	26.5	27.1	27.7	28.3	28.5	28.5	28.0	28.1	28.4	29.4	30.1	31.6	32.9	34.2
Total World Demand.....	60.1	61.8	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.3	69.9	71.5	73.4	75.3	77.5
<b>Supply<sup>c</sup></b>															
OECD															
U.S. (50 States).....	11.2	11.0	10.7	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.4	9.4	9.4
Canada.....	1.8	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	2.7
North Sea <sup>d</sup> .....	3.6	3.8	3.8	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.5	7.0
Other OECD.....	1.4	1.4	1.4	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.7	1.7
Total OECD.....	18.1	17.9	17.9	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	20.2	20.8
Non-OECD															
OPEC.....	17.2	19.3	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.5	31.0
Former Soviet Union.....	11.9	12.3	12.5	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.2	7.3	7.4
China.....	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.3	3.3
Mexico.....	3.0	2.8	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.6	3.6
Other Non-OECD.....	6.6	11.0	6.9	7.3	7.7	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.4	10.9	11.5
Total Non-OECD.....	41.2	43.9	44.6	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	55.5	56.8
Total World Supply.....	59.3	61.8	62.5	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	75.7	77.6
Total Stock Withdrawals.....	0.8	0.0	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.3	0.1	0.1	-0.2	-0.6	-0.4	-0.1
OECD Comm. Stocks, End (bill. bbls.).....	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.7	2.8
Net Exports from Former Soviet Union.....	3.0	3.4	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.5	2.7	2.7	2.6	2.5

<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.

<sup>c</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>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. Mexico is also a member but OECD data do not yet include Mexico.

OPEC: Organization of Petroleum Exporting Countries: Algeria, Gabon, 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														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Imported Crude Oil <sup>a</sup></b>															
(dollars per barrel).....	28.88	26.99	14.00	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.58	14.92	15.17
<b>Natural Gas Wellhead</b>															
(dollars per thousand cubic feet) .....	2.51	1.94	1.66	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.16	2.43	2.11	2.08
<b>Petroleum Products</b>															
Gasoline Retail <sup>b</sup>															
(dollars per gallon) .....	1.20	0.93	0.96	0.96	1.06	1.22	1.20	1.19	1.17	1.17	1.21	1.29	1.29	1.20	1.21
No. 2 Diesel Oil, Retail															
(dollars per gallon) .....	1.16	0.88	0.93	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.11	1.23	1.19	1.09	1.10
No. 2 Heating Oil, Wholesale															
(dollars per gallon) .....	0.78	0.49	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.49	0.51
No. 2 Heating Oil, Retail															
(dollars per gallon) .....	1.05	0.84	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.89	0.87	0.99	0.99	0.88	0.89
No. 6 Residual Fuel Oil, Retail <sup>c</sup>															
(dollars per barrel).....	25.57	14.46	17.76	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	18.97	17.80	14.47	14.75
<b>Electric Utility Fuels</b>															
Coal															
(dollars per million Btu) .....	1.65	1.58	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.26	1.24
Heavy Fuel Oil <sup>d</sup>															
(dollars per million Btu) .....	4.26	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.80	2.35	2.39
Natural Gas															
(dollars per million Btu) .....	3.43	2.35	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.78	2.42	2.40
<b>Other Residential</b>															
Natural Gas															
(dollars per thousand cubic feet) .....	6.12	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.89	6.65	6.70
Electricity															
(cents per kilowatthour).....	7.8	7.4	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.4	8.4	8.5	8.4	8.3

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

<sup>b</sup>Average for all grades and services.

<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)

	Year														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup> .....	8.97	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.41	6.37	6.29
Alaska.....	1.83	1.87	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.19	1.19
Lower 48.....	7.15	6.81	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.12	5.18	5.10
Net Imports (including SPR) <sup>b</sup> .....	3.00	4.02	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	7.89	8.02	8.38
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).....	-0.05	-0.08	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.06	-0.01	0.00
Product Supplied and Losses .....	-0.06	-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01
Unaccounted-for Crude Oil .....	0.15	0.14	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.38	0.33	0.28
Total Crude Oil Supply .....	12.00	12.72	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.63	14.76	14.95
Other Supply															
NGL Production.....	1.61	1.55	1.59	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.84	1.87	1.88
Other Hydrocarbon and Alcohol Inputs .....	0.11	0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.34	0.35
Crude Oil Product Supplied .....	0.06	0.05	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Processing Gain.....	0.56	0.62	0.64	0.66	0.66	0.70	0.71	0.77	0.76	0.77	0.77	0.84	0.85	0.84	0.85
Net Product Imports <sup>c</sup> .....	1.29	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.02	1.10	1.35
Product Stock Withdrawn or Added (-) .....	0.15	-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.10	0.08	-0.01
Total Supply.....	15.78	16.33	16.72	17.33	17.37	17.05	16.76	17.10	17.25	17.72	17.72	18.31	18.58	18.99	19.37
<b>Demand</b>															
Motor Gasoline <sup>d</sup> .....	6.78	6.94	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.01	8.25	8.41
Jet Fuel.....	1.22	1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.66	1.70
Distillate Fuel Oil.....	2.87	2.91	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.43	3.52	3.60
Residual Fuel Oil.....	1.20	1.42	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.86	0.89
Other Oils <sup>e</sup> .....	3.71	3.75	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.75	4.70	4.77
Total Demand.....	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.58	18.99	19.37
Total Petroleum Net Imports .....	4.29	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	8.90	9.12	9.73
Closing Stocks (million barrels)															
Crude Oil (excluding SPR) .....	321	331	349	330	341	323	325	318	335	337	303	284	305	307	307
Total Motor Gasoline.....	223	233	226	228	213	220	219	216	226	215	202	195	210	195	200
Jet Fuel.....	40	50	50	44	41	52	49	43	40	47	40	40	44	41	44
Distillate Fuel Oil.....	144	155	134	124	106	132	144	141	141	145	130	127	139	133	131
Residual Fuel Oil.....	50	47	47	45	44	49	50	43	44	42	37	46	40	42	42
Other Oils <sup>f</sup> .....	247	265	260	267	257	261	267	263	273	275	258	250	261	252	251

<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>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.

<sup>e</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>f</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.

**Table A6. Annual U.S. Natural Gas Supply and Demand**  
(Trillion Cubic Feet)

	Year														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Supply</b>															
Total Dry Gas Production .....	<b>16.45</b>	<b>16.06</b>	<b>16.62</b>	<b>17.10</b>	<b>17.31</b>	<b>17.81</b>	<b>17.70</b>	<b>17.84</b>	<b>18.10</b>	<b>18.82</b>	<b>18.60</b>	<b>18.79</b>	<b>18.96</b>	<i>19.16</i>	<i>19.40</i>
Net Imports.....	<b>0.89</b>	<b>0.69</b>	<b>0.94</b>	<b>1.22</b>	<b>1.27</b>	<b>1.45</b>	<b>1.64</b>	<b>1.92</b>	<b>2.21</b>	<b>2.46</b>	<b>2.69</b>	<b>2.78</b>	<b>2.81</b>	<i>3.01</i>	<i>3.27</i>
Supplemental Gaseous Fuels.....	<b>0.13</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.12</b>	<b>0.11</b>	<b>0.12</b>	<b>0.12</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.12</b>	<i>0.13</i>	<i>0.13</i>
Total New Supply.....	<b>17.47</b>	<b>16.86</b>	<b>17.66</b>	<b>18.42</b>	<b>18.69</b>	<b>19.38</b>	<b>19.45</b>	<b>19.88</b>	<b>20.42</b>	<b>21.39</b>	<b>21.40</b>	<b>21.69</b>	<b>21.89</b>	<i>22.30</i>	<i>22.80</i>
Total Underground Storage															
Opening.....	<b>6.71</b>	<b>6.45</b>	<b>6.57</b>	<b>6.55</b>	<b>6.65</b>	<b>6.33</b>	<b>6.94</b>	<b>6.78</b>	<b>6.64</b>	<b>6.65</b>	<b>6.97</b>	<b>6.50</b>	<b>6.51</b>	<i>6.52</i>	<i>6.55</i>
Closing.....	<b>6.45</b>	<b>6.57</b>	<b>6.55</b>	<b>6.65</b>	<b>6.33</b>	<b>6.94</b>	<b>6.78</b>	<b>6.64</b>	<b>6.65</b>	<b>6.97</b>	<b>6.50</b>	<b>6.51</b>	<b>6.52</b>	<i>6.55</i>	<i>6.55</i>
Net Withdrawals .....	<b>0.26</b>	<b>-0.12</b>	<b>0.02</b>	<b>-0.10</b>	<b>0.33</b>	<b>-0.61</b>	<b>0.16</b>	<b>0.14</b>	<b>-0.01</b>	<b>-0.32</b>	<b>0.46</b>	<b>-0.01</b>	<b>-0.01</b>	<i>-0.03</i>	<i>0.00</i>
Total Supply.....	<b>17.73</b>	<b>16.74</b>	<b>17.68</b>	<b>18.32</b>	<b>19.02</b>	<b>18.77</b>	<b>19.61</b>	<b>20.02</b>	<b>20.42</b>	<b>21.08</b>	<b>21.86</b>	<b>21.68</b>	<b>21.88</b>	<i>22.27</i>	<i>22.80</i>
Balancing Item <sup>a</sup> .....	<b>-0.45</b>	<b>-0.52</b>	<b>-0.47</b>	<b>-0.29</b>	<b>-0.22</b>	<b>-0.05</b>	<b>-0.58</b>	<b>-0.47</b>	<b>-0.14</b>	<b>-0.37</b>	<b>-0.28</b>	<b>0.29</b>	<b>0.05</b>	<i>0.00</i>	<i>0.49</i>
Total Primary Supply.....	<b>17.28</b>	<b>16.22</b>	<b>17.21</b>	<b>18.03</b>	<b>18.80</b>	<b>18.72</b>	<b>19.03</b>	<b>19.54</b>	<b>20.28</b>	<b>20.71</b>	<b>21.58</b>	<b>21.96</b>	<b>21.94</b>	<i>22.27</i>	<i>23.29</i>
<b>Demand</b>															
Lease and Plant Fuel.....	<b>0.97</b>	<b>0.92</b>	<b>1.15</b>	<b>1.10</b>	<b>1.07</b>	<b>1.24</b>	<b>1.13</b>	<b>1.17</b>	<b>1.17</b>	<b>1.12</b>	<b>1.22</b>	<b>1.25</b>	<b>1.25</b>	<i>1.24</i>	<i>1.24</i>
Pipeline Use.....	<b>0.50</b>	<b>0.49</b>	<b>0.52</b>	<b>0.61</b>	<b>0.63</b>	<b>0.66</b>	<b>0.60</b>	<b>0.59</b>	<b>0.62</b>	<b>0.69</b>	<b>0.70</b>	<b>0.71</b>	<b>0.71</b>	<i>0.70</i>	<i>0.71</i>
Residential.....	<b>4.43</b>	<b>4.31</b>	<b>4.31</b>	<b>4.63</b>	<b>4.78</b>	<b>4.39</b>	<b>4.56</b>	<b>4.69</b>	<b>4.96</b>	<b>4.85</b>	<b>4.85</b>	<b>5.24</b>	<b>5.02</b>	<i>4.81</i>	<i>5.17</i>
Commercial.....	<b>2.43</b>	<b>2.32</b>	<b>2.43</b>	<b>2.67</b>	<b>2.72</b>	<b>2.62</b>	<b>2.73</b>	<b>2.80</b>	<b>2.86</b>	<b>2.90</b>	<b>3.03</b>	<b>3.16</b>	<b>3.23</b>	<i>3.20</i>	<i>3.43</i>
Industrial (Incl. Nonutilities) .....	<b>5.90</b>	<b>5.58</b>	<b>5.95</b>	<b>6.38</b>	<b>6.82</b>	<b>7.02</b>	<b>7.23</b>	<b>7.53</b>	<b>7.98</b>	<b>8.17</b>	<b>8.58</b>	<b>8.87</b>	<b>8.77</b>	<i>9.10</i>	<i>9.36</i>
Cogenerators <sup>b</sup> .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.12</b>	<b>1.30</b>	<b>1.41</b>	<b>1.67</b>	<b>1.80</b>	<b>1.98</b>	<b>2.18</b>	<b>2.09</b>	<b>2.28</b>	<i>2.39</i>	<i>2.46</i>
Other Nonutil. Gen. <sup>b</sup> .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.06</b>	<b>0.09</b>	<b>0.16</b>	<b>0.18</b>	<b>0.22</b>	<b>0.17</b>	<b>0.17</b>	<b>0.18</b>	<b>0.20</b>	<i>0.20</i>	<i>0.21</i>
Electric Utilities.....	<b>3.04</b>	<b>2.60</b>	<b>2.84</b>	<b>2.64</b>	<b>2.79</b>	<b>2.79</b>	<b>2.79</b>	<b>2.77</b>	<b>2.68</b>	<b>2.99</b>	<b>3.20</b>	<b>2.73</b>	<b>2.96</b>	<i>3.22</i>	<i>3.39</i>
Total Demand.....	<b>17.28</b>	<b>16.22</b>	<b>17.21</b>	<b>18.03</b>	<b>18.80</b>	<b>18.72</b>	<b>19.03</b>	<b>19.54</b>	<b>20.28</b>	<b>20.71</b>	<b>21.58</b>	<b>21.96</b>	<b>21.94</b>	<i>22.27</i>	<i>23.29</i>

<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														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Supply</b>															
Production .....	883.6	890.3	918.8	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1090.6	1111.2	1140.8
Appalachia .....	NA	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	466.9	465.1	468.9
Interior .....	NA	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	172.0	168.2	165.3
Western .....	NA	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.7	477.9	506.7
Primary Stock Levels <sup>a</sup>															
Opening .....	34.1	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	31.0
Closing .....	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	31.0	30.0
Net Withdrawals .....	1.0	1.0	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.4	3.0	1.0
Imports .....	2.0	2.2	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.1	7.2	7.3
Exports .....	92.7	85.5	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	85.1	85.3
Total Net Domestic Supply .....	793.9	808.0	844.7	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.8	1036.3	1063.9
Secondary Stock Levels <sup>b</sup>															
Opening .....	197.2	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	105.5	106.9
Closing .....	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	105.5	106.9	105.4
Net Withdrawals .....	27.0	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.6	17.6	-1.5	1.5
Total Supply .....	820.8	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	946.1	951.9	997.9	1026.3	1034.9	1065.4
<b>Demand</b>															
Coke Plants .....	41.1	35.9	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	31.0	31.3	31.5
Electricity Production															
Electric Utilities .....	693.8	685.1	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	898.5	908.7	937.2
Nonutilities (Excl. Cogen.) <sup>c</sup> .....	NA	NA	NA	NA	0.9	1.6	6.0	14.8	17.8	20.9	21.2	24.0	26.0	28.0	30.0
Retail and General Industry <sup>d</sup> .....	83.2	83.3	82.1	83.4	82.3	83.1	81.5	80.2	81.1	81.2	78.6	76.4	77.5	78.0	78.7
Total Demand <sup>e</sup> .....	818.0	804.2	836.9	883.6	890.6	897.1	893.6	907.3	943.7	951.1	961.8	1006.8	1033.0	1046.1	1077.4
Discrepancy <sup>f</sup> .....	2.8	-1.2	-2.5	-1.3	5.9	2.4	-2.3	-5.4	-13.5	-4.9	-9.9	-8.9	-6.7	-11.2	-12.0

<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>consumption of coal by Independent Power Producers (IPPs). In 1995, IPP consumption was estimated to be 5,390 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 EAIA on Form EIA-867 (Annual Nonutility Power Producer Report). Data for fourth quarter 1997 are estimates. These quantities are not reported in EIA's *Monthly Energy Review* or *Annual energy Review*.

<sup>d</sup>Synfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level throughout the forecast.

<sup>e</sup>Total excludes any shipments to independent power producers (IPPs) not calculated in Retail and General Industry for years prior to 1993.

<sup>f</sup>Historical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference. It also includes any shipment to IPPs not captured in Retail and General Industry and consumption by IPPs not included in production (waste coal).

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

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														
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Supply</b>															
Net Utility Generation															
Coal .....	<b>1402.1</b>	<b>1385.8</b>	<b>1463.8</b>	<b>1540.7</b>	<b>1553.7</b>	<b>1559.6</b>	<b>1551.2</b>	<b>1575.9</b>	<b>1639.2</b>	<b>1635.5</b>	<b>1652.9</b>	<b>1737.5</b>	<b>1788.7</b>	<i>1817.0</i>	<i>1875.3</i>
Petroleum .....	<b>100.2</b>	<b>136.6</b>	<b>118.5</b>	<b>148.9</b>	<b>158.3</b>	<b>117.0</b>	<b>111.5</b>	<b>88.9</b>	<b>99.5</b>	<b>91.0</b>	<b>60.8</b>	<b>67.3</b>	<b>79.0</b>	<i>91.4</i>	<i>93.0</i>
Natural Gas .....	<b>291.9</b>	<b>248.5</b>	<b>272.6</b>	<b>252.8</b>	<b>266.6</b>	<b>264.1</b>	<b>264.2</b>	<b>263.9</b>	<b>258.9</b>	<b>291.1</b>	<b>307.3</b>	<b>262.7</b>	<b>283.6</b>	<i>309.5</i>	<i>325.9</i>
Nuclear .....	<b>383.7</b>	<b>414.0</b>	<b>455.3</b>	<b>527.0</b>	<b>529.4</b>	<b>576.9</b>	<b>612.6</b>	<b>618.8</b>	<b>610.3</b>	<b>640.4</b>	<b>673.4</b>	<b>674.7</b>	<b>629.4</b>	<i>656.6</i>	<i>667.7</i>
Hydroelectric .....	<b>281.1</b>	<b>290.8</b>	<b>249.7</b>	<b>222.9</b>	<b>265.1</b>	<b>279.9</b>	<b>275.5</b>	<b>239.6</b>	<b>265.1</b>	<b>243.7</b>	<b>293.7</b>	<b>328.0</b>	<b>337.3</b>	<i>288.7</i>	<i>278.2</i>
Geothermal and Other <sup>a</sup> .....	<b>10.7</b>	<b>11.5</b>	<b>12.3</b>	<b>12.0</b>	<b>11.3</b>	<b>10.7</b>	<b>10.1</b>	<b>10.2</b>	<b>9.6</b>	<b>8.9</b>	<b>6.4</b>	<b>7.2</b>	<b>7.5</b>	<i>6.9</i>	<i>6.4</i>
Subtotal .....	<b>2469.8</b>	<b>2487.3</b>	<b>2572.1</b>	<b>2704.3</b>	<b>2784.3</b>	<b>2808.2</b>	<b>2825.0</b>	<b>2797.2</b>	<b>2882.5</b>	<b>2910.7</b>	<b>2994.5</b>	<b>3077.4</b>	<b>3125.5</b>	<i>3170.1</i>	<i>3246.5</i>
Nonutility Generation <sup>b</sup> .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>221.8</b>	<b>253.7</b>	<b>296.0</b>	<b>325.5</b>	<b>354.9</b>	<b>374.4</b>	<b>382.5</b>	<b>409.4</b>	<i>426.4</i>	<i>437.4</i>
Total Generation .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>3030.0</b>	<b>3078.7</b>	<b>3093.2</b>	<b>3208.1</b>	<b>3265.6</b>	<b>3369.0</b>	<b>3460.0</b>	<b>3534.9</b>	<i>3596.5</i>	<i>3683.9</i>
Net Imports .....	<b>40.9</b>	<b>35.9</b>	<b>46.3</b>	<b>31.8</b>	<b>11.0</b>	<b>2.0</b>	<b>22.3</b>	<b>28.3</b>	<b>28.4</b>	<b>44.6</b>	<b>37.6</b>	<b>38.0</b>	<b>36.1</b>	<i>34.7</i>	<i>36.0</i>
Total Supply .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2986.6</b>	<b>3032.0</b>	<b>3101.0</b>	<b>3121.6</b>	<b>3236.5</b>	<b>3310.3</b>	<b>3406.6</b>	<b>3498.0</b>	<b>3571.0</b>	<i>3631.2</i>	<i>3719.9</i>
Losses and Unaccounted for <sup>c</sup> .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>231.4</b>	<b>206.1</b>	<b>217.1</b>	<b>226.6</b>	<b>236.9</b>	<b>225.5</b>	<b>235.4</b>	<b>236.2</b>	<b>283.2</b>	<i>263.8</i>	<i>270.0</i>
<b>Demand</b>															
Electric Utility Sales															
Residential.....	<b>793.9</b>	<b>819.1</b>	<b>850.4</b>	<b>892.9</b>	<b>905.5</b>	<b>924.0</b>	<b>955.4</b>	<b>935.9</b>	<b>994.8</b>	<b>1008.5</b>	<b>1042.5</b>	<b>1082.5</b>	<b>1070.5</b>	<i>1099.5</i>	<i>1145.7</i>
Commercial.....	<b>606.0</b>	<b>630.5</b>	<b>660.4</b>	<b>699.1</b>	<b>725.9</b>	<b>751.0</b>	<b>765.7</b>	<b>761.3</b>	<b>794.6</b>	<b>820.3</b>	<b>862.7</b>	<b>887.4</b>	<b>912.6</b>	<i>937.2</i>	<i>955.6</i>
Industrial.....	<b>836.8</b>	<b>830.5</b>	<b>858.2</b>	<b>896.5</b>	<b>925.7</b>	<b>945.5</b>	<b>946.6</b>	<b>972.7</b>	<b>977.2</b>	<b>1008.0</b>	<b>1012.7</b>	<b>1030.4</b>	<b>1036.9</b>	<i>1052.0</i>	<i>1065.7</i>
Other.....	<b>87.3</b>	<b>88.6</b>	<b>88.2</b>	<b>89.6</b>	<b>89.8</b>	<b>92.0</b>	<b>94.3</b>	<b>93.4</b>	<b>94.9</b>	<b>97.8</b>	<b>95.4</b>	<b>97.5</b>	<b>99.2</b>	<i>105.5</i>	<i>105.3</i>
Subtotal .....	<b>2324.0</b>	<b>2368.8</b>	<b>2457.3</b>	<b>2578.1</b>	<b>2646.8</b>	<b>2712.6</b>	<b>2762.0</b>	<b>2763.4</b>	<b>2861.5</b>	<b>2934.6</b>	<b>3013.3</b>	<b>3097.8</b>	<b>3119.2</b>	<i>3194.2</i>	<i>3272.2</i>
Nonutility Own Use <sup>b</sup> .....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>113.4</b>	<b>121.9</b>	<b>131.6</b>	<b>138.1</b>	<b>150.2</b>	<b>157.9</b>	<b>164.0</b>	<b>168.6</b>	<i>173.1</i>	<i>177.7</i>
Total Demand.....	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2825.9</b>	<b>2883.9</b>	<b>2895.0</b>	<b>2999.6</b>	<b>3084.8</b>	<b>3171.2</b>	<b>3261.8</b>	<b>3287.7</b>	<i>3367.4</i>	<i>3449.9</i>
<b>Memo:</b>															
Nonutility Sales															
to Electric Utilities <sup>d</sup> .....	<b>26.0</b>	<b>39.9</b>	<b>50.0</b>	<b>68.0</b>	<b>83.0</b>	<b>108.5</b>	<b>131.9</b>	<b>164.4</b>	<b>187.4</b>	<b>204.7</b>	<b>216.5</b>	<b>218.5</b>	<b>240.8</b>	<i>253.2</i>	<i>259.7</i>

<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 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 (Annual Nonutility Power Producer Report).

<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 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.