### **Short-Term Energy Outlook**

June 1998 (Released June 8, 1998)

Energy Information Administration

### **June 1998**

### Highlights

### **Oil Prices/Supply**

World oil prices are expected to remain relatively stable through the summer as world oil production continues to be more than enough to supply demand. We have seen average prices for crude imported into the United States fall somewhat below previous expectations, a condition we see likely to continue through the summer (<u>Figure 1</u>). Beginning towards the latter part of 1998, we expect world oil demand growth to pick up as the economic situation in Asia is expected to begin to improve slightly.

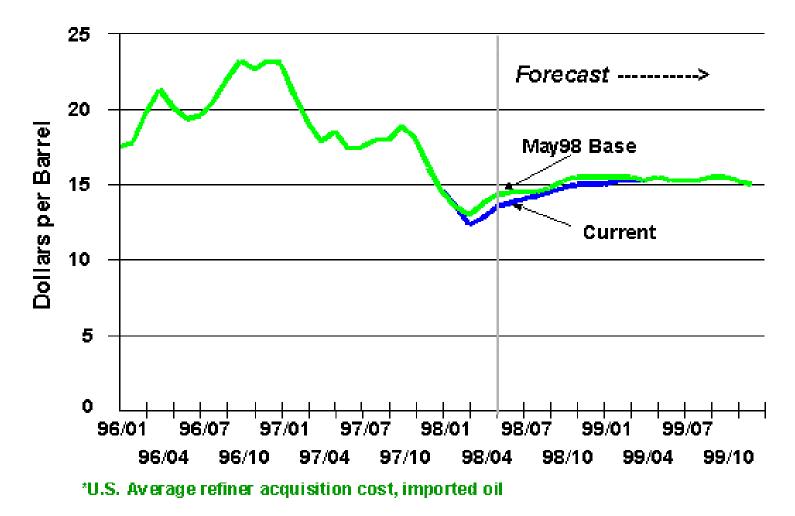
In March, OPEC, excluding Iraq, agreed to cut oil production beginning in April by 1.245 million barrels per day from what other experts claimed was their February 1998 production levels. While EIA will not have April oil production data until the end of June, others have estimated that April OPEC production, again excluding Iraq, was about 1 million barrels per day less than their February production. This is consistent with EIA's expectation that, while the March OPEC agreement was not going to be 100 percent successful, significant cuts in production would occur. Then, on June 4, Saudi Arabia, Venezuela and Mexico (a major non-OPEC producer) agreed to cut production by another 450,000 barrels per day. OPEC will meet towards the end of this month to discuss the possibility of more oil production cuts. It is expected that the most recent announced cuts will form the basis for any additional cuts by OPEC at their June Ministerial Meeting. For this forecast, we have not assumed any additional cuts in OPEC production levels other than the ones already announced. (For more details, see <u>Oil Production Agreements of 1998</u>)

With regards to Iraqi oil exports under United Nations supervision, Iraq is working with the United Nations' Security Council to allow Iraq to perform \$300 million worth of repair to their oil facilities. If this authorization takes place, Iraqi oil exports are expected to increase over time. However, this forecast assumes that Iraq is exporting 1.6 million barrels per day through the remainder of the forecast period.

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

U.S. gasoline prices remain well below year-ago levels (Figure 2), as expected, and are now anticipated to fall short of earlier projections for the summer (Figure 3). The continued price weakness is naturally related to the continuing bearish condition of crude oil markets, which is in turn evidenced here by burgeoning crude oil stocks (Figures 4 and 5). In addition, EIA's latest data on U.S. gasoline consumption

## Figure 1. World Oil Prices\*





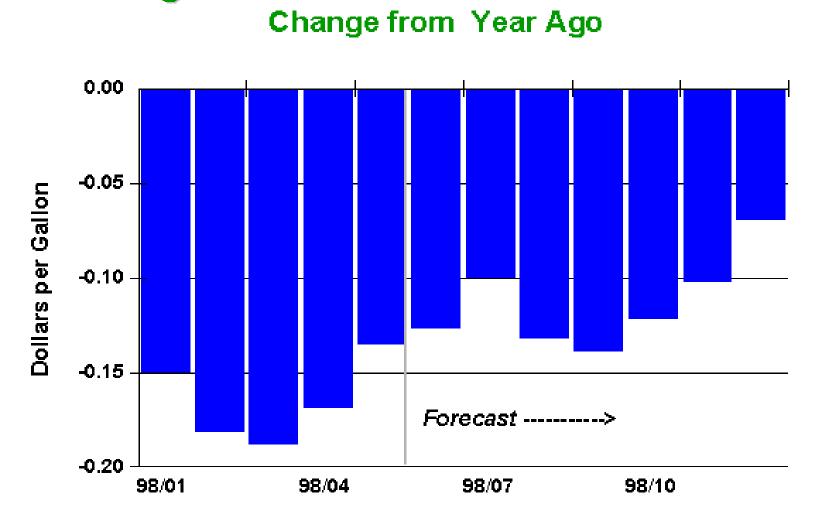
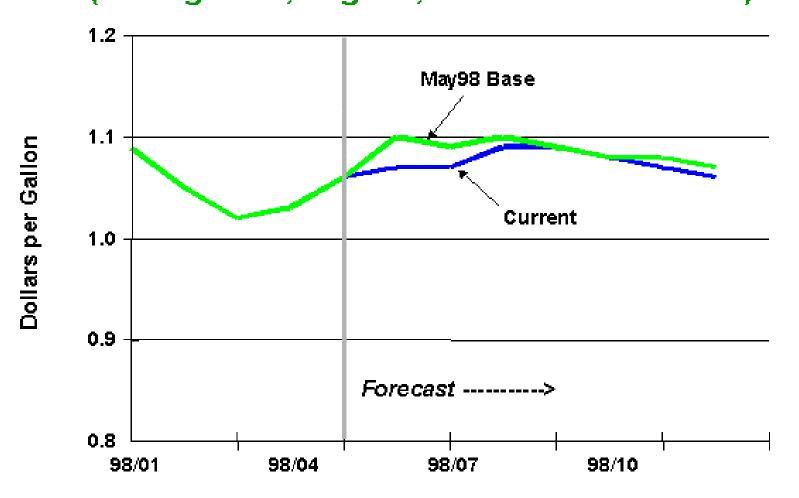


Figure 2. Retail Gasoline Prices\*

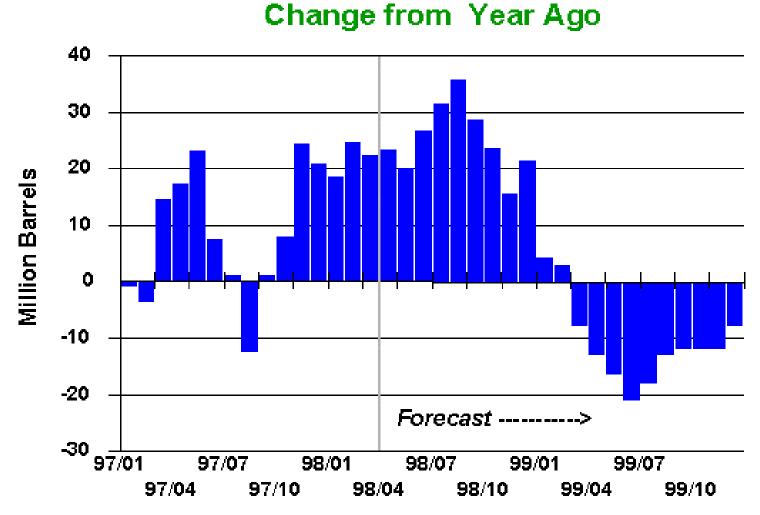
\* Average U.S., Regular, Self-Serve Cash Price

## Figure 3. Gasoline Price Outlook (Average U.S., Regular, Self-Serve Cash Price)



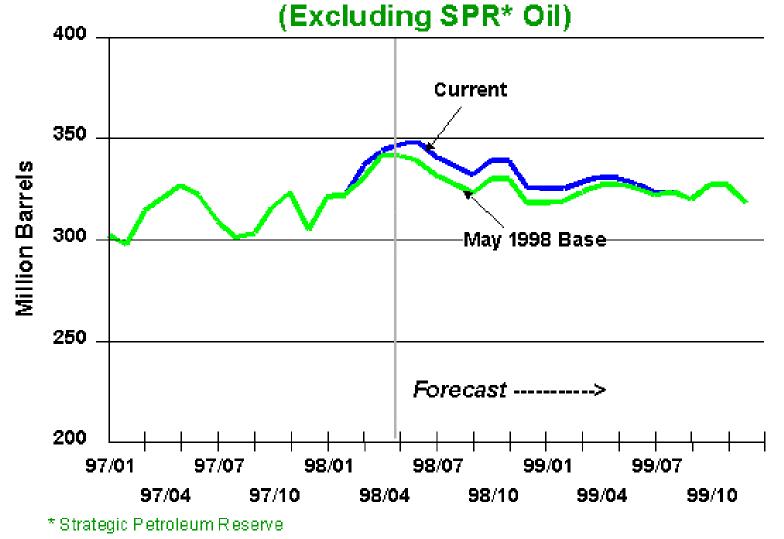
Source: Energy Information Administration, Short-Term Energy Model, June 1998

# Figure 4. U.S. Crude Oil Stocks (Excl. SPR\*)



\* Strategic Petroleum Reserve

# Figure 5. U.S. Crude Oil Stocks Projections



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

suggests more moderate growth this year than previously anticipated (see petroleum demand discussion below). Meanwhile, gasoline stocks have also moved to a more plentiful level, both with respect to earlier projections and to last year's levels (<u>Figures 6</u> and <u>7</u>).

Retail motor gasoline prices bottomed out in March with their lowest inflationadjusted price ever. The average annual price for 1998 is projected to be the lowest inflation-adjusted annual price on record. (See "Gasoline Price Analysis Sheet.") For most of the United States, spot prices for motor gasoline peaked at the end of April, resulting in moderate pump price increases in May as the driving season began (Figure 8). In California, spot prices for reformulated gasoline climbed by 28 cents per gallon between April 14 and April 28, due in part to refinery outages. However, by the first week of June, these California spot prices had fallen by about 35 cents per gallon from the April peak, as supply problems have been resolved. California retail prices rose by about 12 cents from April to May due to the earlier spot price jump, but are now leveling off. If spot prices are a leading indicator of pump prices, then there should be an easing of retail price growth in California in the next several weeks. For the rest of the country, retail prices seem to be fairly flat. With ample gasoline inventories, and assuming continued moderate crude oil prices, we now expect average retail gasoline prices to be about 15 cents per gallon lower during this driving season (spring and summer months) than for the same period in 1997.

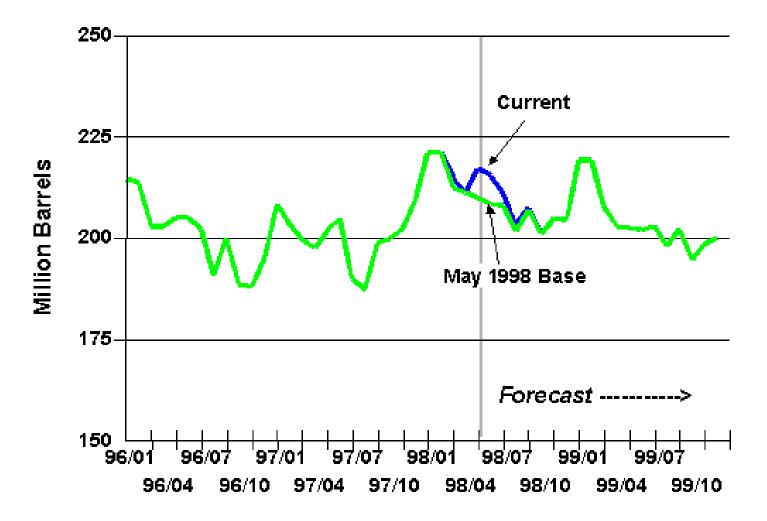
Natural gas prices at the wellhead are projected to decline by 6 percent in 1998 (Figure 9) with almost all of this drop due to the 26 percent year-over-year price decline that occurred in the unseasonably warm first quarter of this year. For the remainder of 1998 and for all of 1999, a normal seasonal price pattern is expected: higher prices in the winter quarters. Underground storage levels are notably above those from one year ago, thus not much upward price movement is anticipated over the next few months. However, as reported in the prior Outlooks, there is concern over the possible effects on gas demand of a very hot summer, particularly if coal delivery problems for Southwest electric utilities persist. As a result, gas prices are projected to stay above \$2.00 per thousand cubic feet throughout the year. On the other hand, a mild summer in the gas consuming (at electric utilities) regions of the country, combined with relatively high storage levels, may avert the need for heavy storage injections this summer. Conceivably there would be more gas available for electricity generation, therefore easing pressure on spot prices through the end of the year.

For 1999, we can expect about a 5 percent rise in wellhead prices. The lion's share of this increase will be coming in the first quarter, as the winter weather is assumed to be normal and thus, much colder the first quarter of this year.

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

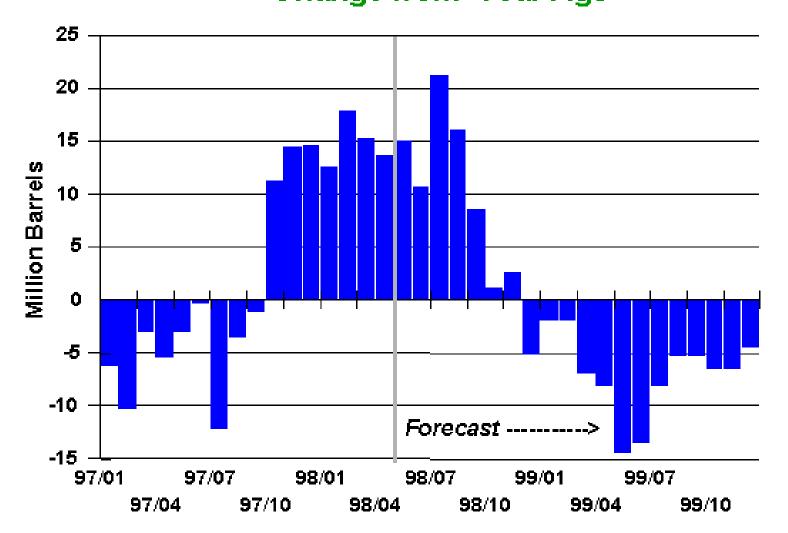
U.S. petroleum demand, based on more complete monthly data for the first quarter and weekly data for April and May, apparently moved ahead of the 1997 levels for

# Figure 6. Total Gasoline Stocks

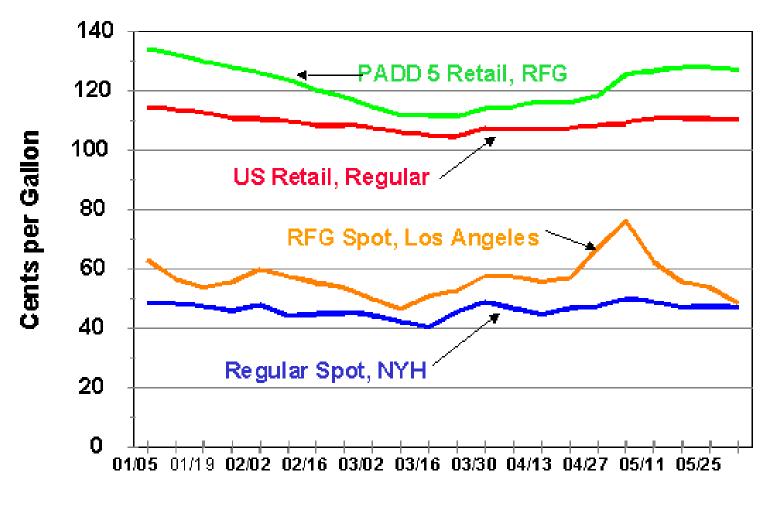


Source: Energy Information Administration, Short-Term Energy Model, June 1998

## Figure 7. Total Gasoline Stocks Change from Year Ago

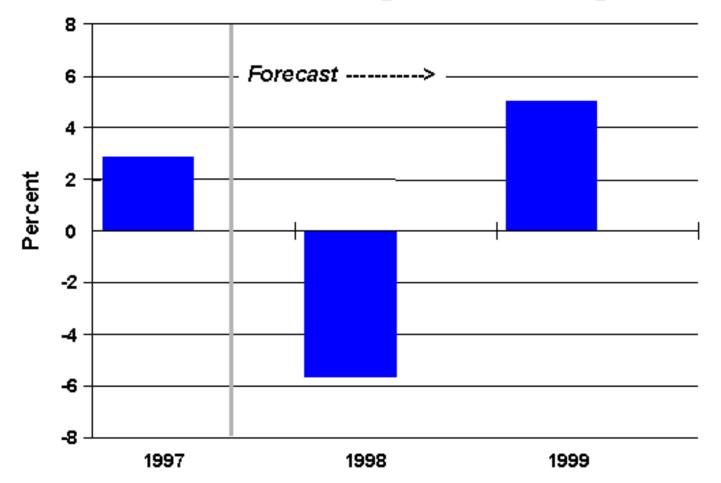


# Figure 8. Weekly Gasoline Prices



Source: Energy Information Administration: Weekly Petroleum Status Report

### Figure 9. Annual Natural Gas Wellhead Prices Percent Change from Year Ago



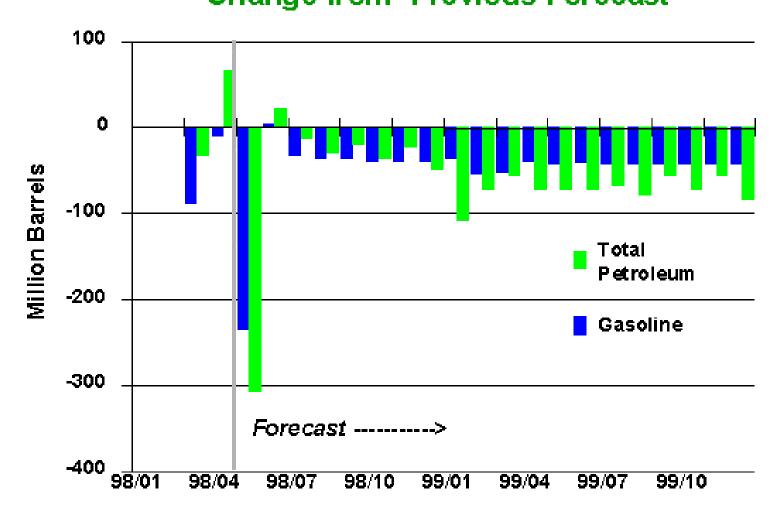
the first five months of the year at the thrilling pace of 0.4 percent. In our <u>January</u> <u>outlook</u>, we had projected growth more in the 2.5-percent for the first half of 1998. The ensuing mild winter (which contrasted sharply with our assumptions of normal temperatures) accounts for most of the difference. Still, we are seeing less strength in the second quarter than we would have predicted, given the positive underlying economic factors.

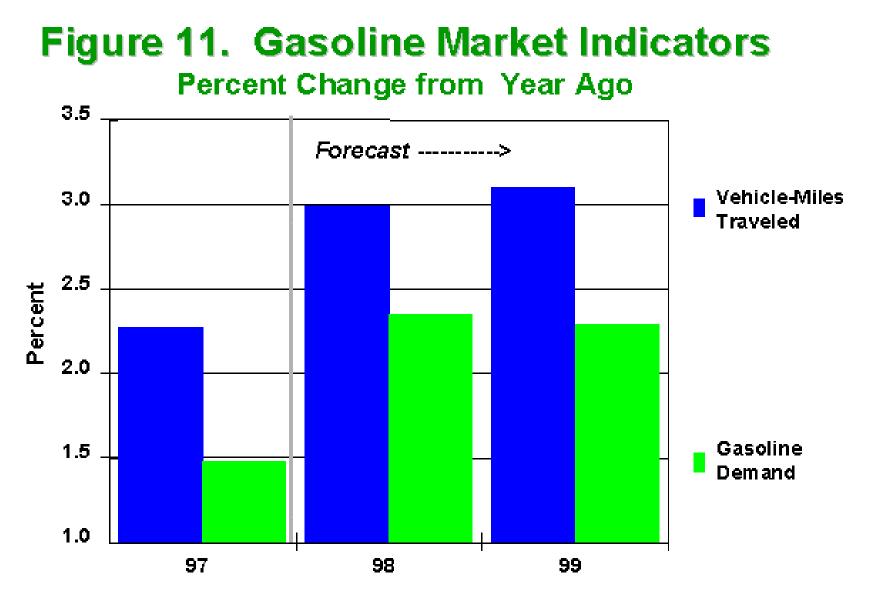
The preliminary data for May looks particularly weak, even in comparison to last month's forecast, and gasoline demand is an especially important component of the apparent weakness (Figure 10). The May numbers may be revised significantly and are not weighted too heavily here, but, in conjunction with a fuller assessment of more complete first-quarter data, have lead to modest revisions to our forecast for petroleum (and motor gasoline in particular). While we still see much stronger annual growth in gasoline demand this year than was evident in 1997 (2.4 percent compared to 1.5 percent, see Figure 11), current indications are that we will not likely see growth reaching the 2.9- to 3.0-percent range of previous forecasts. Summer gasoline demand will probably not reach as high as 3.0 percent above last summer's levels, given our current assumptions (Figure 12).

On the supply front, as mentioned before, stocks remain comparatively high. Total crude oil and product stocks, estimated at the end of May, were approximately 1.06 billion barrels (excluding the Strategic Petroleum Reserve). This was about a 6 percent increase from end-May 1997 levels. Low winter demand and bargain basement crude oil prices contributed to the relatively high stock levels. U.S. refiners have purchased large amounts of relatively cheap crude oil, run refining operations at high levels, and increased finished product stocks (Figure 13). These supply developments have led to noticeable year-to-date increases in crude oil imports coupled with declines in product imports (Figure 14). This picture is likely to change this summer because refiners will not have capacity to keep the accelerated conversion of imported crude into product during the peak driving periods. Thus, product imports should increase this summer.

The increased level of crude oil imports might have been more noticeable except for developments in domestic production. Crude oil production showed a year-overyear increase for first time since 1991. Average crude oil production during the 1st quarter of 1998 increased by a modest 23,000 barrels per day over the 1st quarter of 1997 (Figure 15). Nevertheless, this was the first year-over-year increase in crude oil production since the stimulus of the Persian Gulf war boosted crude oil prices in late 1990, and crude oil production in 1991. The boost in crude oil production is coming from new developments in Federal offshore oil fields. The Ram-Powell production began in the third quarter 1997, with an accompanying increase of 60,000 barrels per day in early 1998. British Petroleum has purchased Marathon's Troika sub-sea

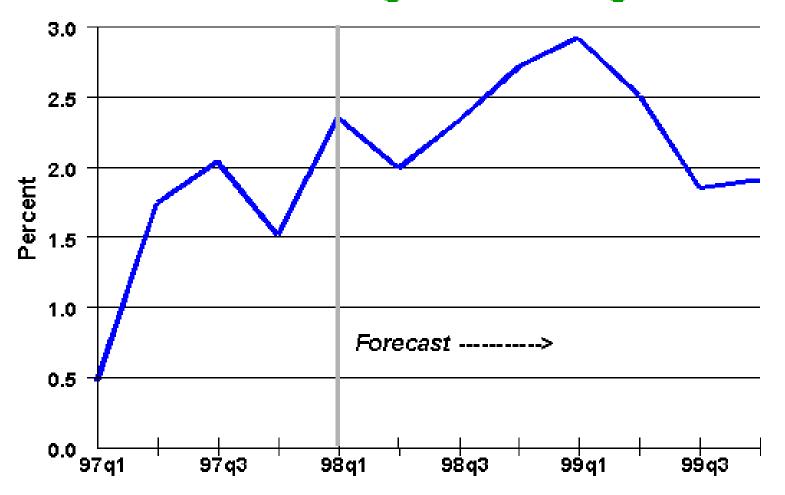
## Figure 10. U.S. Petroleum Demand Change from Previous Forecast





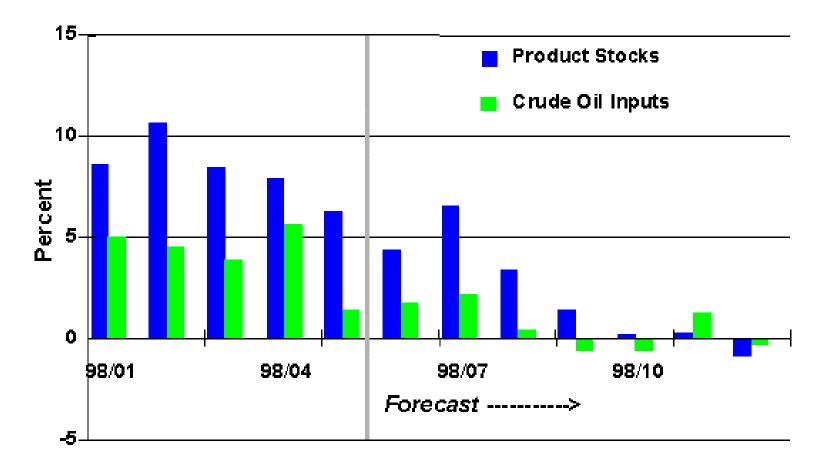
Source: Energy Information Administration, Short-Term Energy Model, June 1998

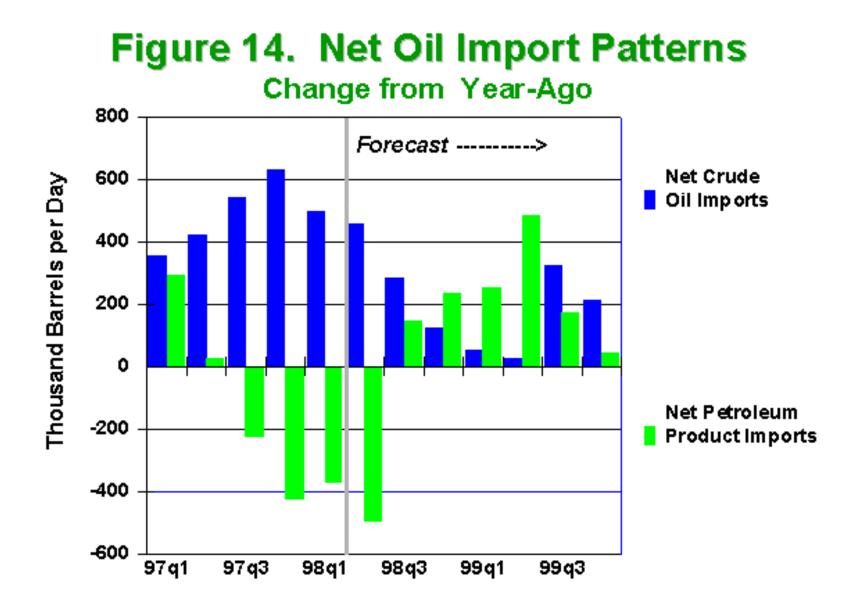
## Figure 12. Quarterly Gasoline Demand Percent Change from Year Ago



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

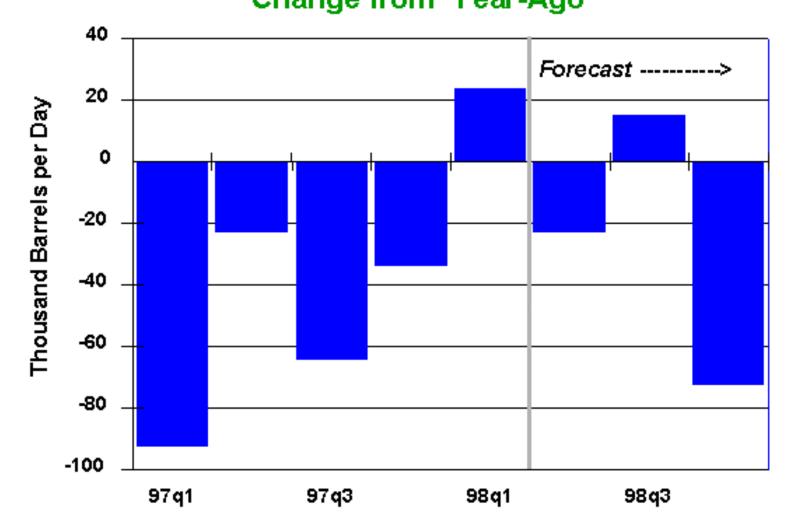
### Figure 13. Petroleum Product Supply Factors Percent Change from Year Ago





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

## Figure 15. U.S. Crude Oil Production Change from Year-Ago



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

project and is producing as of November 1997. This production adds about 80,000 barrels per day in early 1998.

### Natural Gas

Gas inventories ballooned to new year-over-year highs in May (<u>Figure 16</u>) despite only modest improvements in production levels, diluting the chances for much of a wellhead price recovery this summer when utility demand is expected to pick up. We expect the surplus to dry up some by the end of the year, but the remainder of 1998 will probably see higher storage levels than we projected last month (<u>Figure 17</u>). Until fall, we see prices generally falling below earlier projections (<u>Figure 18</u>).

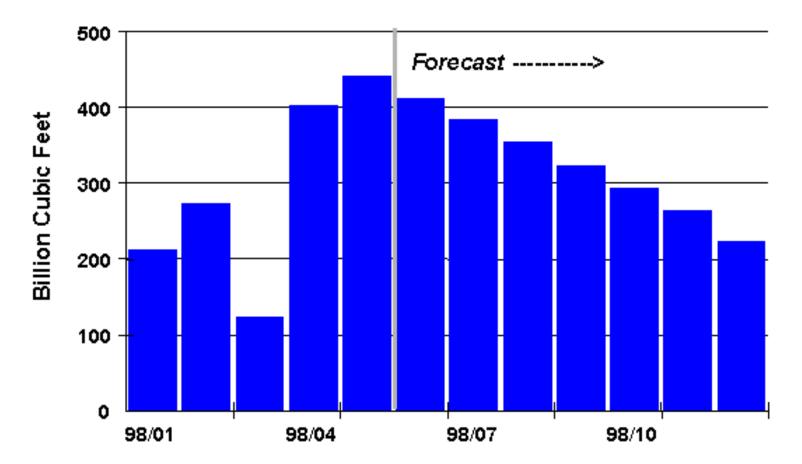
Gas demand is generally expected to be lower than previous projections, mainly because of continued weakness in industrial demand (<u>Figure 19</u>). Nevertheless, while we now see the overall 1998 drop in demand from the 1997 level (of just under 22 trillion cubic feet) to be about 240 billion cubic feet (1.1 percent), the outlook for 1999 growth remains at mammoth proportions at 1.16 trillion cubic feet, or 5.3 percent (<u>Figure 20</u>). The only strength in gas demand this year is due to electric utilities. Next year, a much broader growth profile is likely, particularly if a normal or colder-than-normal winter occurs.

### Electricity

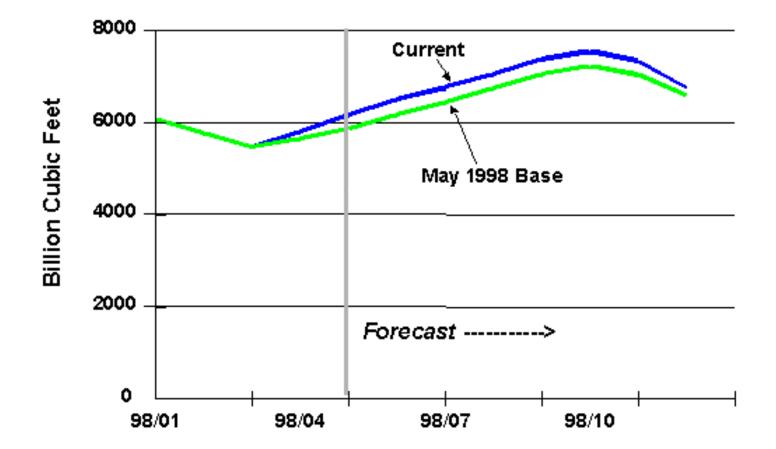
Electricity demand probably took a greater-than-previously-expected upturn in May. Cooling demand undoubtedly reached above-normal levels along with midspring temperatures. U.S. cooling degree-days were about one-third above normal in May, which was more than 50 percent above 1997 levels (Figure 21). Thus, we had an early start to what was already expected to be a hot summer compared to last year. Second quarter electricity sales should show a sharp increase from 1997, even if weather is normal from now on (Figure 22). We have shaved expectations for overall electricity sales later in 1998, however, because of some lower-than expected new historical data for residential and commercial demand and because of continued weakness in "other" electricity demand. Nevertheless, an overall increase in electricity demand of about 2.1 percent is expected this year (concentrated in the spring and summer months), with similar growth expected in 1999 (concentrated largely in the first quarter).

So far (with actual data through March) 1998 is proving to be a down year for hydroelectric power as projected in earlier outlooks. The outlook is for continued reductions in hydroelectric availability this year compared to the high levels of 1997 (<u>Figure 23</u>). The reductions in hydro output would be lead by the Pacific region (California, Washington and Oregon), the largest general region for hydroelectric power in the United States. This development will tend to generate higher gas demand in California (to replace the hydropower generated in the state or imported from the Northwest) which would presumably be largely imported from Canada.

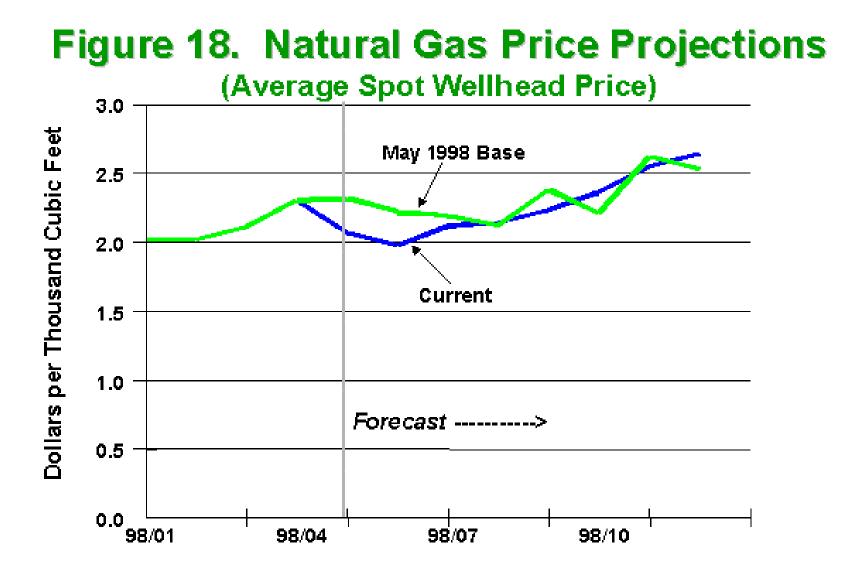
## Figure 16. Natural Gas In Storage Change from Year-Ago



# Figure 17. Gas Storage Projections

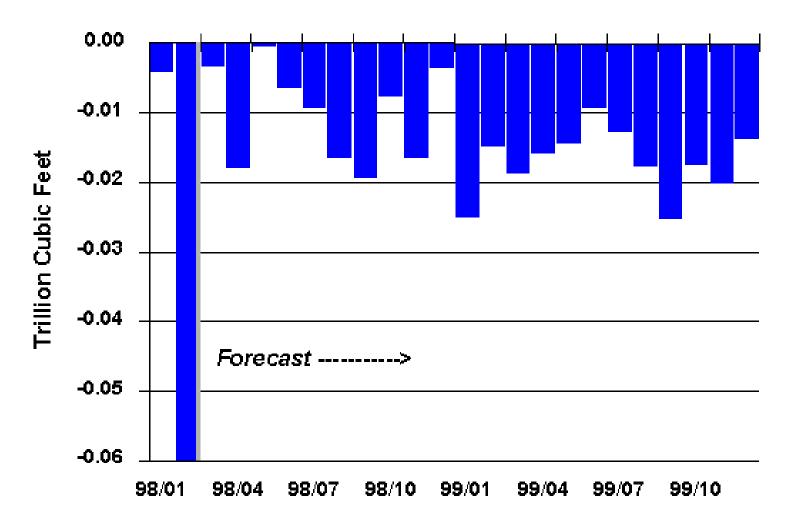


Source: Energy Information Administration, Short-Term Energy Model, June 1998

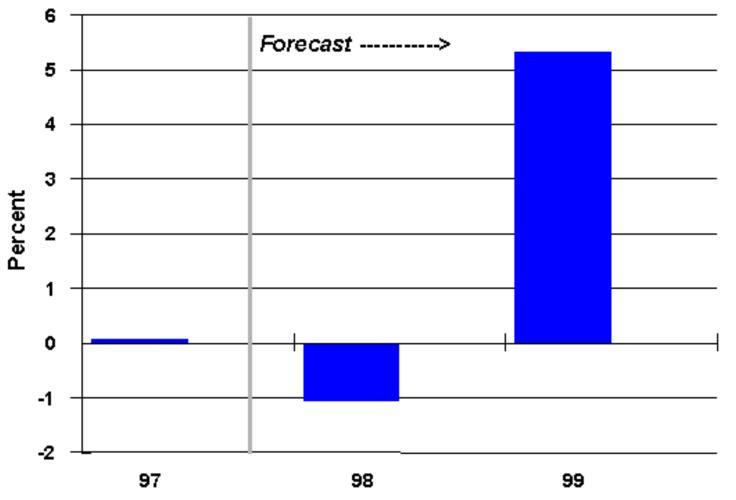


Source: Energy Information Administration, Short-Term Energy Model, June 1998

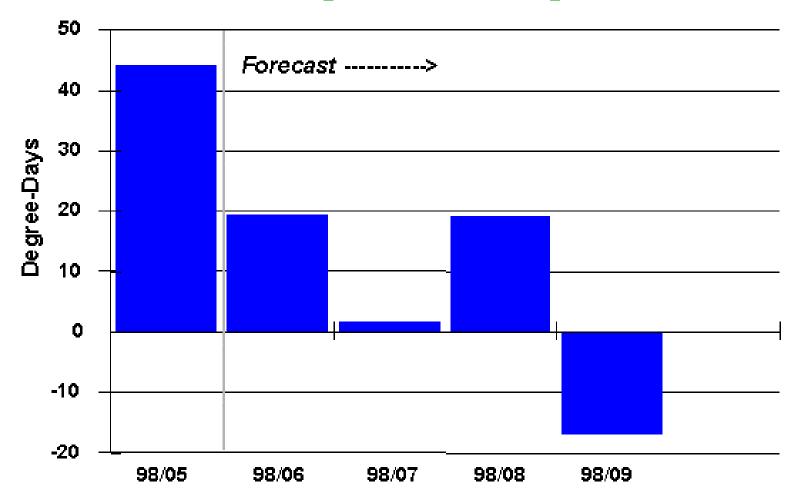
## Figure 19. Natural Gas Demand Change from Previous Forecast

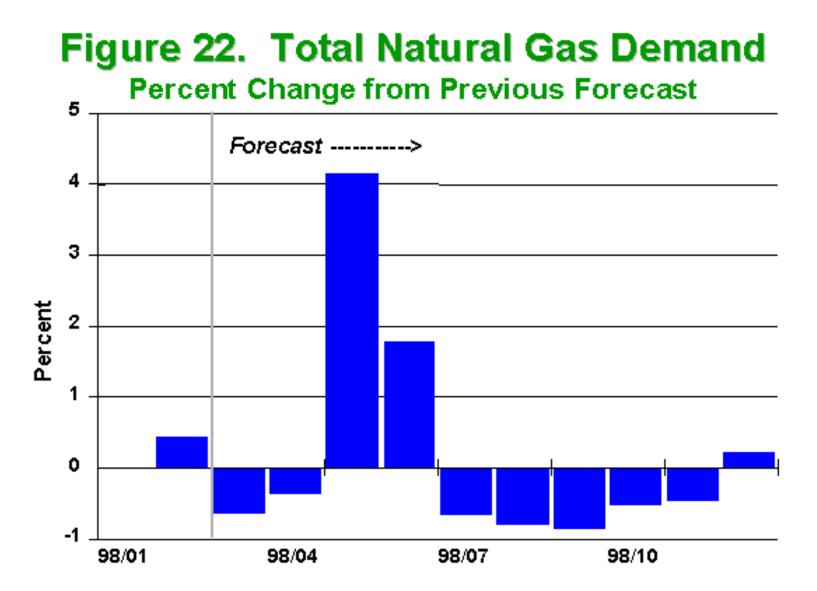


### Figure 20. Annual Natural Gas Demand Growth Percent Change from Year-Ago

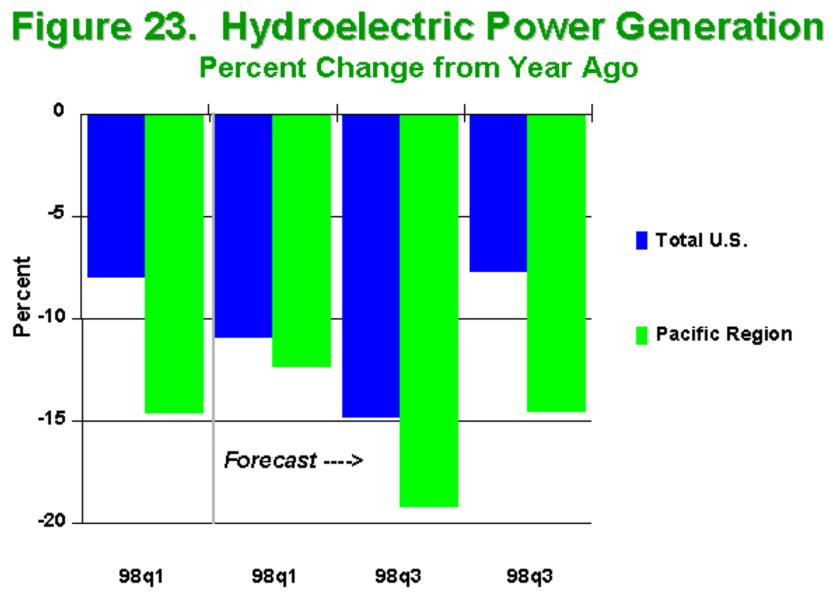


## Figure 21. U.S. Cooling Degree-Days Change from Year-Ago





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



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

|  |       | Year  |       |       | An        | nual Percentage | e Change  |
|--|-------|-------|-------|-------|-----------|-----------------|-----------|
|  | 1996  | 1997  | 1998  | 1999  | 1996-1997 | 1997-1998       | 1998-1999 |
| Real Gross Domestic Product (GDP)              |       |       |       |       |           |                 |           |
| (billion chained 1992 dollars)                 | 6928  | 7191  | 7395  | 7540  | 3.8       | 2.8             | 2.0       |
| Imported Crude Oil Price <sup>a</sup>          |       |       |       |       |           |                 |           |
| (nominal dollars per barrel)                   | 20.61 | 18.58 | 14.00 | 15.27 | -9.8      | -24.7           | 9.1       |
| Petroleum Supply                               |       |       |       |       |           |                 |           |
| Crude Oil Production <sup>b</sup>              | 6.46  | 6.41  | 6.40  | 6.36  | -0.8      | -0.2            | -0.6      |
| Fotal Petroleum Net Imports (including SPR)    |       |       |       |       |           |                 |           |
| million barrels per day)                       | 8.50  | 8.90  | 9.12  | 9.52  | 4.7       | 2.5             | 4.4       |
| Energy Demand                                  |       |       |       |       |           |                 |           |
| Norld Petroleum                                |       |       |       |       |           |                 |           |
| million barrels per day)                       | 71.5  | 73.3  | 75.0  | 77.2  | 2.5       | 2.3             | 2.9       |
| Petroleum                                      |       |       |       |       |           |                 |           |
| million barrels per day)                       | 18.31 | 18.58 | 18.88 | 19.30 | 1.5       | 1.6             | 2.2       |
| Natural Gas                                    |       |       |       |       |           |                 |           |
| (trillion cubic feet)                          | 21.96 | 21.98 | 21.75 | 22.90 | 0.1       | -1.0            | 5.3       |
| Coal   |       |       |       |       |           |                 |           |
| (million short tons)                           | 1006  | 1031  | 1042  | 1075  | 2.5       | 1.1             | 3.2       |
| Electricity (billion kilowatthours)            |       |       |       |       |           |                 |           |
| Utility Sales <sup>c</sup>                     | 3098  | 3115  | 3180  | 3252  | 0.5       | 2.1             | 2.3       |
| Nonutility Own Use <sup>d</sup>                | 164   | 169   | 173   | 178   | 3.0       | 2.4             | 2.9       |
| Total  | 3262  | 3283  | 3353  | 3430  | 0.6       | 2.1             | 2.3       |
| Adjusted Total Energy Demand <sup>e</sup>      |       |       |       |       |           |                 |           |
| (quadrillion Btu)                              | 93.9  | 94.5  | 94.9  | 97.6  | 0.6       | 0.5             | 2.8       |
| Adjusted Total Energy Demand per Dollar of GDP |       |       |       |       |           |                 |           |
| thousand Btu per 1992 Dollar)                  | 13.55 | 13.14 | 12.84 | 12.94 | -3.0      | -2.3            | 0.8       |
| Renewable Energy as Percent of Total           | 7.9   | 7.5   | 7.2   | 2.8   |           |                 |           |

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

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

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

<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 CONTROL0398.

#### 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  |
| Macroeconomic <sup>a</sup>                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Real Gross Domestic Product                 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (billion chained 1992 dollars - SAAR)       | 7102  | 7160  | 7218  | 7283  | 7334  | 7382  | 7414  | 7449  | 7480  | 7513  | 7555  | 7613  | 7191  | 7395  | 7540  |
| Percentage Change from Prior Year           | 4.0   | 3.4   | 3.9   | 3.8   | 3.3   | 3.1   | 2.7   | 2.3   | 2.0   | 1.8   | 1.9   | 2.2   | 3.8   | 2.8   | 2.0   |
| Annualized Percent Change                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| from Prior Quarter                          | 4.8   | 3.3   | 3.2   | 3.6   | 2.8   | 2.6   | 1.7   | 1.9   | 1.7   | 1.8   | 2.2   | 3.0   |       |       |       |
| GDP Implicit Price Deflator                 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (Index, 1992=1.000)                         | 1.118 | 1.123 | 1.127 | 1.131 | 1.135 | 1.141 | 1.147 | 1.152 | 1.158 | 1.163 | 1.168 | 1.174 | 1.125 | 1.144 | 1.166 |
| Percentage Change from Prior Year           | 2.3   | 2.2   | 1.9   | 1.8   | 1.6   | 1.6   | 1.8   | 1.9   | 2.0   | 1.9   | 1.9   | 1.9   | 2.0   | 1.7   | 1.9   |
| Real Disposable Personal Income             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (billion chained 1992 Dollars - SAAR)       | 5161  | 5201  | 5235  | 5292  | 5373  | 5430  | 5462  | 5493  | 5524  | 5554  | 5573  | 5596  | 5222  | 5439  | 5562  |
| Percentage Change from Prior Year           | 2.2   | 2.8   | 2.8   | 3.7   | 4.1   | 4.4   | 4.3   | 3.8   | 2.8   | 2.3   | 2.0   | 1.9   | 2.9   | 4.2   | 2.3   |
| Manufacturing Production                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (Index, 1992=1.000)                         | 1.243 | 1.257 | 1.276 | 1.301 | 1.315 | 1.326 | 1.329 | 1.333 | 1.336 | 1.344 | 1.354 | 1.367 | 1.269 | 1.326 | 1.350 |
| Percentage Change from Prior Year           | 5.8   | 5.0   | 5.3   | 6.3   | 5.8   | 5.5   | 4.2   | 2.5   | 1.6   | 1.3   | 1.8   | 2.6   | 5.6   | 4.5   | 1.8   |
| OECD Economic Growth (percent) <sup>b</sup> |       |       |       |       |       |       |       |       |       |       |       |       | 3.1   | 2.7   | 2.4   |
| Weather <sup>c</sup>                        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating Degree-Days                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| U.S.  | 2156  | 635   | 86    | 1692  | 1975  | 493   | 89    | 1636  | 2327  | 524   | 89    | 1636  | 4569  | 4192  | 4576  |
| New England                                 | 3108  | 1047  | 172   | 2329  | 2779  | 811   | 171   | 2269  | 3267  | 915   | 171   | 2269  | 6656  | 6030  | 6621  |
| Middle Atlantic                             | 2777  | 866   | 121   | 2070  | 2428  | 612   | 105   | 2026  | 2993  | 716   | 105   | 2026  | 5834  | 5172  | 5839  |
| U.S. Gas-Weighted                           | 2275  | 711   | 127   | 1773  | 2078  | 518   | 81    | 1686  | 2426  | 539   | 81    | 1686  | 4886  | 4363  | 4732  |
| Cooling Degree-Days (U.S.)                  | 50    | 289   | 754   | 68    | 24    | 352   | 758   | 72    | 30    | 334   | 758   | 72    | 1161  | 1206  | 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 CONTROL0398.

|                                     |       | 1997  |       |       |       | 1998  |       |       |       | 1999  |       |       |        | Year   |        |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|                                     | 1st   | 2nd   | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1997   | 1998   | 1999   |
| Macroeconomic <sup>a</sup>          |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Real Fixed Investment               |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (billion chained 1992 dollars-SAAR) | 1079  | 1111  | 1148  | 1149  | 1180  | 1200  | 1218  | 1227  | 1235  | 1247  | 1256  | 1269  | 1122   | 1206   | 1252   |
| Real Exchange Rate                  |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index)                             | 1.085 | 1.096 | 1.106 | 1.117 | 1.137 | 1.132 | 1.121 | 1.096 | 1.065 | 1.054 | 1.044 | 1.037 | 1.101  | 1.121  | 1.050  |
| Business Inventory Change           |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (billion chained 1992 dollars-SAAR) | 20.9  | 29.0  | 16.9  | 22.3  | 12.8  | 7.7   | 0.8   | -0.5  | -1.0  | -0.4  | 0.9   | 4.4   | 22.2   | 5.2    | 1.0    |
| Producer Price Index                |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1982=1.000)                 | 1.285 | 1.268 | 1.272 | 1.274 | 1.253 | 1.253 | 1.255 | 1.261 | 1.266 | 1.269 | 1.272 | 1.275 | 1.275  | 1.256  | 1.271  |
| Consumer Price Index                |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1982-1984=1.000)            | 1.597 | 1.601 | 1.609 | 1.617 | 1.621 | 1.626 | 1.635 | 1.645 | 1.656 | 1.667 | 1.677 | 1.688 | 1.606  | 1.632  | 1.672  |
| Petroleum Product Price Index       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1982=1.000)                 | 0.722 | 0.675 | 0.669 | 0.654 | 0.542 | 0.523 | 0.555 | 0.572 | 0.584 | 0.586 | 0.589 | 0.584 | 0.680  | 0.548  | 0.586  |
| Non-Farm Employment                 |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (millions)                          | 121.1 | 121.9 | 122.6 | 123.5 | 124.5 | 125.2 | 125.8 | 126.2 | 126.5 | 126.8 | 127.1 | 127.4 | 122.3  | 125.4  | 127.0  |
| Commercial Employment               |       |       |       |       | ~ ~ . |       | ~~ -  |       |       |       |       | ~~ -  |        |        |        |
| (millions)                          | 82.5  | 83.2  | 83.7  | 84.5  | 85.4  | 86.1  | 86.7  | 87.2  | 87.6  | 87.9  | 88.2  | 88.5  | 83.5   | 86.3   | 88.0   |
| Total Industrial Production         |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1992=1.000)                 | 1.220 | 1.233 | 1.251 | 1.273 | 1.284 | 1.295 | 1.298 | 1.301 | 1.304 | 1.311 | 1.320 | 1.333 | 1.244  | 1.295  | 1.317  |
| Housing Stock                       |       |       |       |       | 440.0 |       |       |       |       |       | 445.0 | 440.0 |        |        | 445 7  |
| (millions)                          | 112.1 | 112.5 | 112.9 | 113.3 | 113.6 | 114.0 | 114.4 | 114.8 | 115.1 | 115.5 | 115.9 | 116.2 | 112.7  | 114.2  | 115.7  |
| Miscellaneous                       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Gas Weighted Industrial Production  |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1992=1.000)                 | 1.140 | 1.152 | 1.155 | 1.169 | 1.181 | 1.188 | 1.193 | 1.195 | 1.197 | 1.202 | 1.209 | 1.219 | 1.154  | 1.189  | 1.207  |
| Vehicle Miles Traveled <sup>b</sup> |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (million miles/day)                 | 6463  | 7138  | 7310  | 6824  | 6594  | 7336  | 7557  | 7076  | 6847  | 7599  | 7750  | 7256  | 6936   | 7143   | 7365   |
| Vehicle Fuel Efficiency             |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1996=1.000)                 | 1.037 | 0.998 | 0.996 | 1.003 | 1.034 | 1.006 | 1.006 | 1.012 | 1.043 | 1.016 | 1.013 | 1.018 | 1.008  | 1.014  | 1.022  |
| Real Vehicle Fuel Cost              |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (cents per mile)                    | 3.94  | 3.73  | 3.69  | 3.71  | 3.35  | 3.21  | 3.25  | 3.38  | 3.38  | 3.37  | 3.30  | 3.35  | 3.77   | 3.30   | 3.35   |
| Air Travel Capacity                 |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (mill. available ton-miles/day)     | 402.1 | 417.2 | 434.1 | 427.7 | 420.2 | 439.7 | 461.0 | 450.0 | 445.3 | 465.5 | 482.1 | 471.4 | 420.4  | 442.9  | 466.2  |
| Aircraft Utilization                |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (mill. revenue ton-miles/day)       | 230.5 | 248.0 | 260.7 | 247.2 | 235.6 | 260.4 | 274.2 | 257.1 | 253.0 | 269.5 | 284.4 | 269.5 | 246.7  | 256.9  | 269.2  |
| Airline Ticket Price Index          |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (index, 1982-1984=1.000)            | 1.975 | 2.016 | 1.985 | 1.993 | 2.058 | 2.090 | 2.093 | 2.124 | 2.161 | 2.176 | 2.181 | 2.213 | 1.992  | 2.091  | 2.183  |
| Raw Steel Production                |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| (millions tons)                     | 26.47 | 26.59 | 26.52 | 27.69 | 28.58 | 28.61 | 28.45 | 29.04 | 29.51 | 29.39 | 29.03 | 29.75 | 106.97 | 114.68 | 117.69 |

<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 CONTROL0398.

#### 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 |
| Demand <sup>a</sup>                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| OECD                                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S. (50 States)                       | 18.2 | 18.5 | 18.7 | 18.9 | 18.3 | 18.7 | 19.1 | 19.4 | 19.2 | 19.0 | 19.4 | 19.6 | 18.6 | 18.9 | 19.3 |
| U.S. Territories                       | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| Canada                                 | 1.8  | 1.8  | 1.9  | 1.9  | 1.9  | 1.9  | 2.0  | 2.0  | 2.0  | 2.0  | 2.1  | 2.0  | 1.9  | 1.9  | 2.0  |
| Europe                                 | 14.3 | 14.2 | 14.4 | 14.8 | 14.5 | 14.3 | 14.6 | 14.9 | 14.7 | 14.6 | 14.8 | 15.2 | 14.4 | 14.6 | 14.8 |
| Japan                                  | 6.4  | 5.2  | 5.4  | 5.9  | 6.4  | 5.2  | 5.4  | 5.9  | 6.4  | 5.2  | 5.5  | 5.9  | 5.7  | 5.7  | 5.8  |
| Australia and New Zealand              | 0.9  | 0.9  | 0.9  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 0.9  | 1.0  | 1.0  |
| Total OECD                             | 41.9 | 40.7 | 41.5 | 42.7 | 42.3 | 41.2 | 42.3 | 43.3 | 43.5 | 42.0 | 42.9 | 44.0 | 41.7 | 42.3 | 43.1 |
| Non-OECD                               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Former Soviet Union                    | 4.7  | 4.3  | 4.3  | 4.7  | 4.9  | 4.5  | 4.5  | 4.9  | 5.1  | 4.7  | 4.7  | 5.1  | 4.5  | 4.7  | 4.9  |
| Europe                                 | 1.5  | 1.3  | 1.3  | 1.4  | 1.6  | 1.4  | 1.4  | 1.5  | 1.7  | 1.5  | 1.5  | 1.6  | 1.4  | 1.5  | 1.6  |
| China                                  | 3.8  | 3.9  | 3.9  | 4.0  | 4.1  | 4.1  | 4.2  | 4.2  | 4.4  | 4.4  | 4.5  | 4.5  | 3.9  | 4.2  | 4.4  |
| Other Asia                             | 9.0  | 8.7  | 8.2  | 9.2  | 9.2  | 8.8  | 8.4  | 9.5  | 9.5  | 9.2  | 8.8  | 10.1 | 8.8  | 9.0  | 9.4  |
| Other Non-OECD                         | 12.8 | 13.1 | 12.8 | 13.1 | 13.2 | 13.6 | 13.3 | 13.5 | 13.6 | 14.0 | 13.7 | 13.9 | 13.0 | 13.4 | 13.8 |
| Total Non-OECD                         | 31.9 | 31.4 | 30.6 | 32.5 | 33.0 | 32.5 | 31.7 | 33.7 | 34.3 | 33.8 | 33.1 | 35.3 | 31.6 | 32.7 | 34.1 |
| Total World Demand                     | 73.8 | 72.1 | 72.1 | 75.1 | 75.3 | 73.7 | 74.0 | 77.1 | 77.8 | 75.8 | 76.1 | 79.3 | 73.3 | 75.0 | 77.2 |
| Supply <sup>b</sup>                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| OECD                                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S. (50 States)                       | 9.4  | 9.4  | 9.4  | 9.5  | 9.5  | 9.4  | 9.4  | 9.4  | 9.4  | 9.4  | 9.5  | 9.5  | 9.4  | 9.5  | 9.5  |
| Canada                                 | 2.6  | 2.5  | 2.6  | 2.7  | 2.7  | 2.7  | 2.7  | 2.7  | 2.7  | 2.7  | 2.8  | 2.8  | 2.6  | 2.7  | 2.7  |
| North Sea <sup>c</sup>                 | 6.5  | 6.1  | 6.0  | 6.5  | 6.4  | 6.3  | 6.3  | 6.6  | 6.8  | 6.6  | 6.9  | 7.2  | 6.2  | 6.4  | 6.9  |
| Other OECD                             | 1.6  | 1.6  | 1.6  | 1.6  | 1.6  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.6  | 1.7  | 1.7  |
| Total OECD                             | 20.1 | 19.6 | 19.6 | 20.3 | 20.2 | 20.0 | 20.1 | 20.5 | 20.6 | 20.5 | 20.9 | 21.2 | 19.9 | 20.2 | 20.8 |
| Non-OECD                               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| OPEC                                   | 29.5 | 29.7 | 30.1 | 30.3 | 30.8 | 30.2 | 30.1 | 30.4 | 30.7 | 30.7 | 31.0 | 31.1 | 29.9 | 30.3 | 30.9 |
| Former Soviet Union                    | 7.0  | 7.1  | 7.2  | 7.2  | 7.3  | 7.3  | 7.3  | 7.4  | 7.4  | 7.4  | 7.4  | 7.5  | 7.1  | 7.3  | 7.4  |
| China                                  | 3.2  | 3.2  | 3.2  | 3.1  | 3.2  | 3.3  | 3.3  | 3.3  | 3.3  | 3.3  | 3.3  | 3.3  | 3.2  | 3.2  | 3.3  |
| Mexico                                 | 3.4  | 3.4  | 3.5  | 3.5  | 3.6  | 3.5  | 3.4  | 3.4  | 3.5  | 3.6  | 3.6  | 3.6  | 3.4  | 3.4  | 3.5  |
| Other Non-OECD                         | 10.4 | 10.5 | 10.4 | 10.5 | 10.6 | 10.7 | 10.8 | 11.0 | 11.1 | 11.3 | 11.4 | 11.6 | 10.4 | 10.8 | 11.3 |
| Total Non-OECD                         | 53.5 | 53.9 | 54.3 | 54.7 | 55.4 | 54.9 | 54.8 | 55.3 | 55.9 | 56.2 | 56.6 | 57.0 | 54.1 | 55.1 | 56.4 |
| Total World Supply                     | 73.6 | 73.5 | 74.0 | 75.0 | 75.6 | 74.9 | 74.9 | 75.8 | 76.5 | 76.7 | 77.4 | 78.2 | 74.0 | 75.3 | 77.2 |
| Stock Changes                          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Net Stock Withdrawals or Additions (-) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S. (50 States including SPR)         | -0.1 | -0.7 | -0.2 | 0.3  | -0.3 | -0.5 | 0.0  | 0.6  | 0.4  | -0.5 | -0.3 | 0.5  | -0.1 | 0.0  | 0.0  |
| Other                                  | 0.2  | -0.7 | -1.6 | -0.2 | 0.0  | -0.8 | -0.9 | 0.6  | 0.9  | -0.4 | -1.1 | 0.5  | -0.6 | -0.3 | 0.0  |
| Total Stock Withdrawals                | 0.1  | -1.4 | -1.8 | 0.1  | -0.3 | -1.3 | -0.9 | 1.3  | 1.3  | -0.9 | -1.4 | 1.1  | -0.7 | -0.3 | 0.0  |
| OECD Comm. Stocks, End (bill. bbls.)   | 2.7  | 2.7  | 2.8  | 2.8  | 2.8  | 2.9  | 2.9  | 2.8  | 2.7  | 2.8  | 2.9  | 2.8  | 2.8  | 2.8  | 2.8  |
| Non-OPEC Supply                        | 44.1 | 43.8 | 43.9 | 44.6 | 44.8 | 44.8 | 44.8 | 45.4 | 45.8 | 46.0 | 46.5 | 47.1 | 44.1 | 45.0 | 46.3 |
| Net Exports from Former Soviet Union   | 2.3  | 2.8  | 2.9  | 2.4  | 2.4  | 2.8  | 2.8  | 2.4  | 2.2  | 2.7  | 2.7  | 2.3  | 2.6  | 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, 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  |
| Imported Crude Oil <sup>a</sup>          |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per barrel)                     | 21.03  | 17.93 | 17.80 | 17.77 | 13.48 | 13.34 | 14.25 | 14.91 | 15.17 | 15.33 | 15.33 | 15.25 | 18.58 | 14.00 | 15.27 |
| Natural Gas Wellhead                     |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per thousand cubic feet)        | 2.49   | 1.84  | 2.02  | 2.54  | 1.83  | 2.06  | 2.09  | 2.41  | 2.32  | 2.02  | 2.09  | 2.39  | 2.23  | 2.10  | 2.21  |
| Petroleum Products                       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Gasoline Retail b (dollars per g         | allon) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Grades                               | 1.27   | 1.24  | 1.25  | 1.21  | 1.10  | 1.10  | 1.14  | 1.13  | 1.14  | 1.19  | 1.19  | 1.16  | 1.24  | 1.12  | 1.17  |
| Regular Unleaded                         | 1.22   | 1.20  | 1.21  | 1.17  | 1.05  | 1.06  | 1.09  | 1.07  | 1.07  | 1.13  | 1.12  | 1.08  | 1.20  | 1.07  | 1.10  |
| No. 2 Diesel Oil, Retail                 |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per gallon)                     | 1.25   | 1.18  | 1.15  | 1.17  | 1.08  | 1.06  | 1.07  | 1.11  | 1.11  | 1.10  | 1.10  | 1.13  | 1.19  | 1.08  | 1.11  |
| No. 2 Heating Oil, Wholesale             |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per gallon)                     | 0.65   | 0.57  | 0.54  | 0.57  | 0.47  | 0.45  | 0.48  | 0.53  | 0.55  | 0.51  | 0.52  | 0.55  | 0.59  | 0.49  | 0.53  |
| No. 2 Heating Oil, Retail                |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per gallon)                     | 1.05   | 0.97  | 0.88  | 0.93  | 0.92  | 0.84  | 0.81  | 0.89  | 0.94  | 0.90  | 0.85  | 0.91  | 0.99  | 0.89  | 0.92  |
| No. 6 Residual Fuel Oil, Retail $^\circ$ |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per barrel)                     | 19.00  | 16.84 | 17.04 | 18.16 | 13.56 | 12.55 | 13.37 | 14.52 | 15.23 | 13.97 | 13.67 | 14.89 | 17.80 | 13.50 | 14.46 |
| Electric Utility Fuels                   |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Coal                                     |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per million Btu)                | 1.29   | 1.28  | 1.26  | 1.26  | 1.26  | 1.28  | 1.26  | 1.25  | 1.26  | 1.27  | 1.24  | 1.24  | 1.27  | 1.26  | 1.25  |
| Heavy Fuel Oil <sup>d</sup>              |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per million Btu)                | 2.91   | 2.59  | 2.71  | 2.91  | 2.11  | 2.06  | 2.18  | 2.39  | 2.43  | 2.28  | 2.23  | 2.45  | 2.79  | 2.18  | 2.34  |
| Natural Gas                              |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per million Btu)                | 3.10   | 2.46  | 2.60  | 3.15  | 2.63  | 2.58  | 2.57  | 2.85  | 2.92  | 2.58  | 2.59  | 2.92  | 2.76  | 2.64  | 2.71  |
| Other Residential                        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Natural Gas                              |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (dollars per thousand cubic feet)        | 6.67   | 6.90  | 8.57  | 6.80  | 6.48  | 6.83  | 8.12  | 6.55  | 6.61  | 7.22  | 8.35  | 6.74  | 6.89  | 6.69  | 6.87  |
| Electricity                              |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (cents per kilowatthour)                 | 8.04   | 8.69  | 8.79  | 8.31  | 7.95  | 8.51  | 8.73  | 8.24  | 7.88  | 8.49  | 8.75  | 8.25  | 8.46  | 8.37  | 8.35  |

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

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

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

<sup>d</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices. Notes: 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)

|   |       |             |       |       | 1998  |       |       |       | 1999  |       |       |       | Year  |       |       |
|---|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|   | 1st   | 1997<br>2nd | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1997  | 1998  | 1999  |
| Supply  |       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Crude Oil Supply                                  |       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Domestic Production <sup>a</sup>                  | 6.45  | 6.41        | 6.33  | 6.45  | 6.48  | 6.39  | 6.34  | 6.38  | 6.34  | 6.34  | 6.35  | 6.43  | 6.41  | 6.40  | 6.36  |
| Alaska  | 1.36  | 1.30        | 1.24  | 1.28  | 1.23  | 1.16  | 1.16  | 1.23  | 1.23  | 1.19  | 1.16  | 1.19  | 1.30  | 1.19  | 1.19  |
| Lower 48  | 5.09  | 5.11        | 5.09  | 5.17  | 5.25  | 5.22  | 5.18  | 5.15  | 5.11  | 5.15  | 5.19  | 5.24  | 5.12  | 5.20  | 5.17  |
| Net Imports (including SPR) <sup>b</sup>          | 7.32  | 8.11        | 8.17  | 7.95  | 7.81  | 8.56  | 8.45  | 8.08  | 7.87  | 8.59  | 8.77  | 8.29  | 7.89  | 8.23  | 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  |
| SPR Stock Withdrawn or Added (-)                  | 0.03  | 0.00        | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.01  | 0.00  | 0.00  |
| Other Stock Withdrawn or Added (-)                | -0.34 | -0.08       | 0.20  | -0.02 | -0.35 | -0.13 | 0.18  | 0.07  | -0.03 | 0.01  | 0.08  | 0.02  | -0.06 | -0.06 | 0.02  |
| Product Supplied and Losses                       | 0.00  | 0.00        | 0.00  | 0.00  | 0.00  | 0.00  | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 | 0.00  | 0.00  | -0.01 |
| Unaccounted-for Crude Oil                         | 0.24  | 0.41        | 0.46  | 0.39  | 0.38  | 0.45  | 0.29  | 0.28  | 0.27  | 0.29  | 0.29  | 0.29  | 0.38  | 0.35  | 0.29  |
| Total Crude Oil Supply                            | 13.71 | 14.84       | 15.16 | 14.78 | 14.32 | 15.26 | 15.26 | 14.80 | 14.45 | 15.22 | 15.49 | 15.02 | 14.63 | 14.91 | 15.05 |
| Other Supply                                      |       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |
| NGL Production                                    | 1.87  | 1.84        | 1.86  | 1.80  | 1.85  | 1.87  | 1.88  | 1.87  | 1.90  | 1.89  | 1.88  | 1.88  | 1.84  | 1.86  | 1.89  |
| Other Hydrocarbon and Alcohol Inputs              | 0.31  | 0.34        | 0.36  | 0.35  | 0.34  | 0.33  | 0.34  | 0.35  | 0.36  | 0.34  | 0.35  | 0.36  | 0.34  | 0.34  | 0.35  |
| Crude Oil Product Supplied                        | 0.00  | 0.00        | 0.00  | 0.00  | 0.00  | 0.00  | 0.01  | 0.01  | 0.01  | 0.01  | 0.01  | 0.01  | 0.00  | 0.00  | 0.01  |
| Processing Gain                                   | 0.78  | 0.84        | 0.87  | 0.90  | 0.83  | 0.85  | 0.87  | 0.84  | 0.81  | 0.87  | 0.89  | 0.86  | 0.85  | 0.85  | 0.86  |
| Net Product Imports <sup>c</sup>                  | 1.30  | 1.22        | 0.82  | 0.73  | 0.93  | 0.72  | 0.97  | 0.97  | 1.18  | 1.20  | 1.15  | 1.01  | 1.02  | 0.90  | 1.13  |
| Product Stock Withdrawn or Added (-) <sup>d</sup> | 0.26  | -0.63       | -0.38 | 0.36  | 0.05  | -0.36 | -0.17 | 0.55  | 0.45  | -0.50 | -0.38 | 0.51  | -0.10 | 0.02  | 0.02  |
| Total Supply                                      | 18.23 | 18.46       | 18.69 | 18.92 | 18.32 | 18.67 | 19.15 | 19.38 | 19.16 | 19.02 | 19.38 | 19.64 | 18.58 | 18.88 | 19.30 |
| Demand  |       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Motor Gasoline                                    | 7.59  | 8.15        | 8.23  | 8.05  | 7.77  | 8.31  | 8.42  | 8.27  | 7.99  | 8.52  | 8.57  | 8.43  | 8.01  | 8.20  | 8.38  |
| Jet Fuel  | 1.57  | 1.56        | 1.65  | 1.61  | 1.55  | 1.54  | 1.68  | 1.70  | 1.65  | 1.61  | 1.71  | 1.73  | 1.60  | 1.62  | 1.67  |
| Distillate Fuel Oil                               | 3.58  | 3.33        | 3.23  | 3.58  | 3.58  | 3.36  | 3.35  | 3.60  | 3.85  | 3.45  | 3.39  | 3.65  | 3.43  | 3.47  | 3.59  |
| Residual Fuel Oil                                 | 0.90  | 0.77        | 0.77  | 0.75  | 0.81  | 0.87  | 0.84  | 0.87  | 0.94  | 0.83  | 0.83  | 0.87  | 0.80  | 0.85  | 0.87  |
| Other Oils <sup>e</sup>                           | 4.61  | 4.65        | 4.81  | 4.93  | 4.62  | 4.58  | 4.87  | 4.93  | 4.72  | 4.60  | 4.86  | 4.96  | 4.75  | 4.75  | 4.79  |
| Total Demand                                      | 18.24 | 18.46       | 18.69 | 18.93 | 18.32 | 18.66 | 19.15 | 19.38 | 19.16 | 19.02 | 19.38 | 19.64 | 18.58 | 18.88 | 19.30 |
| Total Petroleum Net Imports                       | 8.62  | 9.32        | 8.99  | 8.68  | 8.74  | 9.28  | 9.42  | 9.04  | 9.04  | 9.79  | 9.92  | 9.30  | 8.90  | 9.12  | 9.52  |
| Closing Stocks (million barrels)                  |       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Crude Oil (excluding SPR)                         | 314   | 322         | 303   | 305   | 336   | 349   | 332   | 326   | 329   | 328   | 320   | 318   | 305   | 326   | 318   |
| Total Motor Gasoline                              | 200   | 205         | 199   | 210   | 215   | 216   | 208   | 205   | 208   | 202   | 202   | 200   | 210   | 205   | 200   |
| Finished Motor Gasoline                           | 154   | 164         | 158   | 166   | 166   | 168   | 162   | 161   | 164   | 161   | 161   | 159   | 166   | 161   | 159   |
| Blending Components                               | 46    | 41          | 41    | 44    | 49    | 47    | 45    | 43    | 45    | 41    | 42    | 41    | 44    | 43    | 41    |
| Jet Fuel  | 39    | 43          | 45    | 44    | 43    | 43    | 41    | 41    | 43    | 44    | 46    | 45    | 44    | 41    | 45    |
| Distillate Fuel Oil                               | 102   | 118         | 139   | 139   | 124   | 131   | 141   | 138   | 101   | 112   | 130   | 133   | 139   | 138   | 133   |
| Residual Fuel Oil                                 | 41    | 39          | 35    | 40    | 41    | 39    | 38    | 42    | 36    | 39    | 39    | 42    | 40    | 42    | 42    |
| Other Oils <sup>e</sup>                           | 253   | 286         | 309   | 261   | 265   | 294   | 309   | 262   | 259   | 295   | 310   | 261   | 261   | 262   | 261   |
| Total Stocks (excluding SPR)                      | 949   | 1013        | 1030  | 998   | 1025  | 1070  | 1069  | 1013  | 975   | 1020  | 1047  | 998   | 998   | 1013  | 998   |
| Crude Oil in SPR                                  | 563   | 563         | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   | 563   |
| Total Stocks (including SPR)                      | 1512  | 1577        | 1594  | 1562  | 1588  | 1633  | 1633  | 1576  | 1538  | 1583  | 1610  | 1562  | 1562  | 1576  | 1562  |

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

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

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

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

distillate, and residual fuel oil.

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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

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

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

(Percent Deviation Base Case)

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

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

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

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

<sup>e</sup>Refers to percent changes in degree-days.

<sup>1</sup>Response during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days. Response during the spring/summer period refers to change in cooling degree-days.

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

(Million Barrels per Day)

|                 |                    |                   |       | Difference  |              |
|-----------------|--------------------|-------------------|-------|-------------|--------------|
|                 | High<br>Price Case | Low<br>Price Case | Total | Uncertainty | Price Impact |
| United States   | 6.61               | 6.07              | 0.54  | 0.11        | 0.43         |
| Lower 48 States | 5.39               | 4.91              | 0.48  | 0.08        | 0.40         |
| Alaska          | 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.

| i                               |      | 1997  |       |       |      | 1998  |       |       |      | 1999  |       |       |       | Year  |       |
|---------------------------------|------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
|                                 | 1st  | 2nd   | 3rd   | 4th   | 1st  | 2nd   | 3rd   | 4th   | 1st  | 2nd   | 3rd   | 4th   | 1997  | 1998  | 1999  |
| Supply                          |      |       |       |       |      |       |       |       |      |       |       |       |       |       |       |
| Total Dry Gas Production        | 4.74 | 4.70  | 4.72  | 4.76  | 4.75 | 4.75  | 4.78  | 4.85  | 4.84 | 4.81  | 4.84  | 4.91  | 18.92 | 19.12 | 19.40 |
| Net Imports                     | 0.74 | 0.68  | 0.68  | 0.73  | 0.75 | 0.74  | 0.75  | 0.82  | 0.82 | 0.80  | 0.81  | 0.87  | 2.83  | 3.06  | 3.30  |
| Supplemental Gaseous Fuels      | 0.03 | 0.03  | 0.02  | 0.03  | 0.03 | 0.03  | 0.03  | 0.03  | 0.04 | 0.03  | 0.03  | 0.03  | 0.12  | 0.12  | 0.13  |
| Total New Supply                | 5.51 | 5.40  | 5.43  | 5.53  | 5.53 | 5.51  | 5.56  | 5.70  | 5.70 | 5.64  | 5.68  | 5.82  | 21.87 | 22.30 | 22.83 |
| Underground Working Gas Storage |      |       |       |       |      |       |       |       |      |       |       |       |       |       |       |
| Opening                         | 6.51 | 5.34  | 6.09  | 7.03  | 6.52 | 5.46  | 6.50  | 7.36  | 6.74 | 5.46  | 6.28  | 7.13  | 6.51  | 6.52  | 6.74  |
| Closing                         | 5.34 | 6.09  | 7.03  | 6.52  | 5.46 | 6.50  | 7.36  | 6.74  | 5.46 | 6.28  | 7.13  | 6.52  | 6.52  | 6.74  | 6.52  |
| Net Withdrawals                 | 1.18 | -0.75 | -0.95 | 0.51  | 1.06 | -1.04 | -0.86 | 0.61  | 1.28 | -0.82 | -0.85 | 0.61  | -0.01 | -0.22 | 0.22  |
| Total Supply                    | 6.68 | 4.65  | 4.48  | 6.04  | 6.59 | 4.48  | 4.70  | 6.31  | 6.99 | 4.82  | 4.82  | 6.43  | 21.86 | 22.08 | 23.05 |
| Balancing Item <sup>a</sup>     | 0.20 | 0.18  | 0.05  | -0.32 | 0.00 | 0.36  | -0.20 | -0.50 | 0.39 | 0.17  | -0.20 | -0.51 | 0.11  | -0.34 | -0.15 |
| Total Primary Supply            | 6.88 | 4.84  | 4.53  | 5.73  | 6.59 | 4.84  | 4.51  | 5.81  | 7.37 | 4.99  | 4.62  | 5.92  | 21.98 | 21.75 | 22.90 |
| Demand                          |      |       |       |       |      |       |       |       |      |       |       |       |       |       |       |
| Lease and Plant Fuel            | 0.31 | 0.31  | 0.31  | 0.31  | 0.31 | 0.30  | 0.31  | 0.31  | 0.31 | 0.31  | 0.31  | 0.32  | 1.24  | 1.23  | 1.24  |
| Pipeline Use                    | 0.22 | 0.16  | 0.15  | 0.19  | 0.21 | 0.14  | 0.14  | 0.18  | 0.22 | 0.15  | 0.14  | 0.18  | 0.71  | 0.67  | 0.69  |
| Residential                     | 2.28 | 0.88  | 0.38  | 1.47  | 2.10 | 0.84  | 0.36  | 1.40  | 2.46 | 0.85  | 0.36  | 1.42  | 5.01  | 4.70  | 5.09  |
| Commercial                      | 1.28 | 0.64  | 0.45  | 0.92  | 1.22 | 0.63  | 0.43  | 0.93  | 1.44 | 0.65  | 0.44  | 0.94  | 3.28  | 3.22  | 3.47  |
| Industrial (Incl. Cogenerators) | 2.28 | 2.08  | 2.05  | 2.17  | 2.20 | 2.06  | 2.07  | 2.31  | 2.37 | 2.14  | 2.12  | 2.37  | 8.58  | 8.65  | 9.00  |
| Cogenerators                    | 0.53 | 0.57  | 0.57  | 0.64  | 0.58 | 0.55  | 0.60  | 0.68  | 0.60 | 0.57  | 0.62  | 0.70  | 2.31  | 2.41  | 2.49  |
| Electricity Production          |      |       |       |       |      |       |       |       |      |       |       |       |       |       |       |
| Electric Utilities              | 0.47 | 0.72  | 1.15  | 0.62  | 0.50 | 0.81  | 1.16  | 0.62  | 0.53 | 0.85  | 1.21  | 0.63  | 2.97  | 3.08  | 3.22  |
| Nonutilities (Excl. Cogen.)     | 0.04 | 0.04  | 0.05  | 0.05  | 0.05 | 0.04  | 0.05  | 0.05  | 0.05 | 0.05  | 0.05  | 0.06  | 0.18  | 0.19  | 0.20  |
| Total Demand                    | 6.88 | 4.84  | 4.53  | 5.73  | 6.59 | 4.84  | 4.51  | 5.81  | 7.37 | 4.99  | 4.62  | 5.92  | 21.98 | 21.75 | 22.90 |

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

(Trillion cubic Feet)

<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-

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)

Energy Information Administration/Short-Term Energy Outlook -- June 1998

|                                   |       | 1997  |       |       |       | 1998  |       |       |       | 1999  |       |       |        | Year   |        |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|                                   | 1st   | 2nd   | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1st   | 2nd   | 3rd   | 4th   | 1997   | 1998   | 1999   |
| Supply                            |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Production                        | 273.9 | 269.7 | 271.3 | 273.7 | 283.5 | 267.3 | 275.5 | 280.7 | 292.6 | 276.4 | 280.8 | 288.5 | 1088.6 | 1107.0 | 1138.3 |
| Appalachia                        | 119.0 | 117.8 | 112.0 | 115.9 | 119.5 | 114.1 | 110.0 | 120.2 | 122.9 | 114.7 | 111.2 | 118.3 | 464.7  | 463.8  | 467.2  |
| Interior                          | 42.9  | 41.4  | 44.4  | 43.6  | 42.2  | 39.7  | 42.8  | 44.1  | 42.6  | 38.9  | 42.3  | 42.2  | 172.3  | 168.8  | 166.0  |
| Western                           | 112.0 | 110.5 | 114.9 | 114.2 | 117.9 | 115.9 | 119.4 | 124.3 | 127.1 | 122.7 | 127.3 | 128.0 | 451.6  | 477.5  | 505.1  |
| Primary Stock Levels <sup>a</sup> |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Opening                           | 28.6  | 37.5  | 42.5  | 39.1  | 32.9  | 40.5  | 40.2  | 34.2  | 32.9  | 39.9  | 40.3  | 34.1  | 28.6   | 32.9   | 32.9   |
| Closing                           | 37.5  | 42.5  | 39.1  | 32.9  | 40.5  | 40.2  | 34.2  | 32.9  | 39.9  | 40.3  | 34.1  | 33.0  | 32.9   | 32.9   | 33.0   |
| Net Withdrawals                   | -8.9  | -5.0  | 3.4   | 6.2   | -7.7  | 0.3   | 6.0   | 1.2   | -6.9  | -0.4  | 6.2   | 1.1   | -4.2   | -0.1   | (S)    |
| Imports                           | 1.3   | 1.7   | 2.2   | 2.2   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   | 7.5    | 7.3    | 7.Ś    |
| Exports                           | 20.0  | 20.6  | 22.4  | 20.6  | 18.3  | 21.3  | 21.6  | 21.5  | 20.4  | 21.0  | 21.2  | 21.2  | 83.5   | 82.7   | 83.8   |
| Total Net Domestic                | 246.4 | 245.8 | 254.6 | 261.6 | 259.4 | 248.2 | 261.7 | 262.3 | 267.1 | 256.8 | 267.6 | 270.2 | 1008.3 | 1031.6 | 1061.8 |
| Supply                            |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Secondary Stock                   |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Levels <sup>b</sup>               |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Opening                           | 123.0 | 120.6 | 128.8 | 110.7 | 106.8 | 114.2 | 118.8 | 105.0 | 106.6 | 106.8 | 112.9 | 99.2  | 123.0  | 106.8  | 106.6  |
| Closing                           | 120.6 | 128.8 | 110.7 | 106.8 | 114.2 | 118.8 | 105.0 | 106.6 | 106.8 | 112.9 | 99.2  | 103.4 | 106.8  | 106.6  | 103.4  |
| Net Withdrawals                   | 2.4   | -8.2  | 18.1  | 3.9   | -7.4  | -4.6  | 13.9  | -1.6  | -0.2  | -6.1  | 13.7  | -4.3  | 16.2   | 0.3    | 3.1    |
| Total Supply                      | 248.8 | 237.6 | 272.7 | 265.4 | 252.0 | 243.6 | 275.6 | 260.7 | 266.9 | 250.7 | 281.3 | 266.0 | 1024.5 | 1031.8 | 1064.9 |
| Demand                            |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Coke Plants                       | 7.6   | 7.4   | 7.9   | 6.6   | 7.5   | 7.3   | 7.6   | 8.0   | 7.8   | 7.6   | 7.5   | 7.9   | 29.4   | 30.4   | 30.8   |
| Electricity Production            |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Electric Utilities                | 219.0 | 208.2 | 244.0 | 230.5 | 220.5 | 214.4 | 246.4 | 228.5 | 234.5 | 221.0 | 251.7 | 233.3 | 901.7  | 909.7  | 940.5  |
| Nonutilities (Excl.               | 5.9   | 5.9   | 5.9   | 5.9   | 6.3   | 6.2   | 6.3   | 6.3   | 6.6   | 6.6   | 6.6   | 6.6   | 23.5   | 25.0   | 26.5   |
| Cogen.) <sup>c</sup>              |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Retail and General                | 20.2  | 18.3  | 18.2  | 19.6  | 20.2  | 18.1  | 17.9  | 20.4  | 20.6  | 18.1  | 18.1  | 20.8  | 76.4   | 76.6   | 77.7   |
| Industry <sup>d</sup>             |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Total Demand                      | 252.7 | 239.7 | 276.0 | 262.6 | 254.5 | 246.1 | 278.1 | 263.2 | 269.6 | 253.3 | 284.0 | 268.6 | 1031.0 | 1041.8 | 1075.5 |
| Discrepancy <sup>e</sup>          | -3.9  | -2.2  | -3.3  | 2.9   | -2.5  | -2.5  | -2.5  | -2.5  | -2.6  | -2.6  | -2.6  | -2.6  | -6.5   | -10.0  | -10.6  |

<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.

e Historical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference, and this difference is identically zero in the forecast period. The reported forecast discrepancy is non-zero because the estimated IPP consumption not included in production (waste coal) has not been accounted for. The estimated annual consumption for 1994 is 7.9 million tons, 8.5 million tons in 1995, 8.9 million tons in 1996, 9.4 million tons in 1997 and the estimate for 1998 is 10.0 million tons, and 10.6 million tons in 1999.

(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 A1. Annual U.S. Energy Supply and Demand

|  |                    |                    |                    |                    |                     |                     |                     | Year                |                     |                     |                     |                     |                     |                     |                     |
|--|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|  | 1985               | 1986               | 1987               | 1988               | 1989                | 1990                | 1991                | 1992                | 1993                | 1994                | 1995                | 1996                | 1997                | 1998                | 1999                |
| Real Gross Domestic Product (GDP)<br>(billion chained 1992 dollars)  | 5324               | 5488               | 5649               | 5865               | 6062                | 6136                | 6079                | 6244                | 6390                | 6611                | 6742                | 6928                | 7191                | 7395                | 7540                |
| Imported Crude Oil Price <sup>a</sup><br>(nominal dollars per barrel)  | 26.99              | 14.00              | 18.13              | 14.57              | 18.08               | 21.75               | 18.70               | 18.20               | 16.14               | 15.52               | 17.14               | 20.61               | 18.58               | 14.00               | 15.27               |
| Petroleum Supply   |                    |                    |                    |                    |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Crude Oil Production <sup>b</sup><br>(million barrels per day)<br>Total Petroleum Net Imports (including SPR)<br>(million barrels per day) | 8.97<br>4.29       | 8.68<br>5.44       | 8.35<br>5.91       | 8.14<br>6.59       | 7.61<br>7.20        | 7.36<br>7.16        | 7.42<br>6.63        | 7.17<br>6.94        | 6.85<br>7.62        | 6.66<br>8.05        | 6.56<br>7.89        | 6.46<br>8.50        | 6.41<br>8.90        | 6.40<br>9.12        | 6.36<br>9.52        |
| Energy Demand  |                    |                    |                    |                    |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| World Petroleum<br>(million barrels per day)<br>U.S. Petroleum   | 60.1               | 61.8               | 63.1               | 64.9               | 65.9                | 66.0                | 66.6                | 66.8                | 67.0                | 68.3                | 69.9                | 71.5                | 73.3                | 75.0                | 77.2                |
| (million barrels per day)<br>Natural Gas   | 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               | 18.88               | 19.30               |
| (trillion cubic feet)<br>Coal  | 17.28              | 16.22              | 17.21              | 18.03              | 18.80               | 18.72               | 19.03               | 19.54               | 20.28               | 20.71               | 21.58               | 21.96               | 21.98               | 21.75               | 22.90               |
| (million short tons)<br>Electricity (billion kilowatthours)  | 818                | 804                | 837                | 884                | 891                 | 897                 | 898                 | 907                 | 944                 | 951                 | 962                 | 1006                | 1031                | 1042                | 1075                |
| Utility Sales <sup>c</sup><br>Nonutility Own Use <sup>d</sup><br>Total   | 2324<br>NA<br>2324 | 2369<br>NA<br>2369 | 2457<br>NA<br>2457 | 2578<br>NA<br>2578 | 2647<br>108<br>2755 | 2713<br>113<br>2826 | 2762<br>122<br>2884 | 2763<br>132<br>2895 | 2861<br>138<br>3000 | 2935<br>150<br>3085 | 3013<br>158<br>3171 | 3098<br>164<br>3262 | 3115<br>169<br>3283 | 3180<br>173<br>3353 | 3252<br>178<br>3430 |
| Total Energy Demand <sup>e</sup><br>(quadrillion Btu)<br>Total Energy Demand per Dollar of GDP   | 74.0               | 74.3               | 76.9               | 80.2               | 81.3                | 81.2                | 81.1                | 82.4                | 84.2                | 85.9                | 87.5                | 89.7                | 90.6                | 91.2                | 93.8                |
| (thousand Btu per 1992 Dollar)<br>Adjusted Total Energy Demand <sup>e</sup>  | 13.90              | 13.54              | 13.61              | 13.68              | 13.42               | 13.23               | 13.33               | 13.20               | 13.17               | 12.99               | 12.98               | 12.95               | 12.60               | 12.34               | 12.43               |
| (quadrillion Btu)<br>Adjusted Total Energy Demand per Dollar of GDP  | NA                 | NA                 | NA                 | NA                 | NA                  | 84.1                | 84.0                | 85.5                | 87.3                | 89.2                | 90.9                | 93.9                | 94.5                | 94.9                | 97.6                |
| (thousand Btu per 1992 Dollar)   | NA                 | NA                 | NA                 | NA                 | NA                  | 13.70               | 13.82               | 13.70               | 13.67               | 13.49               | 13.49               | 13.55               | 13.14               | 12.84               | 12.94               |

<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 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, *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 CONTROL0398.

|                                 |       |       |       |       |       |       |       | Year  |       |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  | 1996  | 1997  | 1998  | 1999  |
| Macroeconomic                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Real Gross Domestic Product     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (billion chained 1992 dollars)  | 5324  | 5488  | 5649  | 5865  | 6062  | 6136  | 6079  | 6244  | 6390  | 6611  | 6742  | 6928  | 7191  | 7395  | 7540  |
| GDP Implicit Price Deflator     | ••= · |       |       |       |       | ••••  |       |       |       |       | •••   |       |       |       |       |
| (Index, 1992=1.000)             | 0.786 | 0.806 | 0.831 | 0.861 | 0.897 | 0.936 | 0.973 | 1.000 | 1.026 | 1.051 | 1.078 | 1.102 | 1.125 | 1.144 | 1.166 |
| Real Disposable Personal Income |       |       |       |       |       |       |       |       |       |       |       |       | •     |       |       |
| (billion chained 1992 Dollars)  | 3972  | 4101  | 4168  | 4332  | 4417  | 4498  | 4500  | 4627  | 4704  | 4805  | 4964  | 5077  | 5222  | 5439  | 5562  |
| Manufacturing Production        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (Index, 1987=1.000)             | 0.857 | 0.881 | 0.928 | 0.971 | 0.990 | 0.985 | 0.962 | 1.000 | 1.038 | 1.100 | 1.160 | 1.202 | 1.269 | 1.326 | 1.350 |
| Real Fixed Investment           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (billion chained 1992 dollars)  | 799   | 805   | 799   | 818   | 832   | 806   | 741   | 783   | 843   | 916   | 962   | 1042  | 1122  | 1206  | 1252  |
| Real Exchange Rate              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (Index, 1990=1.000)             | NA    | NA    | NA    | NA    | NA    | 1.000 | 1.006 | 1.012 | 1.056 | 1.033 | 0.960 | 1.015 | 1.101 | 1.121 | 1.050 |
| Business Inventory Change       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (billion chained 1992 dollars)  | -4.5  | -4.2  | 5.1   | 9.5   | 19.2  | 6.6   | -6.1  | -9.2  | 6.1   | 11.1  | 7.8   | 9.9   | 22.2  | 5.2   | 1.0   |
| Producer Price Index            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (index, 1982=1.000)             | 1.032 | 1.002 | 1.028 | 1.069 | 1.122 | 1.163 | 1.165 | 1.172 | 1.189 | 1.205 | 1.248 | 1.277 | 1.275 | 1.256 | 1.271 |
| Consumer Price Index            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (index, 1982-1984=1.000)        | 1.076 | 1.097 | 1.137 | 1.184 | 1.240 | 1.308 | 1.363 | 1.404 | 1.446 | 1.483 | 1.525 | 1.570 | 1.606 | 1.632 | 1.672 |
| Petroleum Product Price Index   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (index, 1982=1.000)             | 0.832 | 0.532 | 0.568 | 0.539 | 0.612 | 0.748 | 0.671 | 0.647 | 0.620 | 0.591 | 0.608 | 0.701 | 0.680 | 0.548 | 0.586 |
| Non-Farm Employment             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (millions)                      | 97.4  | 99.3  | 102.0 | 105.2 | 107.9 | 109.4 | 108.3 | 108.6 | 110.7 | 114.1 | 117.2 | 119.5 | 122.3 | 125.4 | 127.0 |
| Commercial Employment           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (millions)                      | 60.8  | 62.9  | 65.2  | 67.8  | 70.0  | 71.3  | 70.8  | 71.2  | 73.2  | 76.1  | 78.8  | 81.0  | 83.5  | 86.3  | 88.0  |
| Total Industrial Production     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (index, 1987=1.000)             | 0.880 | 0.890 | 0.931 | 0.973 | 0.990 | 0.989 | 0.969 | 1.000 | 1.035 | 1.092 | 1.145 | 1.185 | 1.244 | 1.295 | 1.317 |
| Housing Stock                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (millions)                      | 96.3  | 98.0  | 99.8  | 101.6 | 102.9 | 103.5 | 104.5 | 105.5 | 106.8 | 108.2 | 109.8 | 111.2 | 112.7 | 114.2 | 115.7 |
| Weather <sup>a</sup>            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating Degree-Days             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| U.S.                            | 4642  | 4295  | 4334  | 4653  | 4726  | 4016  | 4200  | 4441  | 4700  | 4483  | 4531  | 4713  | 4569  | 4192  | 4576  |
| New England                     | 6571  | 6517  | 6546  | 6715  | 6887  | 5848  | 5960  | 6844  | 6728  | 6672  | 6559  | 6679  | 6656  | 6030  | 6621  |
| Middle Atlantic                 | 5660  | 5665  | 5699  | 6088  | 6134  | 4998  | 5177  | 5964  | 5948  | 5934  | 5831  | 5986  | 5834  | 5172  | 5839  |
| U.S. Gas-Weighted               | 4856  | 4442  | 4391  | 4779  | 4856  | 4139  | 4337  | 4458  | 4754  | 4659  | 4707  | 5040  | 4886  | 4363  | 4732  |
| Cooling Degree-Days (U.S.)      | 1194  | 1249  | 1269  | 1283  | 1156  | 1260  | 1331  | 1040  | 1218  | 1220  | 1293  | 1180  | 1161  | 1206  | 1193  |
| <u> </u>                        |       |       |       |       |       |       |       |       |       | ,     |       |       |       | ,     |       |

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

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0398.

#### 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         |
| Demand <sup>a</sup>                  |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| OECD<br>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         | 18.9         | 19.3         |
| 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          | 5.7          | 5.7          | 5.8          |
| 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         | 41.7         | 42.3         | 43.1         |
| Non-OECD                             |              |              |              |              |              | ~ ^          |              |              |              |              |              |              |              | 47           | 10           |
| Former Soviet Union<br>Europe        | 9.0          | 9.0          | 9.0<br>2.2   | 8.9<br>2.2   | 8.7<br>2.1   | 8.4          | 8.3          | 6.8          | 5.6<br>1.3   | 4.8<br>1.3   | 4.6<br>1.3   | 4.4<br>1.3   | 4.5          | 4.7<br>1.5   | 4.9<br>1.6   |
| China                                | 2.2<br>1.9   | 2.2<br>2.0   | 2.2          | 2.2          | 2.1          | 1.9<br>2.3   | 1.4<br>2.5   | 1.3<br>2.7   | 3.0          | 3.1          | 3.3          | 3.5          | 1.4<br>3.9   | 4.2          | 4.4          |
| Other Asia                           | 3.6          | 3.8          | 4.1          | 2.3<br>4.4   | 4.9          | 5.3          | 2.3<br>5.7   | 6.2          | 6.8          | 7.3          | 7.9          | 8.3          | 8.8          | 9.0          | 9.4          |
| 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         | 32.7         | 34.1         |
| 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         | 73.3         | 75.0         | 77.2         |
| Supply <sup>°</sup>                  |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 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          | 9.5          | 9.5          |
| Canada<br>North Sea <sup>d</sup>     | 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          |
| Other OECD                           | 3.6<br>1.4   | 3.8<br>1.4   | 3.8<br>1.4   | 3.8<br>1.5   | 3.7<br>1.4   | 3.9<br>1.5   | 4.1<br>1.5   | 4.5<br>1.4   | 4.8<br>1.4   | 5.5<br>1.5   | 5.9<br>1.5   | 6.3<br>1.5   | 6.2<br>1.6   | 6.4<br>1.7   | 6.9<br>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         | 1.5          | 19.9         | 20.2         | 20.8         |
| Non-OECD                             | 10.1         | 17.5         | 17.5         | 17.0         |              |              | 17.5         | 17.5         | 10.0         | 10.7         | 13.2         | 13.7         | 15.5         | 20.2         | 20.0         |
| 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         | 30.3         | 30.9         |
| 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          | 7.1          | 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          | 3.2          | 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          | 3.4          | 3.5          |
| Other Non-OECD<br>Total 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         | 10.8         | 11.3         |
| Total World Supply                   | 41.2<br>59.3 | 43.9<br>61.8 | 44.6<br>62.5 | 47.0<br>64.8 | 48.9<br>65.9 | 49.7<br>66.8 | 49.1<br>66.7 | 49.1<br>67.0 | 49.4<br>67.4 | 49.6<br>68.3 | 50.7<br>69.9 | 52.0<br>71.8 | 54.1<br>74.0 | 55.1<br>75.3 | 56.4<br>77.2 |
|                                      | 59.5         | 01.0         | 02.5         | 04.0         | 05.9         | 00.0         | 00.7         | 07.0         | 07.4         | 00.5         | 09.9         | /1.0         | 74.0         | 75.5         | 11.2         |
| 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         | -0.7         | -0.3         | 0.0          |
| 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          | 2.8          | 2.8          | 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          | 2.6          | 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, 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  |
| Imported Crude Oil <sup>a</sup>                          |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| (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 | 14.00 | 15.27 |
| Natural Gas Wellhead                                     |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| (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  | 2.23  | 2.10  | 2.21  |
| Petroleum Products                                       |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| Gasoline Retail <sup>b</sup> (dollars per gallon)        |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| All Grades   | 1.15  | 0.88  | 0.91  | 0.92         | 1.02  | 1.17  | 1.15  | 1.14  | 1.13  | 1.13     | 1.16  | 1.25  | 1.24  | 1.12  | 1.17  |
| Reguler Unleaded   | 1.17  | 0.88  | 0.91  | 0.91         | 0.99  | 1.13  | 1.10  | 1.09  | 1.07  | 1.08     | 1.11  | 1.20  | 1.20  | 1.07  | 1.10  |
| 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  | 1.08  | 1.11  |
| 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  | 0.53  |
| 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  | 0.89  | 0.92  |
| 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 | 13.50 | 14.46 |
| Electric Utility Fuels                                   |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| Coal   |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| (dollars per million Btu)<br>Heavy Fuel Oil <sup>d</sup> | 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  | 1.25  |
| (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  | 2.79  | 2.18  | 2.34  |
| Natural Gas  | 4.20  | 2.40  | 2.50  | <b>2</b> .71 | 2.00  | 0.22  | 2.40  | 2.40  | 2.00  | 2.40     | 2.00  | 0.01  | 2.10  | 2.70  | 2.07  |
| (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  | 2.76  | 2.64  | 2.71  |
|  |       |       |       |              |       |       |       |       |       |          |       |       |       |       |       |
| Other Residential<br>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  | 6.69  | 6.87  |
| Electricity  |       |       |       | ••••         |       |       |       |       | ••••  | ••••     |       |       |       | 0.00  | 0.07  |
| (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   |
| (  |       |       |       |              |       |       |       |       |       | <b>.</b> |       | ••••  |       | 0     | 0.0   |

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

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

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

<sup>d</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System. Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Monthly Energy Review*, DOE/EIA-0035; *Electric Power Monthly*, DOE/EIA-0226.

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

(Million Barrels per Day, Except Closing Stocks)

| <b>i</b>                                 | Year  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  | 1996  | 1997  | 1998  | 1999  |
| Supply                                   |       | •     |       |       |       | •     |       |       |       | •     |       |       |       |       |       |
| 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  | 6.40  | 6.36  |
| 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  | 5.20  | 5.17  |
| 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  | 8.23  | 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 | -0.06 | 0.02  |
| 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  | 0.00  | -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  | 0.35  | 0.29  |
| 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 | 14.91 | 15.05 |
| 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  | 1.86  | 1.89  |
| 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  | 0.00  | 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  | 0.85  | 0.86  |
| 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  | 0.90  | 1.13  |
| 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 | 0.02  | 0.02  |
| 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 | 18.88 | 19.30 |
| Demand                                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 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  | 8.20  | 8.38  |
| 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  | 1.62  | 1.67  |
| 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  | 3.47  | 3.59  |
| 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  | 0.85  | 0.87  |
| 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  | 4.75  | 4.79  |
| 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 | 18.88 | 19.30 |
| 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  | 7.90  | 8.43  | 8.63  | 8.85  |
| Closing Stocks (million barrels)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Crude Oil (excluding SPR)                | 321   | 331   | 349   | 330   | 341   | 323   | 325   | 318   | 335   | 337   | 303   | 284   | 305   | 326   | 318   |
| Total Motor Gasoline                     | 223   | 233   | 226   | 228   | 213   | 220   | 219   | 216   | 226   | 215   | 202   | 195   | 210   | 205   | 200   |
| Jet Fuel                                 | 40    | 50    | 50    | 44    | 41    | 52    | 49    | 43    | 40    | 47    | 40    | 40    | 44    | 41    | 45    |
| Distillate Fuel Oil                      | 144   | 155   | 134   | 124   | 106   | 132   | 144   | 141   | 141   | 145   | 130   | 127   | 139   | 138   | 133   |
| 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   | 262   | 261   |

<sup>b</sup>Includes lease condensate. 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>\*</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>1</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 Expercasting System

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  |
| Supply                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Total Dry Gas Production         | 16.45 | 16.06 | 16.62 | 17.10 | 17.31 | 17.81 | 17.70 | 17.84 | 18.10 | 18.82 | 18.60 | 18.79 | 18.92 | 19.12 | 19.40 |
| Net Imports                      | 0.89  | 0.69  | 0.94  | 1.22  | 1.27  | 1.45  | 1.64  | 1.92  | 2.21  | 2.46  | 2.69  | 2.78  | 2.83  | 3.06  | 3.30  |
| Supplemental Gaseous Fuels       | 0.13  | 0.11  | 0.10  | 0.10  | 0.11  | 0.12  | 0.11  | 0.12  | 0.12  | 0.11  | 0.11  | 0.11  | 0.12  | 0.12  | 0.13  |
| Total New Supply                 | 17.47 | 16.86 | 17.66 | 18.42 | 18.69 | 19.38 | 19.45 | 19.88 | 20.42 | 21.39 | 21.40 | 21.69 | 21.87 | 22.30 | 22.83 |
| Total Underground Storage        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Opening                          | 6.71  | 6.45  | 6.57  | 6.55  | 6.65  | 6.33  | 6.94  | 6.78  | 6.64  | 6.65  | 6.97  | 6.50  | 6.51  | 6.52  | 6.74  |
| Closing                          | 6.45  | 6.57  | 6.55  | 6.65  | 6.33  | 6.94  | 6.78  | 6.64  | 6.65  | 6.97  | 6.50  | 6.51  | 6.52  | 6.74  | 6.52  |
| Net Withdrawals                  | 0.26  | -0.12 | 0.02  | -0.10 | 0.33  | -0.61 | 0.16  | 0.14  | -0.01 | -0.32 | 0.46  | -0.01 | -0.01 | -0.22 | 0.22  |
| Total Supply                     | 17.73 | 16.74 | 17.68 | 18.32 | 19.02 | 18.77 | 19.61 | 20.02 | 20.42 | 21.08 | 21.86 | 21.68 | 21.86 | 22.08 | 23.05 |
| Balancing Item <sup>a</sup>      | -0.45 | -0.52 | -0.47 | -0.29 | -0.22 | -0.05 | -0.58 | -0.47 | -0.14 | -0.37 | -0.28 | 0.29  | 0.11  | -0.34 | -0.15 |
| Total Primary Supply             | 17.28 | 16.22 | 17.21 | 18.03 | 18.80 | 18.72 | 19.03 | 19.54 | 20.28 | 20.71 | 21.58 | 21.96 | 21.98 | 21.75 | 22.90 |
| Demand                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Lease and Plant Fuel             | 0.97  | 0.92  | 1.15  | 1.10  | 1.07  | 1.24  | 1.13  | 1.17  | 1.17  | 1.12  | 1.22  | 1.25  | 1.24  | 1.23  | 1.24  |
| Pipeline Use                     | 0.50  | 0.49  | 0.52  | 0.61  | 0.63  | 0.66  | 0.60  | 0.59  | 0.62  | 0.69  | 0.70  | 0.71  | 0.71  | 0.67  | 0.69  |
| Residential                      | 4.43  | 4.31  | 4.31  | 4.63  | 4.78  | 4.39  | 4.56  | 4.69  | 4.96  | 4.85  | 4.85  | 5.24  | 5.01  | 4.70  | 5.09  |
| Commercial                       | 2.43  | 2.32  | 2.43  | 2.67  | 2.72  | 2.62  | 2.73  | 2.80  | 2.86  | 2.90  | 3.03  | 3.16  | 3.28  | 3.22  | 3.47  |
| Industrial (Incl. Nonutilities)  | 5.90  | 5.58  | 5.95  | 6.38  | 6.82  | 7.02  | 7.23  | 7.53  | 7.98  | 8.17  | 8.58  | 8.87  | 8.77  | 8.84  | 9.20  |
| Cogenerators <sup>b</sup>        | NA    | NA    | NA    | NA    | 1.12  | 1.30  | 1.41  | 1.67  | 1.80  | 1.98  | 2.18  | 2.27  | 2.31  | 2.41  | 2.49  |
| Other Nonutil. Gen. <sup>b</sup> | NA    | NA    | NA    | NA    | 0.06  | 0.09  | 0.16  | 0.18  | 0.22  | 0.17  | 0.17  | 0.16  | 0.18  | 0.19  | 0.20  |
| Electric Utilities               | 3.04  | 2.60  | 2.84  | 2.64  | 2.79  | 2.79  | 2.79  | 2.77  | 2.68  | 2.99  | 3.20  | 2.73  | 2.97  | 3.08  | 3.22  |
| Total Demand                     | 17.28 | 16.22 | 17.21 | 18.03 | 18.80 | 18.72 | 19.03 | 19.54 | 20.28 | 20.71 | 21.58 | 21.96 | 21.98 | 21.75 | 22.90 |

<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)

Energy Information Administration/Short-Term Energy Outlook -- June 1998

| Year                                |       |       |       |       |       |        |       |       |       |        |        |        |        |        |          |
|-------------------------------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|----------|
|                                     | 1985  | 1986  | 1987  | 1988  | 1989  | 1990   | 1991  | 1992  | 1993  | 1994   | 1995   | 1996   | 1997   | 1998   | 1999     |
| Supply                              |       |       |       |       |       |        |       |       |       |        |        |        |        |        |          |
| 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 | 1088.6 | 1107.0 | 1138.3   |
| Appalachia                          | NA    | NA    | NA    | NA    | 464.8 | 489.0  | 457.8 | 456.6 | 409.7 | 445.4  | 434.9  | 451.9  | 464.7  | 463.8  | 467.2    |
| Interior                            | NA    | NA    | NA    | NA    | 198.1 | 205.8  | 195.4 | 195.7 | 167.2 | 179.9  | 168.5  | 172.8  | 172.3  | 168.8  | 166.0    |
| Western                             | NA    | NA    | NA    | NA    | 317.9 | 334.3  | 342.8 | 345.3 | 368.5 | 408.3  | 429.6  | 439.1  | 451.6  | 477.5  | 505.1    |
| 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   | 32.9   | 32.9     |
| 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   | 32.9   | 32.9   | 33.0     |
| 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    | -4.2   | -0.1   | S        |
| 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    | 7.5    | 7.3    | 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   | 82.7   | 83.8     |
| Total Net Domestic                  | 793.9 | 808.0 | 844.7 | 855.3 | 884.2 | 921.6  | 890.9 | 897.8 | 886.9 | 961.8  | 950.4  | 986.3  | 1008.3 | 1031.6 | 1061.8   |
| Supply                              |       |       |       |       |       |        |       |       |       |        |        |        |        |        |          |
| 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  | 106.8  | 106.6    |
| 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  | 106.8  | 106.6  | 103.4    |
| Net Withdrawals                     | 27.0  | -5.0  | -10.2 | 27.0  | 12.3  | -22.1  | 0.5   | 4.0   | 43.2  | -15.7  | 1.5    | 11.7   | 16.2   | 0.3    | 3.1      |
| Total Supply                        | 820.8 | 803.1 | 834.4 | 882.3 | 896.5 | 899.4  | 891.4 | 901.8 | 930.2 | 946.1  | 951.9  | 998.0  | 1024.5 | 1031.8 | 1064.9   |
| Demand                              |       |       |       |       |       |        |       |       |       |        |        |        |        |        |          |
| 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   | 29.4   | 30.4   | 30.8     |
| Electricity Production              |       |       |       |       |       |        |       |       |       |        |        |        |        |        | <b>.</b> |
| 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  | 901.7  | 909.7  | 940.5    |
| c Nonutilities (Excl. Cogen.)       | NA    | NA    | NA    | NA    | 0.9   | 1.6    | 10.2  | 14.8  | 17.8  | 20.9   | 21.2   | 22.2   | 23.5   | 25.0   | 26.5     |
| d Retail and General Industry       | 83.2  | 83.3  | 82.1  | 83.4  | 82.3  | 83.1   | 81.5  | 80.2  | 81.1  | 81.2   | 78.9   | 76.9   | 76.4   | 76.6   | 77.7     |
| Total Demand <sup>e</sup>           | 818.0 | 804.2 | 836.9 | 883.6 | 890.6 | 897.1  | 897.8 | 907.3 | 943.7 | 951.1  | 962.0  | 1005.6 | 1031.0 | 1041.8 | 1075.5   |
| Discrepancy <sup>f</sup>            | 2.8   | -1.2  | -2.5  | -1.3  | 5.9   | 2.4    | -6.4  | -5.4  | -13.5 | -4.9   | -10.1  | -7.6   | -6.5   | -10.0  | -10.6    |

<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 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>4</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, and this difference is identically zero in the forecast period. The reported forecast discrepancy is non-zero because the estimated IPP consumption not included in production (waste coal) has not been accounted for. The estimated annual consumption for 1994 is 7.9 million tons, 8.5 million tons in 1995, 8.9 million tons in 1996, 9.4 million tons in 1997 and the estimate for 1998 is 10.0 million tons, and 10.6 million tons in 1999.

(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   |
| Supply                                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Net Utility Generation                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Coal                                  | 1402.1 | 1385.8 | 1463.8 | 1540.7 | 1553.7 | 1559.6 | 1551.2 | 1575.9 | 1639.2 | 1635.5 | 1652.9 | 1737.5 | 1790.1 | 1814.1 | 1879.3 |
| Petroleum                             | 100.2  | 136.6  | 118.5  | 148.9  | 158.3  | 117.0  | 111.5  | 88.9   | 99.5   | 91.0   | 60.8   | 67.3   | 77.8   | 92.1   | 93.0   |
| Natural Gas                           | 291.9  | 248.5  | 272.6  | 252.8  | 266.6  | 264.1  | 264.2  | 263.9  | 258.9  | 291.1  | 307.3  | 262.7  | 283.7  | 296.4  | 309.3  |
| Nuclear                               | 383.7  | 414.0  | 455.3  | 527.0  | 529.4  | 576.9  | 612.6  | 618.8  | 610.3  | 640.4  | 673.4  | 674.7  | 628.6  | 649.1  | 656.5  |
| Hydroelectric                         | 281.1  | 290.8  | 249.7  | 222.9  | 265.1  | 279.9  | 275.5  | 239.6  | 265.1  | 243.7  | 293.7  | 328.0  | 337.2  | 302.3  | 279.0  |
| Geothermal and Other <sup>a</sup>     | 10.7   | 11.5   | 12.3   | 12.0   | 11.3   | 10.7   | 10.1   | 10.2   | 9.6    | 8.9    | 6.4    | 7.2    | 7.5    | 7.1    | 6.4    |
| Subtotal                              | 2469.8 | 2487.3 | 2572.1 | 2704.3 | 2784.3 | 2808.2 | 2825.0 | 2797.2 | 2882.5 | 2910.7 | 2994.5 | 3077.4 | 3124.9 | 3161.1 | 3223.5 |
| Nonutility Generation <sup>b</sup>    | NA     | NA     | NA     | NA     | 191.3  | 221.8  | 253.7  | 296.0  | 325.5  | 354.9  | 374.4  | 382.5  | 409.4  | 426.4  | 437.4  |
| Total Generation                      | NA     | NA     | NA     | NA     | 2975.6 | 3030.0 | 3078.7 | 3093.2 | 3208.1 | 3265.6 | 3369.0 | 3460.0 | 3534.3 | 3587.5 | 3660.9 |
| Net Imports                           | 40.9   | 35.9   | 46.3   | 31.8   | 11.0   | 2.0    | 22.3   | 28.3   | 28.4   | 44.6   | 37.6   | 38.0   | 36.5   | 37.4   | 36.0   |
| Total Supply                          | NA     | NA     | NA     | NA     | 2986.6 | 3032.0 | 3101.0 | 3121.6 | 3236.5 | 3310.3 | 3406.6 | 3498.0 | 3570.7 | 3624.9 | 3696.9 |
| Losses and Unaccounted for $^{\rm c}$ | NA     | NA     | NA     | NA     | 231.4  | 206.1  | 217.1  | 226.6  | 236.9  | 225.5  | 235.4  | 236.2  | 287.3  | 271.8  | 267.1  |
| Demand                                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Electric Utility Sales                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Residential                           | 793.9  | 819.1  | 850.4  | 892.9  | 905.5  | 924.0  | 955.4  | 935.9  | 994.8  | 1008.5 | 1042.5 | 1082.5 | 1071.6 | 1095.3 | 1135.7 |
| Commercial                            | 606.0  | 630.5  | 660.4  | 699.1  | 725.9  | 751.0  | 765.7  | 761.3  | 794.6  | 820.3  | 862.7  | 887.4  | 913.3  | 935.5  | 953.6  |
| Industrial                            | 836.8  | 830.5  | 858.2  | 896.5  | 925.7  | 945.5  | 946.6  | 972.7  | 977.2  | 1008.0 | 1012.7 | 1030.4 | 1032.5 | 1050.1 | 1061.3 |
| Other                                 | 87.3   | 88.6   | 88.2   | 89.6   | 89.8   | 92.0   | 94.3   | 93.4   | 94.9   | 97.8   | 95.4   | 97.5   | 97.5   | 99.0   | 101.6  |
| Subtotal                              | 2324.0 | 2368.8 | 2457.3 | 2578.1 | 2646.8 | 2712.6 | 2762.0 | 2763.4 | 2861.5 | 2934.6 | 3013.3 | 3097.8 | 3114.9 | 3180.0 | 3252.1 |
| Nonutility Own Use <sup>b</sup>       | NA     | NA     | NA     | NA     | 108.4  | 113.4  | 121.9  | 131.6  | 138.1  | 150.2  | 157.9  | 164.0  | 168.6  | 173.1  | 177.7  |
| Total Demand                          | NA     | NA     | NA     | NA     | 2755.2 | 2825.9 | 2883.9 | 2895.0 | 2999.6 | 3084.8 | 3171.2 | 3261.8 | 3283.5 | 3353.1 | 3429.9 |
| Memo:                                 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Nonutility Sales                      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| to Electric Utilities <sup>d</sup>    | 26.0   | 39.9   | 50.0   | 68.0   | 83.0   | 108.5  | 131.9  | 164.4  | 187.4  | 204.7  | 216.5  | 218.5  | 240.8  | 253.2  | 259.7  |

<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.