May 2000

### **Highlights**

#### **International Oil Markets**

**International Oil Supply:** This forecast assumes that OPEC 10 (Organization of Petroleum Exporting Countries excluding Iraq) crude oil production will be 25.2 million barrels per day in the second quarter, 0.9 million barrels per day above first quarter production levels (Figure 1). This is about 0.5 million barrels per day above their production target of 24.69 million barrels per day. The forecast then assumes another 0.1 million barrels per day increase in OPEC 10 crude oil production in the third quarter and an additional 0.5 million barrel per day increase in the fourth quarter of 2000. If OPEC fails to increase production in the third or fourth quarters of 2000 as assumed in this forecast, higher oil prices would be expected. Continued steady production increases are expected throughout 2001.

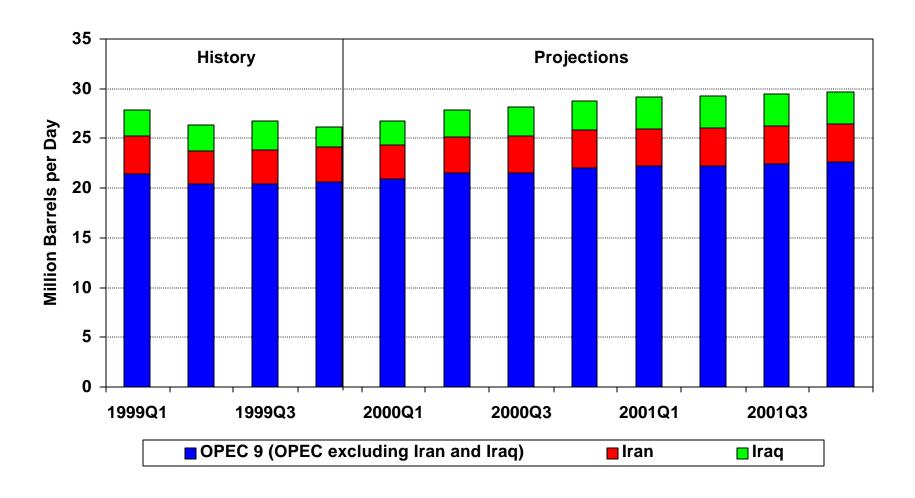
Iraqi crude oil production is assumed to average over 2.3 million barrels per day in the first quarter of 2000 and increase through the remainder of the year to average about 3.0 million barrels per day in the fourth quarter of 2000. This is not as much as the Iraqis have said they will be producing by the end of the year, but it is our best assumption of what we think Iraq will be actually producing. Iraqi oil production is assumed to increase even more in 2001. Our projections of Iraqi crude oil production are merely an assumption and do not reflect any official U.S. Government view on the future of Iraqi oil exports.

Non-OPEC production is expected to increase by 0.6 million barrels per day in 2000 and by another 0.9 million barrels per day in 2001, primarily from the North Sea, Mexico, South America and Africa (Table 3).

**International Oil Demand:** This month's forecast assumes growth in world oil demand in 2000 of 1.3 million barrels per day (about 1.7 percent), to average nearly 76 million barrels per day (Table 3). In 1999, world oil demand grew by 1.0 million barrels per day (1.4 percent). World oil demand growth in 2000 and 2001 is expected to be much less than the 1.5 - 2.0 million barrels per day growth that was seen in the 1995-1997 period. The U.S., which accounted for more than half of the growth in world oil demand in 1998 and 1999, is expected to supply about 8 percent of world oil demand growth in 2000 and about 23 percent in 2001. As Asia continues to recover from the economic crisis of 1997-1998, it is expected to once again become an important engine for world oil demand growth. However, overall demand growth in 2000 is expected to be slowed by high oil prices, even for a relatively inelastic commodity such as oil. By 2001, oil demand is expected to grow substantially, increasing by nearly 1.9 million barrels per day to nearly 78 million barrels per day.

In 1999, world oil demand growth was mainly due to growth in OECD countries, particularly the U.S. In 2000, non-OECD Asia is expected to once again be the predominant region for oil demand growth, although growing much less than before the economic crisis as it may take some time before many Asian economies fully recover. By 2001, not only is non-OECD oil

Figure 1. OPEC Crude Oil Production 1999-2001





demand expected to grow even more, but OECD oil demand growth is expected to be strong as well (Figure 2).

**World Oil Inventories:** While EIA does not attempt to estimate oil inventory levels on a global basis, we can discern the direction oil inventories are headed from our world oil supply and demand estimates. Following a 0.7 million barrel per day implied draw on world inventories in 1999 (based on world oil consumption averaging 74.7 million barrels per day while world oil supply averaged 73.9 million barrels per day), oil inventories are expected to be drawn down by an additional 0.3 million barrels per day in 2000. This leaves global oil inventories in a particularly precarious position. The additional draw in 2000 is a result of our world oil demand, OPEC production, and non-OPEC production estimates discussed above. In 2001, we expect a 0.3 million barrel per day build in world oil inventories, as supply exceeds demand once again.

However, OECD stock levels, which we do estimate, are expected to remain well below 1996 levels throughout 2000 (Figure 3). The difference between normal OECD oil inventories and 2000 levels is expected to widen after the first quarter, even if OPEC 10 crude oil production increases by 0.9 million barrels per day in the second quarter of 2000 as assumed in our forecast. This is because the assumed increase in production is insufficient to build inventories during the second and third quarters relative to the normal pattern. This would lead to extremely low inventories by the end of the year, leaving almost no flexibility in the world oil system to react to a cutoff in oil supplies somewhere or an extreme cold snap during next winter.

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

This year, crude oil prices are likely to increase by about \$7.00 per barrel compared to the previous year (Figure 4). These higher crude oil prices will translate into higher petroleum product prices, with annual increases averaging 25-30 cents per gallon (Figure 5). Falling crude oil prices for next year will mean petroleum product price declines of 10-15 cents per gallon.

**Motor Gasoline**. In March, the price of regular unleaded, self-service retail motor gasoline hit the highest level ever, in nominal terms, averaging \$1.52 per gallon. But adjusted for inflation, the projected price was 15 percent lower than the price spike experienced during the Persian Gulf War in late 1990, and 42 percent lower than the all-time highest price of March 1981. At the end of March, the pump price started receding in response to lower world crude oil prices.

Historically, pump prices tend to peak in the late spring or early summer. However this spring, the retail price has decreased by 11 cents from the high point of \$1.53 per gallon six weeks ago. It seems that the driving season's peak prices are behind us with declining pump prices projected throughout the year. Yet, the driving season usually does not reach its zenith until the schools are out. Furthermore, inventories of gasoline still remain fairly taut. Thus, retail prices certainly could drift upwards by a few more cents per gallon over the next several months, particularly on a regional basis. We expect that pump prices will average about \$1.40-\$1.45 per gallon for the summer driving season. For 2001, we expect a drop in gasoline prices, assuming that our declining crude oil price path holds. There is some uncertainty about the price of gasoline for the summer. The range of potential outcomes constitute approximately 2 standard errors on either side of the base case projection as illustrated for the average pump price for regular self-service gasoline in (Figure 6). (The range is based on the normal error distributions associated with the Short-Term Integrated Forecasting System model.) The probability of prices ranging above (or below) these curves is, for any month, approximately 5 percent.

# Figure 2. Annual World Oil Demand

(Changes from Previous Year)

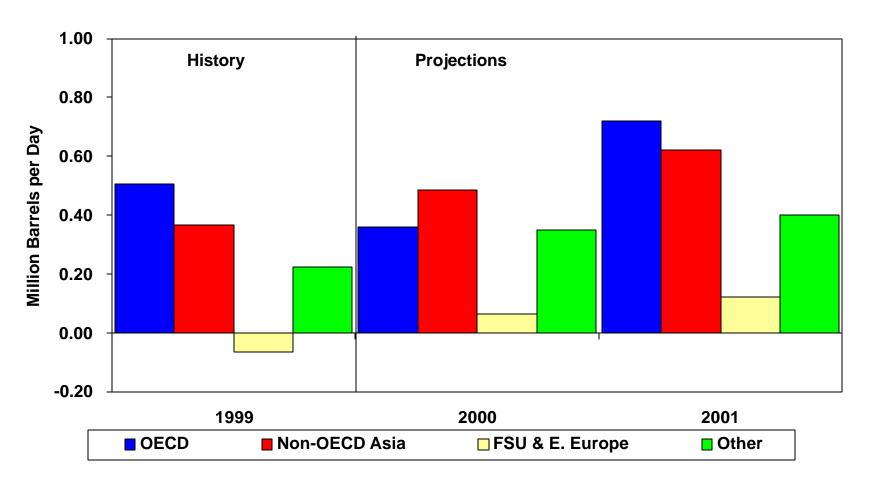
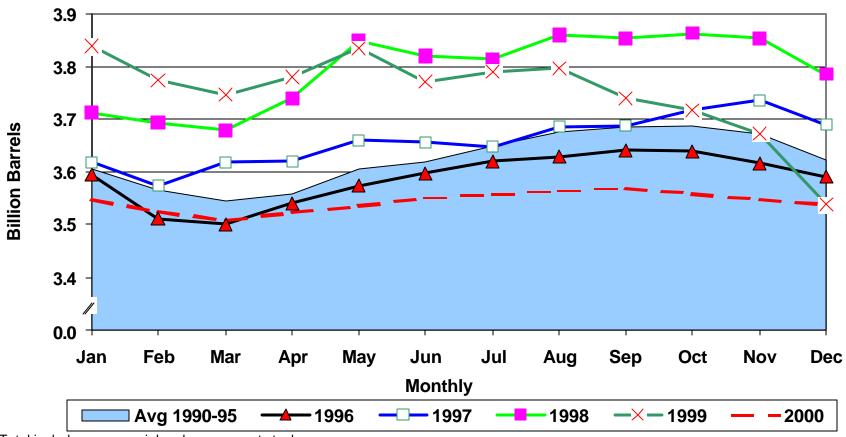




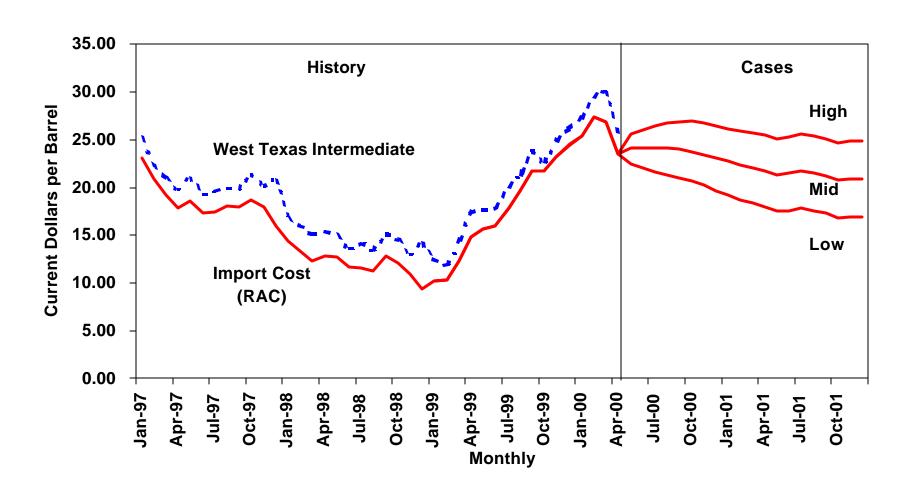
Figure 3. Total OECD Oil Stocks\*



<sup>\*</sup>Total includes commercial and government stocks.

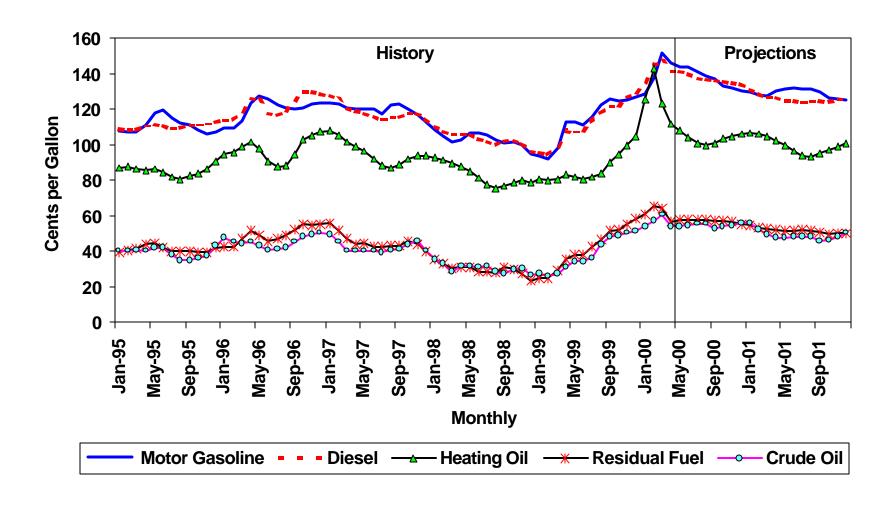


## Figure 4. U.S. Monthly Crude Oil Prices





## Figure 5. Petroleum Product Prices

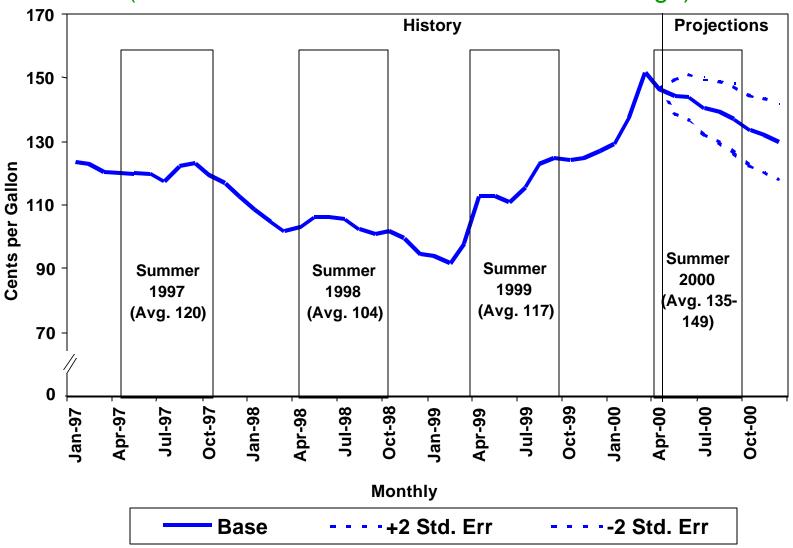






## Figure 6. Retail Gasoline Price Cases\*

(Base Case and 95 Percent Confidence Range)



<sup>\*</sup> Regular gasoline, self-serve cash.



The gasoline supply situation in California is more strained. California State law requires a cleaner, costlier type of gasoline. Tight supplies of this special fuel have boosted spot prices for motor gasoline by over 20 cents per gallon in the last few weeks. Unless these spot prices head back down soon, consumers in California will be seeing fairly robust price hikes at the pump over the next few months.

**Reformulated Gasoline.** About a third of gasoline sold in the U.S. must meet Federal reformulated gasoline (RFG) specifications. The Federal RFG program transitioned from Phase 1 to Phase 2 on January 1, 2000, with new requirements for reducing toxic air pollutants (TAP) and nitrogen oxides (NOx). While refiners were able to meet these new year-round TAP and NOx requirements, there are also new more stringent summer requirements for reductions in volatile organic compounds (VOC) and NOx. This Phase 2 Summer RFG must be in place at distribution terminals by May 1 and at retail outlets by June 1.

The wholesale (Platt's U.S. Gulf Coast waterborne cargoes and New York Harbor barges) price premium for RFG over conventional gasoline has averaged about 2.5 cents per gallon since it was first introduced in 1995. This Summer's Phase 2 RFG price premium is expected to increase to about 4 cents per gallon (see "Demand and Price Outlook for Phase 2 Reformulated Gasoline, 2000," http://www.eia.doe.gov/emeu/steo/pub/special/rfg4.html).

Refiners have begun producing the new Summer Phase 2 reformulated gasoline. But the price premium for the Summer Phase 2 RFG has averaged about 8 cents per gallon in April. While we expect the price premium to decline as the program fully phases in, there is a significant new uncertainty in RFG pricing. On March 29, 2000, the Federal Circuit Court upheld the validity of Unocal Corporation's reformulated motor gasoline patent (Patent No. 5,288,393 awarded by the U.S. Patent and Trademark office on Feb. 22, 1994), confirming an earlier Federal District Court jury award of damages of 5.75 cents per gallon against six refiners that had infringed on the patent in California. Roger C. Beach, Unocal chairman and chief executive officer, suggested in a news release that "Unocal's patents may have application throughout the United States."

**Diesel Fuel Oil.** Diesel fuel oil prices tend to mirror the seasonal motor gasoline price path, but can also be strongly affected by the heating oil situation, particularly during the winter months. The price for this fuel, like the price of gasoline, began to slip towards the end of March as crude oil prices fell. However, unlike the price of gasoline, which continues to drop, diesel prices have experienced a slight bump upward in April. Low supplies of distillate fuel, resulting from increased gasoline production at the expense of diesel (and other distillate fuels), has put some upward pressure on the price. The most recent data, though, shows the retail price falling along with the growth of distillate stocks. We expect that diesel fuel prices will decline through the rest of the year, but at a slower rate than the projected motor gasoline price decline.

**Natural Gas**. Natural gas prices at the wellhead are projected to increase by more than 50 cents per thousand cubic feet this year compared to last year. Spot prices have been rising since January in response not only to the sharp jump in oil prices, but primarily due to the tight storage situation. Underground storage levels are currently about 5 percent below yearago levels, putting upward pressure on the price as we enter the injection season. Wellhead gas prices are poised to continue to increase through the summer and into next winter as gas demand growth in the industrial and electric utility sectors is projected to outstrip production gains.

**Electric Utility Fuels**. Natural gas is projected to maintain its price advantage over residual fuel oil as a fuel input for electric utility generation through the year 2000 (Figure 7). Next year, the advantage for gas is expected to disappear as gas prices continue to climb while oil prices continue their projected downward slope.

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

Total U.S. petroleum demand is projected to continue to increase throughout the forecast interval. That growth is expected to witness a sharp slowdown in 2000 before accelerating once again in 2001.

Although available data point to continued, broad-based, robust growth in the economy as a whole, several factors are believed to contribute to minimal growth in petroleum products demand in the current year, currently projected to increase by only 100,000 barrels per day, or 0.5 percent. The most important factor is the substantial year-to-year increase in both crude oil and product prices. For this year, crude oil prices are projected to rise more than 40 percent; product-price escalations are expected to range from 20-25 percent for retail motor gasoline and distillate prices to approximately 40 percent for jet fuel and residual fuel oil prices. Although several products have exhibited price declines from their mid-March peaks, prices are projected to remain much higher than last year even as they continue to decline. Another factor, which affected beginning-of-year supplies, is the industry response to consumers' fears of possible Y2K supply disruptions. Data indicate additional shipments in late 1999, offset by lower shipments in early 2000. Available data show that total petroleum products supplied for the first quarter 2000 were 300,000 barrels per day less than during the same period in 1999. An additional factor is the warm first-quarter weather, which turned out to be even milder than that last year's warmer-than-normal weather despite the late-January cold snap in the Northeast.

The first two factors are expected to constrain the increase in motor gasoline demand to less than 1.1 percent for this year, less than the growth rate in 1999 (Figure 8). All three factors account for much of the weakness in distillate fuel growth: total distillate fuel demand growth is projected to increase by 1.8 percent, compared to the 3 percent growth recorded in the previous year. Residual fuel oil demand is projected to decline by almost 16 percent as that fuel continues to be displaced by natural gas in both the electric utility and industrial sectors. Buoyed by a 5-percent increase in utilization and a 4- percent growth in capacity, jet fuel demand is projected to climb by more than 3 percent for the year, despite continued increases in ticket prices.

An assumed return to normal winter weather, further declines in oil prices, and continued robust growth in economic activity (projected to be more than 3 percent) are expected to contribute to an acceleration in petroleum demand growth in 2001 to 440,000 barrels per day, or 2.2 percent. Motor gasoline demand growth is projected to accelerate to 1.8 percent and distillate fuel oil demand is projected to increase by 1.9 percent. Jet fuel demand is projected to climb a further 2.5 percent. Reflecting price declines, residual fuel oil is forecasted to recover part of its losses, jumping by almost 9 percent.

Figure 7. Fossil Fuel Prices to Electric Utilities

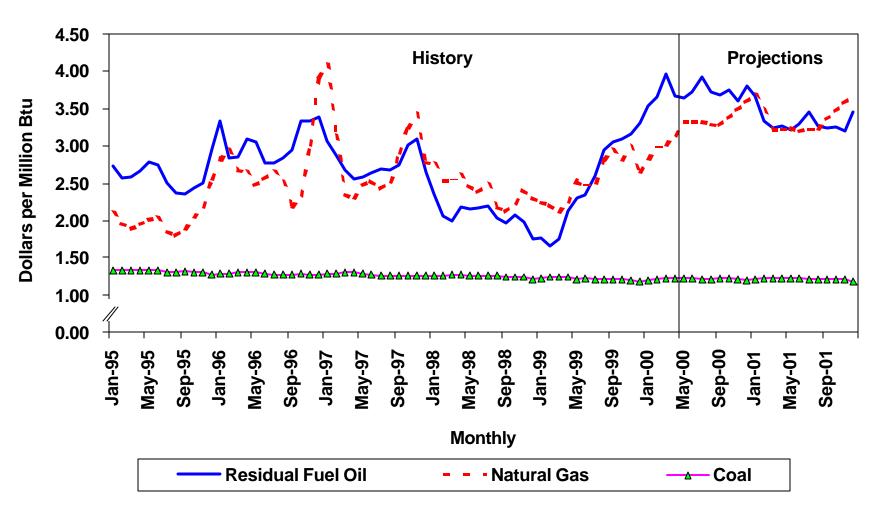
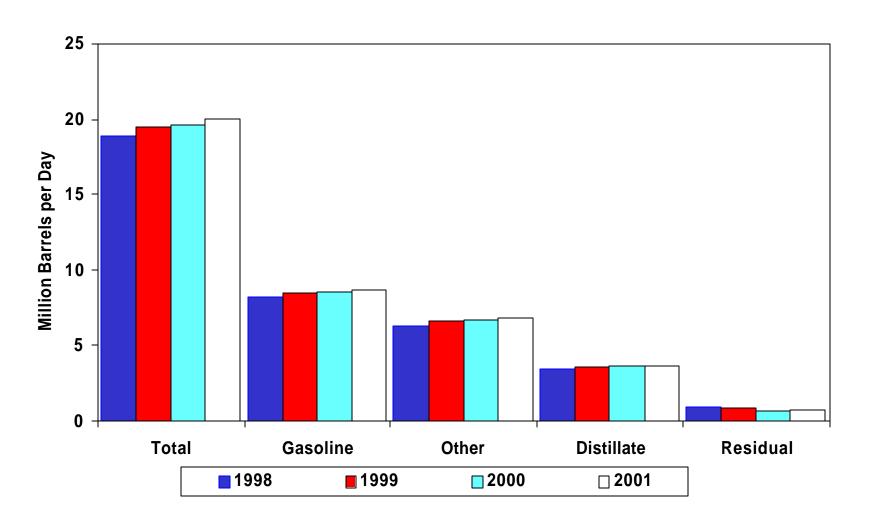




Figure 8. Annual Petroleum Demand by Product





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

Average domestic crude oil production is expected to decrease by 160,000 barrels of oil per day (bpd), or 2.7 percent, in 2000 to a level of 5.76 million bpd. For 2001, a 1.3 percent decrease is expected and results in an average production rate of 5.70 million bpd for the year.

Lower 48 States oil production is expected to decrease by 50,000 bpd to a rate of 4.82 million bpd in 2000 followed by a decrease of 33,000 bpd in 2001 (Figure 9).

Oil production from the Mars, Ram Powell, Auger, Troika Ursa, Diana, Hoover and Baldpate Federal Offshore fields is expected to account for about 11.4 percent of the lower 48 oil production by the 4th quarter of 2001. Shell started production in 1999 in their Ursa field which will peak in production in the year 2000. Exxon's Diana and Hoover fields will produce together and will start production in mid 2000 at a rate of 30,000 bpd increasing to 100,000 bpd in early 2001. There have been shut-ins on the Mars platform in December and January in order to connect production from Shell's Europa satellite field

Alaska is expected to account for 15.8 percent of the total U.S. oil production in 2001. Its oil production is expected to decrease by 10.5 percent in 2000 and again by 4.1 percent in 2001.

#### **Natural Gas Supply and Demand**

The forecast for natural gas demand in 2000 has been revised downward slightly due to somewhat lower projections for industrial and electric utility demand for natural gas compared with April's Outlook (Figure 10). This is due primarily to the rising price of natural gas.

Net natural gas imports estimates were revised downward in the first quarter 2000 from the April estimate, based on more complete data collected. Projected dry gas production is unchanged, and is still expected to rise by 1.2 percent in 2000 and by only 0.3 percent in 2001 despite the high price of gas and rising demand. For the remainder of this year at least, it is clear that the overall domestic supply situation remains tight.

Regarding the developing U.S. natural gas market balance and the market tightness evidenced by sharply higher gas prices this spring, there is an anomaly in EIA's reported gas balance (Table 8) that bears mentioning. With reasonably complete monthly data through all of 1999, EIA is currently showing an approximately 900 billion cubic foot excess of reported supply over reported demand, called the "balancing item". For most years, some excess reported supply has been seen. The consistency of this result (over the last 50 years only 1996 and 1997 have shown excess reported demand) may be attributed to a certain amount of loss of gas volume from leakage related to long-distance transportation and storage. However, in no year for which EIA has estimates (going back to 1949) has the balancing item exceeded 700 billion cubic feet in absolute value. The average annual value for the past 20 years (1980-1999) is 350 billion cubic feet of excess reported supply. The current estimate of 900 billion cubic feet for 1999 is not expected to hold up as more final annual estimates of U.S. production and demand become available. In the meantime some combination of overestimated production and underestimated demand (presumably accounting for as much as 500-600 billion cubic feet of the anomalous portion of the estimated balancing item) plague the natural gas demand and supply estimates for 1999. The current situation makes it difficult to paint a clear picture of the risks of escalating gas prices in 2000. However, one item that is not currently confounded by serious measurement questions is gas storage, and, ultimately, changes there summarize what is going on with the U.S. gas balance. We think it is instructive to observe that, despite

Figure 9. U.S. Crude Oil Production

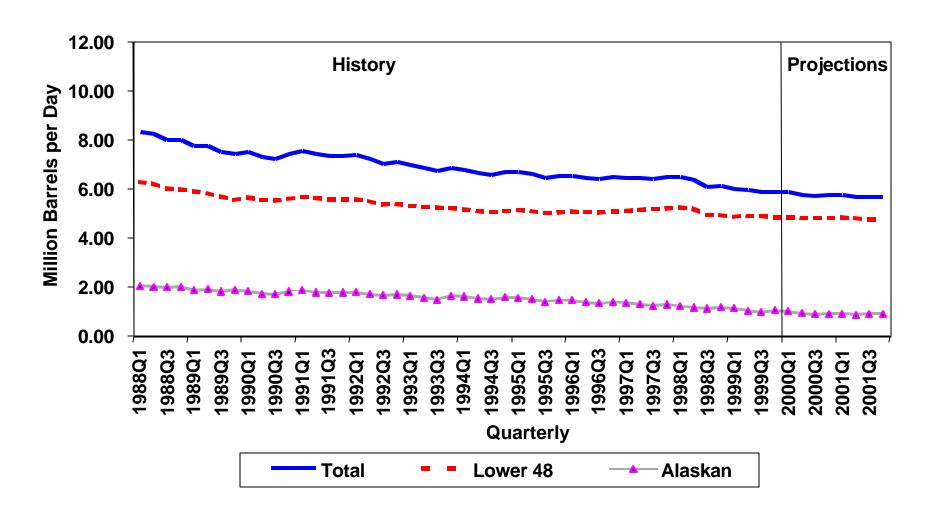
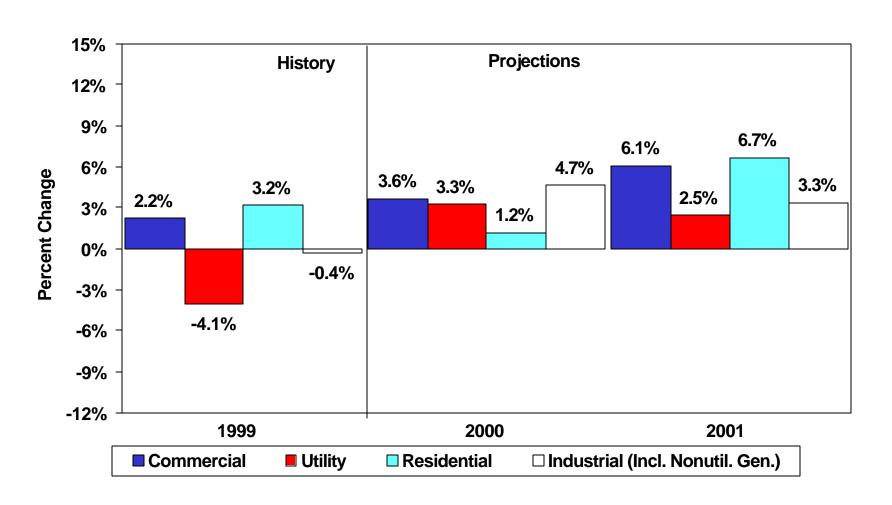




Figure 10. Annual Changes in Natural Gas Demand by Sector





the weather conditions that drove heating demand during the past heating season well below normal (the Northeast cold spike in late January notwithstanding), gas in underground storage in the United States was driven down from the pre-season peak about as much as one would expect for normal (i.e., colder) weather conditions. While storage is currently in the lower half of the normal range, the expectation that demand increases in late 2000 and early 2001 could be very large, even if weather is normal, drives some concern regarding the ability of the domestic industry to push gas storage to comfortable levels by the beginning of autumn.

Summer natural gas futures prices are trading above \$3.00/mmbtu, evidence of concerns regarding possible high summer temperatures and thus higher summer demand in conjunction with the relatively low level of storage. For the first time since 1996, stocks were drawn down in April (Figure 11). According to the American Gas Association, there were 1,027 billion cubic feet (bcf) in storage as of April 21, or 31% full. At this level, stocks were 347 bcf lower than they were the same time last year. Stocks in the eastern consuming region were 175 bcf lower than the same time last year and only 23% full. The producing region was at 34% full. The lack of net injections of storage gas during the first three weeks of April has effectively reduced the refill period by three weeks, although significant additions in April are not customary. Currently high prices appear to be discouraging a higher rate of storage injections. Periods of unseasonably hot temperatures could stymie storage injection plans.

### **Electricity Demand and Supply**

Total annual electricity demand for 1999 has been revised upward by about 1 percent compared with the April Outlook. This is the result of revisions to reported 1999 data. The increases are spread across all sectors (Figure 12). In 2000, electricity demand is now expected to increase by 2.2 percent and in 2001 by 2.1 percent. This is still on track with average electricity growth between 1990 and 1998, which was about 2.0 percent per year.

Fears of electric power reliability for this summer persist as a result of the power outages and other problems of last summer. The summer of 1999 (second and third quarters) was 5.0% hotter than normal, but the month of July, in particular, was a record 14.4 percent hotter than normal. Of the six power outages that occurred in the week ending July 10, 1999, four of them took place in the Mid-Atlantic region. Affected by the outages were New York City, New Jersey, Long Island and the Delmarva Peninsula. Edison Electric Institute (EEI) data show that electricity output in the Mid-Atlantic region jumped by 27.6 percent above what it was in the same week in 1998, or by 2,343 gigawatt-hours. Although this additional demand was not unusual, the circumstances were. As part of the heat wave that affected much of the eastern U.S., a severe heat storm on July 6 impacted cables and transformers at the same time that the additional output was called for, causing outages which affected thousands of customers.

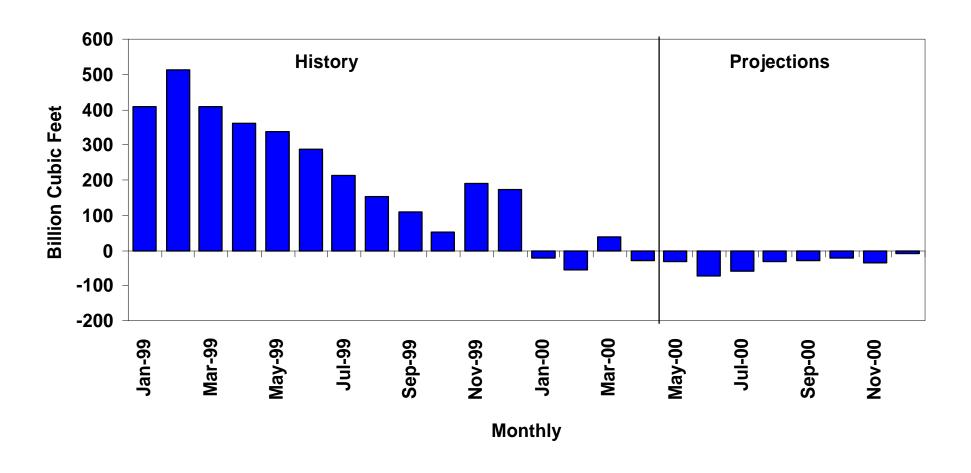
However, our forecast is based on the assumption of normal weather, which implies that this summer's cooling degree-days (CDD) would be 4.6 percent below last summer's CDD. Overall, summer electricity demand is expected to be up by less than 1 percent compared with last summer's demand. The Southeastern Reliability Council (SERC) has said that electric power capacity margins have increased by 2 percent since its forecast for the last summer, indicating that supplies should be adequate to meet expected demand at expected conditions, but shortages cannot be ruled out if there is a repeat of last summer's record heat. A major concern for utilities is the possibility of severely spiking power prices during hot spells.

The fuel mix at electric utilities shows the effects of increased price competition between oil and natural gas, particularly in 2001, due to the assumption of falling oil prices and rising

natural gas prices. Nuclear electric generation is mostly unchanged from last month's Outlook, while hydroelectric generation was revised downward slightly following the addition of lower-than-expected actual output levels for January.

## Figure 11. Natural Gas in Storage

(Difference from Previous 5-Year Average)





## Figure 12. Annual Changes in U.S. Electricity Demand

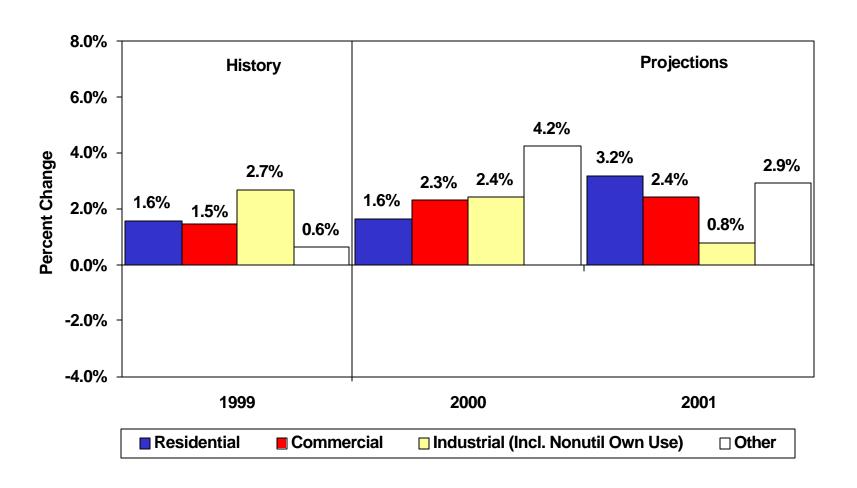




Table HL1. U. S. Energy Supply and Demand

		Year			Annua	I Percentage	e Change
	1998	1999	2000	2001	1998-1999	1999-2000	2000-2001
Real Gross Domestic Product (GDP)				•	•		
(billion chained 1996 dollars)	8516	8867	9219	9514	4.1	4.0	3.2
,							
Imported Crude Oil Price <sup>a</sup>							
(nominal dollars per barrel)	12.08	17.21	24.35	21.50	42.5	41.5	-11.7
(							
Petroleum Supply (million barrels per day)							
Crude Oil Production b	6.25	5.93	5.77	5.69	-5.1	-2.7	-1.4
Order On Froduction	0.20	0.50	0.77	0.00	0.1	2.7	1. 1
Total Petroleum Net Imports							
(including SPR)	9.76	9.84	10.54	11.00	0.8	7.1	4.4
(Illicidality SFIX)	9.70	3.04	10.54	11.00	0.0	7.1	4.4
Energy Demand							
Energy Demand							
World Petroleum							
	70.0	747	75.0	77.0	4.5	4.0	0.5
(million barrels per day)	73.6	74.7	75.9	77.8	1.5	1.6	2.5
D. ( )							
Petroleum	10.00	10.50	10.01	2221			
(million barrels per day)	18.92	19.50	19.61	20.04	3.1	0.6	2.2
Natural Gas							
(trillion cubic feet)	21.26	21.38	22.05	22.97	0.6	3.1	4.2
Coal <sup>c</sup>							
(million short tons)	1039	1038	1087	1121	-0.1	4.7	3.1
Electricity (billion kilowatthours)							
Utility Sales d	3240	3296	3356	3429	1.7	1.8	2.2
Nonutility/Sales <sup>e</sup>	156	165	181	183	5.8	9.7	1.1
Total	3396	3461	3537	3612	1.9	2.2	2.1
Total Energy Demand <sup>f</sup>							
(quadrillion Btu)	94.4	96.1	97.9	100.2	1.8	1.9	2.3
Total Energy Demand per Dollar of GDP							
(thousand Btu per 1996 Dollar)	11.09	10.83	10.62	10.53	-2.3	-1.9	-0.8
,							
Renewable Energy as Percent of Total <sup>9</sup>	7.0	6.9	6.8	6.6			
,,,,,,,,,							

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

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 CONTROL0300.

bIncludes lease condensate.

<sup>&</sup>lt;sup>c</sup>Total Demand includes estimated Independent Power Producer (IPP) coal consumption.

<sup>&</sup>lt;sup>d</sup>Total annual electric utility sales for historical periods are initially 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." Final annual totals are taken from compilations from Form EIA -861, ":Annual Electric Utility Report."

<sup>&</sup>lt;sup>e</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 1999 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

Table 1. U.S. Macroeconomic and Weather Assumptions

		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Macroeconomic <sup>a</sup>															
Real Gross Domestic Product															
(billion chained 1996 dollars - SAAR)	8738	8779	8901	9051	9133	9191	9244	9306	9393	9472	9555	9637	8867	9219	9514
Percentage Change from Prior Year	3.9	3.8	4.3	4.5	4.5	4.7	3.9	2.8	2.8	3.1	3.4	3.6	4.1	4.0	3.2
Annualized Percent Change															
from Prior Quarter	3.6	1.9	5.6	6.8	3.6	2.6	2.3	2.7	3.7	3.4	3.5	3.4			
GDP Implicit Price Deflator															
(Index, 1996=1.000)	1.038	1.041	1.044	1.049	1.056	1.059	1.063	1.067	1.072	1.075	1.079	1.084	1.043	1.061	1.077
Percentage Change from Prior Year	1.3	1.4	1.3	1.6	1.7	1.7	1.8	1.7	1.5	1.4	1.5	1.6	1.4	1.7	1.5
Real Disposable Personal Income															
(billion chained 1996 Dollars - SAAR)	6289	6339	6385	6455	6528	6596	6653	6702	6779	6846	6919	6974	6367	6620	6880
Percentage Change from Prior Year	4.3	4.1	3.7	3.7	3.8	4.1	4.2	3.8	3.8	3.8	4.0	4.1	4.0	4.0	3.9
Manufacturing Production															
(Index, 1992=1.000)	1.392	1.409	1.425	1.448	1.463	1.463	1.462	1.466	1.476	1.493	1.513	1.532	1.418	1.464	1.504
Percentage Change from Prior Year	3.5	4.1	4.4	4.7	5.1	3.9	2.6	1.2	0.9	2.1	3.5	4.5	4.2	3.2	2.7
OECD Economic Growth (percent) b													2.6	2.7	2.7
Weather <sup>c</sup>															
Heating Degree-Days															
U.S.	2153	489	79	1456	2025	519	85	1622	2235	522	85	1622	4177	4251	4464
New England	3040	784	86	2097	3055	892	167	2240	3179	893	167	2239	6007	6354	6478

2004 5334

1240 1234

SAAR: Seasonally-adjusted annualized rate.

Middle Atlantic.....

U.S. Gas-Weighted.....

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 CONTROL0300.

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

<sup>&</sup>lt;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.

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

37		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Macroeconomic <sup>a</sup>															
Real Fixed Investment															
(billion chained 1996 dollars-SAAR)	1556	1581	1607	1616	1673	1700	1710	1724	1749	1772	1788	1810	1590	1702	1780
Real Exchange Rate															,
(index)	1.134	1.170	1.163	1.145	1.169	1.153	1.159	1.156	1.136	1.111	1.090	1.071	1.153	1.159	1.102
Business Inventory Change															
(billion chained 1996 dollars-SAAR)	0.0	-8.3	1.7	10.2	11.7	11.3	9.8	6.7	7.0	9.7	14.3	18.9	0.9	9.9	12.5
Producer Price Index															
(index, 1982=1.000)	1.228	1.245	1.268	1.278	1.299	1.304	1.304	1.304	1.308	1.306	1.308	1.311	1.255	1.303	1.308
Consumer Price Index															
(index, 1982-1984=1.000)	1.649	1.662	1.672	1.684	1.699	1.711	1.719	1.725	1.734	1.740	1.750	1.760	1.667	1.714	1.746
Petroleum Product Price Index															
(index, 1982=1.000)	0.446	0.591	0.682	0.719	0.830	0.787	0.768	0.741	0.752	0.722	0.706	0.684	0.610	0.782	0.716
Non-Farm Employment															
(millions)	127.7	128.2	128.9	129.6	130.3	131.0	131.5	131.8	132.3	132.7	133.3	133.8	128.6	131.2	133.0
Commercial Employment															
(millions)	88.5	89.2	89.8	90.4	91.0	91.5	92.1	92.7	93.3	93.8	94.3	94.9	89.5	91.8	94.1
Total Industrial Production															
(index, 1992=1.000)	1.346	1.361	1.377	1.396	1.412	1.415	1.414	1.418	1.428	1.442	1.459	1.475	1.370	1.415	1.451
Housing Stock															
(millions)	115.4	115.8	116.0	116.1	116.5	116.8	117.1	117.5	117.8	118.1	118.4	118.7	115.8	117.0	118.3
Miscellaneous															
Gas Weighted Industrial Production	l														
(index, 1992=1.000)	1.179	1.176	1.186	1.210	1.212	1.214	1.207	1.206	1.211	1.221	1.232	1.241	1.188	1.210	1.226
	1.179	1.176	1.100	1.210	1.212	1.214	1.207	1.200	1.211	1.221	1.232	1.241	1.100	1.210	1.220
Vehicle Miles Traveled b (million miles/day)	6724	7556	7706	7250	6700	7671	7070	7400	7062	7777	70.40	7522	7244	7440	7500
Vehicle Fuel Efficiency	6731	7556	7706	7358	6789	7671	7879	7422	7062	7777	7948	7532	7341	7442	7582
(index, 1999=1.000)	0.988	0.993	1 007	1 007	0.005	0.992	1 011	1 001	0.004	0.000	1 010	1 000	0.000	1 001	1 002
Real Vehicle Fuel Cost	0.900	0.993	1.007	1.007	0.995	0.992	1.014	1.004	0.994	0.999	1.010	1.008	0.999	1.001	1.003
(cents per mile)	2.99	3.35	3.52	3.76	4.17	4.14	3.85	3.84	3.78	3.67	3.59	3.58	3.40	4.00	3.65
Air Travel Capacity	2.99	3.33	3.32	3.70	4.17	4.14	3.00	3.04	3.70	3.07	3.59	3.30	3.40	4.00	3.00
(mill. available ton-miles/day)	431.0	452.4	467.2	466.6	465.5	468.5	483.9	472.9	485.0	484.3	500.3	489.6	454.4	472.7	489.8
Aircraft Utilization	431.0	432.4	407.2	400.0	400.0	400.3	403.9	412.9	400.0	404.3	300.3	409.0	434.4	4/2./	409.0
(mill. revenue ton-miles/day)	242.2	263.4	276.3	260.6	259.8	277.2	289.8	273.9	267.3	283.7	298.8	285.1	260.7	275.2	283.8
Airline Ticket Price Index	272.2	203.4	210.3	200.0	203.0	211.2	209.0	213.9	207.3	203.7	230.0	200.1	200.1	210.2	203.0
(index, 1982-1984=1.000)	2.130	2.186	2.180	2.254	2.309	2.367	2 3/6	2 257	2.383	2 383	2 383	2 406	2.188	2.345	2.389
Raw Steel Production	2.130	2.100	2.100	2.234	2.509	2.307	2.340	2.307	2.303	2.303	2.303	2.400	2.100	2.340	2.309
(millions tons)	25.11	25.97	26.26	26.28	26.23	26.35	26.25	26.62	26.88	2720	27.07	27.47	103.63	105.45	108.61
(	23.11	20.91	20.20	20.20	20.23	20.00	20.20	20.02	20.00	27.20	27.07	21.71	100.00	100.40	100.01

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

blincludes all highway travel.

Seasonally-adjusted a

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 CONTROL0300.

SAAR: Seasonally-adjusted annualized rate.

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

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

(Million Barrels per Day, Except OECD Commercial Stocks)

(Willion Barreis pe	. 24,	1999	<u> </u>			2000	<del>, , , , , , , , , , , , , , , , , , , </del>			2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Demand <sup>a</sup>															
OECD															
U.S. (50 States)	. 19.3	19.2	19.8	19.8	18.9	19.5	19.9	20.1	19.9	19.8	20.1	20.3	19.5	19.6	20.0
U.S. Territories	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
Canada	. 1.9	1.8	1.9	1.9	1.9	1.8	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9
Europe	. 15.3	13.8	14.1	14.9	14.6	14.2	14.7	15.3	15.1	14.2	14.7	15.4	14.5	14.7	14.8
Japan	6.2	5.0	5.2	5.9	5.8	5.3	5.4	5.9	6.2	5.1	5.3	5.8	5.6	5.6	5.6
Australia and New Zealand	. 1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.0	1.0
Total OECD	43.9	41.1	42.3	43.9	42.5	42.2	43.3	44.7	44.6	42.4	43.6	45.0	42.8	43.2	43.9
Non-OECD															
Former Soviet Union	3.8	3.5	3.6	3.7	3.8	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.6	3.7	3.7
Europe	. 1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.7
China	4.4	4.3	4.3	4.3	4.6	4.5	4.5	4.5	4.8	4.8	4.7	4.8	4.3	4.5	4.8
Other Asia	8.8	8.8	8.7	9.0	9.1	9.2	8.9	9.3	9.6	9.6	9.2	9.7	8.8	9.1	9.5
Other Non-OECD	. 13.3	13.6	13.6	13.6	13.6	13.9	14.0	13.9	14.0	14.3	14.4	14.3	13.5	13.9	14.3
Total Non-OECD	31.8	31.8	31.7	32.2	32.7	32.8	32.6	33.0	33.9	34.0	33.7	34.1	31.9	32.8	33.9
Total World Demand	. 75.7	72.9	74.0	76.1	75.2	75.0	76.0	77.6	78.5	76.3	77.3	79.1	74.7	75.9	77.8
Supply <sup>b</sup>															
OECD															
U.S. (50 States)	9.0	9.0	9.0	9.2	9.1	8.9	8.8	8.9	8.9	8.9	8.9	8.9	9.0	9.0	8.9
Canada	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.6	2.7	2.7
North Sea <sup>c</sup>	6.3	6.0	6.2	6.7	6.7	6.5	6.6	6.8	6.9	6.7	7.0	7.2	6.3	6.7	6.9
Other OECD	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.5	1.6	1.6
Total OECD	. 19.3	19.1	19.4	20.1	20.1	19.7	19.8	20.1	20.2	19.9	20.2	20.5	19.5	19.9	20.2
Non-OECD															
OPEC	30.3	28.9	29.2	28.7	29.2	30.4	30.7	31.4	31.7	31.8	32.0	32.3	29.3	30.4	31.9
Former Soviet Union	7.3	7.3	7.5	7.5	7.4	7.3	7.3	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.4
China	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.3
Mexico	3.6	3.4	3.3	3.3	3.3	3.4	3.6	3.6	3.7	3.7	3.7	3.8	3.4	3.5	3.7
Other Non-OECD	. 11.3	11.1	11.2	11.2	11.2	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.2	11.3	11.6
Total Non-OECD	. 55.7	53.9	54.4	53.9	54.2	55.5	56.2	57.1	57.5	57.6	58.1	58.5	54.5	55.8	57.9
Total World Supply	75.0	73.0	73.8	74.0	74.3	75.2	76.0	77.2	77.7	77.5	78.3	79.0	73.9	75.7	78.1
Stock Changes															
Net Stock Withdrawals or Additions (-	)														
U.S. (50 States including SPR)	0.3	-0.3	0.3	1.3	0.1	-0.6	-0.3	0.3	0.2	-0.6	-0.3	0.4	0.4	-0.1	-0.1
Other	0.4	0.2	-0.1	0.7	0.8	0.3	0.3	0.1	0.7	-0.6	-0.8	-0.4	0.3	0.4	-0.3
Total Stock Withdrawals	0.7	-0.1	0.2	2.1	0.8	-0.2	0.0	0.4	0.9	-1.2	-1.0	0.1	0.7	0.3	-0.3
OECD Comm. Stocks, End (bill. bbls.)	2.8	2.8	2.8	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.7	2.6	2.6	2.5	2.6
Non-OPEC Supply		44.1	44.5	45.3	45.1	44.8	45.3	45.8	46.0	45.7	46.3	46.7	44.7	45.3	46.2
Net Exports from Former Soviet Union	3.5	3.8	3.9	3.8	3.6	3.7	3.7	3.8	3.6	3.6	3.7	3.7	3.8	3.7	3.7

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U. S. Energy Prices

(Nominal Dollars)

(Nominal Dollars)		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
			0.0				0.0				0.0		1000		
Imported Crude Oil <sup>a</sup>															
(dollars per barrel)	10.92	15.44	19.62	23.00	26.50	23.84	23.97	23.41	22.32	21.47	21.41	20.82	17.21	24.35	21.50
Natural Gas Wellhead					2.22	0.00	0.75	0.00	0.74	0.00	0.00	0.05		0.04	0.75
(dollars per thousand cubic feet)	. 1.74	2.00	2.27	2.26	2.23	2.69	2.75	2.88	2.74	2.62	2.69	2.95	2.07	2.64	2.75
Petroleum Products															
Gasoline Retail <sup>b</sup> (dollars per gallon)															
All Grades	0.99	1.17	1.25	1.30	1.44	1.48	1.42	1.35	1.32	1.34	1.34	1.29	1.18	1.42	1.33
Regular Unleaded		1.13	1.21	1.26	1.40	1.45	1.39	1.32	1.28	1.31	1.31	1.26	1.14	1.39	1.29
No. 2 Diesel Oil, Retail															
(dollars per gallon)	. 0.97	1.08	1.18	1.26	1.42	1.41	1.37	1.35	1.29	1.26	1.25	1.25	1.12	1.39	1.26
No. 2 Hooting Oil Wholosolo	l														
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.36	0.44	0.56	0.65	0.85	0.70	0.70	0.71	0.67	0.63	0.63	0.64	0.51	0.74	0.64
(dollars per gallori)	. 0.50	0.77	0.50	0.00	0.00	0.70	0.70	0.11	0.07	0.00	0.00	0.04	0.01	0.74	0.04
No. 2 Heating Oil, Retail															
(dollars per gallon)	0.80	0.83	0.84	1.01	1.31	1.09	1.01	1.05	1.06	1.00	0.94	1.00	0.87	1.17	1.02
No. 6 Residual Fuel Oil, Retail <sup>c</sup>															
(dollars per barrel)	. 11.28	14.02	17.97	21.06	23.98	22.67	22.76	23.03	22.14	20.06	19.90	20.42	15.86	23.12	20.65
Electric Htility Eugle															
Electric Utility Fuels															
Coal															
(dollars per million Btu)	1.24	1.23	1.21	1.19	1.21	1.23	1.21	1.21	1.22	1.23	1.21	1.20	1.22	1.21	1.21
Heavy Fuel Oil <sup>d</sup>															
(dollars per million Btu)	1.72	2.26	2.82	3.17	3.67	3.69	3.80	3.72	3.42	3.26	3.33	3.31	2.38	3.74	3.33
	1														
Natural Gas	0.40	0.40	0.70	0.00	0.05	0.00	0.00	0.47	0.40	0.00	0.00	0.57	o ==	0.07	0.05
(dollars per million Btu)	. 2.19	2.42	2.73	2.82	2.95	3.28	3.30	3.47	3.46	3.23	3.26	3.57	2.57	3.27	3.35
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	6.06	6.84	8.58	6.84	6.27	7.30	9.06	7.43	7.24	7.85	9.21	7.56	6.61	6.99	7.56
Electricity															
(cents per kilowatthour)	7.76	8.25	8.40	8.10	7.73	8.09	8.35	7.87	7.46	8.05	8.30	7.84	8.14	8.03	7.92

aRefiner acquisition cost (RAC) of imported crude oil.

Monthly, DOE/EIA-0380; Natural Gas Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0226.

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

<sup>&</sup>lt;sup>c</sup>Average for all sulfur contents.

 $<sup>\</sup>overset{\text{d}}{\text{Includes}}$  fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first quarter of 2000. 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

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

(Million Barrels per Day, Except Closing Stocks)

		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Crude Oil Supply															
Domestic Production a	6.00	5.95	5.87	5.89	5.85	5.76	5.69	5.76	5.75	5.68	5.67	5.67	5.93	5.77	5.69
Alaska	1.13	1.04	0.98	1.05	1.01	0.94	0.89	0.92	0.91	0.87	0.91	0.91	1.05	0.94	0.90
Lower 48	4.86	4.91	4.89	4.84	4.84	4.82	4.80	4.83	4.84	4.81	4.76	4.76	4.88	4.83	4.79
Net Imports (including SPR) b	8.41	8.88	8.83	8.21	8.00	9.47	9.77	9.48	9.26	9.83	9.82	9.51	8.58	9.18	9.61
Other SPR Supply	0.00	0.00	0.07	0.10	0.03	0.04	0.07	0.07	0.00	0.00	0.00	0.00	0.04	0.05	0.00
SPR Stock Withdrawn or Added (-)	-0.01	-0.03	-0.01	0.09	-0.02	-0.09	-0.14	-0.14	0.00	0.00	0.00	0.00	0.01	-0.10	0.00
Other Stock Withdrawn or Added (-)	-0.24	0.15	0.31	0.21	-0.10	-0.07	0.19	0.05	-0.19	-0.04		-0.02	0.11	0.02	-0.02
Product Supplied and Losses	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
Unaccounted-for Crude Oil	0.26	0.03	0.21	0.26	0.42	0.31	0.22	0.21	0.21	0.22	0.22	0.22	0.19	0.29	0.22
Total Crude Oil Supply	14.42	15.01	15.22	14.57	14.14	15.34	15.66	15.29	15.03	15.69	15.87	15.39	14.80	15.11	15.4
Other Cumply															
Other Supply  NGL Production	1.72	1.80	1.89	1.94	1.95	1.87	1.88	1.90	1.92	1.92	1.92	1.93	1.84	1.90	1.92
Other Hydrocarbon and Alcohol Inputs	0.37	0.37	0.38	0.39	0.39		0.36	0.38			0.36	0.38	0.38		0.37
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.00	0.36 0.00	0.00	0.00	0.37	0.36	0.00	0.00	0.00	0.37	0.00
Processing Gain	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00
Net Product Imports <sup>c</sup>	1.32	1.48	1.34	0.89	1.32	1.42	1.46	1.23	1.35	1.48	1.47	1.29	1.26	1.36	1.40
2															
Product Stock Withdrawn or Added (-)	0.59	-0.38	0.04	1.04	0.20	-0.42	-0.39	0.39	0.35		-0.41	0.44		-0.05	
Total Supply  Demand	19.28	19.16	19.76	19.80	18.93	19.50	19.89	20.10	19.89	19.81	20.12	20.34	19.50	19.61	20.0
Motor Gasoline	7.00	0.50	0.00	0.54	7.00	0.70	0.74	0.04	0.00	0.70	0.00	0.70	0.40	0.50	0.00
Jet Fuel	7.98	8.59	8.62	8.54	7.99	8.73	8.74	8.64	8.32	8.79	8.86	8.73	8.43	8.53	8.68
Distillate Fuel Oil	1.70	1.61	1.68	1.70	1.63	1.70	1.77	1.79	1.78	1.72	1.77	1.79	1.67	1.72	1.77
Residual Fuel Oil	3.71	3.37	3.43	3.74	3.73	3.58	3.48	3.72	3.91	3.58	3.52	3.78	3.56	3.63	3.70
	0.98	0.79	0.84	0.77	0.73	0.63	0.75	0.74	0.82	0.75	0.78	0.75	0.85	0.71	0.77
Other Oils <sup>d</sup>	4.92	4.80	5.19	5.05	4.86	4.85	5.14	5.21	5.06	4.97	5.19	5.28	4.99	5.02	5.13
Total Demand	19.28	19.16	19.77	19.80	18.93	19.50	19.89	20.10	19.89	19.81	20.12	20.34	19.50	19.61	20.0
Total Petroleum Net Imports	9.73	10.35	10.18	9.10	9.31	10.89	11.23	10.71	10.61	11.31	11.29	10.81	9.84	10.54	11.0
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	345	332	304	284	294	301	283	278	295	299	285	286	284	278	286
Total Motor Gasoline	215	214	204	190	204	198	191	194	198	198	194	200	190	194	200
Finished Motor Gasoline	167	171	159	152	157	157	150	154	153	158	153	158	152	154	158
Blending Components	48	43	44	39	47	41	40	40	45	41	41	41	39	40	41
Jet Fuel	42	47	49	40	42	43	45	43	41	43	45	43	40	43	43
Distillate Fuel Oil	125	132	144	124	99	106	127	134	105	114	131	130	124	134	130
Residual Fuel Oil	39	43	41	36	35	35	37	39	36	37	39	40	36	39	40
Other Oils <sup>e</sup>	279	298	293	244	236	272	290	245	243	282	302	257	244	245	257
Total Stocks (excluding SPR)	1044	1065	1033	919	910	955	973	932	918	972	996	956	919	932	956
Crude Oil in SPR	572	575	575	567	569	577	590	603	603	603	603	603	567	603	603
		1640	1609	1486	1479	1532	1563	1535	1521	1576	1599	1560	1486	1535	1560

<sup>&</sup>lt;sup>a</sup>Includes lease condensate.

Notes: Minor discrepancies with other EIA published historical data are due to rounding, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's Petroleum Supply Monthly, TableC1. 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.

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

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

dIncludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

<sup>&</sup>lt;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

Table 6. Approximate Energy Demand Sensitivities for the STIFS Model

(Percent Deviation Base Case)

,	,	+ 10	% Prices	+ 10%	% Weather <sup>e</sup>
Demand Sector	+1% GDP	Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer <sup>f</sup>
Petroleum					
Total	0.6%	-0.3%	0.1%	1.1%	0.1%
Motor Gasoline	0.1%	-0.3%	0.0%	0.0%	0.0%
Distillate Fuel	0.8%	-0.2%	0.0%	2.7%	0.1%
Residual Fuel	1.6%	-3.4%	2.6%	2.0%	2.7%
Natural Gas					
Total	1.1%	0.3%	-0.4%	4.4%	1.0%
Residential	0.1%	0.0%	0.0%	8.2%	0.0%
Commercial	0.1%	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%

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

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

(Million Barrels per Day)

(Willion Barrels per Day)				Difference	
	High Price Case	Low Price Case	Total	Uncertainty	Price Impact
United States	6.24	5.31	0.93	0.08	0.85
Lower 48 States	5.31	4.41	0.90	0.07	0.83
Alaska	0.93	0.90	0.03	0.02	0.02

Note: Components provided are for the fourth quarter 2001. 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.

 $<sup>^{\</sup>mathrm{b}}$ Short-Term Integrated Forecasting System.

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

 $<sup>^{\</sup>rm d}\!\!$  Average unit value of marketed natural gas production reported by States.

eRefers to percent changes in degree-days.

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

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

(Trillion Cubic Feet)

,		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Total Dry Gas Production	4.69	4.66	4.64	4.67	4.74	4.71	4.72	4.72	4.72	4.73	4.75	4.75	18.66	18.89	18.94
Net Imports	0.83	0.79	0.87	0.89	0.85	0.85	0.92	0.93	0.93	0.94	0.95	0.95	3.39	3.56	3.77
Supplemental Gaseous Fuels	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.10	0.12	0.13
Total New Supply	5.55	5.48	5.53	5.59	5.62	5.59	5.67	5.68	5.68	5.71	5.72	5.73	22.15	22.56	22.84
Total Underground Storage															
Opening	7.04	5.79	6.50	7.24	6.88	5.52	6.19	7.10	6.68	5.35	6.18	7.10	7.04	6.88	6.68
Closing	5.79	6.50	7.24	6.88	5.52	6.19	7.10	6.68	5.35	6.18	7.10	6.68	6.88	6.68	6.68
Net Withdrawals	1.25	-0.71	-0.74	0.36	1.37	-0.68	-0.91	0.42	1.33	-0.83	-0.92	0.42	0.16	0.20	0.00
Total Supply	6.80	4.77	4.79	5.96	6.99	4.91	4.76	6.10	7.01	4.87	4.80	6.15	22.31	22.76	22.84
Balancing Item <sup>a</sup>	-0.01	-0.05	-0.26	-0.61	-0.14	-0.15	-0.20	-0.23	0.34	0.13	-0.15	-0.20	-0.93	-0.72	0.13
Total Primary Supply	6.79	4.71	4.53	5.35	6.85	4.77	4.56	5.87	7.36	5.01	4.66	5 95	21.38	22.05	22 97
Total I limary Supply	0.10			0.00	0.00		7.00	0.07	7.00	0.01	1.00	0.00	2.1.00	22.00	22.07
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	1.23	1.24	1.23
Pipeline Use	0.20	0.14	0.14	0.16	0.19	0.13	0.13	0.17	0.21	0.14	0.13	0.18	0.64	0.62	0.66
Residential	2.24	0.81	0.38	1.24	2.18	0.79	0.34	1.42	2.43	0.83	0.34	1.43	4.67	4.72	5.04
Commercial	1.26	0.59	0.43	0.79	1.28	0.58	0.40	0.91	1.41	0.62	0.41	0.93	3.07	3.18	3.37
Industrial (Incl. Nonutility Use)	2.24	2.02	2.13	2.27	2.31	2.14	2.21	2.39	2.41	2.23	2.27	2.45	8.65	9.06	9.36
Electric Utilities	0.54	0.85	1.15	0.59	0.57	0.81	1.17	0.67	0.58	0.88	1.19	0.65	3.13	3.23	3.31
Total Demand	6.79	4.71	4.53	5.35	6.85	4.77	4.56	5.87	7.36	5.01	4.66	5.95	21.38	22.05	22.97

<sup>&</sup>lt;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.

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

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

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

(Million Short Tons)

·		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2000 2nd	3rd	4th	1st	2001 2nd	3rd	4th	1999	2000	2001
Committee	ist	2na	3ra	4tn	ist	2na	3ra	4th	TSt	2na	3ra	4th	1999	2000	2001
Supply Production	202 E	264.0	272.0	272.6	280.8	272.6	2027	200.0	200 1	200.2	20E 1	200.0	10040	11200	1151.7
					200.0		104.1			108.3			1094.0 423.3	1128.0 427.2	427.6
Appalachia			42.4						112.9		102.4	104.0			
Interior		40.8		38.9	38.4	40.6	42.1	39.6	37.7	41.3	40.7	37.7	162.5	160.7	157.3
Western	128.3	119.8	128.5	131.6	130.6	127.4	137.4	144.7	137.6	138.6	142.3	148.3	508.2	540.0	566.8
Primary Stock Levels <sup>a</sup>															
Opening	36.5	42.4	41.5	35.1	36.4	41.3	41.9	35.5	36.4	41.3	41.9	35.5	36.5	36.4	36.4
Closing	42.4	41.5	35.1	36.4	41.3	41.9	35.5	36.4	41.3	41.9	35.5	34.6	36.4	36.4	34.6
Net Withdrawals	-5.8	0.8	6.5	-1.3	-4.9	-0.6	6.4	-0.9	-4.9	-0.6	6.4	0.9	0.2	(S)	1.7
Imports	2.2	2.1	2.4	2.4	2.7	2.5	2.5	2.6	2.9	2.9	2.9	2.9	9.1	10.3	11.6
Exports	13.0	14.4	16.1	15.0	14.4	15.0	15.2	15.2	14.9	15.1	15.3	15.2	58.5	59.8	60.5
Total Net Domestic Supply	267.0	252.5	266.6	258.7	264.2	259.5	277.3	277.5	271.3	275.4	279.3	278.6	1044.8	1078.6	1104.6
Secondary Stock Levels <sup>b</sup> Opening	129.4	143.3	151.9	139.7	143.5	147.2	156.0	142.0	147.5	144.1	156.1	140.7	129.4	143.5	147.5
Closing					147.2	156.0	142.0		144.1	156.1	140.7	143.0	143.5	147.5	143.0
Net Withdrawals		-8.6	12.2	-3.8	-3.6	-8.8	14.0	-5.5	3.4	-12.0	15.4	-2.3	-14.1	-4.0	4.5
Waste Coal Supplied to IPPs <sup>c</sup>		2.2	2.6	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	9.7	12.2	12.2
Tracto Coal Cappillou to 11 10					0	0	0	0.,	0	0	0	0			
Total Supply	255.2	246.1	281.4	257.6	263.6	253.8	294.4	275.0	277.7	266.5	297.8	279.3	1040.4	1086.8	1121.3
Demand															
Coke Plants	6.8	7.1	7.0	7.0	7.1	6.9	6.9	7.0	7.2	7.0	7.0	7.1	27.9	27.8	28.2
Electricity Production															
Electric Utilities		213.8	247.3	216.7	215.1	207.2	244.6	223.9	227.8	219.3	247.5	227.2	894.1	890.8	921.8
Nonutilities (Excl. Cogen.) d	8.4	10.3	12.3	15.0	23.2	22.3	25.5	24.2	23.8	22.8	26.1	24.8	45.9	95.2	97.6
Retail and General Industry		17.1	16.9	17.6	18.2	17.4	17.5	19.9	19.0	17.3	17.3	20.1	70.3	73.0	73.7
Total Demand <sup>e</sup>	250.2	248.3	283.6	256.3	263.6	253.8	294.4	275.0	277.7	266.5	297.8	279.3	1038.3	1086.8	1121.3
Discrepancy f	5.0	-2.1	-2.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0

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

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.

<sup>&</sup>lt;sup>b</sup>Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

<sup>&</sup>lt;sup>c</sup>Estimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>&</sup>lt;sup>d</sup>Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 1999 and projections for 2000 and 2001 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1998 and 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

<sup>&</sup>lt;sup>e</sup>Total Demand includes estimated IPP consumption.

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

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

4th

1st

3rd

1999

2nd

1st

(Billion Kilowatt-hours)

Supply

Net Utility Generation															
Coal	. 430.0	423.8	487.6	426.2	428.2	410.3	482.4	441.0	449.4	433.1	486.1	446.0	1767.7	1761.9	1814.5
Petroleum	. 25.7	22.2	27.4	11.7	12.6	9.8	21.6	15.2	20.1	19.3	24.1	17.5	86.9	59.2	81.1
Natural Gas	. 51.5	80.7	107.5	56.7	54.8	77.7	111.9	64.0	55.9	84.5	113.8	62.1	296.4	308.4	316.2
Nuclear	. 181.2	166.1	195.0	182.6	185.0	184.0	184.2	166.1	180.8	164.1	192.7	173.7	725.0	719.4	711.2
Hydroelectric	. 83.4	79.8	69.9	60.9	72.5	78.2	65.3	61.9	72.8	74.5	62.0	61.1	293.9	278.0	270.4
Geothermal and Other a	. 1.6	1.0	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.6	3.7	2.2	2.2
Subtotal	. 773.4	773.6	888.0	738.7	753.6	760.5	866.1	748.8	779.5	776.0	879.3	760.9	3173.6	3129.0	3195.6
Nonutility Generation <sup>b</sup>															
Coal	. 20.6	24.7	33.6	38.2	53.0	49.5	56.6	55.2	52.9	50.7	58.0	56.5	117.2	214.3	218.0
Petroleum	. 6.5	7.2	7.4	4.8	8.9	7.5	8.1	9.1	7.7	7.5	8.1	9.1	25.9	33.5	32.5
Natural Gas	. 52.0	57.1	73.4	65.9	56.5	63.8	80.8	70.2	56.0	67.2	85.2	74.0	248.4	271.2	282.4
Other Gaseous Fuels c	. 1.9	2.1	2.7	2.4	2.1	1.9	2.0	2.3	2.0	1.9	2.1	2.3	9.1	8.3	8.2
Nuclear	. 0.0	0.0	0.8	2.1	3.8	3.1	3.1	2.8	3.0	2.7	3.2	2.9	2.9	12.7	11.8
Hydroelectric	. 3.4	3.4	2.4	2.6	2.9	2.8	2.7	3.2	2.8	2.8	2.8	3.2	11.9	11.6	11.7
Geothermal and Other d	. 18.7	20.1	21.0	19.6	20.3	19.7	21.8	24.4	20.9	20.0	22.1	24.7	79.4	86.2	87.7
Subtotal	. 103.2	114.7	141.3	135.6	147.4	148.1	175.1	167.1	145.4	152.9	181.4	172.7	494.8	637.8	652.4
Total Generation	. 876.5	888.3	1029.3	874.3	901.0	908.7	1041.2	916.0	924.9	928.8	1060.7	933.6	3668.4	3766.9	3848.0
Net Imports <sup>e</sup>	. 2.0	7.6	11.5	8.2	6.7	7.6	9.0	7.2	6.2	7.7	10.5	7.0	29.3	30.5	31.4
Total Supply	. 878.5	895.9	1040.8	882.5	907.7	916.3	1050.2	923.2	931.0	936.5	1071.2	940.6	3697.7	3797.3	3879.4
Losses and Unaccounted for f	E4 7	74.9	57.0	52.8	47.7	77.7	67.3	67.2	51.0	79.4	68.7	68.6	236.4	260.1	267.0
Losses and Onaccounted for	. 31.7	74.9	57.0	32.0	47.7	//./	67.3	67.3	51.0	79.4	00.7	00.0	230.4	260.1	267.8
Demand															
Electric Utility Sales															
Residential	. 287.7	251.0	350.9	256.1	293.8	258.5	342.7	269.5	308.1	267.7	351.0	274.9	1145.7	1164.5	1201.7
Commercial		238.6	279.6	236.8	237.0	242.3	282.2	244.1			288.4	249.0	982.9	1005.6	1029.8
Industrial		267.7	277.6	265.7	260.4	269.5	279.3	267.9	259.7		282.4	271.9		1077.1	1025.0
Other		25.3	28.4	25.7	26.8	26.1	28.9	26.8	27.3	26.9	29.9	27.8	1003.3	1077.1	111.8
O 11 101	. 47.7	20.0	20.7				933.1	808.3	839.2	814.2	951.6	823.6			3428.7
Subtotal	792 4	782 6	936.6	784 4	818 1	796.4				017.2	001.0				UTLU.1
Subtotal		782.6 38.3	936.6 47.2	784.4 45.3	818.1 41 9	796.4 42 1					50.9				182 9
Nonutility Use/Sales b	. 34.5	38.3	47.2	45.3	41.9	42.1	49.8	47.5	40.8	42.9	50.9 1002 5	48.4	165.3	181.3	182.9 3611.6
	. 34.5											48.4		181.3	182.9 3611.6
Nonutility Use/Sales b	. 34.5	38.3	47.2	45.3	41.9	42.1	49.8	47.5	40.8	42.9		48.4	165.3	181.3	
Nonutility Use/Sales <sup>b</sup> Total Demand	. 34.5	38.3	47.2	45.3	41.9	42.1	49.8	47.5	40.8	42.9		48.4	165.3	181.3	

2000

2nd

3rd

4th

1st

2001

2nd

3rd

4th

1999

Year

2000

2001

 $<sup>^{\</sup>rm a}\mbox{{\sc "Other"}}$  includes generation from wind, wood, waste, and solar sources.

<sup>&</sup>lt;sup>b</sup>Electricity(net Generation) from nonutility sources, including cogenerators and small power producers.

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

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

<sup>&</sup>lt;sup>e</sup>Data for 1999 are estimates.

<sup>&</sup>lt;sup>f</sup>Balancing item, mainly transmission and distribution losses.

<sup>&</sup>lt;sup>9</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 1999 are estimates.

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

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

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

(Quadrillion Btu)

		Year			Annual	Percentage	Change
	1998	1999	2000	2001	1998-1999	1999-2000	2000-2001
Electric Utilities		•			•		•
Hydroelectric Power <sup>a</sup>	3.178	3.068	2.902	2.823	-3.5	-5.4	-2.7
Geothermal, Solar and Wind Energy b	0.109	0.036	0.004	0.004	-67.0	-88.9	0.0
Biofuels <sup>c</sup>	0.021	0.020	0.021	0.021	-4.8	5.0	0.0
Total	3.307	3.125	2.926	2.847	-5.5	-6.4	-2.7
Nonutility Power Generators							
Hydroelectric Power <sup>a</sup>	0.149	0.122	0.120	0.120	-18.1	-1.6	0.0
Geothermal, Solar and Wind Energy b	0.240	0.303	0.425	0.436	26.3	40.3	2.6
Biofuels <sup>c</sup>	0.523	0.649	0.653	0.663	24.1	0.6	1.5
Total	0.912	1.075	1.198	1.219	17.9	11.4	1.8
Total Power Generation	4.219	4.199	4.124	4.067	-0.5	-1.8	-1.4
Total Fower Generation	4.219	4.199	4.124	4.007	-0.5	-1.0	-1.4
Other Sectors d							
Residential and Commercial <sup>e</sup>	0.568	0.574	0.583	0.583	1.1	1.6	0.0
Industrial <sup>f</sup>	1.515	1.542	1.569	1.569	1.8	1.8	0.0
Transportation <sup>g</sup>	0.095	0.101	0.100	0.100	6.3	-1.0	0.0
Total	2.178	2.217	2.252	2.253	1.8	1.6	0.0
Net Imported Electricity h	0.224	0.237	0.247	0.254	5.8	4.2	2.8
Total Renewable Energy Demand	6.621	6.653	6.623	6.573	0.5	-0.5	-0.8

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

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.

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

<sup>&</sup>lt;sup>c</sup>Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

dRenewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy.

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

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

<sup>&</sup>lt;sup>g</sup>Ethanol blended into gasoline.

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

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

								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Real Gross Domestic Product (GDP)															
(billion chained 1996 dollars)	6093	6349	6569	6684	6669	6891	7054	7338	7537	7813	8165	8516	8867	9219	9514
Imported Crude Oil Price <sup>a</sup>															
(nominal dollars per barrel)	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.21	24.35	21.50
Petroleum Supply															
Crude Oil Production <sup>b</sup>															
(million barrels per day)	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.93	5.77	5.69
Total Petroleum Net Imports (including SPR)															
(million barrels per day)	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.84	10.54	11.00
Energy Demand															
World Petroleum															
(million barrels per day)	63.1	64.9	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.4	73.1	73.6	74.7	75.9	77.8
U.S. Petroleum															
(million barrels per day)	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.50	19.61	20.04
Natural Gas															
(trillion cubic feet)	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.38	22.05	22.97
Coal															
(million short tons)	830	877	891	897	898	907	943	950	962	1006	1029	1039	1038	1087	1121
Electricity (billion kilowatthours)															
Utility Sales <sup>c</sup>	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3140	3240	3296	3356	3429
Nonutility Own Use d	NA	NA	91	113	119	122	127	138	145	145	148	156	165	181	183
Total	NA	NA	2738	2826	2881	2885	2988	3073	3159	3243	3288	3396	3461	3537	3612
Total Energy Demand <sup>e</sup>															
(quadrillion Btu)	NA	NA	84.2	84.2	84.5	85.6	87.4	89.2	90.9	93.9	94.2	94.4	96.1	97.9	100.2
Total Energy Demand per Dollar of GDP															
(thousand Btu per 1992 Dollar)	NA	NA	12.82	12.60	12.67	12.42	12.39	12.16	12.07	12.02	11.54	11.09	10.83	10.62	10.53
a														, , , , ,	, 0.00

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

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.

Includes lease condensate.

<sup>&</sup>lt;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>&</sup>lt;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 1999 are estimates.

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

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; Quarterly Coal Report, DOE/EIA-0121; International Petroleum Statistics Report DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0300.
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Table A2. Annual U.S. Macroeconomic and Weather Indicators

								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Macroeconomic															
Real Gross Domestic Product															
(billion chained 1996 dollars)	. 6093	6349	6569	6684	6669	6891	7054	7338	7537	7813	8165	8516	8867	9219	9514
GDP Implicit Price Deflator															
(Index, 1996=1.000)	. 0.779	0.805	0.835	0.868	0.897	0.917	0.942	0.961	0.982	1.000	1.017	1.029	1.043	1.061	1.077
Real Disposable Personal Income															
(billion chained 1996 Dollars)	. 4563	4766	4885	4991	5026	5200	5254	5388	5533	5678	5885	6125	6367	6620	6880
Manufacturing Production															
(Index, 1992=1.000)	0.928	0.971	0.990	0.985	0.962	1.000	1.037	1.100	1.159	1.213	1.298	1.361	1.418	1.464	1.504
Real Fixed Investment															
(billion chained 1996 dollars)	. 856	887	911	895	833	887	958	1046	1109	1213	1316	1472	1590	1702	1780
Real Exchange Rate															
(Index, 1990=1.000)	. NA	NA	NA	0.999	1.007	1.013	1.057	1.034	0.961	1.017	1.104	1.152	1.153	1.159	1.102
Business Inventory Change															
(billion chained 1996 dollars)	. 8.4	16.9	14.2	8.9	-6.8	-4.7	3.6	12.1	14.1	10.1	22.1	25.1	0.9	9.9	12.5
Producer Price Index															
(index, 1982=1.000)	. 1.028	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.255	1.303	1.308
Consumer Price Index															
(index, 1982-1984=1.000)	. 1.137	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.631	1.667	1.714	1.746
Petroleum Product Price Index															
(index, 1982=1.000)	. 0.568	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.610	0.782	0.716
Non-Farm Employment															
(millions)	. 102.0	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	128.6	131.2	133.0
Commercial Employment															
(millions)	. 65.2	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.5	91.8	94.1
Total Industrial Production															
(index, 1992=1.000)	0.932	0.974	0.991	0.989	0.970	1.000	1.034	1.091	1.144	1.195	1.270	1.324	1.370	1.415	1.451
Housing Stock															
(millions)	. 99.8	101.6	102.9	103.5	104.5	105.5	106.8	108.2	109.6	111.0	112.5	114.3	115.8	117.0	118.3
Weather <sup>a</sup>															
Heating Degree-Days															
U.S		4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4177	<i>4</i> 251	4464
New England		6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	6007	6354	6478
Middle Atlantic		6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5334	5555	5712
U.S. Gas-Weighted		4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4185	4409	4429	4703
Cooling Degree-Days (U.S.)	. 1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1156	1410	1277	1240	1234

<sup>&</sup>lt;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.

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 CONTROL0300.

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

Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Demand <sup>a</sup>		•	•							•		•			
OECD															
U.S. (50 States)	16.7	17.3	17.4	17.0	16.8	17.1	17.2	17.7	17.7	18.3	18.6	18.9	19.5	19.6	20.0
Europe <sup>b</sup>	12.3	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.7	14.5	14.7	14.8
Japan	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.6	5.6	5.6
Other OECD	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2	3.3	3.4
Total OECD	36.0	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	42.3	42.8	43.2	43.9
Non-OECD															
Former Soviet Union	9.0	8.9	8.7	8.4	8.3	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.6	3.7	3.7
Europe	2.2	2.2	2.1	1.9	1.4	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7
China	2.1	2.3	2.4	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.5	4.8
Other Asia	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.5	9.0	8.7	8.8	9.1	9.5
Other Non-OECD	9.7	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.1	12.4	13.0	13.3	13.5	13.9	14.3
Total Non-OECD	27.1	27.7	28.3	28.5	28.5	28.0	28.0	28.4	29.3	30.0	31.3	31.3	31.9	32.8	33.9
Total World Demand	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.3	69.9	71.4	73.1	73.6	74.7	75.9	77.8
Supply c           OECD           U.S. (50 States)	10.7	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.0	8.9
Canada	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.7	2.7
North Sea d	3.8	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.2	6.3	6.7	6.9
Other OECD	1.4	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.6
Total OECD	17.9	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	19.7	19.5	19.9	20.2
Non-OECD															
OPEC	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.3	30.4	31.9
Former Soviet Union	12.5	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.4	7.4	7.4
China	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3
Mexico	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.5	3.7
Other Non-OECD	6.9	11.7	7.7	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.5	10.8	11.2	11.3	11.6
Total Non-OECD	44.6	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	55.2	54.5	55.8	57.9
otal World Supply	62.5	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	74.9	73.9	75.7	78.1
Total Stock Withdrawals	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.4	0.0	0.0	-0.4	-1.0	-1.3	0.7	0.3	-0.3
PECD Comm. Stocks, End (bill. bbls.)	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.6	2.5	2.6
let Exports from Former Soviet Union	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.6	3.0	3.3	3.5	3.8	3.7	3.7

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table A4. Annual Average U. S. Energy Prices

(Nominal Dollars)

,								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Imported Crude Oil <sup>a</sup>															
(dollars per barrel)	14.00	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.21	24.35	21.50
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.66	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.95	2.07	2.64	2.75
Petroleum Products															
Gasoline Retail <sup>b</sup> (dollars per gallon)															
All Grades	0.91	0.92	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.42	1.33
Regular Unleaded	0.91	0.91	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.39	1.29
No. 2 Diesel Oil, Retail															
(dollars per gallon)	0.93	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.10	1.22	1.19	1.04	1.12	1.39	1.26
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.51	0.74	0.64
No. 2 Heating Oil, Retail															
(dollars per gallon)	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.89	0.87	0.99	0.99	0.85	0.87	1.17	1.02
No. 6 Residual Fuel Oil, Retail <sup>c</sup>															
(dollars per barrel)	17.76	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	15.86	23.12	20.65
Electric Utility Fuels															
Coal															
(dollars per million Btu)	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.21	1.21
Heavy Fuel Oil d															
(dollars per million Btu)	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	3.74	3.33
Natural Gas															
(dollars per million Btu)	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	3.27	3.35
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.61	6.99	7.56
Electricity	0.00	<b>VIII</b>	0.07	0.00	0.02	0.00	<b>V</b> 111	<b>V.</b>	0.00	0.00	0.00	0.00	<b>V.V.</b>	0.00	7.00
(cents per kilowatthour)	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.4	8.4	8.4	8.3	8.1	8.0	7.9

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

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-0335; Electric Power Monthly, DOE/EIA-0226.

Average self-service cash prices.

<sup>&</sup>lt;sup>c</sup>Average for all sulfur contents.

 $<sup>^{\</sup>rm d}$  Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

(Million Barrels per Day, Except Closing Stocks)

-								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Crude Oil Supply															
Domestic Production <sup>a</sup>	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.93	5.77	5.69
Alaska	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.94	0.90
Lower 48	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.88	4.83	4.79
Lower 48  Net Imports (including SPR) b	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.60	8.58	9.18	9.61
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	0.04	0.05	0.00
Stock Draw (Including SPR)	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.06	-0.05	0.11	-0.04	-0.02
Product Supplied and Losses	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.29	0.22
Total Crude Oil Supply	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.11	15.49
	12.00						10101								
Other Supply															
NGL Production	1.59	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.84	1.90	1.92
Other Hydrocarbon and Alcohol Inputs	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.37	0.37
Crude Oil Product Supplied	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Processing Gain	0.64	0.66	0.66	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.91	0.92	0.90
Net Product Imports <sup>c</sup>	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.26	1.36	1.40
Product Stock Withdrawn	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.32	-0.05	-0.04
Total Supply	16.72	17.33	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.50	19.61	20.04
Demand															
Motor Gasoline d	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.53	8.68
Jet Fuel	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	1.72	1.77
Distillate Fuel Oil	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.56	3.63	3.70
Residual Fuel Oil	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.85	0.71	0.77
Other Oils <sup>e</sup>	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	4.99	5.02	5.13
	0.00		0.00	0.00	0.00	0								0.02	0.70
Total Demand	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.50	19.61	20.04
Total Petroleum Net Imports	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.84	10.54	11.00
Closing Stocks (million barrols)															
Closing Stocks (million barrels) Crude Oil (excluding SPR)	349	330	341	323	325	318	335	337	303	284	305	324	284	278	286
Total Motor Gasoline	226	228	213	220	219	216	226	215	202	195	210	216	190	276 194	200
Jet Fuel	50	44	41	52	49	43	40	47	40	40	44	45	40	43	43
Distillate Fuel Oil	134	124	106	132	144	43 141	141	145	130	127	138	45 156	124	43 134	43 130
Residual Fuel Oil	47	45	44	49	50	43	44	42	37	46	40	45	36	39	40
Other Oils	260	267	257	261	267	263	273	275	258	250	259	291	244	245	257
a	200	201	231	201	201	203	LIJ	LIJ	230	230	233	231	477	270	201

aIncludes lease condensate.

Net imports ease contensate.

Net imports equals gross imports plus SPR imports minus exports.

Check imports equals gross imports plus SPR imports minus exports.

Check imports equals gross imports plus SPR imports minus exports.

Check imports equals gross imports plus SPR imports minus exports.

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 Admignistration, Short-Term Energy Outlook, EIA/DDE-0202(93/3Q), for details on this adjustment.

Fincludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

Includes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special 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, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's Petroleum Supply Monthly, TableC1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Trillion Cubic Feet)

								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Total Dry Gas Production	16.62	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	18.71	18.66	18.89	18.94
Net Imports	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.39	3.56	3.77
Supplemental Gaseous Fuels	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.12	0.13
Total New Supply	17.66	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.75	21.84	21.80	22.15	22.56	22.84
Total Underground Storage															
Opening	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	7.04	6.88	6.68
Closing	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	7.04	6.88	6.68	6.68
Net Withdrawals	0.02	-0.10	0.33	-0.61	0.76	0.14	-0.01	-0.32	0.46	-0.01	-0.01	-0.52	0.16	0.20	0.00
Net Withdrawais	0.02	-0.10	0.55	-0.01	0.10	0.17	-0.01	-0.52	0.40	-0.01	-0.01	-0.52	0.10	0.20	0.00
Total Supply	17.68	18.32	19.02	18.77	19.61	20.02	20.42	21.08	21.86	21.74	21.84	21.28	22.31	22.76	22.84
Balancing Item <sup>a</sup>	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.23	0.12	-0.02	-0.93	-0.72	0.13
Total Primary Supply	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.38	22.05	22.97
Demand															
Lease and Plant Fuel	1.15	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.16	1.23	1.24	1.23
Pipeline Use	0.52	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.64	0.62	0.66
Residential	4.31	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.67	4.72	5.04
Commercial	2.43	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.07	3.18	3.37
Industrial (Incl. Nonutilities)	5.95	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	8.69	8.65	9.06	9.36
Electric Utilities	2.84	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.13	3.23	3.31
Total Demand	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.38	22.05	22.97

<sup>&</sup>lt;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.

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

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

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

(Million Short Tons)

							Year								
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Production	918.8	950.3	980.7	1029.	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1094.0	1128.0	1151.7
Appalachia	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	423.3	427.2	427.6
Interior	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	160.7	157.3
Western	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	508.2	540.0	566.8
Primarv Stock Levels <sup>a</sup>															
Opening	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	36.4	36.4
Closing	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	36.4	36.4	34.6
Net Withdrawals	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	0.2	S	1.7
Imports	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	10.3	11.6
Exports	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	59.8	60.5
Total Net Domestic Supply	844.7	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1044.8	1078.6	1104.6
Secondary Stock Levels b Opening Closing Net Withdrawals Waste Coal Supplied to IPPs c	175.2 185.5 -10.2 0.0	185.5 158.4 27.0 0.0	158.4 146.1 12.3 0.0	146.1 168.2 -22.1 0.0	168.2 167.7 0.5 0.0	167.7 163.7 4.0 6.0	163.7 120.5 43.2 6.4	120.5 136.1 -15.7 7.9	136.1 134.6 1.5 8.5	134.6 123.0 11.7 8.8	123.0 106.4 16.6 8.1	106.4 129.4 -23.0 8.6	129.4 143.5 -14.1 9.7	143.5 147.5 -4.0 12.2	147.5 143.0 4.5 12.2
Total Supply	834.4	882.3	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.3	1040.4	1086.8	1121.3
Demand															
Coke PlantsElectricity Production	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	27.9	27.8	28.2
Electric Utilities	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	894.1	890.8	921.8
Nonutilities (Excl. Coaen.) d	NA	NA	0.9	1.6	10.2	14.6	17.1	19.5	20.8	22.2	21.6	26.9	45.9	95.2	97.6
Retail and General Industry	75.2	76.3	82.3	83.1	81.5	80.2	81.1	81.2	78.9	76.9	77.1	73.0	70.3	73.0	73.7
Total Demand <sup>e</sup>	830.0	876.5	890.6	897.1	897.8	907.0	943.1	949.7	961.7	1005.6	1029.2	1039.0	1038.3	1086.8	1121.3
Discrepancy f	4.4	5.8	5.9	2.4	-6.4	0.8	-6.6	4.3	-1.3	1.2	4.0	-7.7	2.1	0.0	0.0

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

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.

<sup>&</sup>lt;sup>b</sup>Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

<sup>&</sup>lt;sup>C</sup>Estimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>&</sup>lt;sup>d</sup>Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 1999 and projections for 2000 and 2001 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

<sup>&</sup>lt;sup>e</sup>Total Demand includes estimated IPP consumption.

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

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.

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

(Billion Kilowatt-hours)

											Year				
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply Net Utility Generation															
Coal	1463.8	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1787.8	1807.5	1767.7	1761.9	1814.5
Petroleum	118.5	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	77.8	110.2	86.9	59.2	81.1
Natural Gas	272.6	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	283.6	309.2	296.4	308.4	316.2
Nuclear	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	725.0	719.4	711.2
Hydroelectric	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	304.4	293.9	278.0	270.4
Geothermal and Other a	12.3	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.2	3.7	2.2	2.2
Subtotal	2572.1	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3173.6	3129.0	3195.6
Nonutility Generation b	NA	NA	187.6	216.7	246.3	286.2	314.4	343.1	363.3	369.6	371.7	405.7	494.8	637.8	652.4
Total Generation	NA	NA	2965.1	3041.8	3087.5	3083.4	3196.9	3253.8	3357.8	3447.0	3494.2	3617.9	3668.4	3766.9	3848.0
Net Imports <sup>c</sup>	46.3	31.8	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	29.3	30.5	31.4
Total Supply	NA	NA	2976.0	3044.1	3107.2	3108.8	3224.7	3298.6	3397.1	3485.0	3530.8	3645.5	3697.7	3797.3	3879.4
Losses and Unaccounted for <sup>d</sup>	NA	NA	239.7	215.9	223.7	223.6	236.3	225.7	238.4	242.3	242.9	249.4	236.4	260.1	267.8
Demand															
Electric Utility Sales															
Residential	850.4	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.8	1127.7	1145.7	1164.5	1201.7
Commercial	660.4	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.4	968.5	982.9	1005.6	1029.8
Industrial	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1030.4	1032.7	1040.0	1063.3	1077.1	1085.4
Other	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	104.2	108.6	111.8
Subtotal	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3097.8	3139.8	3239.8	3296.0	3355.9	3428.7
Nonutility Own Use <sup>e</sup>	NA	NA	94.7	101.5	108.0	121.8	126.9	138.4	145.4	144.9	148.2	156.2	165.3	181.3	182.9
Total Demand	NA	NA	2736.3	2828.3	2883.5	2885.1	2988.4	3073.0	3158.7	3242.7	3287.9	3396.0	3461.3	3537.2	3611.6
Memo:															
Nonutility Sales															
to Electric Utilities	NA	NA	92.9	115.2	138.3	164.4	187.5	204.7	217.9	224.6	223.5	249.5	329.5	456.5	469.5

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

<sup>&</sup>lt;sup>b</sup>Net generation.

<sup>&</sup>lt;sup>c</sup>Data for 1999 are estimates.

<sup>&</sup>lt;sup>d</sup>Balancing item, mainly transmission and distribution losses.

<sup>&</sup>lt;sup>e</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 1999 are estimates.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: *Electric Power Monthly*, DOE/EIA-0226 and Electric Power Annual,DOE/EIA-0348. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.