

February 2000

Highlights

International Oil Markets

Prices. We have raised our world oil price projection by about \$2 per barrel for this month because of assumed greater compliance by OPEC to targeted cuts, especially for the second quarter of 2000 (Figure 1). The expected decline in world petroleum inventories continues (Figure 2), and, given the generally stiff resolve of OPEC members to maintain production cuts, any sign of a turnaround in stocks may be postponed until later this year than previously assumed (Q3 instead of Q2). Our current estimate for the average import cost this past January is now \$25 per barrel, a nearly \$15-per-barrel increase from January 1999. Crude oil prices are expected to remain at relatively high levels for the first half of 2000, but should gradually recede if OPEC expands production as assumed. Average U.S. refiner import costs under our base case assumptions would be \$24.21 per barrel in 2000 and \$21.36 next year. The base case trajectory for oil prices implies monthly West Texas Intermediate (WTI) spot prices above \$22 through 2001. A chance for a break in the price pressure comes with an expected increase in world demand of only 1.2 million barrels per day this year. Otherwise, current (relatively high) price levels may persist longer than indicated in the base case. The upper bound of our uncertainty range for crude oil prices suggests the extent of our take on upside price risk (Figure 3).

OPEC Production. Although much hinges on the outcome of the March 27 OPEC Ministerial Meeting, OPEC production is assumed to increase substantially in 2000, if perhaps somewhat more slowly than previously projected. This forecast includes the assumption that OPEC production will increase by about 1.0 million barrels per day in 2000, whether from an increased quota or a decrease in compliance. Our forecast also assumes that OPEC production in 2001 will average about 1.5 million barrels per day higher than the expected average for 2000 (Figure 4).

Non-OPEC Production. Non-OPEC oil production is expected to be about 900,000 barrels per day higher this year than in it was in 1999, with the largest single contribution (400,000 barrels per day) coming from the North Sea (Table 3). Approximately equal contributions of about 100,000 barrels per day expected from Mexico, Canada and Australia make up most of the rest of the expected increases in non-OPEC output.

Demand. EIA estimates that world oil demand will grow by about 1.2 million barrels per day in 2000, and by an additional 1.9 million barrels per day (1.8 percent growth) in 2001 (Figure 5 and Table 3). Our higher oil price assumptions this month have resulted in slight reductions in expected demand in the United States and in some non-OECD regions. On average, world demand will still exceed production this year, so a net withdrawal from inventories worldwide is still expected. However, year-over-year declines in stocks are expected to end during the second half of 2000.

Figure 1. Assumed OPEC Compliance to Production Cuts

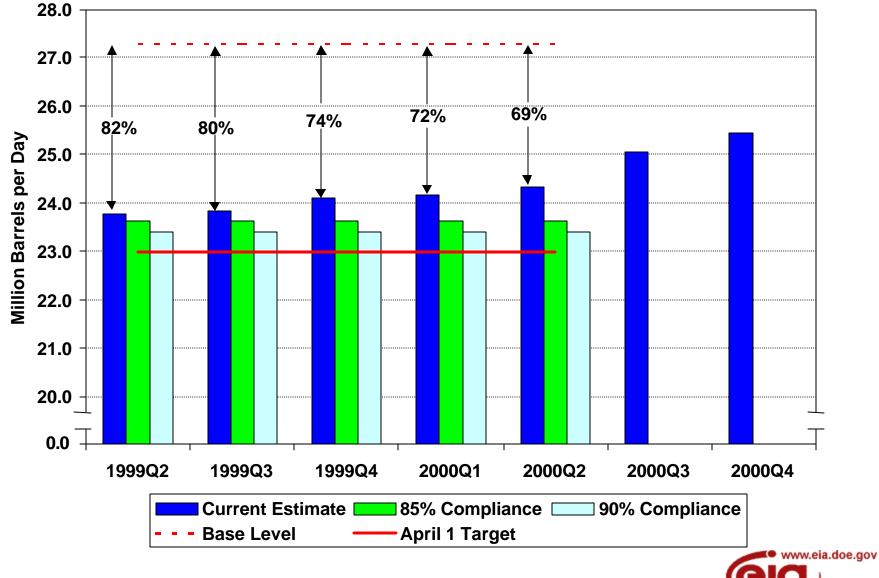


Figure 2. OECD Petroleum Inventories



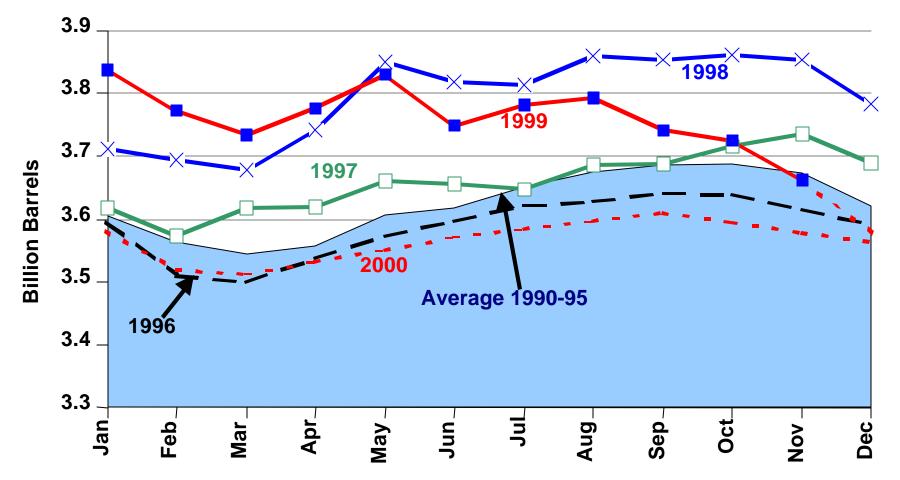




Figure 3. U.S. Monthly Crude Oil Prices

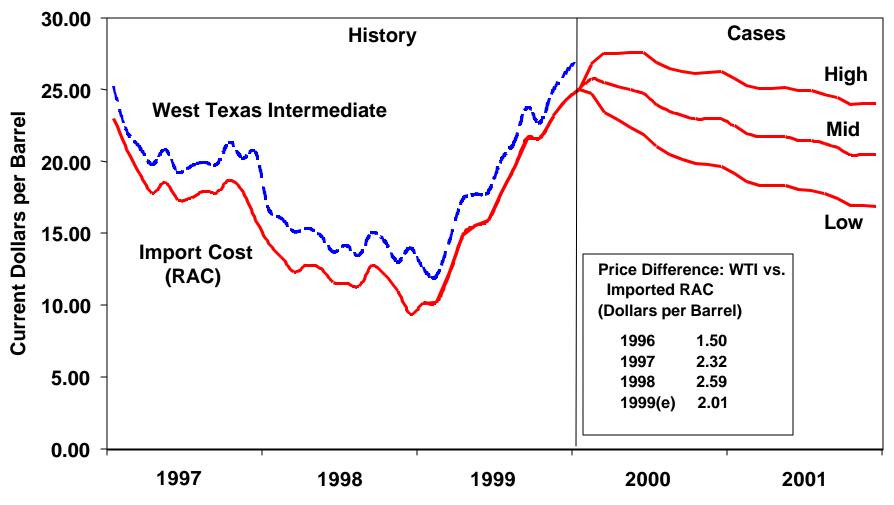




Figure 4. World Oil Supply (Changes from Previous Year)

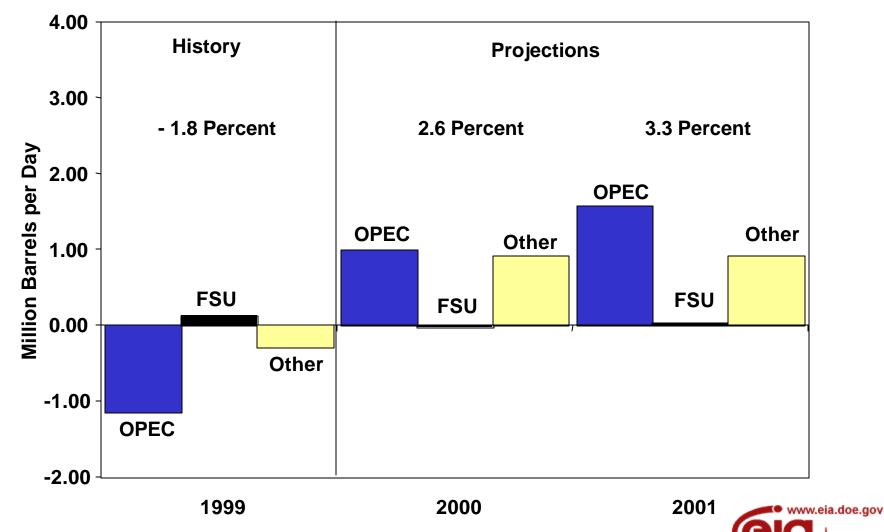
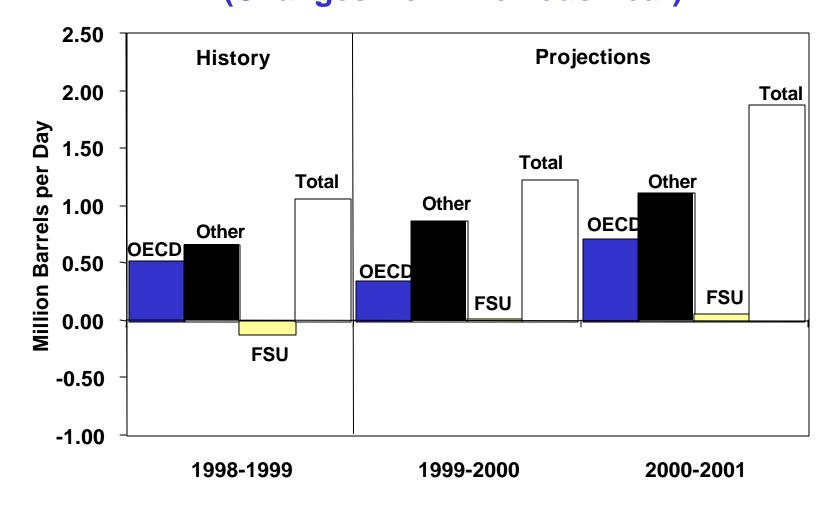


Figure 5. World Oil Demand (Changes from Previous Year)





U.S. Energy Prices

The petroleum price projections have been revised upward compared to our previous report. Some of these revisions have been quite substantial, particularly the middle distillates prices. Heating fuel oil prices (and other distillate prices) soared due to rising crude oil costs combined with bitterly cold weather in the last half of January. Low distillate stocks intensified the price surge.

Average crude oil prices have increased by over \$5.00 per barrel from 1998 to 1999 and are expected to increase by another \$7.00 per barrel this year, compared to a projected \$5.00 per barrel in the previous forecast (Figure 6). Thus, the projected crude oil prices for the year 2000 are expected to be twice the 1998 price. It should be understood though, that crude oil prices, when adjusted for inflation, were at near record lows in 1998. For the year 2000, we should expect to see petroleum product price increases averaging around 20-40 cents per gallon over the prior year, due to the higher crude prices and low first-quarter stocks (Tables 4 and 5). However, next year, we project falling crude oil prices that would, in turn, lead to lower petroleum product prices.

Heating Oil. New York Harbor (NYH) spot prices of heating oil vaulted to record levels in the third week of January, jumping by nearly 50 cents per gallon to reach about \$1.30 per gallon. The cold weather which had lingered in the Mid-Atlantic and New England regions of the U.S., combined with precariously low stocks levels in some areas, resulted in a price panic. The NYH spot price has been bouncing around, dropping by more than 40 cents toward the end of last month; then rebounding by even more than that within a few days. On February 3, 2000 the NYH spot price broke a new record, topping \$1.40 per gallon. Adjusting for inflation, this was the highest NYH spot price for heating oil since December 1989. {However, we estimate that the spot price would have to hit \$1.54 per gallon in order to break the inflation adjusted high from 1989. (See <u>Distillate Watch</u> for the most current weekly EIA distillate data.)

The Northeast region, which contains about 75 percent of the domestic residential heating oil market, started the year with lower-than-normal stocks of distillate, further adding to the price pressures of rising crude costs and cold weather. Also, during the second half of January, some electric utilities, industrial users, and commercial users were forced to buy fuel oil in lieu of natural gas due to the provisions of interruptible natural gas contracts that they had entered into. The addition to incremental fuel oil demand by the utilities, industrials and commercials contributed to the sharp bidding up of Northeast fuel oil prices in January. The actual extent to which this occurred this past January is not really known, but the phenomenon was an important factor in the December 1989 price spike (Figure 7). Spot prices for other petroleum products, such as diesel fuel, jet fuel and low sulfur residual fuel oil, soared as well. For example, the NHY spot price for low-sulfur (0.0-0.3 percent) residual fuel oil shot up to from \$26 per barrel in early January to \$37 per barrel one month later. At the same time, the NYH spot price for higher sulfur residual fuel (1.0 percent sulfur) increased by less than \$5.00 per barrel. This was because, as a substitute for natural gas, only the scarcer "cleaner" low sulfur fuel would meet air quality regulations in some regions of the country. Thus, users of the low sulfur fuel had to pay a premium in order to It is interesting to note that these price spikes are mainly an East Coast burn oil. phenomenon. Spot prices at other locations, such as the Gulf Coast or Chicago, rose by

Figure 6. World Oil Price Projections

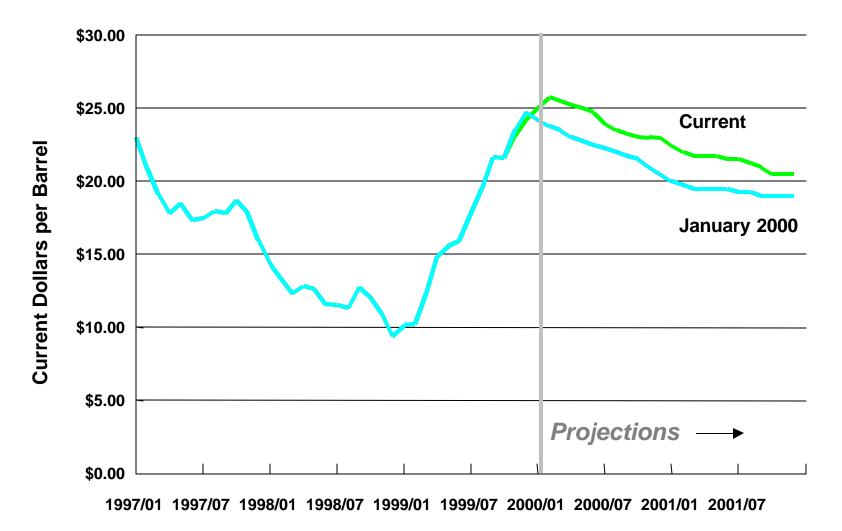
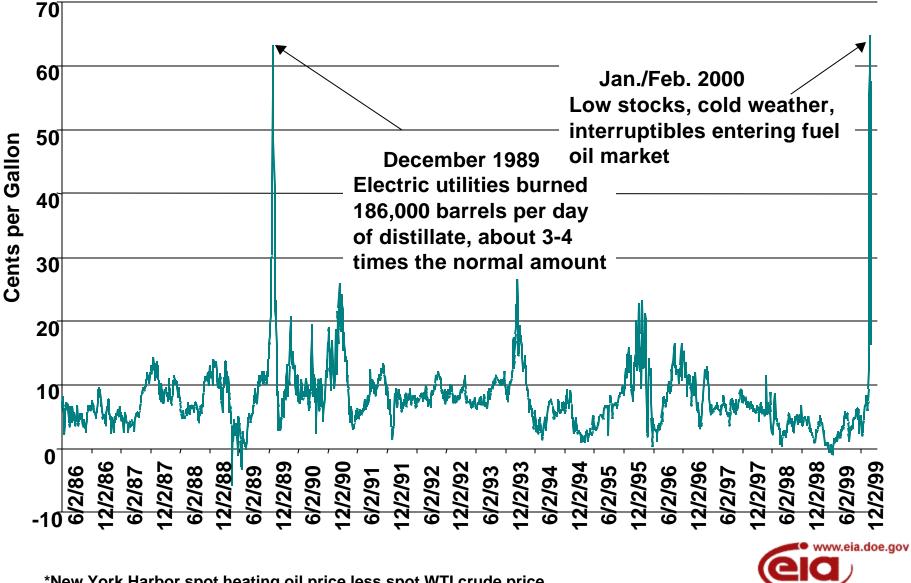




Figure 7. Spot Heating Oil Margins (NYH-WTI)*



*New York Harbor spot heating oil price less spot WTI crude price. Source: Reuters. only 5 cents per gallon over the same time frame. (EIA's <u>Distillate Market Briefing</u> presents a current analysis of the distillate stock situation).

As we had stated above, the recent distillate price movements combined with the higher crude oil price path, have forced us to elevate our heating oil price projections considerably compared to the last report (Figure 8). Average U.S. residential heating oil prices are projected to top \$1.40 per gallon this winter, the highest *nominal* U.S. average monthly price on record and the highest inflation-adjusted price since the Persian Gulf war. There is no doubt that heating oil customers have been and will be paying a lot more this winter compared to what they paid last winter. For the current heating season (Q4 plus Q1) we now expect to see average increases from last year for retail heating oil prices of about 46 cents per gallon this winter--60 cents more in the first guarter (Figure 9 and Table 4). Furthermore, customers will have used more heating oil on average than they did last winter due to colder weather. Some heating oil customers may see their total heating bill more than double. While the price increase is high, it should be noted that during last winter the weather was mild and prices were at historically very low levels. In the spring, heating fuel prices should fall as seasonal demand eases. The price of diesel fuel oil, a distillate very similar to heating oil, has also jumped dramatically, particularly in the Northeast.

In 2001, we project lower crude oil prices and a normal winter. Subsequently, heating oil prices should also decline.

Motor Gasoline. Prices at the pump have been climbing steadily since last July in response to the rising crude oil prices. We have revised our motor gasoline price projections to reflect our higher crude oil price path (Figure 10.) This spring, assuming the crude oil price path holds, regular unleaded self-service retail motor gasoline prices will likely be at their highest level ever, *in nominal terms*. Prices at the pump are projected to peak at around \$1.40 per gallon during the height of the driving season. However, in *real terms* (adjusted for inflation) the projected price will be about 20 percent lower than the price spike experienced during the Persian Gulf War in late 1990. Nevertheless, motorists can expect to pay about 20 cents per gallon more this driving season (April-September) than they did during the same period last year (Figure 11).

In 2001, along with our declining crude oil price path, we project a similar decline for motor gasoline prices. Diesel fuel oil prices are projected to follow the general price path of motor gasoline in 2001, but with seasonal variation. Figure 12 shows that diesel fuel prices have also been greatly affected by heating oil prices.

Natural Gas. The spot price of natural gas this winter has not behaved with the same frenzied pace that is apparent in the spot heating oil markets. On the contrary, the average monthly spot price for natural gas at the wellhead was 20 percent higher last August than it was at the peak of winter this January. Even though the weather was cold, several factors have contributed to these currently moderate prices. The unusually mild weather last November, December and the beginning of January resulted in relatively sufficient levels of underground storage, which in turn kept a lid on prices. Ironically, those natural gas users with interruptible contracts may have also helped ease the upward price pressure for gas, since the terms of their contracts required them to forgo the purchase of natural gas and

Figure 8. Retail Heating Oil Prices

(Monthly: Current vs Previous Outlook)

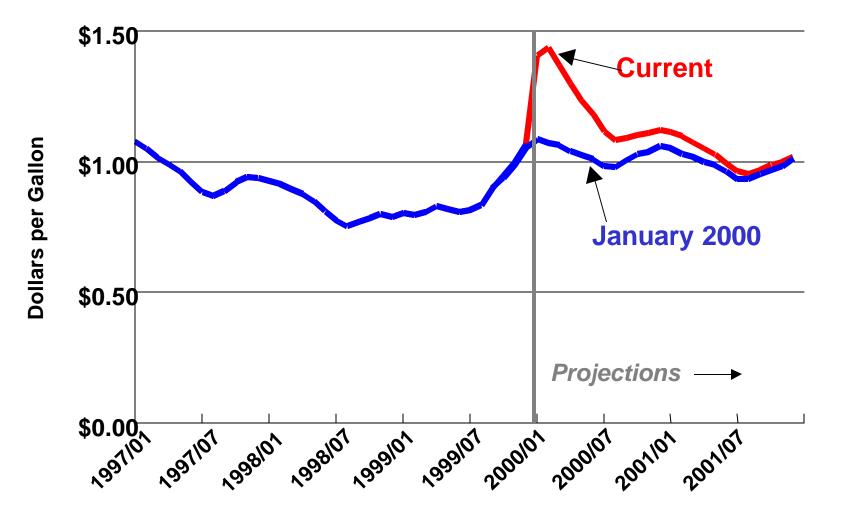




Figure 9. Quarterly Retail Heating Oil Prices (Change from Year Ago)

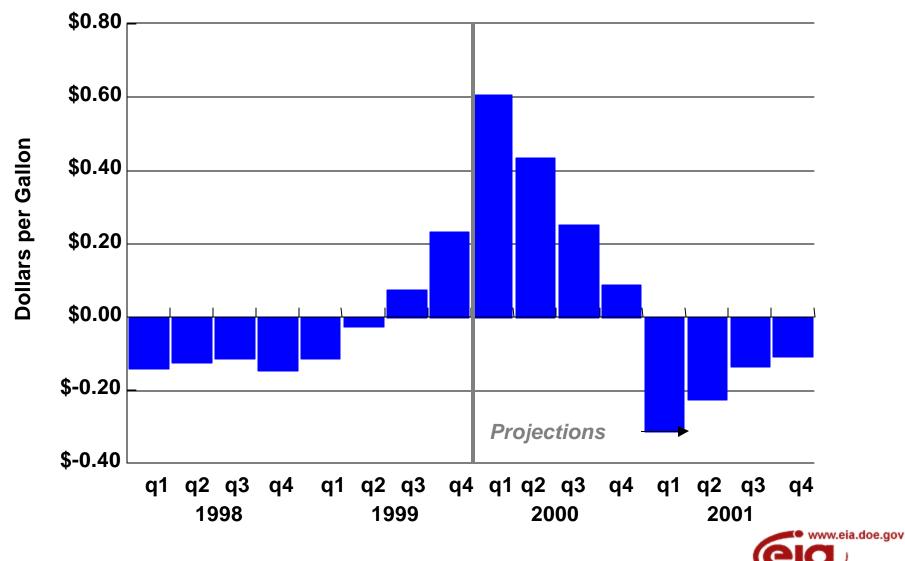
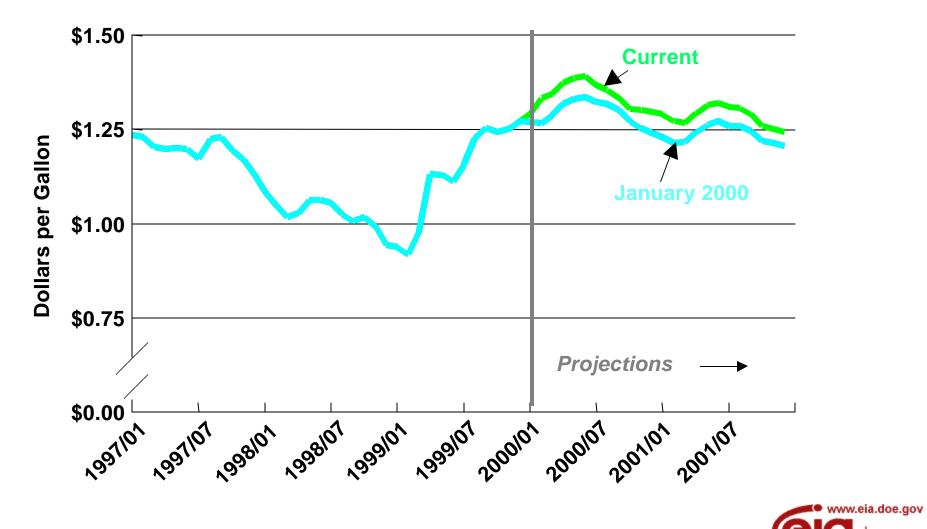


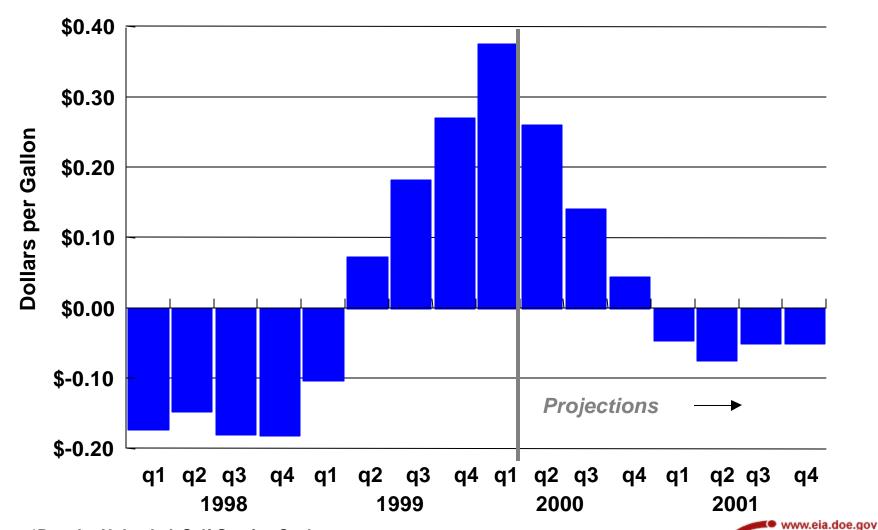
Figure 10. Retail Motor Gasoline Prices*

(Monthly: Current vs Previous Outlook)



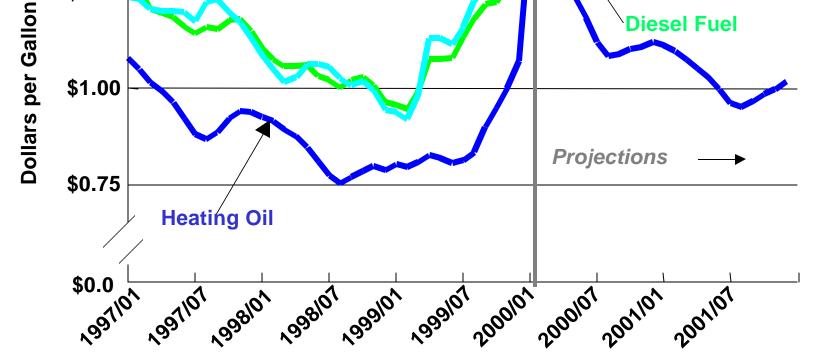
^{*}Regular Unleaded, Self-Service Cash. Sources: History: EIA; Projections: Short-Term Energy Outlook, February 2000.

Figure 11. Quarterly Retail Motor Gasoline Prices* (Change from Year Ago)



*Regular Unleaded, Self-Service Cash.

Figure 12. Retail Gasoline, Diesel and Heating Oil Prices* (Monthly: 1997-2001) \$1.50 \$1.25 University of the sel of the



*Gasoline is Regular Unleaded, Self-Service Cash. Sources: History: EIA; Projections: Short-Term Energy Outlook, February 2000.



consume petroleum products instead. Nonetheless, the recent cold weather has had and will continue to have an expansive effect on the spot wellhead prices, driving them up rapidly in February (Figure 13).

The average wellhead natural gas price this winter will be notably higher (about 30 percent) than last winter's relatively low price of about \$1.80 per thousand cubic feet (Figure 14). Residential prices, over the same period, are projected to be just almost 10 percent higher (Table 4).

Looking past the winter, we do not at this time see much softening of wellhead prices though the forecast period. On the contrary, natural gas demand growth is projected to outstrip production gains, thus increasing prices at the wellhead through the forecast period (Tables 4 and 8).

Electric Utility Fuels. Natural gas is projected to maintain its price advantage over residual fuel oil as a fuel input for electric utility generation throughout the forecast period (Figure 15 and Table 4). For those that can get it, natural gas will have a very wide price advantage throughout this heating season. Gas's price boon is projected to be sustained throughout most of the year. However, the advantage for gas is expected to narrow toward the end of the year as gas prices climb during the heating season. The narrowing is expected to continue even further into next year, as crude oil prices are projected to decline while gas prices rise over the same period.

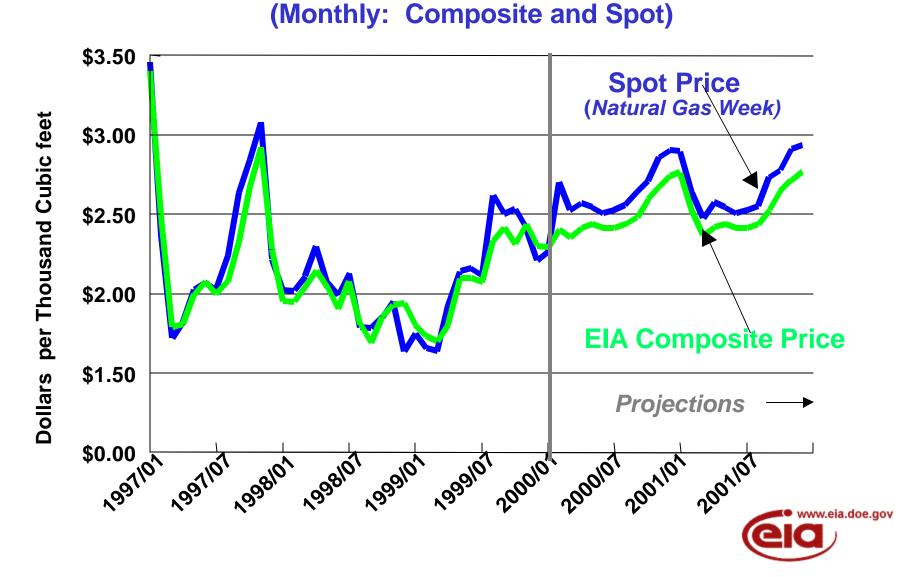
Coal remains by far the least expensive fossil fuel for electric utilities (Table 4 and Figure 15). Coal prices are expected to decline through 2000 even after costs associated with compliance with the Clean Air Act Amendments of 1990 are included. Continued increases in mining productivity, including longwall mining, as well as the closing of costly marginal mines, particularly those East of the Mississippi, have kept coal supply costs on a gradually declining trend for many years.

U.S. Petroleum Demand

Since the third week of January, weather patterns have dominated petroleum markets. During that period, heating-oil prices at the wholesale and retail levels spiked upward sharply and remain highly volatile in early February. Ironically, despite abnormally cold conditions in the Northeast in recent weeks, heating degree statistics for January indicate close to (actually slightly *warmer* than) normal conditions on average (Figure 16). This result stems from the very mild first two weeks of the year. Preliminary data for January as a whole suggest that distillate demand was not particularly high (it was about the same as January 1997, although this was higher than the same month in 1998 and 1999). (Although strong demand in the last two weeks in December--due perhaps in part to Y2K concernsmay also have contributed to weaker shipments in the first half of January, such year-end oscillations have been observed in previous years).

Tightness in supply sources, therefore, is responsible for much of the unanticipated spike in prices. Primary distillate stocks at the end of January are estimated to have been near 110 million barrels. Although higher than the recorded low of 89 million barrels, that was down from 149 million barrels a year ago and it is low for end-January. Much of the decline

Figure 13. Natural Gas Wellhead Prices



Sources: History: EIA and Natural Gas Week; Projections: Short-Term Energy Outlook, February 2000.

Figure 14. Quarterly Natural Gas Wellhead Prices

(Percent Change from Year Ago)

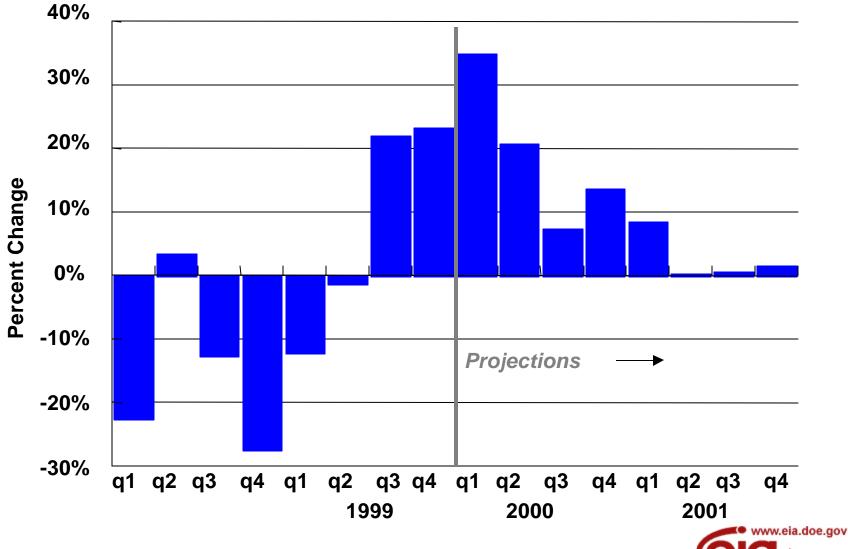


Figure 15. Fossil Fuel Prices to Electric Utilities

(Monthly: 1997-2001)

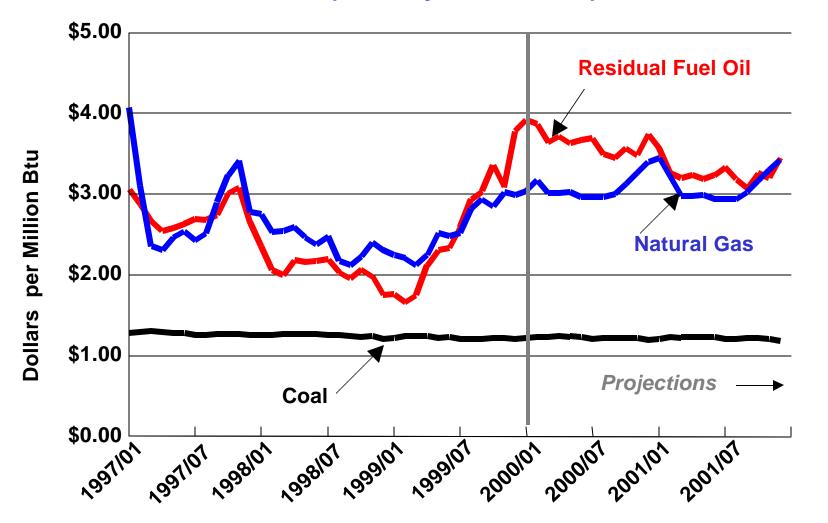
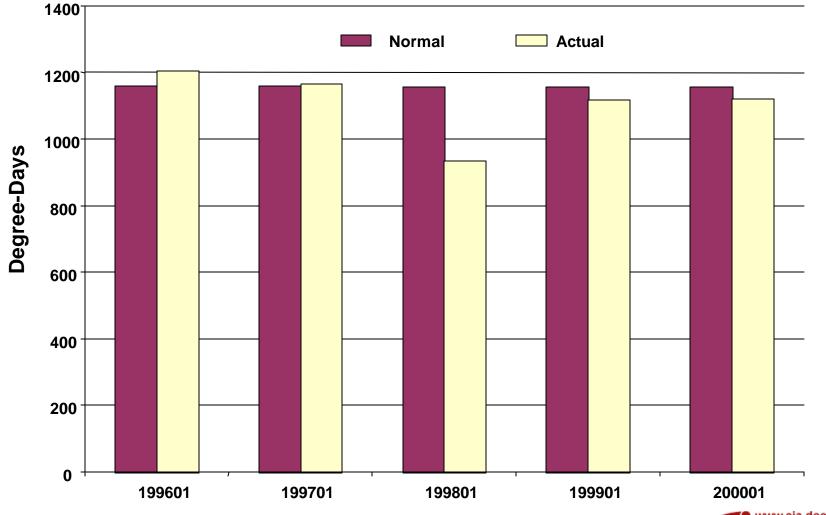




Figure 16. Northeast Heating Degree-Days for January



Sources: National Oceanographic and Atmospheric Admin. and EIA.



occurred in the Northeast region, the principal fuel oil market. In addition, refiners have been undergoing planned conversions in anticipation of the summer driving season, constraining distillate output. In fact, high input (crude oil costs) and a strongly backwardated forward oil market reduced incentives for producing refined products at high levels and for holding inventories. Inputs to distillation units fell sharply in December and January (down 500,000 to 600,000 barrels per day in December and January). Meanwhile, inclement weather episodes, disrupted barge traffic in distillate, magnifed the impact of lower-than-average stocks and refinery maintenance activity. Finally, the very cold weather of mid-to-late January initiated natural gas interruptions to many electric utility, industrial, and even commercial customers, who were forced to purchase fuel oil. This situation, a result of the absolute severity of the cold snap, exacerbated the situation.

For 1999 as a whole, preliminary data indicate an increase in total petroleum demand of 520,000 barrels per day, or 2.8 percent, from the previous year (Figure 17). With the exception of residual fuel oil, every major product category registered increases. Transportation-related growth in petroleum products (motor gasoline, diesel and jet fuel) averaged an estimated 2 percent per year (Figure 18). In addition, LPG demand growth, buoyed by increased petrochemical and agricultural demand, rose 10 percent. Demand for residual fuel oil, however, slipped by 4 percent as a result of price-related displacement by other fossil fuels that reduced demand by electric utilities by 16 percent and industrial demand by 20 percent.

Despite an increase in economic growth similar to that in 1999 and the expectation of colder weather than that of the previous year, petroleum demand is projected to increase by only 100,000 barrels per day, or 0.5 percent, in 2000. Part of the slowdown in total petroleum demand growth results from two factors: a sharp 9-percent decline in residual fuel oil demand brought about by a 15-percent reduction in combined industrial and electric utility demand, and a decline in LPG demand. In 2001, total petroleum demand is projected to increase by 420,000 barrels per day, or 2.1 percent. The main factors behind that growth are: a sharp recovery in residual fuel oil demand due to a decline in oil prices from those of the previous year; a resumption of strong growth in LPG demand; and accelerated growth in transportation-related demand (especially jet fuel).

Natural Gas Supply and Demand

There have been some adjustments in our current outlook from the last outlook, mainly in the demand projections. Demand for natural gas in 2000 is now projected to rise by 4.2 percent to 22.4 trillion cubic feet, a jump of less than 1 trillion cubic feet over 1999's level, which was adjusted slightly upward. This is based on assumptions of normal heating demand in the first and fourth quarters. Gas demand is projected to continue to rise in 2001 by another 2.1 percent to 22.9 trillion cubic feet, somewhat higher than in our previous outlook. Natural gas demand is expected to rise across all sectors in 2000 and 2001, led by the residential and electric utility sectors, which are expected to be up by 5.6 percent and 6.9 percent, respectively, in 2000. These increases are not as high as previously anticipated. Growth in industrial demand for gas, however, is expected to be higher than previously projected, at 2.8 percent (Figure 19).

Figure 17. Year-to-Year Changes in Petroleum Demand

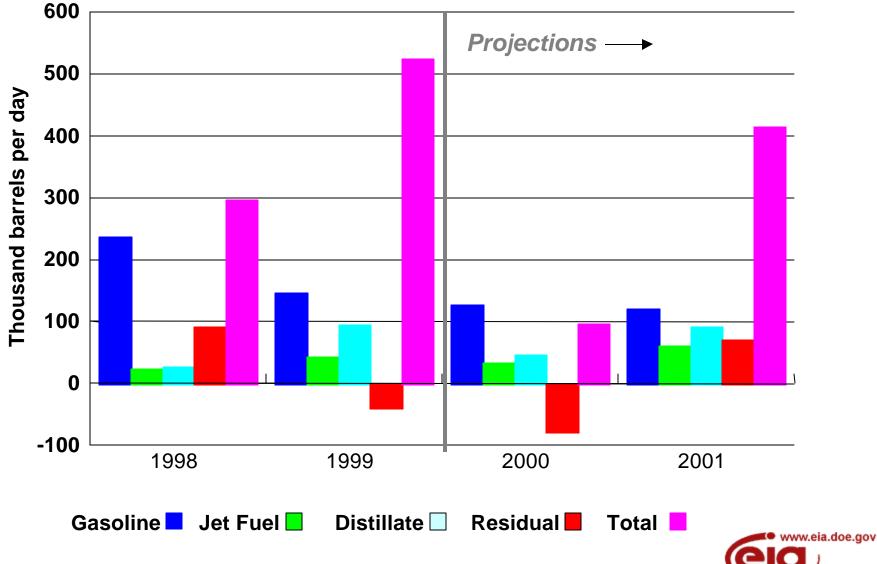


Figure 18. Year-to-Year Changes in the Gasoline Market

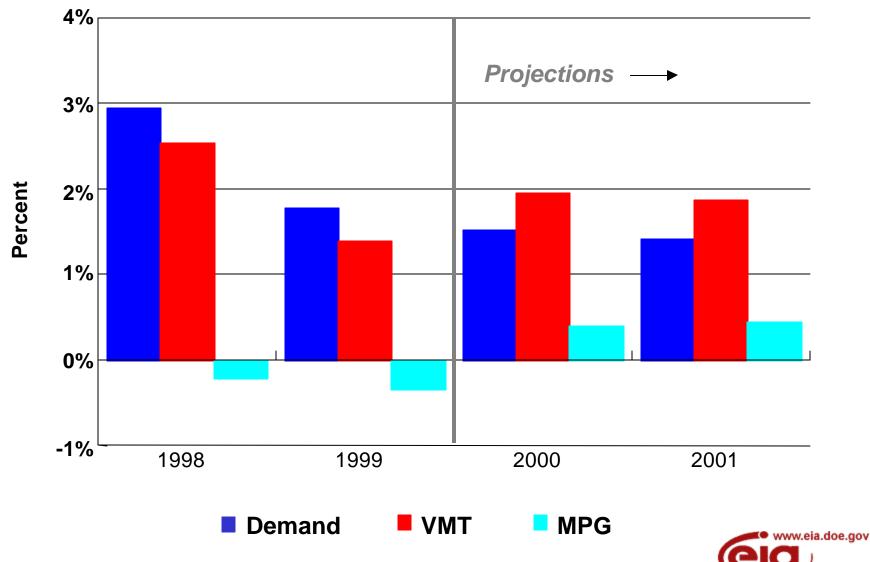
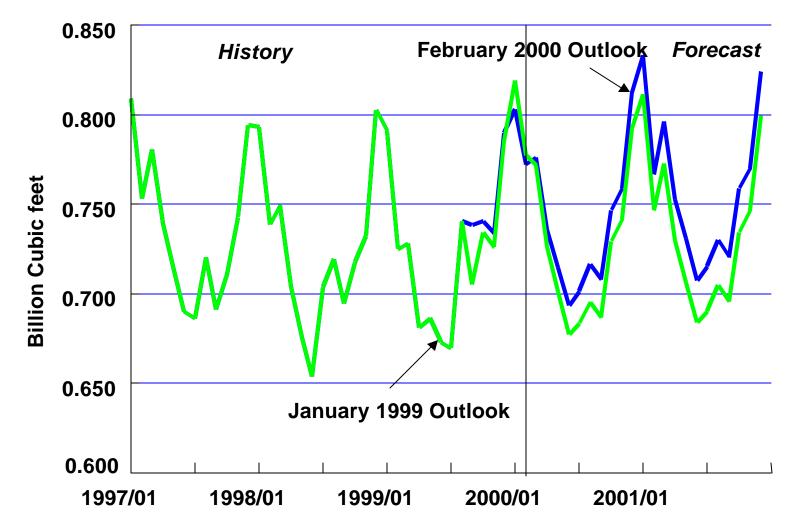


Figure 19. Industrial Natural Gas Demand





The expected jump in electric utility and industrial demand for natural gas in 2000 and continuing into 2001 is due largely to assumptions of higher average fuel oil prices relative to natural gas prices. Also, as overall demand for electricity rises, gas is taking an increasing share of the power generation market, exemplified by utilities and non-utilities' plans for the construction of more gas-fired units. In the summer of 2000, the first of many new gas-fired power plants will come online, and more are expected in 2001.

There are no changes in the current projections of natural gas production and imports from the projections in the last outlook

Electricity Demand and Supply

Total demand for electricity is now projected to increase by 2.1 percent in 2000, slightly lower than previously projected, and by 1.6 percent in 2001, based on assumptions regarding economic and weather factors. GDP is assumed to continue to rise during the forecast period, albeit at a slower pace than in 1999 and 1998. Heating degree-days in 2000 are now assumed to be 6 percent higher (colder weather) than they were in milder-thannormal 1999. Electric utility sales to the residential and commercial sectors are expected to be somewhat lower than previously projected, while utility sales to the industrial sector are expected to be somewhat higher (Figure 20).

The fuel mix at electric utilities is projected to change significantly from what it was in 1999. Coal and natural gas fired generation is projected to rise by 1.8 percent and 7.4 percent, respectively, in 2000, and continue to rise in 2001, albeit much more slowly. Oil-fired generation is projected to be down by 16.9 percent in 2000 due to oil prices that remain high relative to prices of other fossil fuels. However, oil-fired generation is expected to recover in 2001 as world oil prices come down to \$21 per barrel.

Figure 20. Electric Utility Sales to the Industrial Sector

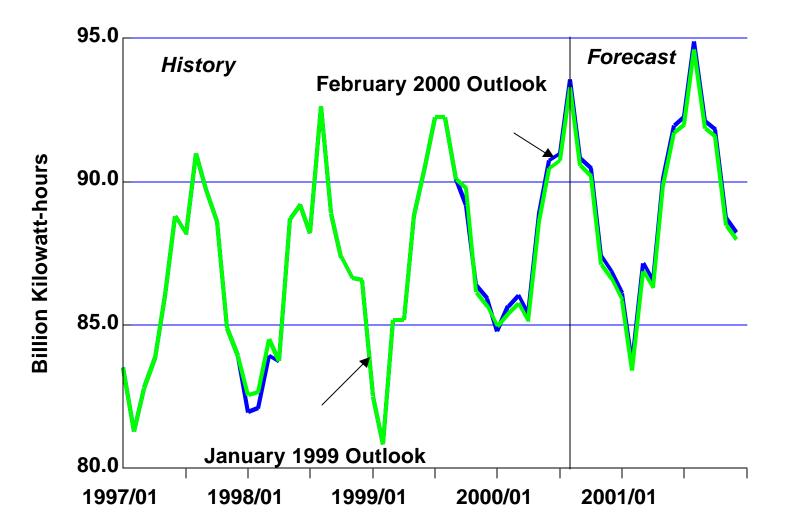




Table HL1. U. S. Energy Supply and Demand

	Year	Annual Percentage Change				
1998	1999	2000	2001	1998-1999	1999-2000	2000-2001
7810	8122	8403	8672	4.0	3.5	3.2
12.08	17.21	24.21	21.36	42.5	40.7	-11.8
6.25	5.93	5.96	5.79	-5.1	0.5	-2.9
9.76	9.76	10.50	10.88	0.0	7.6	3.6
73.6	74.7	75.9	77.8	1.5	1.6	2.5
		10 5 1	10.05			A (
18.92	19.44	19.54	19.95	2.7	0.5	2.1
		00.00	00.07		4.0	0 4
21.26	21.49	22.39	22.87	1.1	4.2	2.1
	10.17	1071	1000	• •		•
1041	1047	1074	1096	0.6	2.6	2.0
2240	2265	2224	2201	0.9	2.1	17
						1.7 0.0
3406	3437	3510	3567	0.9	2.1	1.6
94.5	96.2	97.9	99.4	1.8	1.7	1.6
12.11	11.85	11.65	11.46	-2.1	-1.7	-1.6
	6.9					
	7810 12.08 6.25 9.76 73.6 18.92 21.26 1041 3240 166 3406 94.5	1998 1999 7810 8122 12.08 17.21 6.25 5.93 9.76 9.76 73.6 74.7 18.92 19.44 21.26 21.49 1041 1047 3240 3265 166 172 3406 3437 94.5 96.2	19981999200078108122840312.0817.2124.216.255.935.969.769.7610.5073.674.775.918.9219.4419.5421.2621.4922.3910411047107432403265333416617217634063437351094.596.297.9	1998199920002001781081228403867212.0817.2124.2121.366.255.935.965.799.769.7610.5010.8873.674.775.977.818.9219.4419.5419.9521.2621.4922.3922.8710411047107410963240326533343391166172176176340634373510356794.596.297.999.4	1998 1999 2000 2001 1998-1999 7810 8122 8403 8672 4.0 12.08 17.21 24.21 21.36 42.5 6.25 5.93 5.96 5.79 -5.1 9.76 9.76 10.50 10.88 0.0 73.6 74.7 75.9 77.8 1.5 18.92 19.44 19.54 19.95 2.7 21.26 21.49 22.39 22.87 1.1 1041 1047 1074 1096 0.6 3240 3265 3334 3391 0.8 3406 3437 3510 3567 0.9 94.5 96.2 97.9 99.4 1.8	1998 1999 2000 2001 1998-1999 1999-2000 7810 8122 8403 8672 4.0 3.5 12.08 17.21 24.21 21.36 42.5 40.7 6.25 5.93 5.96 5.79 -5.1 0.5 9.76 9.76 10.50 10.88 0.0 7.6 73.6 74.7 75.9 77.8 1.5 1.6 18.92 19.44 19.54 19.95 2.7 0.5 21.26 21.49 22.39 22.87 1.1 4.2 1041 1047 1074 1096 0.6 2.6 3240 3265 3334 3391 0.8 2.1 166 172 176 176 3.6 2.3 3406 3437 3510 3567 0.9 2.1 94.5 96.2 97.9 99.4 1.8 1.7

 $^{\rm a}{\rm Refers}$ to the refiner acquisition cost (RAC) of imported crude oil.

^bIncludes lease condensate.

^cTotal Demand includes estimated Independent Power Producer (IPP) coal consumption.

^dTotal 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."

^eDefined 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 1998 are estimates.

^fThe 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)*.

⁹Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy.

SPR: Strategic Petroleum Reserve.

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

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

projections are based on DRI/McGraw-Hill Forecast CONTROL1299.

Table 1. U.S. Macroeconomic and Weather Assumptions

1642 8699 E		1999 8122	2000	2001
		8122		
		8122		
		8122		
3.2 3.1			8403	8672
	3.2	4.0	3.5	3.2
3.1 2.6	3.2			
.168 1.172 1	2 1.176	5 1.137	1.153	1.170
1.5 1.5	1.4	1.3	1.5	1.5
220 6265 6	6309	5818	6031	6241
3.5 3.4	3.4	3.9	3.7	3.5
.504 1.521 1	1.539	1.415	1.450	1.512
4.2 4.7	4.9	4.0	2.4	4.3
		2.6	2.7	2.7
	-		-	-
				-
				4703
893 16 708 10	67 04 96	67 2239 04 2004	35 1622 4159 67 2239 6009 04 2004 5336 06 1714 4409	35 1622 4159 4413 67 2239 6009 6498 04 2004 5336 5710 06 1714 4409 4646

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

^bOECD: 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.

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

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*. Projections of OECD growth are based on WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1299.

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

		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Macroeconomic ^a															
Real Fixed Investment															
(billion chained 1992 dollars-SAAR)	1495	1519	1549	1579	1610	1621	1629	1642	1660	1676	1687	1702	1535	1626	1681
Real Exchange Rate															
(index)	1.134	1.170	1.165	1.145	1.139	1.137	1.137	1.135	1.118	1.095	1.076	1.059	1.154	1.137	1.087
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	0.0	-8.3	0.5	12.3	5.6	3.3	3.3	3.2	5.9	8.3	10.6	12.3	1.1	3.8	9.3
Producer Price Index															
(index, 1982=1.000)	1.228	1.245	1.267	1.280	1.294	1.294	1.295	1.297	1.295	1.296	1.300	1.304	1.255	1.295	1.299
Consumer Price Index															
(index, 1982-1984=1.000)	1.648	1.662	1.673	1.684	1.696	1.702	1.711	1.720	1.728	1.737	1.747	1.757	1.667	1.707	1.742
Petroleum Product Price Index															
(index, 1982=1.000)	0.446	0.591	0.684	0.716	0.888	0.871	0.801	0.769	0.768	0.742	0.714	0.690	0.609	0.832	0.729
Non-Farm Employment															
(millions)	127.7	128.2	128.9	129.6	129.8	130.5	131.0	131.4	131.9	132.2	132.5	132.8	128.6	130.7	132.4
Commercial Employment								~~ ~	~ -					~	
(millions)	88.5	89.2	89.8	90.4	90.7	91.1	91.6	92.2	92.7	93.0	93.3	93.6	89.5	91.4	93.2
Total Industrial Production	4 9 4 9	4 004	4 075	4 000	4 000	4 007	4 400	4 440	4 40 4	4 454	4 400	4 400	4 000	1 100	4 450
(index, 1992=1.000) Housing Stock	1.346	1.361	1.375	1.389	1.388	1.397	1.406	1.418	1.434	1.451	1.466	1.482	1.368	1.402	1.458
(millions)	115.5	44E 0	446.2	1167	1170	117.3	1177	110.0	110 0	110 6	1100	110.0	116.1	1175	118.8
(111110113)	115.5	115.0	110.5	110.7	117.0	117.3	117.7	110.0	110.3	110.0	110.9	119.2	110.1	117.5	110.0
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1992=1.000)	1.179	1.176	1.185	1.199	1.186	1.190	1.195	1.203	1.215	1.225	1.230	1.236	1.185	1.193	1.226
Vehicle Miles Traveled ^b															
(million miles/day)	6725	7512	7690	7233	6948	7637	7815	7337	7055	7770	7963	7500	7293	7435	7574
Vehicle Fuel Efficiency															
(index, 1997=1.0)	0.991	0.986	1.008	0.999	1.002	1.009	1.000	0.991	1.014	1.009	1.003	0.996	0.996	1.000	1.005
Real Vehicle Fuel Cost															
(cents per mile)	2.98	3.37	3.51	3.79	3.95	3.94	3.85	3.88	3.73	3.66	3.63	3.63	3.41	3.90	3.66
Air Travel Capacity															
(mill. available ton-miles/day)	431.0	452.4	467.2	466.7	464.1	466.5	483.1	473.3	486.0	486.8	504.4	494.6	454.5	471.8	493.0
Aircraft Utilization															
(mill. revenue ton-miles/day)	242.2	263.4	276.3	260.7	257.3	275.6	290.2	275.7	269.9	286.8	302.4	288.6	260.8	274.7	287.0
Airline Ticket Price Index															
(index, 1982-1984=1.000)	2.130	2.186	2.180	2.254	2.299	2.325	2.333	2.358	2.390	2.392	2.392	2.414	2.188	2.329	2.397
Raw Steel Production															
(millions tons)	25.39	25.97	26.26	26.34	26.12	26.17	26.07	26.47	26.72	27.03	26.86	27.22	103.68	104.82	107.83

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

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1299.

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

(Million Barrels p			cept	JECD	Comm		STOCK	5)		0004			-	Varia	
		1999				2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Demand ^a															
OECD U.S. (50 States)	10.2	10.2	19.7	19.6	19.1	19.2	19.8	20.0	19.7	19.6	20.1	20.4	19.4	19.5	20.0
U.S. Territories		0.3	0.3	0.3	0.3	19.2 0.3	0.3	20.0 0.3	19.7 0.4	0.3	20.1 0.3	20.4 0.4	0.3	0.3	20.0 0.3
Canada		0.3 1.8	0.3 1.9	0.3 2.0	0.3 1.9	0.3 1.9	0.3 2.0	0.3 2.0	0.4 1.9	0.3 1.9	0.3 2.0	0.4 2.0	0.3 1.9	0.3 1.9	0.3 2.0
Europe	-	-	14.1		15.1	14.1	2.0 14.7	2.0 15.3	15.3	1.9 14.3	2.0 14.9	2.0 15.5			2.0 15.0
Japan	-	13.0 5.0	5.2	15.4 5.7	6.2	5.0	5.3	5.7	6.2	14.3 5.1	5.3	5.7	14.6 5.5	14.8 5.5	5.6
Australia and New Zealand												5.7 1.1			
Total OECD		1.0	1.0	1.0	1.0 43.6	1.0 41.6	1.0 43.0	1.0 44.4	1.0 44.4	1.0 42.2	1.0 43.7		1.0 42.8	1.0 43.2	1.0
	. 43.8	41.1	42.3	44.1	43.0	41.0	43.0	44.4	44.4	42.2	43.7	45.1	42.8	4 <i>3.</i> 2	43.9
Non-OECD	• •	. -	• •	0.7	0.0	0.0	0.0	0.0	0.0	07	07	0.7	• •	0.7	07
Former Soviet Union		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	1.5	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		4.3	4.3	4.3	4.6	4.5	4.5	4.5	4.8	4.7	4.7	4.7	4.3	4.5	4.7
Other Asia		8.9	8.7	9.0	9.2	9.2	8.9	9.3	9.6	9.6	9.3	9.7	8.9	9.1	9.6
Other Non-OECD			13.6	13.6	13.6	13.9	14.0	13.9	14.0	14.3	14.4	14.3	13.5	13.8	14.2
Total Non-OECD			31.7	32.2	32.8	32.8	32.5	33.0	33.9	34.0	33.7	34.1	31.9	32.8	33.9
Total World Demand	75.6	72.9	73.9	76.3	76.3	74.4	75.6	77.4	78.4	76.2	77.4	79.2	74.7	75.9	77.8
Supply ^b															
OECD															
U.S. (50 States)		9.0	9.0	9.1	9.2	9.1	9.0	9.0	9.0	8.9	8.9	8.8	9.0	9.1	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	2.6	2.7	2.7
North Sea $^{\circ}$	6.3	6.0	6.2	6.4	6.6	6.4	6.6	6.8	6.9	6.7	7.0	7.2	6.2	6.6	6.9
Other OECD	-	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.5	1.6	1.6
Total OECD	. 19 . 3	19.1	19.4	19.7	20.0	19.8	19.9	20.1	20.2	19.9	20.2	20.4	19.4	19.9	20.2
Non-OECD															
OPEC	30.3	28.9	29.2	28.8	29.6	29.8	30.6	31.1	31.4	31.5	32.0	32.4	29.3	30.3	31.8
Former Soviet Union	. 7.2	7.3	7.4	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	3.4	3.4	3.4	3.6	3.6	3.7	3.7	3.7	3.8	3.4	3.5	3.7
Other Non-OECD	. 11.1	10.9	10.9	11.1	11.1	11.2	11.2	11.4	11.5	11.6	11.7	11.8	11.0	11.2	11.6
Total Non-OECD	55.4	53.7	54.1	53.9	54.7	54.9	56.0	56.7	57.2	57.3	58.1	58.7	54.3	55.6	57.8
Total World Supply	74.7	72.7	73.4	73.6	74.7	74.7	75.9	76.8	77.4	77.3	78.3	79.0	73.6	75.5	78.0
Stock Changes															
Net Stock Withdrawals or Additions (-)														
U.S. (50 States including SPR)	0.3	-0.2	0.3	1.1	0.2	-0.9	-0.5	0.4	0.2	-0.7	-0.3	0.5	0.4	-0.2	0.0
Other	0.6	0.4	0.1	1.6	1.5	0.6	0.2	0.2	0.7	-0.4	-0.6	-0.3	0.7	0.6	-0.2
Total Stock Withdrawals	0.9	0.2	0.5	2.7	1.7	-0.3	-0.3	0.6	1.0	-1.1	-0.9	0.2	1.1	0.4	-0.2
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	2.6	2.6
Non-OPEC Supply		43.9	44.3	44.9	45.0	44.8	45.3	45.7	46.0	45.7	46.3	46.6	44.3	45.2	46.2
Net Exports from Former Soviet Union		3.8	3.9	3.8	3.6	3.7	3.7	3.8	3.6	3.6	3.7	3.7	3.7	3.7	3.7

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

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

^cIncludes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U. S. Energy Prices

(Nominal Dollars)

		1999				2000				2001				Year	r
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Imported Crude Oil ^a															
(dollars per barrel)	10.92	15.44	19.64	22.98	25.43	25.00	23.59	23.00	22.08	21.67	21.25	20.50	17.21	24.21	21.36
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.74	2.00	2.28	2.35	2.35	2.42	2.44	2.66	2.55	2.42	2.46	2.71	2.09	2.47	2.54
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades	0.99	1.17	1.25	1.30	1.37	1.43	1.40	1.35	1.33	1.35	1.34	1.29	1.18	1.38	1.33
Regular Unleaded			1.21	1.26	1.32	1.39	1.36	1.31	1.28	1.32	1.31	1.26	1.14	1.35	1.29
No. 2 Diesel Oil, Retail															
(dollars per gallon)	0.97	1.08	1.18	1.26	1.37	1.35	1.30	1.31	1.27	1.26	1.24	1.25	1.12	1.33	1.26
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.36	0.44	0.56	0.66	1.00	0.89	0.80	0.78	0.71	0.67	0.65	0.65	0.51	0.87	0.67
No. 2 Heating Oil, Retail				(
(dollars per gallon)	0.80	0.83	0.84	1.02	1.41	1.27	1.10	1.12	1.10	1.03	0.96	1.01	0.87	1.27	1.05
No. 6 Residual Fuel Oil, Retail ^c	44.00	44.00	40.00	04.00	0474	00.00	04.40	00.40	04 74	10.00	10.00	00.04	45.04	00 75	00.0
(dollars per barrel)	11.28	14.02	18.00	21.03	24.74	22.63	21.40	22.19	21.74	19.82	19.30	20.34	15.84	22.75	20.34
Electric Utility Fuels															
Coal															
(dollars per million Btu)	1.24	1.23	1.21	1.22	1.23	1.23	1.22	1.21	1.22	1.23	1.21	1.20	1.22	1.22	1.22
Heavy Fuel Oil ^d															
(dollars per million Btu)	1.72	2.26	2.82	3.41	3.83	3.67	3.56	3.61	3.36	3.23	3.22	3.31	2.51	3.68	3.28
Natural Gas															
(dollars per million Btu)	2.19	2.42	2.73	2.95	3.07	3.00	2.97	3.26	3.21	2.96	2.97	3.29	2.60	3.05	3.06
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	6.06	6.84	8.47	7.19	6.65	7.42	8.84	7.17	7.00	7.64	8.96	7.30	6.69	7.09	7.34
Electricity		_	_	_	_			_	_	_	_	_	_		_
(cents per kilowatthour)	7.79	8.28	8.43	8.07	7.72	8.11	8.37	7.90	7.49	8.08	8.34	7.88	8.16	8.04	7.96

^cAverage for all sulfur contents.

^dIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the third quarter of 1999. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Million Barrels per Day, Except Closing Stocks)

		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	5.91	6.07	5.99	5.89	5.90	5.89	5.81	5.77	5.70	5.93	5.96	5.79
Alaska	1.13	1.04	0.98	1.04	1.03	0.94	0.91	0.94	0.92	0.88	0.91	0.92	1.05	0.96	0.91
Lower 48	4.86	4.91	4.89	4.86	5.04	5.05	4.98	4.96	4.97	4.93	4.86	4.78	4.88	5.01	4.88
Net Imports (including SPR)	8.40	8.73	8.76	8.15	8.18	<i>9.33</i>	9.76	9.23	8.92	9.68	9.87	9.44	8.51	9.13	9.48
	0.40	0.70	0.10	0.70	0.70	0.00	0.70	0.20	0.02	0.00	0.07	0.77	0.01	0.70	0.10
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	0.08	-0.03	-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 (-)	-0.23	0.15	0.31	0.13	-0.13	-0.09	0.05	0.04	-0.08	-0.06	0.08	0.05	0.09	-0.03	0.00
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	0.00	0.00	0.00	0.35	0.00	0.21	0.22	0.00	0.21	0.22	0.22	0.22	0.19	0.00	0.00
	0.27	0.00	0.15	0.55	0.17	0.21	0.22	0.21	0.21	0.22	0.22	0.22	0.19	0.21	0.22
Total Crude Oil Supply	14.42	15.01	15.22	14.62	14.26	15.31	15.71	15.17	14.94	15.65	15.94	15.42	14.82	15.11	15.49
Other Supply															
NGL Production	1.72	1.79	1.88	1.90	1.83	1.83	1.81	1.80	1.84	1.85	1.83	1.83	1.82	1.82	1.84
Other Hydrocarbon and Alcohol Inputs	0.36	0.37	0.37	0.38	0.37	0.36	0.36	0.38	0.37	0.36	0.36	0.39	0.37	0.37	0.37
Crude Oil Product Supplied	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
Processing Gain	0.86	0.88	0.90	0.94	0.89	0.00	0.93	0.89	0.87	0.00	0.00	0.00	0.90	0.00	0.00
Net Product Imports ^c	1.31	1.44	1.30	0.94 0.94	1.42	0.92 1.49	0.93 1.34	1.26	1.36	1.43	0.94 1.43	1.37	1.25	1.38	1.40
						-				-					
Product Stock Withdrawn or Added (-) ^d . Total Supply	0.53	-0.32	0.04	0.87	0.34	-0.68	-0.38	0.53	0.29	-0.61	-0.36	0.48	0.28	-0.05	-0.05
Demand	19.21	19.18	19.70	19.00	19.11	19.22	19.77	20.04	19.66	19.00	20.15	20.39	19.44	19.54	19.95
	7.04			0.47	0.44	0.55	0.70	0.05	0.45	0.00	0.04	0.00	0.40	0.50	0.05
Motor Gasoline	7.94	8.60	8.58	8.47	8.11	8.55	8.79	8.65	8.15	8.69	8.94	8.80	8.40	8.53	8.65
Jet Fuel	1.70	1.62	1.68	1.66	1.66	1.67	1.73	1.75	1.77	1.71	1.77	1.79	1.67	1.70	1.76
Distillate Fuel Oil	3.70	3.36	3.40	3.76	3.77	3.50	3.45	3.70	3.90	3.57	3.53	3.78	3.56	3.60	3.69
Residual Fuel Oil	0.98	0.80	0.86	0.76	0.79	0.72	0.75	0.81	0.92	0.78	0.81	0.85	0.85	0.77	0.84
Other Oils ^e	4.90	4.80	5.18	5.00	4.78	4.78	5.05	5.13	4.93	4.85	5.10	5.18	4.97	4.94	5.01
Total Demand	19.21	19.19	19.71	19.65	19.11	19.22	19.77	20.04	19.66	19.60	20.15	20.39	19.44	19.54	19.95
Total Petroleum Net Imports	9.71	10.18	10.06	9.09	9.60	10.81	11.10	10.49	10.28	11.11	11.30	10.82	9.76	10.50	10.88
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	345	331	303	290	302	311	306	302	309	315	307	302	290	302	302
Total Motor Gasoline	217	215	204	196	198	200	195	192	201	202	197	199	196	192	199
Finished Motor Gasoline	169	171	159	155	153	160	155	152	156	162	156	158	155	152	158
Blending Components	48	44	45	41	44	40	40	40	45	41	41	41	41	40	41
Jet Fuel	42	46	48	41	42	44	47	47	42	43	45	44	41	47	44
Distillate Fuel Oil	126	133	145	127	94	108	127	130	105	117	135	141	127	130	141
Residual Fuel Oil	40	43	39	35	34	38	41	44	37	40	41	42	35	44	42
Other Oils ^e	280	298	294	252	252	291	306	255	256	294	311	259	252	255	259
Total Stocks (excluding SPR)	1049	1065	1033	941	922	992	1022	969	950	1011	1036	987	941	969	987
Crude Oil in SPR	572	575	575	568	571	579	591	605	605	605	605	605	568	605	605
	- · - ·				.	0.0									

^aIncludes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding, 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.

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

Table 6. Approximate Energy Demand Sensitivities^a for the STIFS^b Model

(Percent Deviation Base Case)

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

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

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

(Million Barrels per Day)

				Difference	
	High Price Case	Low Price Case	Total	Uncertainty	Price Impact
United States	6.02	4.96	0.76	0.09	0.67
Lower 48 States	5.09	4.36	0.73	0.07	0.66
Alaska	0.93	0.90	0.03	0.01	0.01

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.

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	4.67	4.66	4.71	4.70	4.74	4.71	4.72	4.72	4.72	4.73	4.75	4.75	18.75	18.88	18.94
Net Imports	0.83	0.79	0.86	0.84	0.89	0.85	0.92	0.91	0.91	0.90	0.95	0.94	3.32	3.56	3.71
Supplemental Gaseous Fuels	0.03	0.02	0.02	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.10	0.13	0.13
Total New Supply	5.53	5.48	5.59	5.57	5.66	5.59	5.66	5.66	5.67	5.66	5.72	5.72	22.17	22.58	22.78
Total Underground Storage															
Opening	7.04	5.79	6.50	7.24	6.83	5.39	6.23	7.14	6.72	5.38	6.21	7.12	7.04	6.83	6.72
Closing	5.79	6.50	7.24	6.83	5.39	6.23	7.14	6.72	5.38	6.21	7.12	6.70	6.83	6.72	6.70
Net Withdrawals	1.25	-0.71	-0.74	0.42	1.43	-0.83	-0.91	0.42	1.34	-0.83	-0.92	0.42	0.22	0.11	0.01
Total Supply	6.79	4.77	4.85	5.99	7.09	4.76	4.75	6.09	7.00	4.83	4.81	6.15	22.39	22.69	22.79
Balancing Item ^a	0.01	-0.02	-0.29	-0.61	-0.01	0.18	-0.11	-0.36	0.28	0.21	-0.06	-0.35	-0.90	-0.29	0.08
Total Primary Supply	6.80	4.75	4.56	5.38	7.08	4.94	4.64	5.73	7.29	5.04	4.75	5.80	21.49	22.39	22.87
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.31	0.31	0.30	0.30	0.31	0.30	0.30	0.30	0.31	1.23	1.21	1.20
Pipeline Use	0.20	0.14	0.14	0.17	0.21	0.14	0.13	0.17	0.21	0.14	0.14	0.17	0.65	0.65	0.66
Residential	2.24	0.81	0.38	1.23	2.32	0.83	0.38	1.39	2.41	0.84	0.38	1.41	4.66	4.92	5.04
Commercial	1.27	0.60	0.44	0.80	1.33	0.62	0.44	0.90	1.40	0.64	0.45	0.92	3.10	3.30	3.40
Industrial (Incl. Nonutility Use)	2.24	2.04	2.15	2.26	2.35	2.14	2.13	2.32	2.40	2.19	2.17	2.35	8.70	8.94	9.11
Electric Utilities	0.54	0.85	1.15	0.61	0.57	0.90	1.27	0.64	0.57	0.93	1.32	0.64	3.15	3.37	3.46
Total Demand	6.80	4.75	4.56	5.38	7.08	4.94	4.64	5.73	7.29	5.04	4.75	5.80	21.49	22.39	22.87

^aThe balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand. 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	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Production	282.3	263.3	272.9	280.6	284.2	278.1	272.9	284.9	275.9	283.7	279.7	290.2	1099.1	1120.0	1129.5
Appalachia	113.9	102.7	102.4	111.0	117.2	116.1	106.5	115.6	115.4	119.9	110.5	119.3	430.1	455.3	465.1
Interior	40.1	40.8	42.0	40.3	40.1	37.1	37.1	39.4	36.5	35.5	35.7	37.7	163.2	153.6	145.3
Western	128.2	119.8	128.5	129.3	127.0	124.9	129.3	129.9	123.9	128.3	133.6	133.3	505.8	511.1	519.0
Primary Stock Levels ^a															
Opening	36.1	42.4	41.5	35.1	34.4	41.3	41.9	35.5	34.6	41.3	41.9	35.5	36.1	34.4	34.6
Closing	42.4	41.5	35.1	34.4	41.3	41.9	35.5	34.6	41.3	41.9	35.5	34.6	34.4	34.6	34.6
Net Withdrawals	-6.2	0.8	6.5	0.7	-6.9	-0.6	6.4	0.9	-6.6	-0.6	6.4	0.9	1.8	-0.3	(S)
Imports	2.2	2.1	2.4	2.6	2.5	2.5	2.5	2.6	2.9	2.9	2.9	2.9	9.3	10.2	11.6
Exports	13.0	14.4	16.1	16.5	15.2	15.2	15.4	15.4	15.2	15.4	15.6	15.6	59.9	61.2	61.8
Total Net Domestic Supply	265.4	251.8	265.7	267.4	264.7	264.8	266.3	272.9	256.9	270.6	273.3	278.4	1050.3	1068.8	1079.2
Secondary Stock Levels ^b															
Opening	129.5	144.2	152.9	139.8	144.1	145.3	157.8	141.5	152.1	142.2	154.4	138.4	129.5	144.1	152.1
Closing	144.2	152.9	139.8	144.1	145.3	157.8	141.5	152.1	142.2	154.4	138.4	148.3	144.1	152.1	148.3
Net Withdrawals	-14.7	-8.7	13.1	-4.3	-1.2	-12.5	16.3	-10.6	9.9	-12.2	16.0	-9.9	-14.7	-8.0	3.8
Waste Coal Supplied to IPPs $^{\rm c}$	2.3	2.4	2.7	2.9	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	10.3	12.7	13.2
Total Supply	252.9	245.5	281.5	266.0	266.7	255.5	285.8	265.5	270.1	261.6	292.6	271.8	1046.0	1073.5	1096.2
Demand															
Coke Plants	6.8	7.1	7.0	7.1	7.0	6.8	6.8	7.0	7.1	6.9	6.9	7.0	28.0	27.6	28.0
Electricity Production															
Electric Utilities		214.7	247.9	220.4	227.2	218.0	247.5	224.4	230.1	223.7	253.9	230.1	900.3	917.1	937.7
Nonutilities (Excl. Cogen.) ^d	8.8	10.7	12.7	12.9	13.1	12.8	13.5	13.5	13.6	13.3	14.1	14.0	45.1	52.9	55.0
Retail and General Industry		17.7	16.4	20.7	19.4	17.9	17.9	20.6	19.3	17.8	17.8	20.6	74.2	75.9	75.5
Total Demand ^e	252.2	250.2	284.0	261.0	266.7	255.5	285.8	265.5	270.1	261.6	292.6	271.8	1047.4	1073.5	1096.2
Discrepancy ^f	0.7	-4.7	-2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	0.0	0.0

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

^bSecondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

^cEstimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes, 3.2 million tons per quarter in 2000 and 3.3 million tons per quarter in 2000.

^dEstimates 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 1998 and projections for 1999 and 2000 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).

^eTotal Demand includes estimated IPP consumption.

f The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period. Notes: Rows and columns may not add due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by

simulation of the Short-Term Integrated Forecasting System.

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

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

(Billion Kilowatt-hours)

						2000				2001				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Net Utility Generation															
Coal	431.7	426.5	489.0	421.2	439.5	430.6	488.0	441.9	454.5	442.7	500.5	452.3	1768.4	1800.0	1850.0
Petroleum	26.9	23.0	27.8	21.9	24.2	17.5	21.6	19.5	25.9	20.9	26.1	23.6	99.6	82.8	96.5
Natural Gas	52.0	81.3	107.7	59.0	54.3	85.7	121.2	60.9	54.9	88.8	125.8	61.5	300.0	322.1	331.0
Nuclear	181.2	166.1	195.0	177.0	182.3	165.1	193.9	174.7	178.7	162.2	190.5	171.7	719.4	716.0	703.0
Hydroelectric	83.4	79.8	69.8	58.8	73.4	76.1	63.5	61.5	71.7	75.4	62.5	62.0	291.9	274.6	271.6
Geothermal and Other ^a	1.6	1.0	0.5	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	776.8	777.7	889.9	738.5	774.1	775.6	888.8	759.2	786.3	790.5	905.9	771.7	3182.9	3197.7	3254.3
Nonutility Generation ^b															
Coal	20.6	24.7	33.6	34.4	30.4	29.5	31.8	32.9	30.9	30.0	32.3	33.4	113.3	124.6	126.6
Petroleum	6.5	7.2	7.4	6.2	7.8	7.5	8.1	9.1	7.7	7.5	8.1	9.1	27.3	32.5	32.5
Natural Gas	52.0	57.1	73.4	72.2	64.3	61.6	67.0	75.0	64.2	62.2	67.7	75.8	254.7	267.9	269.9
Other Gaseous Fuels ^c	1.9	2.1	2.7	2.3	2.0	1.9	2.0	2.3	2.0	1.9	2.1	2.3	9.0	8.1	8.2
Hydroelectric	3.4	3.4	2.4	2.5	2.4	2.3	2.5	2.8	2.4	2.3	2.5	2.8	11.7	10.0	10.1
Geothermal and Other ^d	18.7	20.1	21.8	21.8	21.8	20.9	23.0	25.6	22.1	21.2	23.3	25.9	82.4	91.2	92.5
Subtotal	103.2	114.7	141.3	139.2	128.6	123.6	134.5	147.7	129.3	125.2	136.1	149.4	498.4	534.4	539.9
Total Generation	879.9	892.4	1031.2	877.7	902.7	899.1	1023.3	906.9	915.5	915.7	1042.0	921.0	3681.2	3732.1	3794.2
Net Imports ^e	2.0	7.6	11.5	8.2	6.7	6.9	9.6	7.2	6.8	7.3	9.0	7.0	29.3	30.4	30.0
Total Supply	881.9	900.0	1042.7	885.9	909.5	906.0	1032.9	914.0	922.3	923.0	1051.0	928.0	3710.5	3762.5	3824.2
Losses and Unaccounted for ^f	62.0	85.9	65.2	60.1	47.7	75.6	64.9	64.4	48.8	77.1	66.1	65.4	273.1	252.5	257.4
Demand															
Electric Utility Sales															
Residential	286.0	249.2	349.5	254.6	299.1	259.1	340.5	268.4	307.0	265.6	348.3	273.7	1139.2	1167.1	1194.5
Commercial	226.0	236.5	277.6	235.5	237.8	240.3	279.6	241.6	240.8	244.7	283.8	244.2	975.5	999.4	1013.5
Industrial	248.5	264.6	274.6	261.5	256.5	265.0	275.4	264.8	256.9	268.6	279.3	268.8	1049.2	1061.7	1073.7
Other	23.9	24.4	27.3	25.6	26.1	25.4	28.3	26.3	26.6	26.2	29.2	27.1	101.2	106.0	109.1
Subtotal	784.4	774.6	928.9	777.1	819.5	789.8	923.8	801.1	831.3	805.1	940.6	813.9	3265.1	3334.2	3390.9
Nonutility Use/Sales ^b	35.5	39.5	48.6	48.7	42.3	40.7	44.2	48.6	42.1	40.8	44.4	48.7	172.3	175.8	176.0
Total Demand	819.9	814.0	977.6	825.9	861.8	830.5	968.1	849.6	873.5	845.9	984.9	862.6	3437.4	3509.9	3566.8
Memo:															
Nonutility Sales to															
Electric Utilities ^b	67.7	75.2	92.7	90.4	86.3	82.9	90.2	99.1	87.1	84.4	91.7	100.7	326.1	358.6	363.9
^a "Other" includes generation from wind				sources											

^bElectricity(net Generation) from nonutility sources, including cogenerators and small power producers.

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

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

^eData for 1999 are estimates.

^tBalancing item, mainly transmission and distribution losses.

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

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following 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 ^a	3.178	3.047	2.867	2.836	-4.1	-5.9	-1.1
Geothermal, Solar and Wind Energy ^b	0.109	0.036	0.004	0.004	-67.0	-88.9	0.0
Biofuels ^c	0.021	0.020	0.021	0.021	-4.8	5.0	0.0
Total	3.307	3.103	2.891	2.860	-6.2	-6.8	-1.1
Nonutility Power Generators							
Hydroelectric Power ^a	0.149	0.121	0.103	0.105	-18.8	-14.9	1.9
Geothermal, Solar and Wind Energy ^b	0.240	0.310	0.430	0.436	29.2	38.7	1.4
Biofuels ^c	0.526	0.653	0.653	0.663	24.1	0.0	1.5
Total	0.915	1.083	1.187	1.203	18.4	9.6	1.3
Total Power Generation	4.223	4.186	4.078	4.064	-0.9	-2.6	-0.3
Other Sectors ^d							
Residential and Commercial ^e	0.568	0.574	0.583	0.583	1.1	1.6	0.0
Industrial ^f	1.515	1.542	1.569	1.569	1.8	1.8	0.0
Transportation ^g	0.095	0.098	0.097	0.097	3.2	-1.0	0.0
Total	2.178	2.214	2.249	2.249	1.7	1.6	0.0
Net Imported Electricity ^h	0.233	0.237	0.246	0.243	1.7	3.8	-1.2
Total Renewable Energy Demand	6.634	6.638	6.574	6.556	0.1	-1.0	-0.3

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

^bAlso includes photovoltaic and solar thermal energy.

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

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

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

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

^gEthanol blended into gasoline.

^hRepresents 78.6 percent of total electricity net imports, which is the proportion of total 1994 net imported electricity (0.459 quadrillion Btu) attributable to renewable sources (0.361 quadrillion Btu).

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

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

								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Real Gross Domestic Product (GDP)															
(billion chained 1992 dollars)	5587	5822	6024	6129	6116	6319	6469	6729	6912	7165	7488	7810	8122	8403	8672
Imported Crude Oil Price ^a															
(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	24.21	21.36
Petroleum Supply															
Crude Oil Production ^b															
(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	5.96	5.79
Total Petroleum Net Imports (including SPR)	E 04	C 50	7.00	740	6.63	C 04	7.00	0.05	7 00	0.50	0.40	0.70	0.70	10 50	10.00
(million barrels per day)	5.91	6.59	7.20	7.16	0.03	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.76	10.50	10.88
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	40 70	47.04	47.07	47.04	40.77	17 10	47.04	47 70	47 70	40.04	40.00	40.00		10 5 4	10.05
(million barrels per day) Natural Gas	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.44	19.54	19.95
(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	21.49	22.39	22.87
Coal															
(million short tons)	830	877	891	897	898	907	943	950	962	1006	1029	1041	1047	1074	1096
Electricity (billion kilowatthours)															
Utility Sales ^c d	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3140	3240	3265	3334	3391
Nonutility Own Use ^d	NA	NA	NA	100	106	132	137	147	157	161	166	166	172	176	176
Total	NA	NA	NA	2812	2868	2895	2999	3081	3170	3259	3306	3406	3437	3510	3567
Total Energy Demand ^e															
(quadrillion Btu)	NA	NA	NA	84.2	84.3	85.6	87.4	89.2	90.9	93.9	94.2	94.5	96.2	97.9	99.4
Total Energy Demand per Dollar of GDP															
(thousand Btu per 1992 Dollar)	NA	NA	NA	13.74	13.79	13.54	13.51	13.26	13.16	13.11	12.58	12.11	11.85	11.65	11.46

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

^bIncludes lease condensate.

^cTotal 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.

^dDefined 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 1998 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 compenensive measure of total energy demand can be found in EIA's *AER*. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER*). Consequently, the historical data may not precisely match those published in the *MER* or the *AER*.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *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 CONTROL1299.

_								Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Macroeconomic															
Real Gross Domestic Product															
(billion chained 1992 dollars)	5587	5822	6024	6129	6116	6319	6469	6729	6912	7165	7488	7810	8122	8403	8672
GDP Implicit Price Deflator															
(Index, 1992=1.000)	0.849	0.878	0.911	0.947	0.979	1.000	1.027	1.048	1.071	1.091	1.109	1.122	1.137	1.153	1.170
Real Disposable Personal Income															
(billion chained 1992 Dollars)	4172	4358	4466	4564	4596	4754	4804	4927	5059	5191	5381	5600	5818	6031	6241
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	1.415	1.450	1.512
Real Fixed Investment															
(billion chained 1992 dollars)	822	852	875	859	800	852	921	1005	1066	1165	1264	1414	1535	1626	1681
Real Exchange Rate															
(Index, 1990=1.000)	NA	NA	NA	0.999	1.007	1.013	1.057	1.034	0.961	1.017	1.105	1.152	1.154	1.137	1.087
Business Inventory Change															
(billion chained 1992 dollars)	8.4	17.0	14.2	8.9	-6.8	-4.7	3.7	12.1	14.1	10.1	22.2	25.1	1.1	3.8	9.3
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	1.295	1.299
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	1.707	1.742
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	0.609	0.832	0.729
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	130.7	132.4
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	91.4	93.2
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	1.368	1.402	1.458
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	116.1	117.5	118.8
Weather ^a															
Heating Degree-Days															
U.S	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4159	4413	4464
New England	6546	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	6009	6498	6478
Middle Atlantic	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5336	5710	5712
U.S. Gas-Weighted	4391	4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4185	4409	4646	4703
Cooling Degree-Days (U.S.)	1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1156	1411	1318	1234	1234

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

^aPopulation-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 1990 population.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1299.

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 ^a															
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	19.4	19.5	20.0
Europe ^b	12.3	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.7	14.6	14.8	15.0
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	5.5	5.5	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	4.7
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	8.9	9.1	9.6
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	13.8	14.2
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 °															
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	9.1	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	6.2	6.6	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	19.4	19.9	20.2
Non-OECD														1010	20.2
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	30.3	31.8
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	11.0	11.2	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	54.3	55.6	57.8
Total 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	73.6	75.5	78.0
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	1.1	0.4	-0.2
OECD 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	2.6	2.6
Net 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	3.7	3.7	3.7

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

^bOECD Europe includes the former East Germany.

^CIncludes 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.

^dIncludes 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, Iran, 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 ^a															
(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	24.21	21.36
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	2.16	2.32	1.95	2.09	2.47	2.54
Petroleum Products															
Gasoline Retail ^b (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	1.38	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	1.35	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	1.33	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	0.87	0.67
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	1.27	1.05
No. 6 Residual Fuel Oil, Retail ^c															
(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	15.84	22.75	20.34
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	1.22	1.22
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	2.51	3.68	3.28
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	2.60	3.05	3.06
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	6.69	7.09	7.34
(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	8.2	8.0	8.0

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

^bAverage self-service cash prices.

^cAverage for all sulfur contents.

^dIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

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

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

(Million Barrels per Day, Except Closing Stocks)

Supply 1987 1988 1989 1990 1991 1992 1993 1994 1996 1997 1998 1999 2000 2001 Cnde OI Supply Domesite Production ^a									Year							
		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Crude Oil Supply 8.35 8.14 7.61 7.36 7.42 7.17 6.85 6.66 6.56 6.44 6.45 6.25 5.93 5.96 5.79 Lower 48	Supply															
	Crude Oil Supply															
Alaska 1.96 2.02 1.87 1.77 1.80 1.71 1.58 1.56 1.64 1.39 1.30 1.17 1.05 0.96 0.91 Lower 44 6.59 6.12 5.74 5.65 5.60 5.60 5.60 5.00 5.10 5.08 5.07 5.16 5.08 8.12 8.12 8.60 8.51 9.13 9.48 Other SPR Supply 0.00 <td< td=""><td>Domestic Production ^a</td><td>8.35</td><td>8.14</td><td>7.61</td><td>7.36</td><td>7.42</td><td>7.17</td><td>6.85</td><td>6.66</td><td>6.56</td><td>6.46</td><td>6.45</td><td>6.25</td><td>5.93</td><td>5.96</td><td>5.79</td></td<>	Domestic Production ^a	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	5.96	5.79
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		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	0.96	0.91
Net Imports (including SPR) 4.52 4.52 5.70 5.67 5.99 6.69 7.14 7.40 8.12 8.60 8.51 9.13 9.43 Other SPR Supply 0.00	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	5.01	4.88
Other SPR Supply 0.00	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	8.51	9.13	9.48
Product Supplied and Losses -0.03 -0.04 -0.02 -0.02 -0.02 -0.01 -0.01 -0.01 -0.01 -0.01 0.02 0.22 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 14.83 14.82 15.11 15.49 Other Hydrocarbon and Alcohol Inputs 0.12 0.11 0.13 0.15 0.02 0.25 0.26 0.30 0.31 0.34 0.38 0.37 <td< td=""><td>Other SPR Supply</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.04</td><td>0.05</td><td>0.00</td></td<>	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
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 0.21 0.22 Total Crude Oil Supply 12.85 13.25 13.40 13.41 13.30 13.41 13.87 13.97 14.19 14.66 14.89 14.82 15.11 15.49 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 1.83 1.82 1.81 1.82 1.81 1.82 1.81 1.82 1.81 1.82 1.81 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.83 1.82 1.76 1.74 1.77 1.70 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 </td <td>Stock Draw (Including SPR)</td> <td>-0.12</td> <td>0.00</td> <td>-0.09</td> <td>0.02</td> <td>-0.01</td> <td>0.01</td> <td>-0.06</td> <td>-0.02</td> <td>0.09</td> <td>0.05</td> <td>-0.06</td> <td>-0.05</td> <td>0.09</td> <td>-0.09</td> <td>0.00</td>	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	0.09	-0.09	0.00
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 14.82 15.11 15.49 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 1.83 1.82 1.81 1.82 1.81 1.82 1.81 1.82 1.81 1.82 1.83 1.82 1.84 1.84 0.33 0.37<	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
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 1.83 1.82 1.84 Other Hydrocarbon and Alcohol Inputs 0.12 0.11 0.11 0.11 0.13 0.15 0.20 0.25 0.26 0.30 0.34 0.38 0.37	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	0.21	0.22
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 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 0.37 1.71 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.71 0.28 -0.05 -0.05 -0.05	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	14.82	15.11	15.49
Other Hydrocarbon and Alcohol Inputs. 0.12 0.11 0.01 0.	Other Supply															
Other Hydrocarbon and Alcohol Inputs. 0.12 0.11 0.01 0.	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	1.83	1.82	1.84
Processing Gain 0.64 0.66 0.66 0.66 0.68 0.71 0.77 0.77 0.77 0.84 0.85 0.89 0.90 0.91 0.91 Net Product Imports 1.39 1.63 1.50 1.38 0.96 0.93 1.09 0.75 1.10 1.04 1.17 1.25 1.38 1.40 Product Stock Withdrawn 0.09 0.03 0.13 -0.14 -0.06 -0.05 0.00 0.15 0.03 -0.09 -0.17 0.28 -0.05 -0.05 -0.05 Total Supply 16.72 17.33 17.37 17.04 16.76 17.10 17.26 17.72 18.31 18.62 18.92 19.44 19.54 19.95 Demand ////////////////////////////////////		0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.37	0.37	0.37
Net Product Imports ⁶ 1.39 1.63 1.50 1.38 0.96 0.94 0.93 1.09 0.75 1.10 1.04 1.17 1.25 1.38 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 0.28 -0.05 -0.05 Total Supply 16.72 17.33 17.37 17.04 16.76 17.10 17.26 17.72 18.31 18.62 18.92 19.44 19.54 19.95 Demand	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
Product Stock Withdrawn	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	0.90	0.91	0.91
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 19.44 19.54 19.95 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 8.40 8.53 8.65 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 1.70 1.76 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 3.66 3.60 3.69 3.69 3.69 3.69 3.69 3.69 3.69 0.85 0.80 0.89 0.85 0.77 0.84 Other Oils ⁶ 1.26 1.38 1.37 1.23 1.16 1.09 1.08 1.02 0.85 0.80 0.89 0.85 0.77 0.84 Other Oils ⁶ <					1.38						1.10		1.17			
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 8.40 8.53 8.65 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 1.70 1.76 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 3.60 3.69 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 0.77 0.84 Other Oils ^e 3.90 4.03 3.95 3.99 4.20 4.17 4.41 4.36 4.63 4.77 4.69 4.97 4.94 5.01 Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.24 17.72 18.31 18.62 18.92 19.44 <	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	0.28	-0.05	-0.05
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 8.40 8.53 8.65 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 1.70 1.76 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 3.60 3.69 Residual Fuel Oil 1.26 1.38 1.37 1.23 1.16 1.09 1.08 1.02 0.85 0.80 0.89 0.85 0.60 0.77 0.84 Other Oils ^e 3.90 4.03 3.95 3.99 4.20 4.17 4.41 4.36 4.63 4.77 4.69 4.97 4.94 5.01 Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.22 17.72 18.31 18.62 18.92 19.44 19.5	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	19.44	19.54	19.95
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 1.70 1.76 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 3.60 3.69 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 0.77 0.84 Other Oils ⁶ 3.90 4.03 3.95 3.99 4.20 4.17 4.41 4.36 4.63 4.77 4.69 4.97 4.94 5.01 Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.24 17.72 18.31 18.62 18.92 19.44 19.54 19.95 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 9.76	Demand															
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 1.70 1.76 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 3.60 3.69 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 0.77 0.84 Other Oils ⁶ 3.90 4.03 3.95 3.99 4.20 4.17 4.41 4.36 4.63 4.77 4.69 4.97 4.94 5.01 Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.24 17.72 18.31 18.62 18.92 19.44 19.54 19.95 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 10.50	Motor Gasoline [°]	-		-		-		-								
Residual Fuel Oil	Jet Fuel															
Other Oils ^e 3.90 4.03 3.95 3.95 3.99 4.20 4.17 4.41 4.36 4.63 4.77 4.69 4.97 4.94 5.01 Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.24 17.72 18.31 18.62 18.92 19.44 19.54 19.95 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 9.76 10.50 10.88 Closing Stocks (million barrels) Crude Oil (excluding SPR) 349 330 341 323 325 318 335 337 303 284 305 324 290 302 302 Total Motor Gasoline 226 228 213 220 219 216 226 215 202 195 210 216 199 199 194 141 141 141 145 130 127 138 156 127 130 141 Distillate Fuel Oil	Distillate Fuel Oil															
Total Demand 16.72 17.34 17.37 17.04 16.77 17.10 17.24 17.72 18.31 18.62 18.92 19.44 19.54 19.95 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 9.76 10.50 10.88 Closing Stocks (million barrels) Crude Oil (excluding SPR) 349 330 341 323 325 318 335 337 303 284 305 324 290 302 302 302 Total Motor Gasoline 226 228 213 220 219 216 226 215 202 195 210 216 196 192 199 199 194 141 141 141 141 145 130 127 138 156 127 130 141 Residual Fyel Oil 47 45 44 49 50 43 44 42 37 46 40 45 35 44 42	Residual Fuel Oil								-							
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 9.76 10.50 10.88 Closing Stocks (million barrels) Crude Oil (excluding SPR) 349 330 341 323 325 318 335 337 303 284 305 324 290 302 302 Total Motor Gasoline 226 228 213 220 219 216 226 215 202 195 210 216 196 192 199 Jet Fuel 50 44 41 52 49 43 40 47 40 40 44 45 41 47 44 Distillate Fuel Oil 134 124 106 132 144 141 141 145 130 127 138 156 127 130 141 Residual Fuel Oil 47 45 44 49 50 43 44 42 37 46 40 45 35 <td< td=""><td>Other Oils [®]</td><td>3.90</td><td>4.03</td><td>3.95</td><td>3.95</td><td>3.99</td><td>4.20</td><td>4.17</td><td>4.41</td><td>4.36</td><td>4.63</td><td>4.77</td><td>4.69</td><td>4.97</td><td>4.94</td><td>5.01</td></td<>	Other Oils [®]	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	4.97	4.94	5.01
Closing Stocks (million barrels) Crude Oil (excluding SPR) 226 228 213 220 219 216 226 215 202 195 210 216 196 192 199 Jet Fuel 50 44 41 52 49 43 40 47 40 40 44 45 41 47 44 Distillate Fuel Oil 134 124 106 132 144 141 141 145 130 127 138 156 127 130 141 Residual Fuel Oil 47 45 44 49 50 43 44 42 37 46 40 45 35 44 42	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	19.44	19.54	19.95
Crude Oil (excluding SPR) 349 330 341 323 325 318 335 337 303 284 305 324 290 302 302 Total Motor Gasoline 226 228 213 220 219 216 226 215 202 195 210 216 196 192 199 Jet Fuel 50 44 41 52 49 43 40 47 40 40 44 45 41 47 44 Distillate Fuel Oil 134 124 106 132 144 141 145 130 127 138 156 127 130 141 Residual Fuel Oil 47 45 44 49 50 43 44 42 37 46 40 45 35 44 42	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	9.76	10.50	10.88
Total Motor Gasoline 226 228 213 220 219 216 226 215 202 195 210 216 196 192 199 Jet Fuel 50 44 41 52 49 43 40 47 40 40 44 45 41 47 44 Distillate Fuel Oil 134 124 106 132 144 141 145 130 127 138 156 127 130 141 Residual Fuel Oil 47 45 44 49 50 43 44 42 37 46 40 45 35 44 42	Closing Stocks (million barrels)															
Jet Fuel504441524943404740404445414744Distillate Fuel Oil134124106132144141145130127138156127130141Residual Fuel Oil474544495043444237464045354442	Crude Oil (excluding SPR)															
Distillate Fuel Oil	Total Motor Gasoline											-				
Residual Fuel Oil	Jet Fuel				-	-		40								
Residual Fuel Oil	Distillate Fuel Oil	-			-				-							
	Residual Fuel Oil				-							-				
Other Oils ¹		260	267	257	261	267	263	273	275	258	250	259	291	252	255	259

Includes lease condensate.

Includes lease contensate. Net imports equals gross imports plus SPR imports minus exports. dincludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing. For years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, *Short-Term Energy Outlook*, EIA/DOE-0202(93/3Q), for details on this adjustment. Includes stocks of all other oils, such as aviation gasoline, 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, available and miscellaneous oils.

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	18.79	18.90	18.71	18.75	18.88	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	3.32	3.56	3.71
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	0.13	0.13
Total New Supply	17.66	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.69	21.84	21.80	22.17	22.58	22.78
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	6.83	6.72
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	6.83	6.72	6.70
Net Withdrawals	0.02	-0.10	0.33	-0.61	0.16	0.14	-0.01	-0.32	0.46	-0.01	-0.01	-0.52	0.22	0.11	0.01
Total Supply	17.68	18.32	19.02	18.77	19.61	20.02	20.42	21.08	21.86	21.68	21.84	21.28	22.39	22.69	22.79
Balancing Item ^a	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.29	0.12	-0.02	-0.90	-0.29	0.08
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	21.49	22.39	22.87
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	1.21	1.20
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	0.65	0.65	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	4.66	4.92	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	3.10	3.30	3.40
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	8.70	8.94	9.11
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	3.15	3.37	3.46
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	21.49	22.39	22.87

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

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	1118.1	1099.1	1120.0	1129.5
Appalachia	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	430.1	455.3	465.1
Interior	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	163.2	153.6	145.3
Western	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	489.4	505.8	511.1	519.0
Primarv Stock Levels ^a															
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	36.1	34.4	34.6
Closing	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.1	34.4	34.6	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	-2.2	1.8	-0.3	S
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	9.3	10.2	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	59.9	61.2	61.8
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	1046.6	1050.3	1068.8	1079.2
Secondarv Stock Levels ^b															
Opening	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	101.4	129.5	144.1	152.1
Closing	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	101.4	129.5	144.1	152.1	148.3
Net Withdrawals	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	21.6	-28.1	-14.7	-8.0	3.8
Waste Coal Supplied to IPPs ^c	0.0	0.0	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	10.3	12.7	13.2
Total Supply	834.4	882.3	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1038.2	1027.6	1046.0	1073.5	1096.2
Demand															
Coke Plants	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.0	27.6	28.0
Electricity Production								• • • •		• • • • •					
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	900.3	917.1	937.7
Nonutilities (Excl. Coaen.) ^d	NA	NA	0.9	1.6	10.2	14.6	17.1	19.5	20.8	22.2	21.6	28.1	45.1	52.9	55.0
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	74.1	74.2	75.9	75.5
Total Demand ^e	830.0	876.5	890.6	897.1	897.8	907.0	943.1	949.7	961.7	1005.6	1029.2	1041.2	1047.4	1073.5	1096.2
Discrepancy ^f	4.4	5.8	5.9	2.4	-6.4	0.8	-6.6	4.3	-1.3	1.2	9.0	-13.6	-1.5	0.0	0.0

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

^bSecondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

^CEstimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes, 3.2 million tons per quarter in 2000 and 3.3 million tons per quarter in 2000.

^dEstimates 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 1998 and projections for 1999 and 2000 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).

^eTotal Demand includes estimated IPP consumption.

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

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

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

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

(Billion Kilowatt-hours)

							Y	'ear							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply Net Utility Generation															
,		4540 5	4550 7	4550.0	4554.0	4575 0	4000.0	4005 5	4050.0	4707 5	4707.0	4007 5	4700 4	1000 0	1050.0
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	1768.4	1800.0	1850.0
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	99.6	82.8	96.5
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	300.0	322.1	331.0
	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	719.4	716.0	703.0
Hydroelectrica	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	304.4	291.9	274.6	271.6
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	3182.9	3197.7	3254.3
Nonutility Generation ^b	NA	NA	187.6	216.7	246.3	286.1	314.4	343.1	363.3	369.6	371.7	405.7	498.4	534.4	539.9
Total Generation	NA	NA	2971.9	3024.9	3071.3	3083.4	3196.9	3253.8	3357.8	3447.0	3494.2	3617.9	3681.2	3732.1	3794.2
Net Imports	46.3	31.8	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	28.8	29.3	30.4	30.0
Total Supply	NA	NA	2982.8	3027.2	3091.0	3108.8	3224.7	3298.6	3397.1	3485.0	3530.8	3646.7	3710.5	3762.5	3824.2
losses and Unaccounted for ^c	NA	NA	238.8	215.1	223.4	213.8	226.1	217.2	227.3	225.7	225.1	241.0	273.1	252.5	257.4
emand															
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	1139.2	1167.1	1194.5
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	975.5	999.4	1013.5
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	1049.2	1061.7	1073.7
Other	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	1040.0	1045.2	106.0	1073.7
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	3265.1	3334.2	3390.9
Nonutility Use/Sales ^b	2437.3 NA	NA	2040.0 NA	99.5	105.6	131.6	137.2	146.8	156.5	161.4	165.9	165.9	172.3	175.8	176.0
Total Demand	NA	NA	NA	2812.1	2867.6	2895.0	2998.6	3081.4	3169.8	3259.3	3305.7	3405.7	3437.4	3509.9	3566.8
emo:															
Nonutility Sales															
to Electric Utilities	NA	NA	NA	NA	140.7	154.5	177.2	196.3	206.8	208.1	205.8	239.8	326.1	358.6	363.9

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

^cBalancing item, mainly transmission and distribution losses.

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

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.