

November 1999

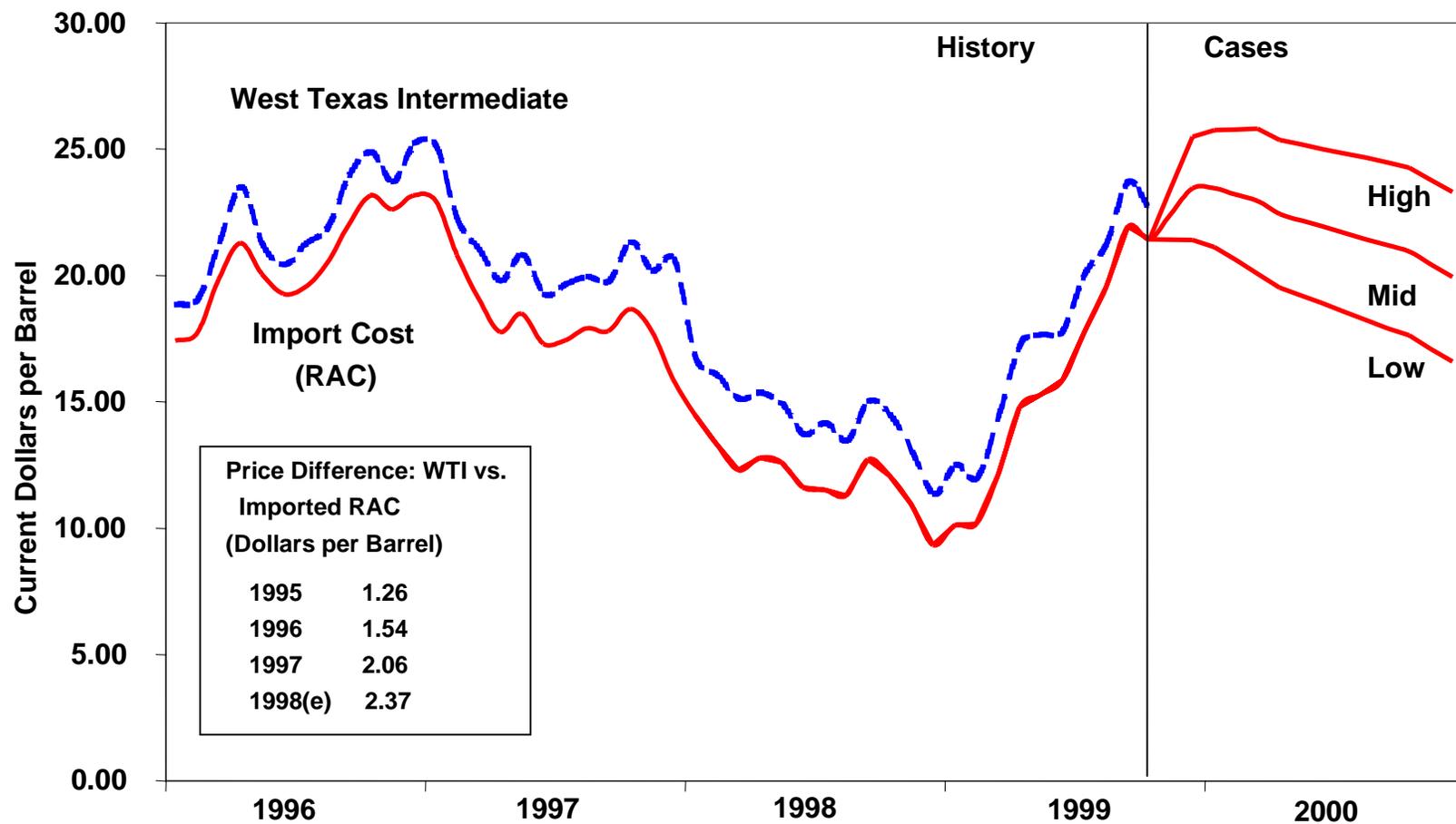
Highlights

International Oil Markets

Prices. World oil prices for the remainder of 1999 and all of 2000 are expected to remain above \$20 per barrel. EIA believes that prices will rise from average October levels (an estimated \$21.50 per barrel for the price paid by U.S. refiners for imported crude) by \$2 per barrel by December. The world oil price is then expected to remain at an average of \$23.50 per barrel in January 2000 due to increased demand in the winter and Y2K precautionary building of end-user inventories (see a brief discussion on Y2K impacts below), before gradually declining to \$20.00 per barrel by December 2000. This forecast assumes that OPEC compliance remains relatively strong through the winter, but that OPEC production increases after March 2000, either by an increase in quotas or a decrease in compliance to current quotas. Even with increased oil supplies from OPEC and non-OPEC countries this production profile should draw down world oil stocks to well below normal levels by the end of the winter period. Since world oil demand exceeded world oil supply by over 1 million barrels per day, even a large increase in supply may not be enough to have world oil supply greater than world oil demand in 2000. However, increases in OPEC crude oil production after March 2000 are not expected to be large enough to allow the world oil price to slip below \$20 per barrel (equivalent to a West Texas Intermediate crude oil price of about \$22 per barrel). This analysis of OPEC production and global oil inventories is a major reason why EIA is forecasting increasing oil prices for the remainder of 1999 and remaining at relatively high levels throughout 2000. Of course, if OPEC production in 2000 exceeds this forecast, lower prices would be expected and vice versa. Our normal uncertainty range for crude oil prices suggest that expected end-2000 prices would be within about \$3-\$3.50 of the \$20.00 per barrel level with a high degree of probability ([Figure 1](#)).

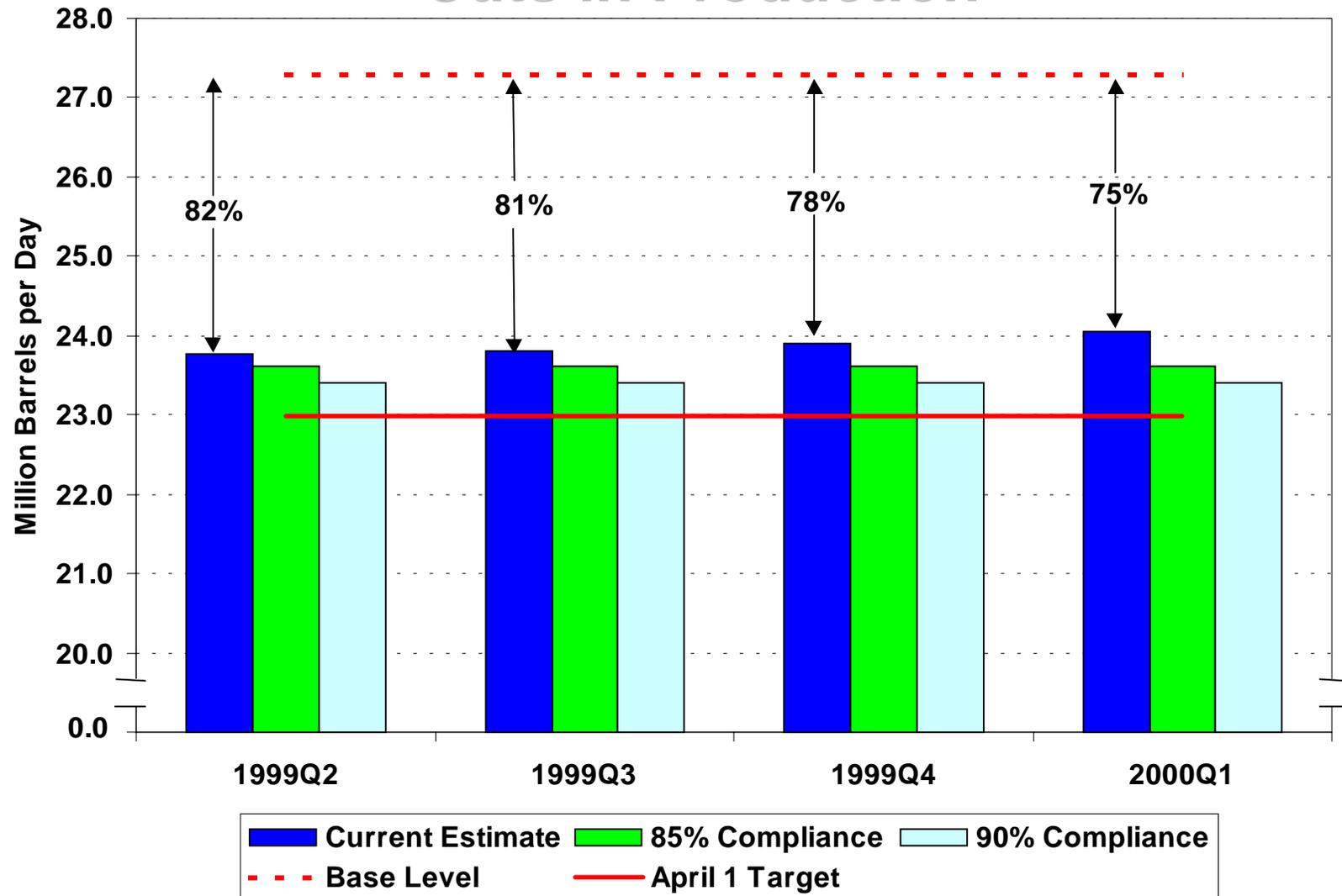
OPEC Production. EIA is currently forecasting OPEC compliance with agreed upon production cuts beginning this April to remain relatively strong through the end of the current agreement, which expires at the end of March 2000. Although OPEC compliance is expected to decline during the winter period, overall OPEC compliance is expected to remain relatively strong compared to previous agreement ([Figure 2](#)). OPEC has tentatively scheduled another ministerial meeting for March 27, 2000, but it is unclear what OPEC will decide to do in relation to their quotas at that meeting. Given our world demand and non-OPEC production forecasts, EIA is assuming that OPEC

Figure 1. U.S. Monthly Crude Oil Prices



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

Figure 2. OPEC Compliance to Agreed Upon Cuts in Production



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



production will continue to increase in 2000, whether from an increased quota or a decrease in compliance. Our forecast assumes that OPEC production in 2000 will average about 1.2 million barrels per day higher than average 1999 OPEC oil production levels.

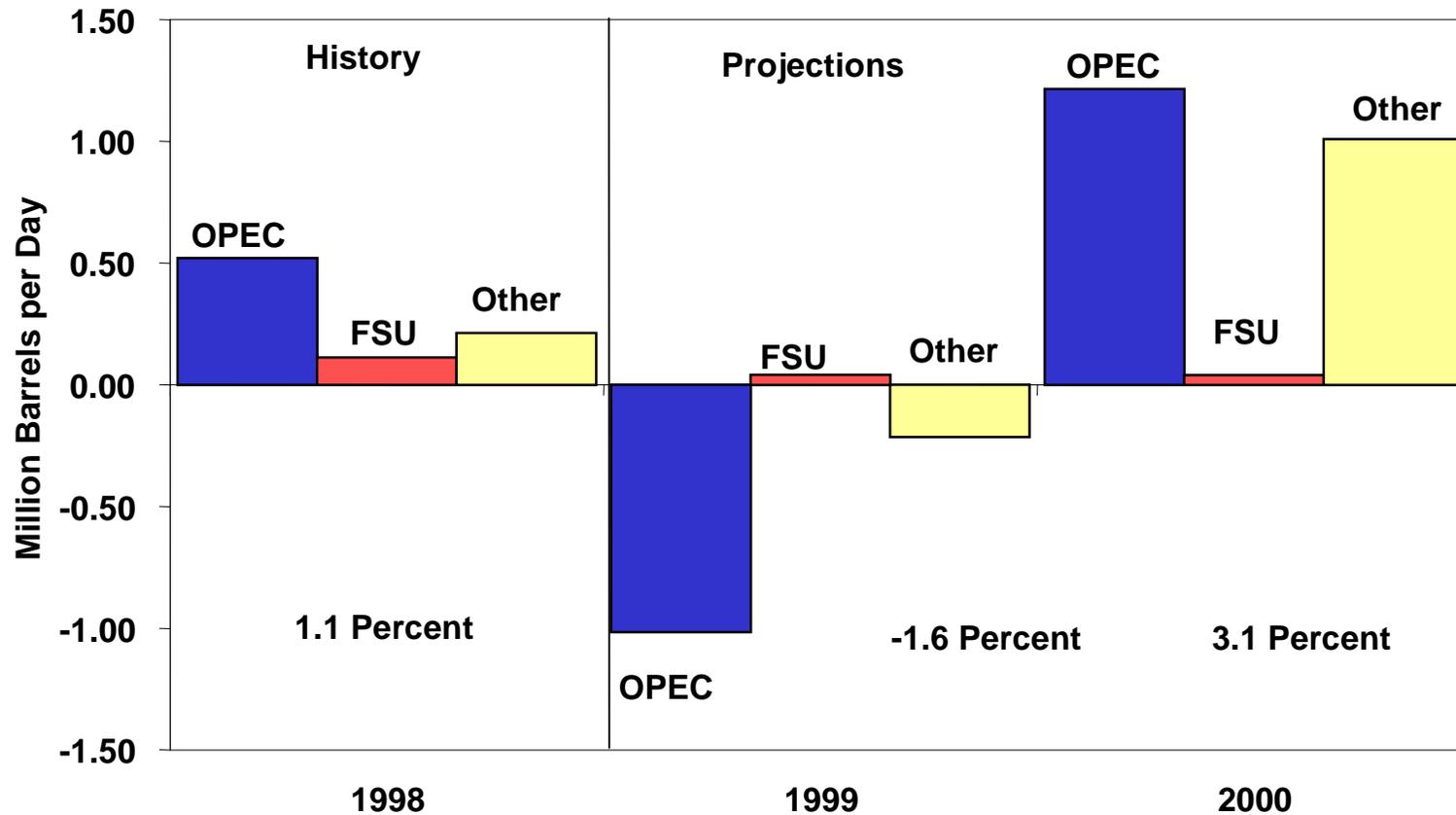
Non-OPEC Production. Non-OPEC oil production is expected to average about 200,000 barrels per day less in 1999 than it did in 1998, mainly as a result of reduced development expenditures engendered by very low oil prices in 1998 and early 1999. However, EIA is expecting non-OPEC production to increase by about 1.0 million barrels per day in 2000 as higher oil prices counteract some of the same forces that caused non-OPEC oil production to decline in 1999 ([Figure 3](#)). A significant amount of the increase in non-OPEC production is expected to come from the North Sea. After remaining relatively flat between 1996 and 1999, North Sea oil production is expected to increase by about 400,000 barrels per day in 2000, with the increase split evenly between Norway and the United Kingdom. Another major increase is expected to come from Australia. Australia is expected to increase by about 100,000 barrels per day in 2000, as production continues to increase from low levels at the end of 1998, which were caused by an accident in the Gippsland Basin.

Demand. EIA estimates that world oil demand will grow by about 1.1 million barrels per day in 1999, and by an additional 1.4 million barrels per day (1.8 percent growth) in 2000 ([Figure 4](#) and [Table 3](#)). The 2000 world oil demand estimate is down slightly from last month's forecast, and assumes that overall Asian demand continues the slow but steady recovery into next year. After growing by about 900,000 barrels per day each year between 1991 and 1996, oil demand in Asia (Japan, China, and other non-OECD Asia) grew by less than half of that in 1997 and actually declined by over 200,000 barrels per day in 1998. However, in 1999, oil demand in this region is once again expected to grow (by about 400,000 barrels per day). By 2000, Asian oil demand growth is expected to grow by over 600,000 barrels per day, or nearly 70% of the 1991-1996 average annual growth.

Inventories. Crude oil prices are influenced by fundamental supply/demand balances in the world petroleum market. Inventories are a measure of the shift in balance between petroleum production and demand and the pressures on crude oil price. For example, when stocks are rising, production is in excess of demand, and one expects downward price pressure. This is what occurred in 1997 and 1998. The increase in oil inventories was due to several factors acting in the same direction to create an excess amount of oil on the world oil market:

- The return of Iraq to the crude markets, without OPEC pulling back production to make room (Iraq went from less than 0.6 MMB/D in 1996 to over 2 MMB/D in 1998.);
- Growth in non-OPEC supplies;

Figure 3. World Oil Supply (Changes from Previous Year)

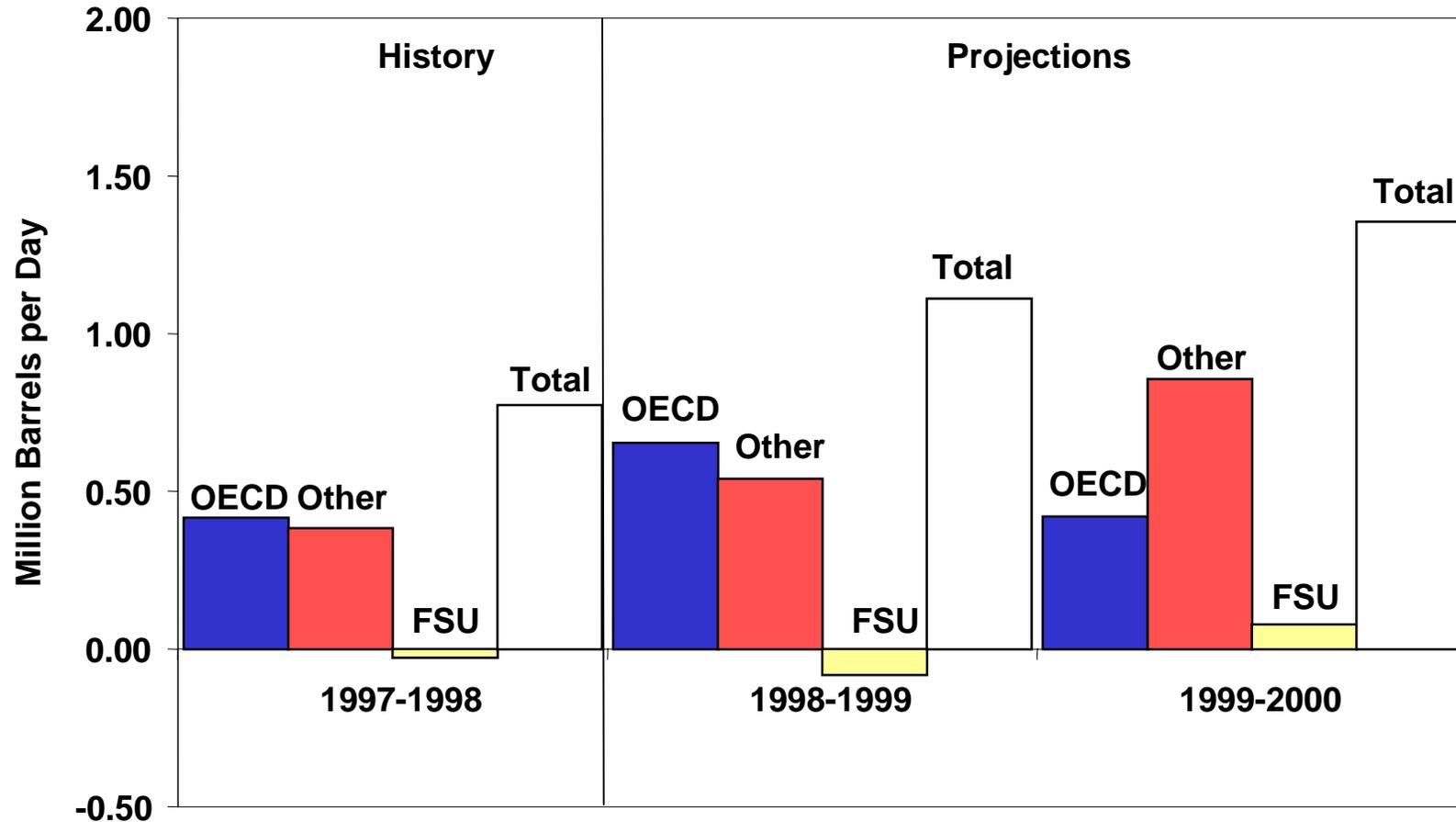


Sources: History: EIA; Projections: Short-Term Energy Outlook, November 1999



Figure 4. World Oil Demand

(Changes from Previous Year)



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



- The economic collapse and reduction in demand from Asia (Asia was the largest growing region of petroleum consumption);
- Two warm winters in a row.

The excess supply pulled prices down, but the excess seems to be eroding with OPEC's cutbacks. The opposite effect is expected to occur in 1999 and 2000, as demand is expected to outstrip supply. Projections for the world high-demand winter season indicate inventories may well be below normal levels -- with stocks drawn down to the low levels of 1996 by the end of 1999, even with normal weather -- all of which is putting upward price pressure on crude oil ([Figure 5](#)).

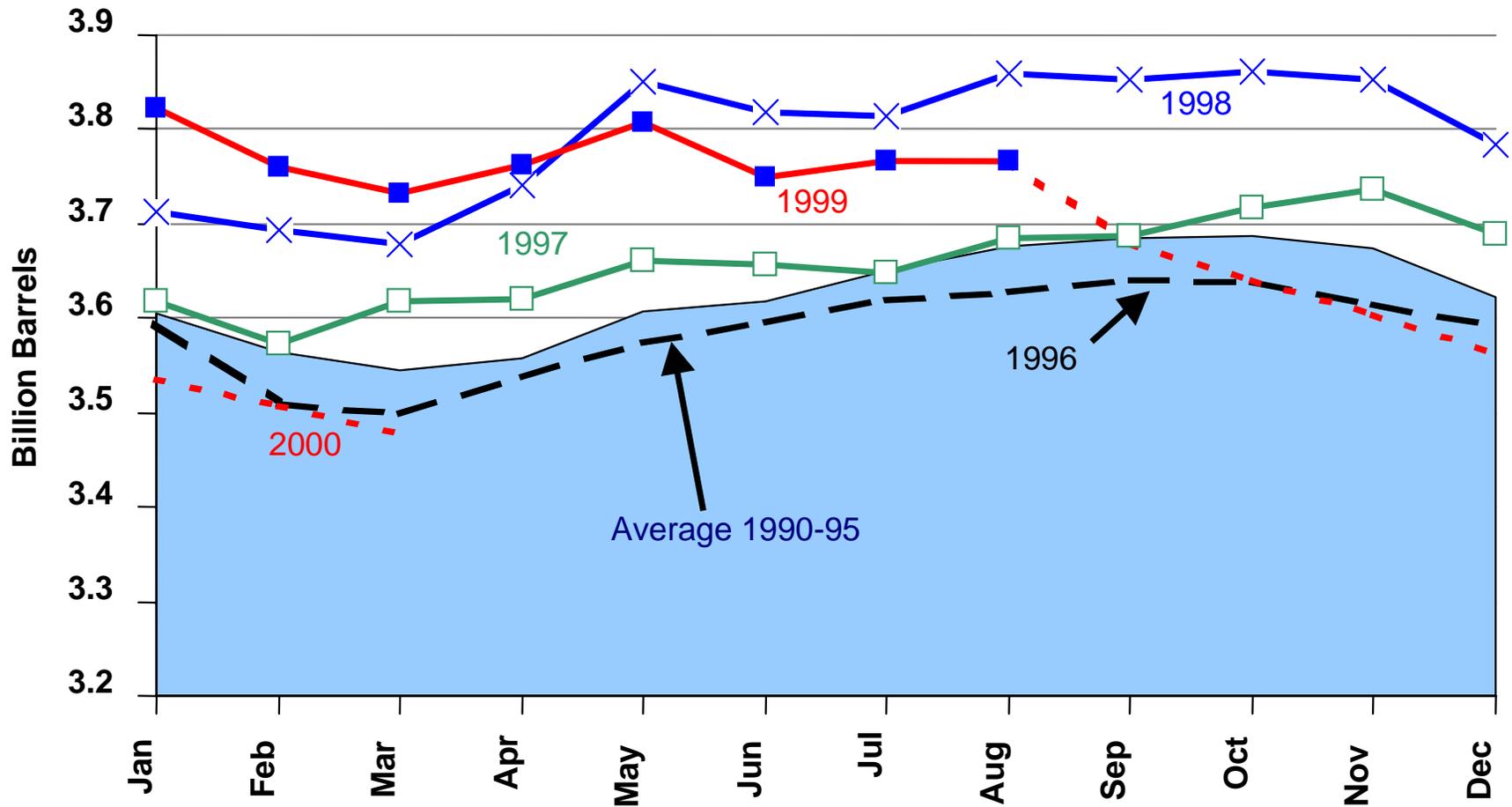
Y2K. EIA is forecasting a rise in world oil prices in November and especially December mainly because of fundamental crude oil market developments (e.g. above-normal world oil inventory drawdowns) but also to some small extent because of market concerns about possible Y2K-related disruptions to oil supplies. EIA is estimating that about 17 million barrels (or slightly less than 200,000 barrels per day) of oil products that would normally be supplied in the first quarter of 2000 will be made available in the form of higher precautionary end-user inventories during the fourth quarter in order to prepare for Y2K. In addition, we are now assuming that some small disruptions in global oil supplies related to Y2K may occur, but that in total, EIA expects disruptions in global oil supplies to be minimal. In addition, EIA is also assuming that over the course of the month of January, fixes are either made or workarounds completed such that the average price for crude oil in January 2000 averages the same as in December 1999. This could result from a small price increase in early January 2000 that then declines even below the December 1999 average price as the global oil supply situation eases, either through remediation, stock drawdowns, or other measures, such as production increases from countries with spare production capacity.

U.S. Energy Prices

Price volatility in the spot and futures markets for both crude oil and natural gas has been the norm since the end of the summer as the market has tried to anticipate the fuel requirements for the upcoming heating season. Changes in both the current weather and in short-term forecasts of the weather, particularly for the Northeast and Midwest regions of the country, have caused heavy price fluctuation in these heating fuels markets. These weather factors are likely to continue to cause wide price swings in the spot and near-term futures markets for oil and gas through the end of this month when the heating season begins in earnest.

Heating Oil. Assuming a normal winter and given considerably higher crude oil costs

Figure 5. OECD Petroleum Inventories



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



(about \$12 per barrel higher than last winter) residential heating oil customers can expect to pay an average of about 25 cents gallon more this upcoming winter compared to last winter ([Figure 6](#) and [Table 4](#)). These projections have actually been lowered slightly from the last month as our crude oil price projections have been adjusted downward. Last winter, particularly during the end of the fourth quarter, the weather was considerably warmer than normal and this contributed, directly and indirectly, to low prices. Combined with a very weak world oil market already burdened with excess inventories, this development led to U.S. residential heating oil prices to average \$0.80 per gallon for the 1998-1999 heating season. This winter, residential consumers can expect to pay about than \$1.05 per gallon, a level not seen since the winter of 1996-1997. As stated previously, our projections assume a "normal winter". However, if the winter turns out to be another mild one, then distillate stocks would bulge and heating oil prices would undoubtedly recede, perhaps sharply.

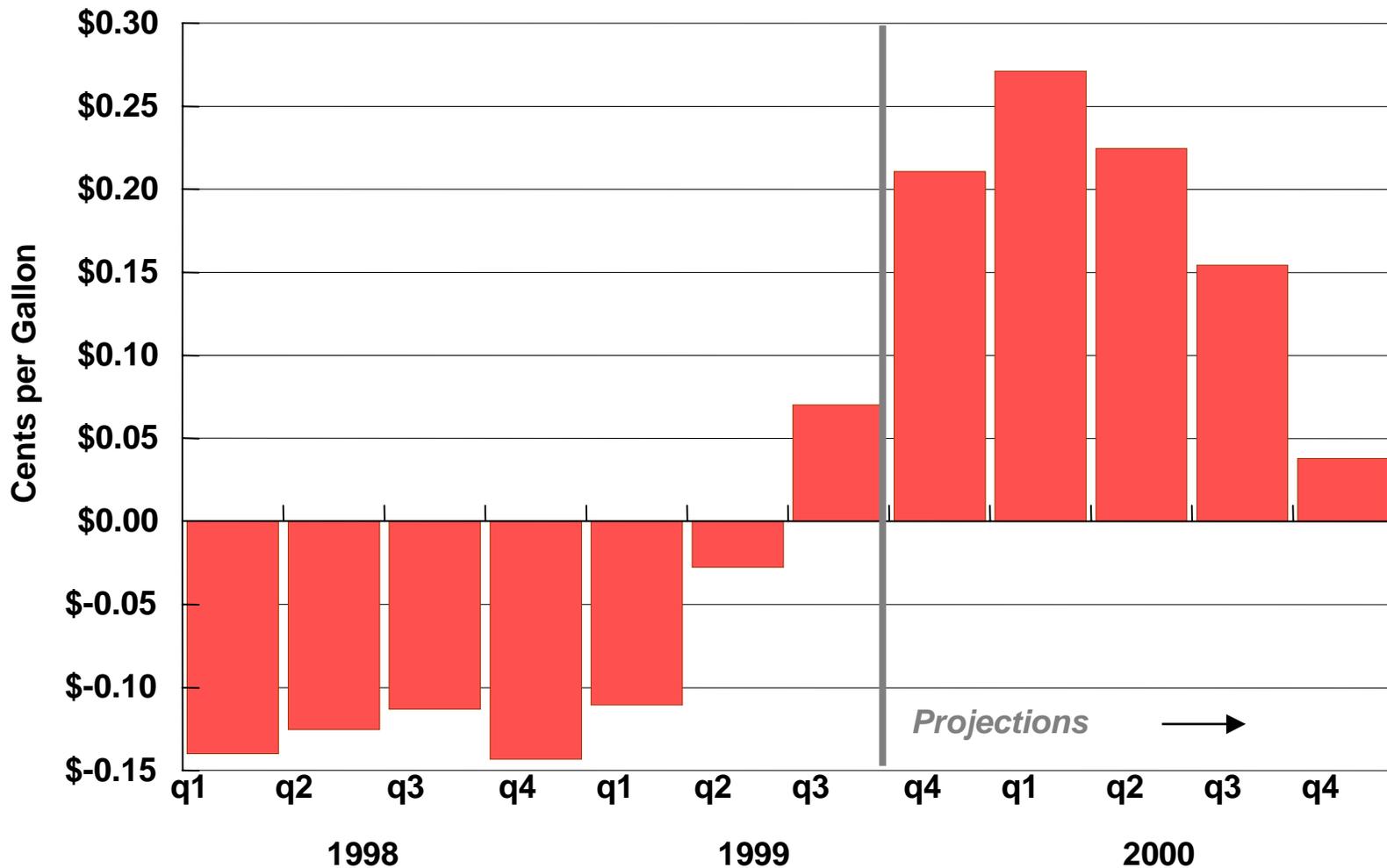
Motor Gasoline. In the previous report, unleaded regular motor gasoline prices were projected to peak for the year in December at \$1.31 per gallon. In our current report, pump prices are still expected to peak at year's end, but at \$1.27 per gallon, with most of the difference due to our lower crude oil cost assumptions ([Figure 7](#)). Nevertheless, these prices this winter will still be considerably above last year's near record low (in inflation-adjusted terms) levels. Next spring when the driving season begins, prices could creep up a little further, assuming our crude price assumptions still hold ([Table 4](#)).

Natural Gas. The spot price for natural gas at the wellhead has climbed quite rapidly and steadily from mid-August of this year through the beginning of September. Hot weather this past summer required considerable gas-burning at electric utilities for air conditioning, which meant smaller injections into storage. Thus, concern grew in the industry whether inventory levels of gas would be adequate to meet the needs of the heating season. Spot prices climbed by more than 75 cents per million Btu (MMBtu) in less than one month. Between the close of the cooling season and the start of winter, the weather can be highly fickle. The gas price can reflect this volatile influence. Since early September, spot and futures prices have oscillated sharply, rising and falling by as much as 20 cents per MMBtu in a single day based on information such as storage reports and one-week-ahead weather forecasts.

Last winter, storage levels were high and the weather was about 8 percent warmer than normal. The result was a price crash at the wellhead. As we enter this winter, underground storage levels are a little below last year's levels. In addition, we also assume normal weather this winter. As a result, we project prices that are about 40 percent above those from last year ([Figure 8](#)). Nonetheless, a repeat of last year's price plunge is quite possible, particularly if the weather in the gas consuming regions of the country for the remainder of November and early December turns out to be mild.

Electric Utility Fuels. In August of this year the average price of residual fuel oil to

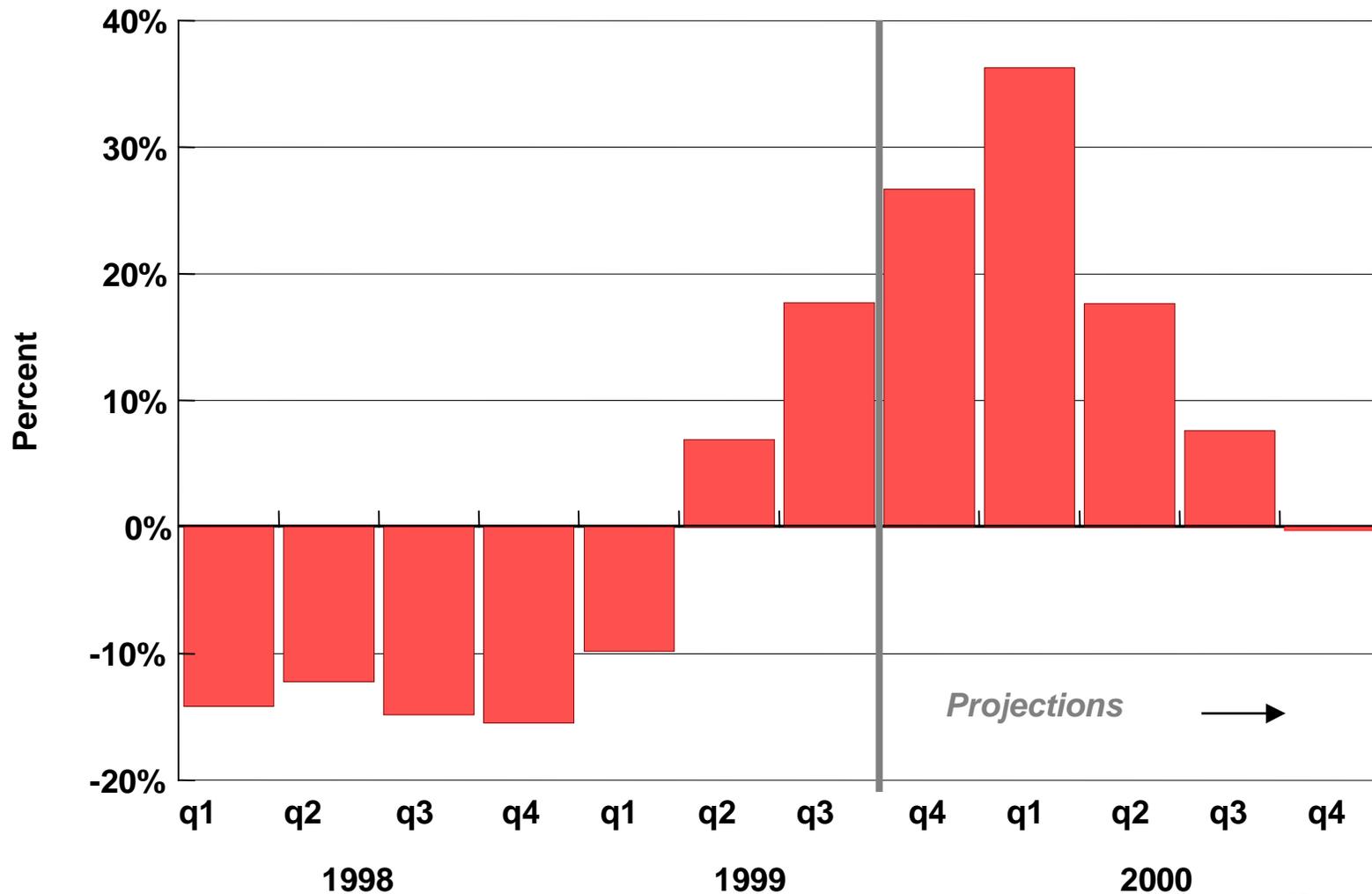
Figure 6. Quarterly Retail Heating Oil Prices (Change from Year Ago)



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



Figure 7. Quarterly Retail Motor Gasoline Prices* (Change from Year Ago)



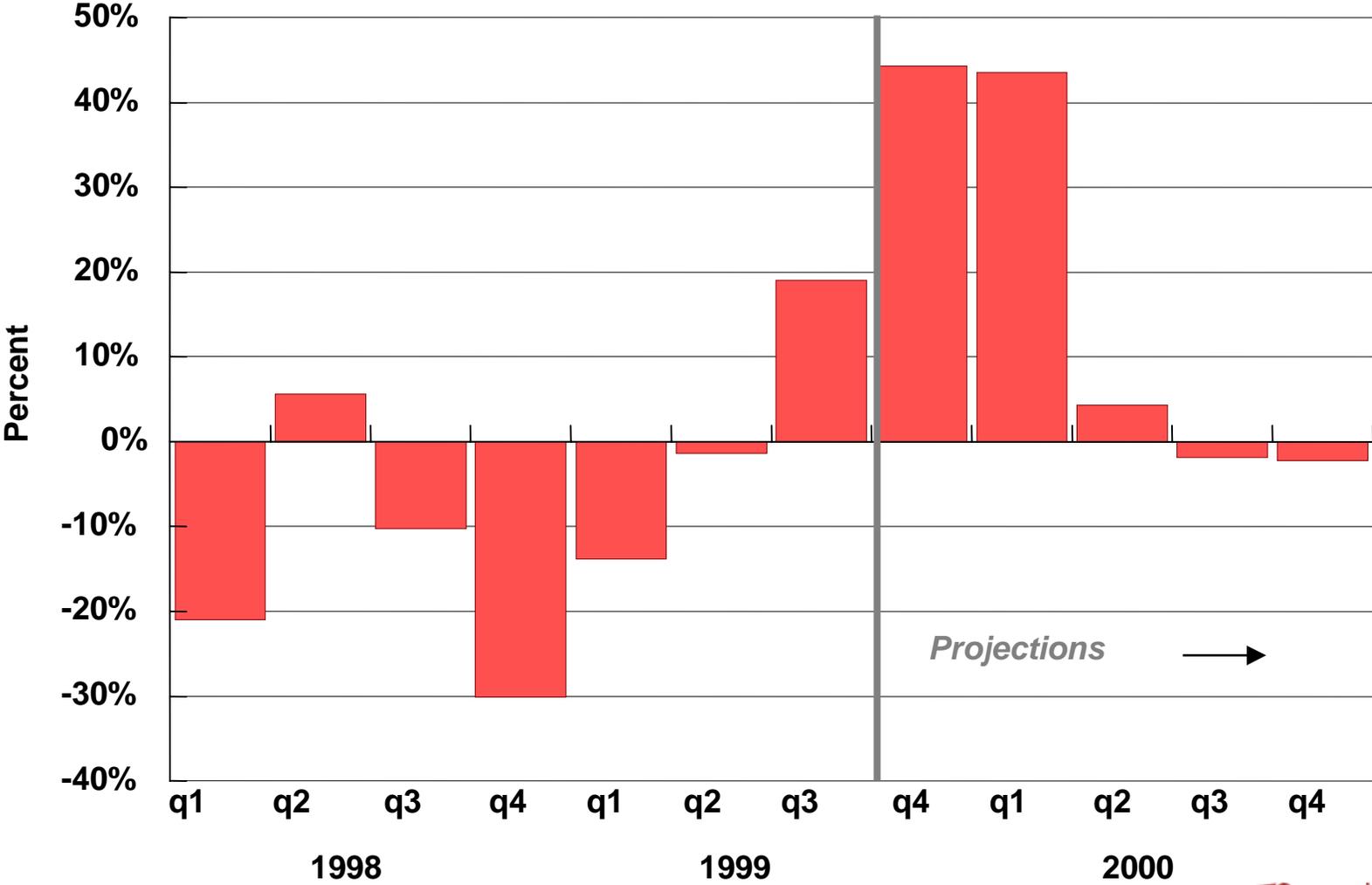
*Regular Unleaded, Self-Service Cash

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



Figure 8. Quarterly Natural Gas Wellhead Prices

(Percent Change from Year Ago)



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



electric utilities exceeded the natural gas price for the first time in two years, returning a historical price advantage that gas had generally held. The prices of both these fuels are projected to increase in the year 2000, with the heavy oil price increasing much faster, assuming our base crude oil price path holds. Coal remains by far the least expensive fossil fuel for electric utilities ([Figure 9](#)) and (Table 4). 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

Total demand in 1999 is projected to increase a robust 460,000 barrels per day, or 2.5 percent, from the previous year but fall slightly in 2000 ([Table 5](#)). We expect to see above-normal rates of growth in petroleum demand in the fourth quarter for two reasons: 1) colder average temperatures and higher heating degrees than in 1998 (assuming normal temperatures); and 2) some shifting of downstream deliveries of products to end-users and final distributors in the fourth quarter (mostly December) from the first quarter (mostly January) related to precautionary stocking behavior generated by Y2K concerns. First quarter demand growth is therefore expected to appear below normal. Partly for the reasons stated, motor gasoline, jet fuel, and distillate fuel oil are projected to register robust increases in 1999 but more moderate growth in 2000. Residual fuel oil is projected to fall slightly in the current year, but that decline is expected to accelerate sharply in 2000. [Figure 10](#) summarizes the year-to-year changes for the major petroleum product categories.

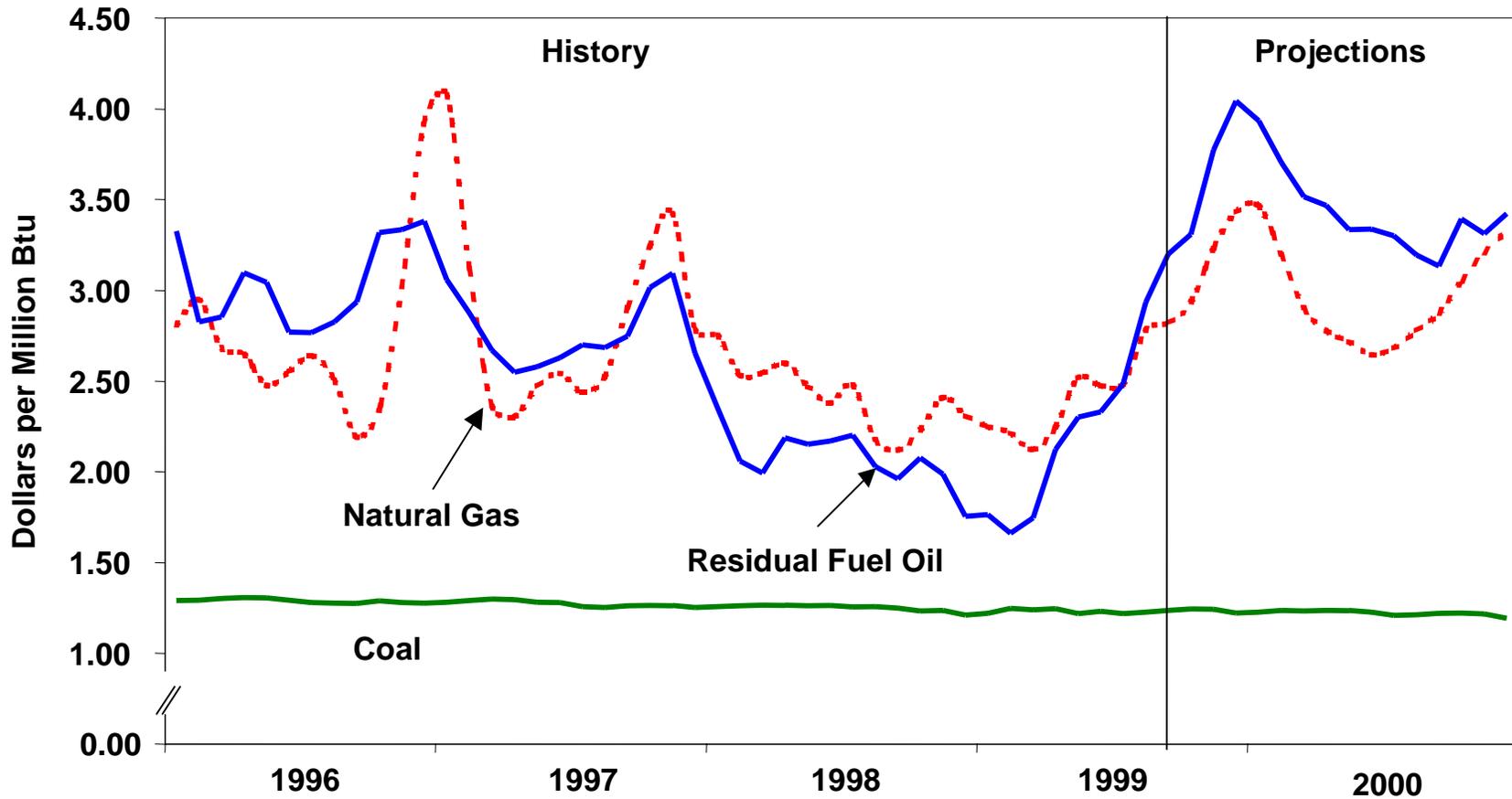
Despite continued growth in real disposable income of over 3 percent, motor gasoline demand growth is projected to slow from 2 percent in 1999 to 1.5 percent in 2000, reflecting moderating highway travel growth. The slowdown in growth results from two factors: the substantial rise in projected retail gasoline prices between the spring of 1999 and the summer of 2000 and the continued weakening of the relationship between income and travel growth.

The slowdown in jet fuel demand growth from 3.4 percent in 1999 to 1.7 percent in 2000 results mostly from the cumulative 10-percent increase in airline ticket prices.

Distillate fuel growth is expected to slow even more sharply from 2.9 percent in 1999 to 0.3 percent in 2000. Some of this shift in growth is an artifact of our Y2K assumptions, but some of it has to do with our expectation that heating oil demand will show strong growth in Q4 1999 but not so much during the heating months in 2000. Comparatively

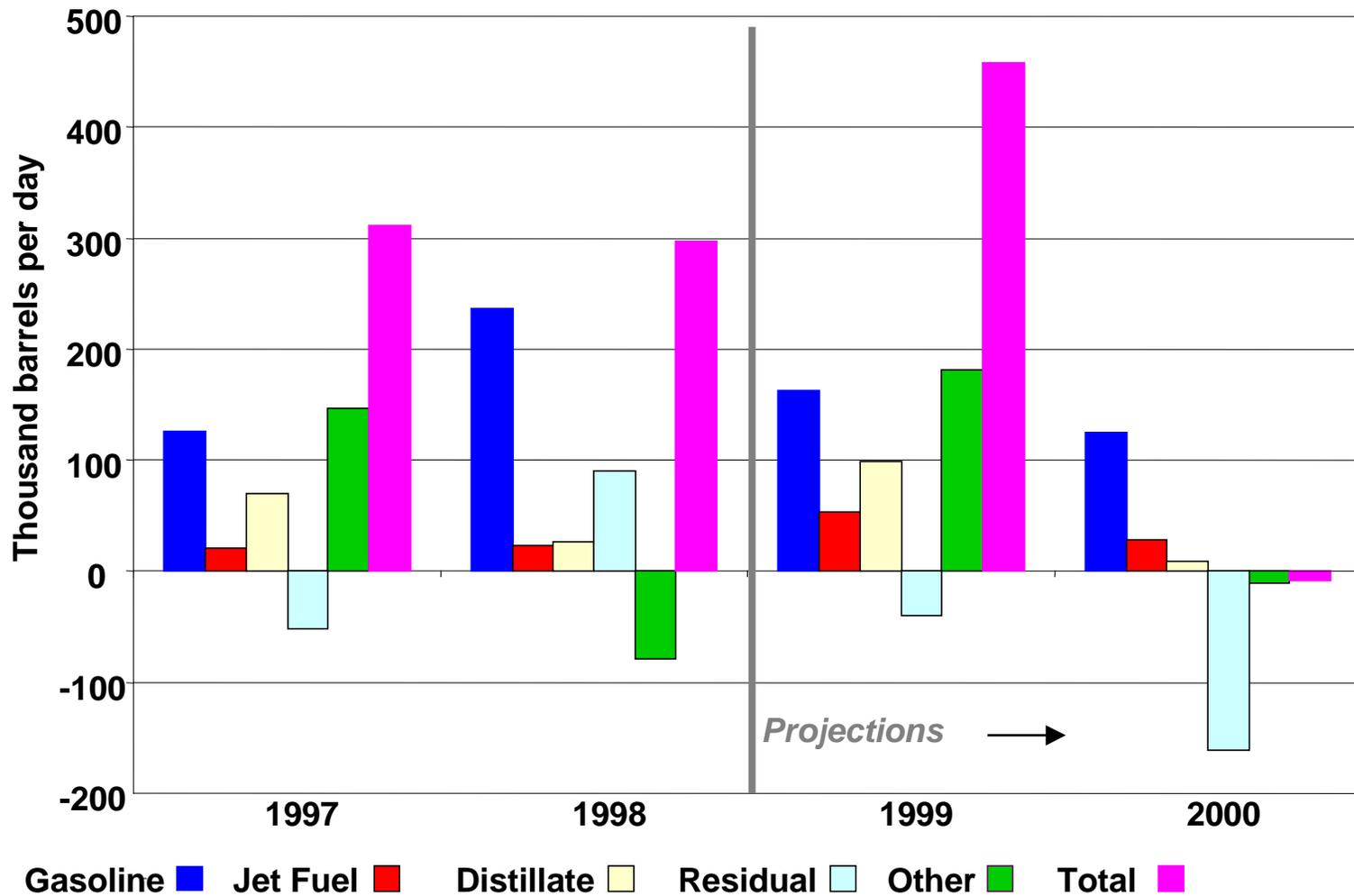
Figure 9. Fossil Fuel Prices to Electric Utilities

(Monthly: 1996-2000)



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

Figure 10. Year-to-Year Changes in Petroleum Demand



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



high heating degree-days in the Northeast United States in October (up about 20 percent over 1998 levels) accompanied by a solid decline in distillate inventories last month (mostly heating oil stocks) have lent some support to heating oil markets and resulted in a large apparent increase in demand for distillate for the month (up 6 percent over October 1998). Similarly strong increases for November and December would be expected if weather is normal (on a monthly average basis) and assumptions about some modest pre-Y2K stockpiling prove to be correct.

Residual fuel oil demand is projected to fall substantially in 2000. Higher oil prices are expected to result in continued displacement of that fuel to other fossil fuels.

U.S. Petroleum Supply

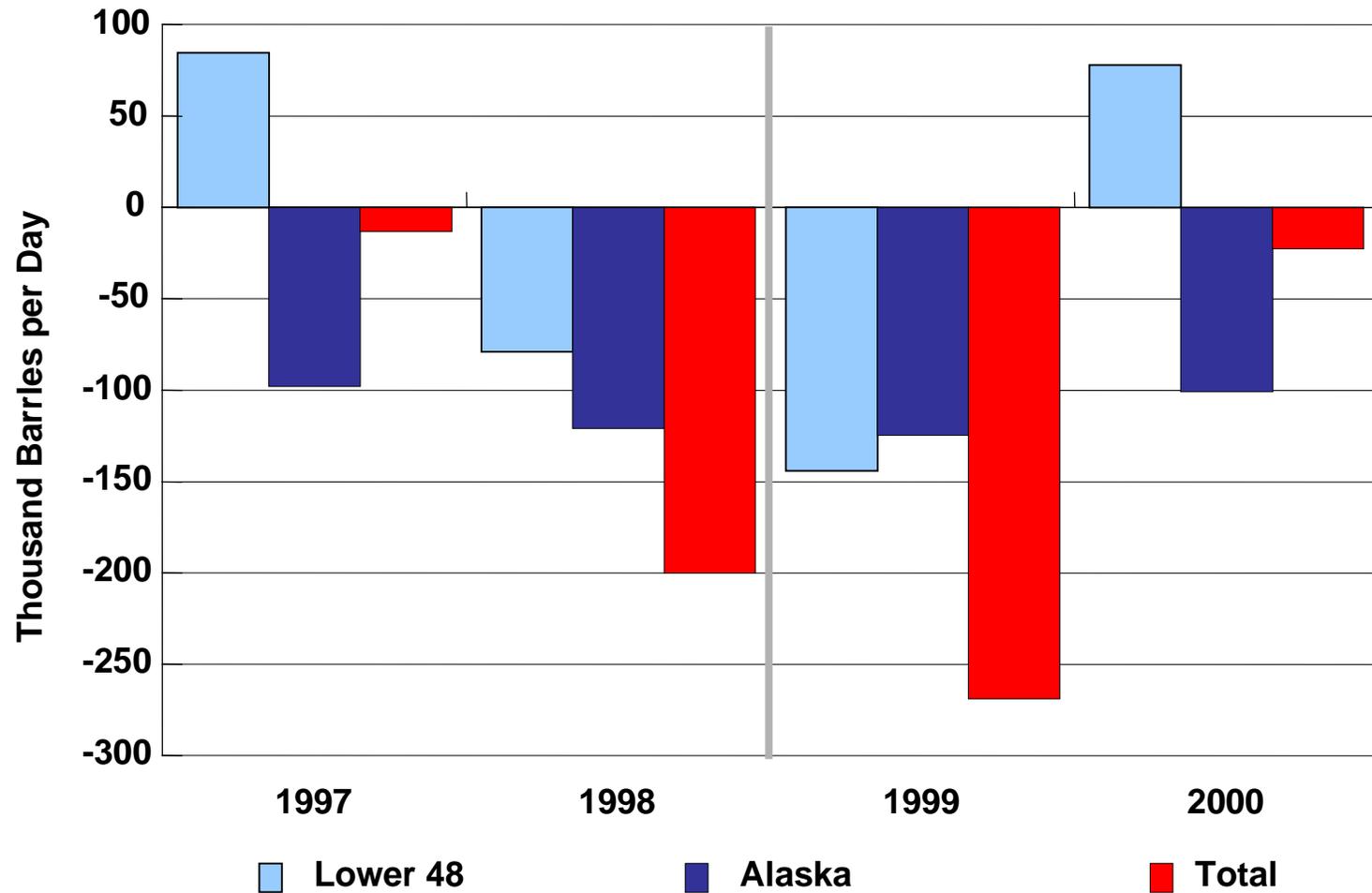
Oil Production. Average domestic oil production is expected to decrease by 270,000 barrels per day (or 4.3 percent) in 1999 to a level of 5.99 million barrels of oil per day. Improvements in Lower-48 performance next year (mostly related to Offshore Gulf of Mexico production) are expected to shrink the total annual decline rate to minimal levels in 2000 ([Figure 11](#)). The result for 2000 is a 0.4 percent decline in production to a rate of 5.96 million barrels of oil per day average for the year.

Lower-48 States oil production is expected to decrease by 144,000 barrels per day to a rate of 4.93 million barrels per day in 1999 followed by an *increase* of 78,000 barrels per day in 2000.

Alaska is expected to account for 15.9 percent of the total U.S. oil production in 2000, down from a projected 17.5 percent in 1999 and from over 20 percent as recently as 1997. Alaskan oil production is expected to decrease by 10.7 percent in 1999 and again by 9.5 percent in 2000. A substantial portion of the oil production from Alaska comes from the giant Prudhoe Bay Field. Other than the routine maintenance, no major investments are planned for this field during the forecast period. Therefore, the field is expected to follow a steeper decline during this period.

Oil Stocks. U.S. crude oil stocks ended October at or slightly below the normal range, a sharp contrast to the above-normal levels recorded throughout 1998 and early 1999 ([Figure 12](#)). We expect that the availability of supplies and the stabilization of prices below recent peaks for most of 2000 will induce a return in crude stocks to at least the middle of the normal range by the time the next driving season begins. Meanwhile, although the pattern masks some offsetting differences between products, total U.S. refined products stocks (including unfinished oils) has drifted into the middle of the normal range and is expected to remain there through 2000 under our base case assumptions ([Figure 13](#)).

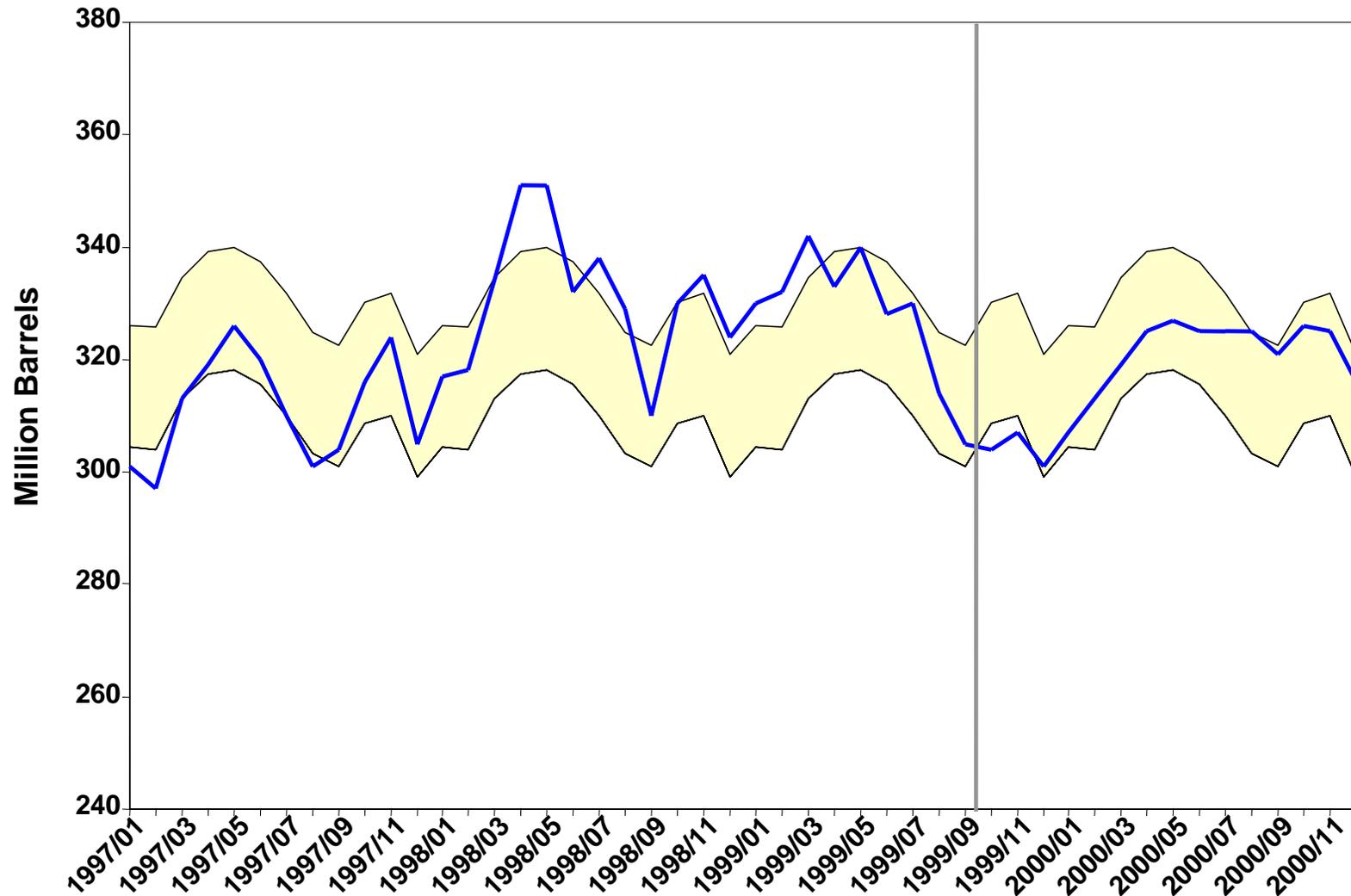
Figure 11. U.S. Crude Oil Production



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



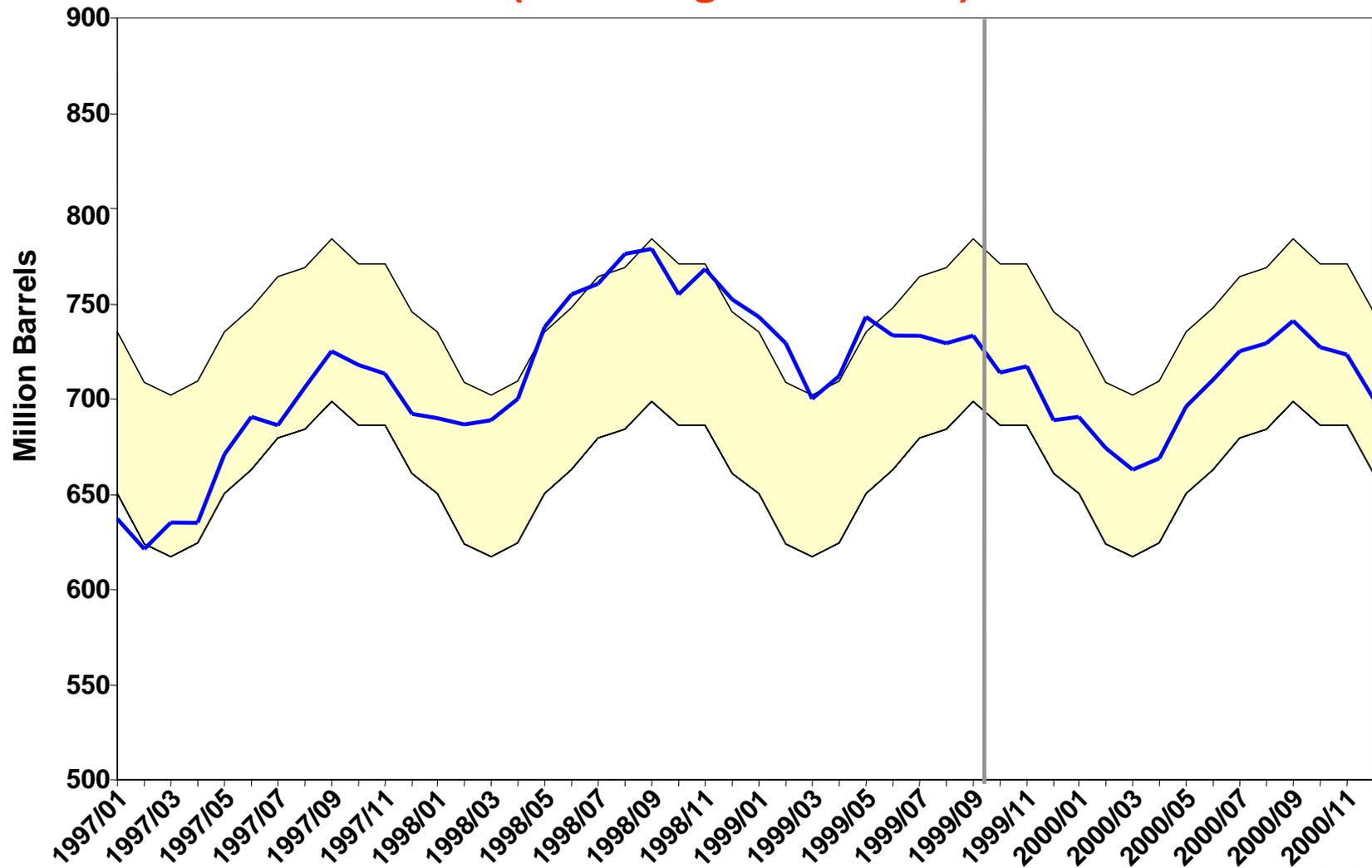
Figure 12. U.S. Crude Oil Stocks



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



Figure 13. U.S. Petroleum Products Stocks (Including Unfinished)



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



Natural Gas Supply and Demand

Our projections of natural gas demand in 1999 and 2000 have been revised slightly ([Figure 14](#)). In 1999, gas demand is now expected to be somewhat lower than last month's projection, mainly due to higher expectations of gas prices and thus lower expectations of demand in the price-sensitive industrial and utility sectors ([Figure 15](#)). In 2000, gas demand is expected to be higher than was projected last month, mainly due to higher residential and commercial sector demand.

Gas storage levels at the end of October were lower than we anticipated last month but were still less than 100 billion cubic feet lower than the very high levels of 1998. Partly as a result of this, spot gas prices have strengthened, although we still see storage to be in good shape and likely to end the heating season well above historic minimums under normal weather assumptions.

Electricity Demand and Supply

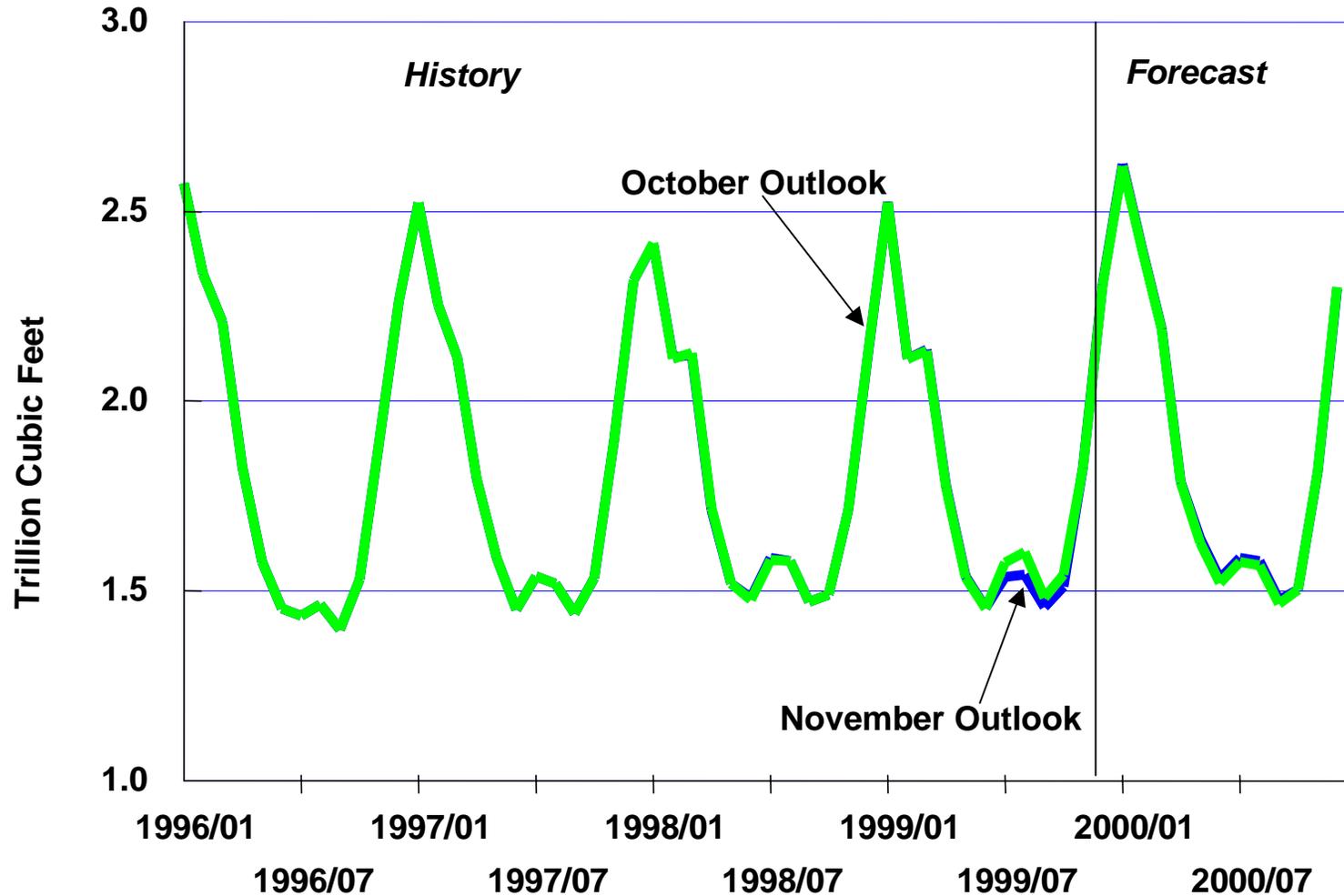
Data for electricity demand in 1998 has been revised upward from 3220 to 3240 billion kilowatt-hours, or 0.6 percent ([Figure 16](#)). (See Data Notes, below). Likewise, projections for 1999 and 2000 electricity demand have also been revised upward.

While natural gas-fired electricity generation by utilities remains the same as in the October Outlook, projections of oil and coal-fired electricity generation have been revised upward to meet incremental electricity demand ([Figure 17](#)).

Data Notes

Electricity Sales Revisions. For this Outlook, electricity sales for 1998 have been revised to reflect the totals by sector reported in EIA's newly released [Electric Sales and Revenue, 1998](#). Total sales by electric utilities for 1998 now stands at 3,240 billion kilowatt-hours, compared to the 3,220 billion kilowatt-hours reported last month, based on monthly survey data. In addition to utility sales, there were about 24 billion kilowatt-hours in domestic electricity sales by power marketers in 1998, mostly to industrial and commercial customers (Appendix C of [Electric Sales and Revenue, 1998](#)).

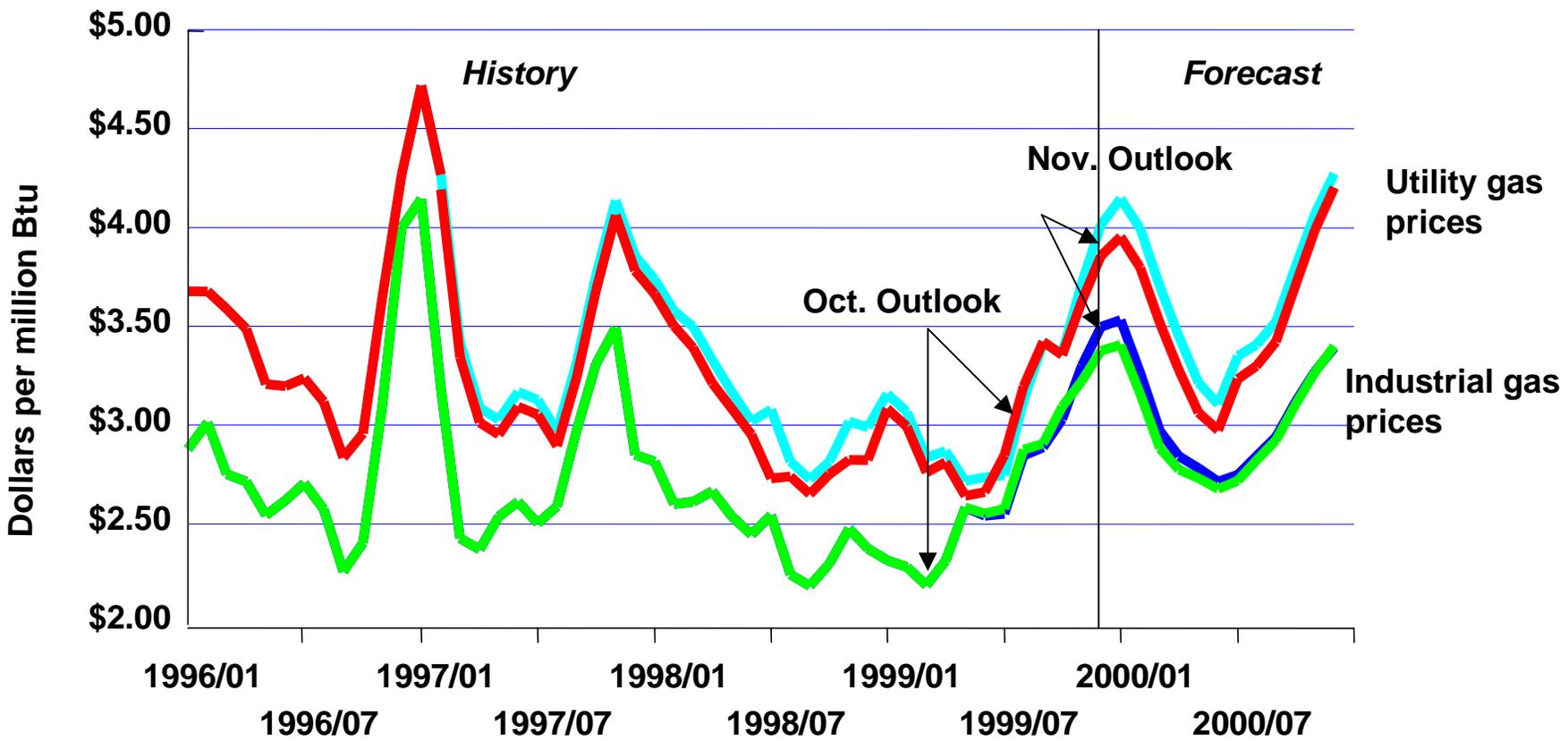
Figure 14. Total Natural Gas Demand



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



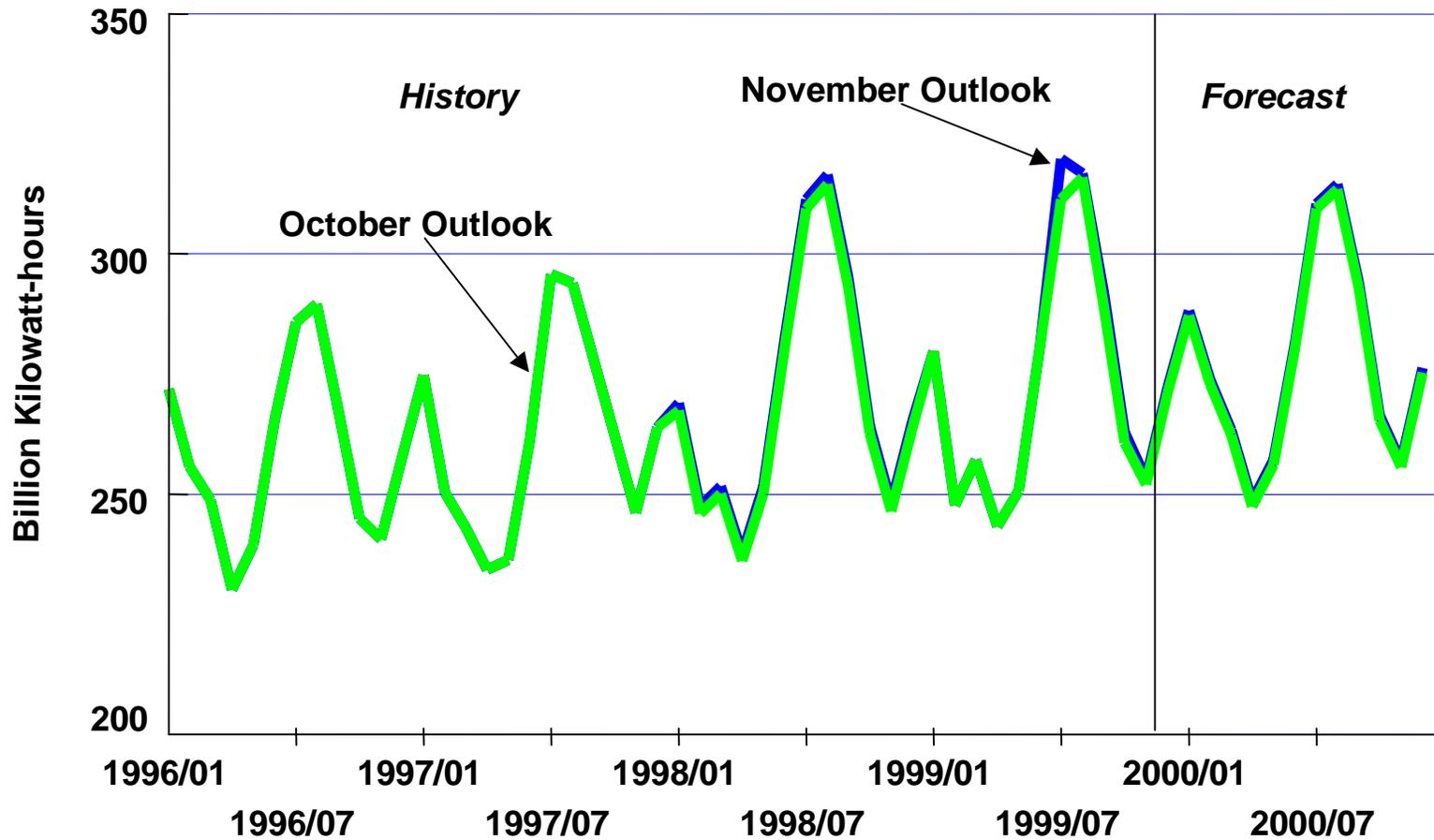
Figure 15. Cost of Natural Gas to the Utility and Industrial Sectors



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



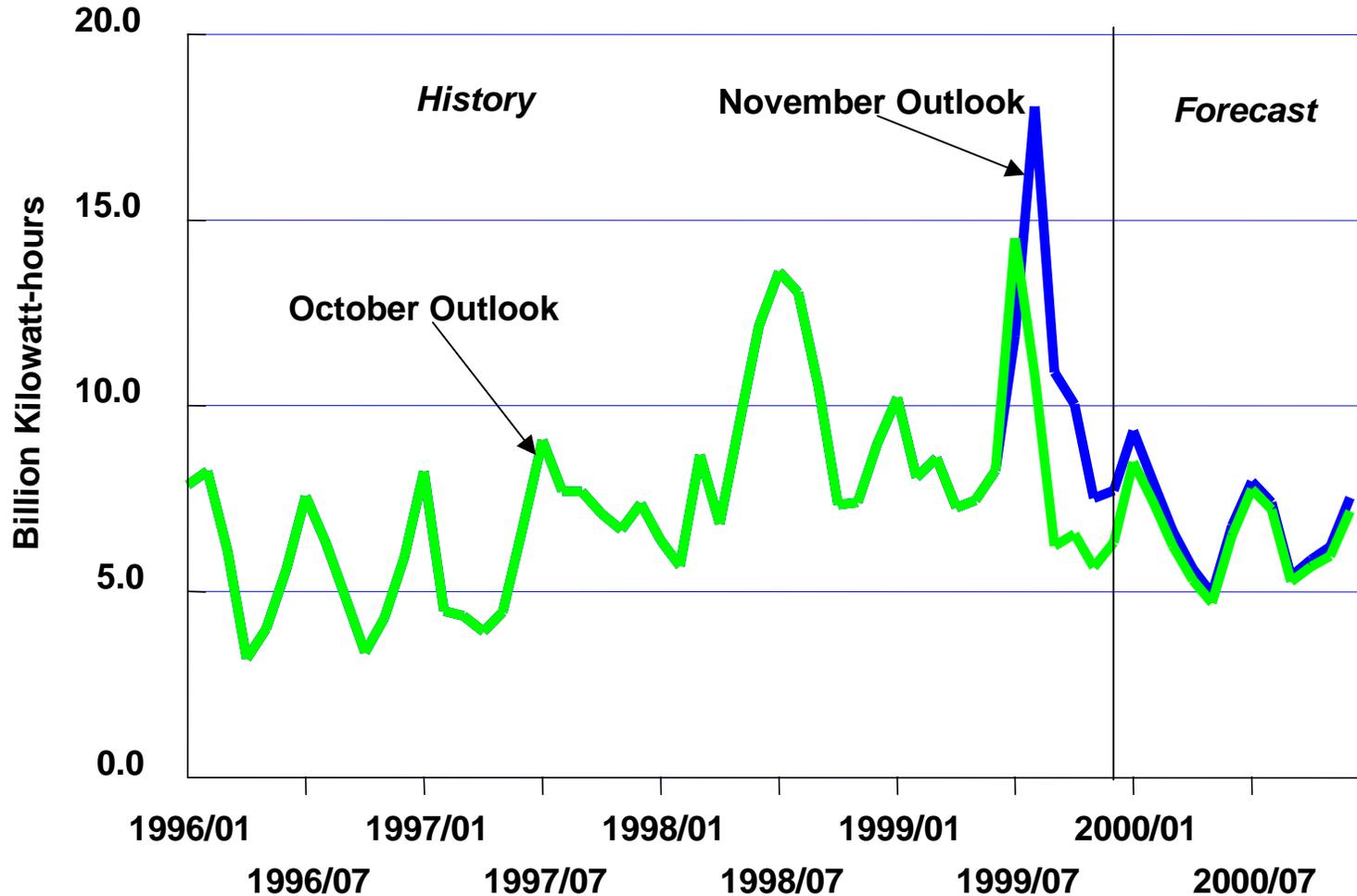
Figure 16. Total Electricity Demand



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



Figure 17. Oil-Fired Electricity Generation



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



Table HL1. U. S. Energy Supply and Demand

	Year				Annual Percentage Change		
	1997	1998	1999	2000	1997-1998	1998-1999	1999-2000
Real Gross Domestic Product (GDP) (billion chained 1992 dollars)	7270	7552	<i>7837</i>	<i>8012</i>	3.9	3.8	2.2
Imported Crude Oil Price ^a (nominal dollars per barrel).....	18.50	12.12	<i>17.21</i>	<i>21.86</i>	-34.5	<i>42.0</i>	<i>27.0</i>
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	6.45	6.25	<i>5.98</i>	<i>5.96</i>	-3.1	<i>-4.3</i>	<i>-0.3</i>
Total Petroleum Net Imports (including SPR)	9.16	9.76	<i>9.85</i>	<i>10.25</i>	6.6	<i>0.9</i>	<i>4.1</i>
Energy Demand							
World Petroleum (million barrels per day).....	73.0	73.8	<i>74.9</i>	<i>76.2</i>	1.1	1.5	1.7
Petroleum (million barrels per day).....	18.62	18.92	<i>19.38</i>	<i>19.38</i>	1.6	2.4	0.0
Natural Gas (trillion cubic feet)	21.97	21.33	<i>21.72</i>	<i>22.43</i>	-2.9	1.8	3.3
Coal (million short tons)	1029	1044	<i>1048</i>	<i>1087</i>	1.5	0.4	3.7
Electricity (billion kilowatthours)							
Utility Sales ^c	3140	3240	<i>3276</i>	<i>3331</i>	3.2	1.1	1.7
Nonutility Own Use ^d	161	164	<i>166</i>	<i>168</i>	1.9	1.2	1.2
Total	3301	3403	<i>3441</i>	<i>3499</i>	3.1	1.1	1.7
Total Energy Demand ^e (quadrillion Btu).....	94.2	94.7	<i>96.4</i>	<i>97.8</i>	0.5	1.8	1.4
Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar)	12.96	12.54	<i>12.30</i>	<i>12.20</i>	-3.2	<i>-1.9</i>	<i>-0.8</i>
Renewable Energy as Percent of Total ^f ...	7.5	7.1	<i>7.0</i>	<i>6.8</i>			

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

^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)*.

^gRenewable 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 CONTROL9999.

Table 1. U.S. Macroeconomic and Weather Assumptions

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 1992 dollars - SAAR)	7465	7499	7566	7678	7760	7794	<i>7865</i>	<i>7929</i>	<i>7934</i>	<i>7971</i>	<i>8037</i>	<i>8107</i>	7552	<i>7837</i>	<i>8012</i>
Percentage Change from Prior Year	4.2	3.6	3.5	4.3	4.0	3.9	<i>3.9</i>	<i>3.3</i>	<i>2.2</i>	<i>2.3</i>	<i>2.2</i>	<i>2.2</i>	3.9	<i>3.8</i>	<i>2.2</i>
Annualized Percent Change from Prior Quarter.....	5.4	1.8	3.6	5.9	4.3	1.8	<i>3.6</i>	<i>3.2</i>	<i>0.3</i>	<i>1.9</i>	<i>3.3</i>	<i>3.5</i>			
GDP Implicit Price Deflator (Index, 1992=1.000)	1.123	1.126	1.129	1.131	1.135	1.140	<i>1.143</i>	<i>1.147</i>	<i>1.153</i>	<i>1.156</i>	<i>1.160</i>	<i>1.165</i>	1.127	<i>1.141</i>	<i>1.158</i>
Percentage Change from Prior Year	1.2	1.0	1.0	0.9	1.1	1.2	<i>1.2</i>	<i>1.5</i>	<i>1.5</i>	<i>1.4</i>	<i>1.5</i>	<i>1.5</i>	1.0	<i>1.2</i>	<i>1.5</i>
Real Disposable Personal Income (billion chained 1992 Dollars - SAAR)	5287	5322	5364	5421	5468	5500	<i>5526</i>	<i>5542</i>	<i>5601</i>	<i>5663</i>	<i>5699</i>	<i>5739</i>	5348	<i>5509</i>	<i>5676</i>
Percentage Change from Prior Year	3.0	3.0	3.2	3.5	3.4	3.4	<i>3.0</i>	<i>2.2</i>	<i>2.4</i>	<i>3.0</i>	<i>3.1</i>	<i>3.5</i>	3.2	<i>3.0</i>	<i>3.0</i>
Manufacturing Production (Index, 1992=1.000)	1.338	1.347	1.348	1.364	1.369	1.383	<i>1.398</i>	<i>1.404</i>	<i>1.392</i>	<i>1.393</i>	<i>1.409</i>	<i>1.428</i>	1.349	<i>1.389</i>	<i>1.406</i>
Percentage Change from Prior Year	6.0	5.0	3.1	2.5	2.3	2.7	<i>3.7</i>	<i>2.9</i>	<i>1.6</i>	<i>0.7</i>	<i>0.8</i>	<i>1.7</i>	4.1	<i>2.9</i>	<i>1.2</i>
OECD Economic Growth (percent) ^b													3.0	<i>2.6</i>	<i>2.5</i>
Weather ^c															
Heating Degree-Days															
U.S.	1984	481	42	1444	2154	490	<i>82</i>	<i>1627</i>	<i>2264</i>	<i>522</i>	<i>85</i>	<i>1622</i>	3951	<i>4353</i>	<i>4494</i>
New England	2768	770	104	2038	3039	786	<i>106</i>	<i>2278</i>	<i>3219</i>	<i>894</i>	<i>167</i>	<i>2240</i>	5680	<i>6209</i>	<i>6520</i>
Middle Atlantic	2406	570	57	1779	2819	629	<i>63</i>	<i>2036</i>	<i>2934</i>	<i>709</i>	<i>104</i>	<i>2004</i>	4812	<i>5547</i>	<i>5751</i>
U.S. Gas-Weighted.....	2087	521	44	1533	2275	517	<i>84</i>	<i>1712</i>	<i>2378</i>	<i>546</i>	<i>95</i>	<i>1714</i>	4185	<i>4588</i>	<i>4734</i>
Cooling Degree-Days (U.S.)	29	386	903	93	35	354	<i>847</i>	<i>81</i>	<i>31</i>	<i>344</i>	<i>783</i>	<i>74</i>	1411	<i>1317</i>	<i>1233</i>

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

^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 CONTROL0999.

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

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Macroeconomic^a															
Real Fixed Investment															
(billion chained 1992 dollars-SAAR)	1225	1264	1271	1311	1344	1377	<i>1386</i>	<i>1400</i>	<i>1412</i>	<i>1407</i>	<i>1409</i>	<i>1427</i>	1268	<i>1377</i>	<i>1414</i>
Real Exchange Rate															
(index)	1.142	1.162	1.183	1.120	1.134	1.171	<i>1.176</i>	<i>1.174</i>	<i>1.158</i>	<i>1.142</i>	<i>1.146</i>	<i>1.163</i>	1.152	<i>1.164</i>	<i>1.152</i>
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	30.2	23.9	19.2	6.2	-3.3	-4.3	<i>-3.1</i>	<i>8.8</i>	<i>0.4</i>	<i>-2.1</i>	<i>0.5</i>	<i>5.3</i>	19.9	<i>-0.5</i>	<i>1.0</i>
Producer Price Index															
(index, 1982=1.000)	1.252	1.250	1.243	1.232	1.228	1.244	<i>1.264</i>	<i>1.282</i>	<i>1.288</i>	<i>1.284</i>	<i>1.283</i>	<i>1.286</i>	1.244	<i>1.254</i>	<i>1.285</i>
Consumer Price Index															
(index, 1982-1984=1.000).....	1.621	1.628	1.635	1.642	1.648	1.662	<i>1.674</i>	<i>1.690</i>	<i>1.703</i>	<i>1.710</i>	<i>1.718</i>	<i>1.727</i>	1.631	<i>1.668</i>	<i>1.715</i>
Petroleum Product Price Index															
(index, 1982=1.000)	0.541	0.536	0.503	0.473	0.444	0.588	<i>0.659</i>	<i>0.705</i>	<i>0.779</i>	<i>0.754</i>	<i>0.723</i>	<i>0.693</i>	0.513	<i>0.599</i>	<i>0.737</i>
Non-Farm Employment															
(millions)	124.8	125.5	126.1	126.9	127.7	128.2	<i>128.9</i>	<i>129.2</i>	<i>129.7</i>	<i>130.0</i>	<i>130.4</i>	<i>131.0</i>	125.8	<i>128.5</i>	<i>130.3</i>
Commercial Employment															
(millions)	85.6	86.3	87.0	87.7	88.5	89.2	<i>89.8</i>	<i>90.1</i>	<i>90.5</i>	<i>90.7</i>	<i>91.2</i>	<i>91.9</i>	86.6	<i>89.4</i>	<i>91.1</i>
Total Industrial Production															
(index, 1992=1.000)	1.303	1.312	1.316	1.323	1.327	1.339	<i>1.354</i>	<i>1.361</i>	<i>1.352</i>	<i>1.356</i>	<i>1.371</i>	<i>1.387</i>	1.314	<i>1.345</i>	<i>1.367</i>
Housing Stock															
(millions)	113.7	114.0	114.4	115.0	115.4	115.7	<i>116.0</i>	<i>116.4</i>	<i>116.7</i>	<i>117.0</i>	<i>117.3</i>	<i>117.6</i>	114.3	<i>115.9</i>	<i>117.2</i>
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1992=1.000)	1.175	1.171	1.158	1.156	1.169	1.169	<i>1.178</i>	<i>1.183</i>	<i>1.174</i>	<i>1.175</i>	<i>1.185</i>	<i>1.196</i>	1.165	<i>1.175</i>	<i>1.182</i>
Vehicle Miles Traveled ^b															
(million miles/day).....	6629	7424	7602	7032	6712	7572	<i>7830</i>	<i>7270</i>	<i>6937</i>	<i>7700</i>	<i>7874</i>	<i>7400</i>	7174	<i>7349</i>	<i>7479</i>
Vehicle Fuel Efficiency															
(index, 1997=1.0).....	0.993	0.999	0.991	0.991	0.986	1.006	<i>1.003</i>	<i>0.996</i>	<i>1.009</i>	<i>1.009</i>	<i>0.988</i>	<i>0.995</i>	0.994	<i>0.998</i>	<i>1.000</i>
Real Vehicle Fuel Cost															
(cents per mile).....	3.34	3.18	3.08	3.11	2.98	3.30	<i>3.48</i>	<i>3.79</i>	<i>3.80</i>	<i>3.72</i>	<i>3.68</i>	<i>3.68</i>	3.18	<i>3.39</i>	<i>3.72</i>
Air Travel Capacity															
(mill. available ton-miles/day).....	423.5	439.1	443.0	439.5	430.8	452.2	<i>466.5</i>	<i>468.1</i>	<i>463.3</i>	<i>463.3</i>	<i>480.4</i>	<i>469.6</i>	436.3	<i>454.5</i>	<i>469.2</i>
Aircraft Utilization															
(mill. revenue ton-miles/day).....	237.7	259.0	260.5	247.1	242.1	263.3	<i>276.8</i>	<i>261.7</i>	<i>254.5</i>	<i>271.8</i>	<i>287.2</i>	<i>272.5</i>	251.1	<i>261.1</i>	<i>271.5</i>
Airline Ticket Price Index															
(index, 1982-1984=1.000).....	2.058	2.053	2.070	2.029	2.130	2.186	<i>2.180</i>	<i>2.183</i>	<i>2.252</i>	<i>2.280</i>	<i>2.299</i>	<i>2.326</i>	2.053	<i>2.170</i>	<i>2.289</i>
Raw Steel Production															
(millions tons)	28.75	27.87	26.57	24.40	25.11	26.26	<i>26.19</i>	<i>26.81</i>	<i>26.58</i>	<i>26.41</i>	<i>26.15</i>	<i>26.72</i>	107.28	<i>104.37</i>	<i>105.85</i>

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

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*; U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0999.

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

(Million Barrels per Day, Except OECD Commercial Stocks)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Demand^a															
OECD															
U.S. (50 States).....	18.5	18.9	19.2	19.1	19.2	19.0	19.6	19.7	19.1	19.0	19.5	19.9	18.9	19.4	19.4
U.S. Territories.....	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Canada.....	1.8	1.8	1.9	1.9	1.9	1.8	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0
Europe.....	14.9	14.2	14.6	15.2	15.2	13.8	14.8	15.4	15.3	14.4	14.9	15.6	14.7	14.8	15.0
Japan.....	6.2	5.0	5.2	5.7	6.2	5.0	5.2	5.7	6.3	5.1	5.4	5.8	5.5	5.5	5.6
Australia and New Zealand.....	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total OECD.....	42.6	41.0	42.2	43.2	43.7	40.9	42.8	44.2	43.9	41.6	43.1	44.7	42.3	42.9	43.3
Non-OECD															
Former Soviet Union.....	4.5	4.2	4.2	4.2	4.3	4.0	4.1	4.2	4.4	4.2	4.2	4.2	4.2	4.2	4.2
Europe.....	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.6
China.....	4.0	3.9	3.9	3.9	4.1	4.1	4.1	4.1	4.3	4.3	4.3	4.3	3.9	4.1	4.3
Other Asia.....	8.7	8.6	8.6	8.8	8.8	8.8	8.7	9.0	9.2	9.2	8.9	9.3	8.7	8.8	9.1
Other Non-OECD.....	13.0	13.3	13.4	13.2	13.1	13.4	13.4	13.5	13.4	13.7	13.8	13.7	13.2	13.4	13.7
Total Non-OECD.....	31.7	31.5	31.4	31.5	32.0	31.8	31.7	32.3	32.9	33.0	32.7	33.1	31.5	32.0	32.9
Total World Demand.....	74.3	72.5	73.6	74.7	75.7	72.8	74.6	76.5	76.8	74.6	75.8	77.8	73.8	74.9	76.2
Supply^b															
OECD															
U.S. (50 States).....	9.5	9.4	9.0	9.1	8.9	9.0	9.0	9.1	9.0	9.0	9.0	9.0	9.3	9.0	9.0
Canada.....	2.7	2.6	2.8	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6
North Sea ^c	6.4	6.2	5.9	6.3	6.3	6.0	6.1	6.4	6.6	6.4	6.6	6.8	6.2	6.2	6.6
Other OECD.....	1.6	1.6	1.6	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.6	1.5	1.6
Total OECD.....	20.2	19.9	19.2	19.6	19.3	19.1	19.1	19.7	19.9	19.7	19.8	20.1	19.7	19.3	19.9
Non-OECD															
OPEC.....	30.9	30.8	30.1	30.0	30.3	28.9	29.2	29.3	29.5	30.7	31.1	31.2	30.4	29.4	30.6
Former Soviet Union.....	7.3	7.2	7.2	7.3	7.2	7.3	7.3	7.4	7.4	7.3	7.3	7.4	7.2	7.3	7.3
China.....	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.3
Mexico.....	3.6	3.6	3.5	3.5	3.6	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.5	3.5	3.6
Other Non-OECD.....	10.7	10.8	10.8	11.0	11.1	10.9	11.1	11.2	11.3	11.3	11.4	11.4	10.8	11.1	11.3
Total Non-OECD.....	55.7	55.5	54.7	54.9	55.4	53.7	54.1	54.6	55.0	56.1	56.6	56.9	55.2	54.4	56.2
Total World Supply.....	75.9	75.3	74.0	74.5	74.7	72.7	73.2	74.3	74.8	75.8	76.5	76.9	74.9	73.7	76.0
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	-0.3	-0.7	0.0	0.1	0.4	-0.2	0.3	0.5	0.1	-0.6	-0.3	0.5	-0.2	0.2	-0.1
Other.....	-1.4	-2.1	-0.4	0.1	0.6	0.3	1.1	1.7	1.9	-0.6	-0.4	0.3	-0.9	0.9	0.3
Total Stock Withdrawals.....	-1.7	-2.8	-0.4	0.2	1.0	0.0	1.4	2.2	2.0	-1.2	-0.7	0.8	-1.1	1.2	0.2
OECD Comm. Stocks, End (bill. bbls.).....	2.7	2.9	2.9	2.8	2.8	2.8	2.7	2.6	2.5	2.6	2.6	2.6	2.8	2.6	2.6
Non-OPEC Supply.....	45.0	44.6	43.9	44.5	44.4	43.9	44.1	45.0	45.3	45.1	45.4	45.8	44.5	44.3	45.4
Net Exports from Former Soviet Union....	2.8	3.0	3.1	3.1	2.9	3.3	3.2	3.1	3.0	3.1	3.1	3.2	3.0	3.1	3.1

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U. S. Energy Prices
(Nominal Dollars)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Imported Crude Oil ^a															
(dollars per barrel).....	13.44	12.40	11.87	10.86	10.92	15.44	19.77	22.51	23.25	22.25	21.50	20.50	12.12	17.21	21.86
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	2.02	2.07	1.92	1.84	1.74	2.04	2.28	2.65	2.50	2.14	2.25	2.60	1.96	2.18	2.37
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades.....	1.10	1.10	1.07	1.03	0.99	1.17	1.25	1.29	1.33	1.36	1.34	1.28	1.07	1.18	1.33
Regular Unleaded.....	1.05	1.05	1.03	0.99	0.95	1.13	1.21	1.25	1.29	1.32	1.31	1.25	1.03	1.14	1.29
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	1.08	1.05	1.02	1.00	0.97	1.08	1.18	1.26	1.26	1.25	1.23	1.24	1.04	1.12	1.25
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	0.47	0.43	0.39	0.38	0.36	0.44	0.57	0.65	0.67	0.65	0.63	0.64	0.42	0.51	0.65
No. 2 Heating Oil, Retail															
(dollars per gallon).....	0.91	0.85	0.77	0.79	0.80	0.82	0.84	1.00	1.07	1.05	0.99	1.04	0.85	0.87	1.05
No. 6 Residual Fuel Oil, Retail ^c															
(dollars per barrel).....	13.58	13.27	12.32	11.77	11.28	14.05	17.80	22.91	23.63	20.94	19.86	20.64	12.73	16.45	21.37
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.26	1.26	1.25	1.23	1.24	1.23	1.23	1.23	1.23	1.23	1.21	1.21	1.25	1.23	1.22
Heavy Fuel Oil ^d															
(dollars per million Btu).....	2.12	2.17	2.07	1.93	1.72	2.26	2.89	3.67	3.74	3.38	3.22	3.38	2.07	2.66	3.45
Natural Gas															
(dollars per million Btu).....	2.61	2.46	2.26	2.31	2.19	2.42	2.69	3.18	3.18	2.70	2.77	3.18	2.38	2.64	2.89
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	6.38	7.33	8.92	6.64	6.09	6.84	8.65	7.16	6.78	7.17	8.87	7.29	6.82	6.72	7.14
Electricity															
(cents per kilowatthour).....	7.96	8.43	8.55	8.09	7.79	8.28	8.49	8.04	7.71	8.09	8.35	7.90	8.28	8.17	8.02

^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: 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)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Crude Oil Supply															
Domestic Production ^a	6.47	6.37	6.07	6.11	6.00	5.95	5.90	6.09	6.04	5.96	5.92	5.92	6.25	5.98	5.96
Alaska.....	1.23	1.17	1.13	1.17	1.13	1.04	0.98	1.05	0.99	0.93	0.93	0.96	1.17	1.05	0.95
Lower 48.....	5.25	5.20	4.94	4.93	4.86	4.91	4.91	5.04	5.05	5.03	5.00	4.97	5.08	4.93	5.01
Net Imports (including SPR) ^b	8.00	8.80	9.00	8.57	8.40	8.66	8.69	8.56	8.53	9.14	9.40	8.91	8.60	8.58	9.00
Other SPR Supply.....	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.10	0.00	0.00	0.00	0.00	0.00	0.05	0.00
SPR Stock Withdrawn or Added (-)	0.00	0.00	0.00	-0.09	-0.01	-0.03	0.00	0.01	0.00	0.00	0.00	0.00	-0.02	-0.01	0.00
Other Stock Withdrawn or Added (-)	-0.33	0.02	0.24	-0.15	-0.21	0.15	0.25	0.04	-0.20	-0.06	0.04	0.05	-0.05	0.06	-0.04
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.....	0.20	0.11	0.07	0.09	0.23	0.06	0.43	0.27	0.20	0.21	0.22	0.21	0.11	0.25	0.21
Total Crude Oil Supply	14.34	15.30	15.38	14.53	14.41	14.99	15.25	14.96	14.58	15.25	15.58	15.10	14.89	14.91	15.13
Other Supply															
NGL Production	1.84	1.82	1.67	1.71	1.72	1.79	1.83	1.77	1.78	1.78	1.77	1.76	1.76	1.78	1.77
Other Hydrocarbon and Alcohol Inputs...	0.39	0.37	0.37	0.39	0.37	0.38	0.36	0.38	0.37	0.35	0.36	0.38	0.38	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.....	0.84	0.88	0.89	0.93	0.85	0.88	0.91	0.89	0.85	0.90	0.92	0.89	0.89	0.88	0.89
Net Product Imports ^c	1.03	1.22	1.18	1.24	1.27	1.31	1.24	1.27	1.24	1.21	1.23	1.34	1.17	1.27	1.26
Product Stock Withdrawn or Added (-) ^d	0.03	-0.72	-0.26	0.30	0.58	-0.37	0.00	0.48	0.28	-0.52	-0.33	0.45	-0.17	0.17	-0.03
Total Supply	18.46	18.86	19.24	19.10	19.19	18.98	19.60	19.75	19.10	18.98	19.53	19.92	18.92	19.38	19.38
Demand															
Motor Gasoline.....	7.78	8.37	8.52	8.33	7.93	8.48	8.67	8.58	8.01	8.59	8.85	8.74	8.25	8.42	8.55
Jet Fuel.....	1.58	1.61	1.61	1.68	1.70	1.63	1.65	1.73	1.72	1.65	1.71	1.74	1.62	1.68	1.71
Distillate Fuel Oil.....	3.59	3.43	3.37	3.45	3.70	3.36	3.42	3.74	3.77	3.43	3.39	3.64	3.46	3.56	3.56
Residual Fuel Oil.....	0.85	0.88	0.99	0.83	0.95	0.77	0.86	0.84	0.82	0.66	0.65	0.78	0.89	0.86	0.73
Other Oils ^e	4.65	4.57	4.75	4.80	4.91	4.76	4.96	4.86	4.78	4.64	4.93	5.02	4.69	4.87	4.85
Total Demand.....	18.46	18.86	19.24	19.10	19.19	19.01	19.57	19.75	19.10	18.98	19.53	19.92	18.92	19.38	19.38
Total Petroleum Net Imports.....	9.02	10.02	10.19	9.82	9.67	9.97	9.93	9.83	9.77	10.35	10.64	10.25	9.76	9.85	10.25
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	334	332	310	324	342	328	305	301	319	325	321	316	324	301	316
Total Motor Gasoline.....	216	222	207	216	216	216	201	201	213	213	208	207	216	201	207
Finished Motor Gasoline.....	167	177	164	172	168	172	157	159	167	171	166	165	172	159	165
Blending Components.....	49	45	43	44	48	44	44	43	47	42	42	41	44	43	41
Jet Fuel.....	43	44	46	45	41	44	48	45	41	42	45	44	45	45	44
Distillate Fuel Oil.....	125	136	153	156	126	133	145	140	108	116	133	140	156	140	140
Residual Fuel Oil.....	41	40	40	45	40	43	38	39	37	40	41	43	45	39	43
Other Oils ^e	265	313	334	291	278	297	301	264	264	299	314	266	291	264	266
Total Stocks (excluding SPR).....	1024	1087	1089	1076	1042	1061	1038	990	982	1035	1062	1016	1076	990	1016
Crude Oil in SPR.....	563	563	563	571	572	575	575	574	574	574	574	574	571	574	574
Total Stocks (including SPR).....	1587	1651	1653	1647	1614	1636	1613	1564	1556	1609	1636	1590	1647	1564	1590

^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.

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

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

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

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

Table 7. Forecast Components for U.S. Crude Oil Production
(Million Barrels per Day)

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	6.25	5.61	0.64	0.09	0.56
Lower 48 States.....	5.29	4.67	0.62	0.07	0.54
Alaska.....	0.97	0.94	0.03	0.01	0.01

Note: Components provided are for the fourth quarter 2000. Totals may not add to sum of components due to independent rounding.

Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

Table 8. U.S. Natural Gas Supply and Demand: Mid world Oil Price Case
(Trillion Cubic Feet)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Total Dry Gas Production	4.72	4.71	4.72	4.71	4.61	4.63	<i>4.71</i>	<i>4.71</i>	<i>4.77</i>	<i>4.72</i>	<i>4.74</i>	<i>4.74</i>	18.86	<i>18.67</i>	<i>18.97</i>
Net Imports	0.75	0.71	0.77	0.76	0.83	0.80	<i>0.84</i>	<i>0.85</i>	<i>0.89</i>	<i>0.86</i>	<i>0.92</i>	<i>0.92</i>	2.99	<i>3.32</i>	<i>3.60</i>
Supplemental Gaseous Fuels.....	0.03	0.02	0.03	0.03	0.03	0.03	<i>0.03</i>	<i>0.03</i>	<i>0.04</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	0.12	<i>0.12</i>	<i>0.13</i>
Total New Supply	5.50	5.45	5.52	5.50	5.48	5.46	<i>5.58</i>	<i>5.60</i>	<i>5.69</i>	<i>5.61</i>	<i>5.69</i>	<i>5.70</i>	21.97	<i>22.12</i>	<i>22.70</i>
Underground Working Gas Storage															
Opening.....	6.52	5.53	6.45	7.29	7.04	5.79	<i>6.50</i>	<i>7.29</i>	<i>6.80</i>	<i>5.35</i>	<i>6.18</i>	<i>7.10</i>	6.52	<i>7.04</i>	<i>6.80</i>
Closing.....	5.53	6.45	7.29	7.04	5.79	6.50	<i>7.29</i>	<i>6.80</i>	<i>5.35</i>	<i>6.18</i>	<i>7.10</i>	<i>6.68</i>	7.04	<i>6.80</i>	<i>6.68</i>
Net Withdrawals.....	0.99	-0.92	-0.84	0.25	1.25	-0.71	<i>-0.79</i>	<i>0.49</i>	<i>1.45</i>	<i>-0.83</i>	<i>-0.92</i>	<i>0.42</i>	-0.52	<i>0.24</i>	<i>0.12</i>
Total Supply.....	6.50	4.53	4.68	5.75	6.73	4.75	<i>4.79</i>	<i>6.09</i>	<i>7.15</i>	<i>4.78</i>	<i>4.77</i>	<i>6.12</i>	21.45	<i>22.36</i>	<i>22.82</i>
Balancing Item ^a	0.15	0.19	-0.04	-0.42	0.04	0.03	<i>-0.25</i>	<i>-0.45</i>	<i>0.07</i>	<i>0.18</i>	<i>-0.13</i>	<i>-0.51</i>	-0.12	<i>-0.64</i>	<i>-0.39</i>
Total Primary Supply.....	6.65	4.71	4.64	5.33	6.77	4.77	<i>4.54</i>	<i>5.64</i>	<i>7.22</i>	<i>4.96</i>	<i>4.64</i>	<i>5.61</i>	21.33	<i>21.72</i>	<i>22.43</i>
Demand															
Lease and Plant Fuel.....	0.31	0.31	0.31	0.31	0.30	0.30	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	1.24	<i>1.23</i>	<i>1.24</i>
Pipeline Use.....	0.23	0.16	0.16	0.18	0.23	0.16	<i>0.16</i>	<i>0.19</i>	<i>0.23</i>	<i>0.17</i>	<i>0.16</i>	<i>0.19</i>	0.73	<i>0.74</i>	<i>0.75</i>
Residential.....	2.13	0.78	0.37	1.20	2.24	0.81	<i>0.37</i>	<i>1.36</i>	<i>2.40</i>	<i>0.83</i>	<i>0.37</i>	<i>1.38</i>	4.48	<i>4.78</i>	<i>4.98</i>
Commercial.....	1.21	0.57	0.44	0.80	1.25	0.60	<i>0.43</i>	<i>0.88</i>	<i>1.38</i>	<i>0.63</i>	<i>0.45</i>	<i>0.89</i>	3.02	<i>3.16</i>	<i>3.35</i>
Industrial (Incl. Cogenerators).....	2.23	1.99	2.03	2.17	2.16	2.00	<i>1.99</i>	<i>2.19</i>	<i>2.25</i>	<i>1.98</i>	<i>1.93</i>	<i>2.11</i>	8.42	<i>8.34</i>	<i>8.27</i>
Cogenerators	0.51	0.49	0.54	0.60	0.53	0.50	<i>0.55</i>	<i>0.61</i>	<i>0.54</i>	<i>0.51</i>	<i>0.56</i>	<i>0.63</i>	2.14	<i>2.19</i>	<i>2.23</i>
Electricity Production															
Electric Utilities.....	0.50	0.86	1.29	0.61	0.54	0.85	<i>1.24</i>	<i>0.65</i>	<i>0.60</i>	<i>0.99</i>	<i>1.39</i>	<i>0.68</i>	3.26	<i>3.28</i>	<i>3.66</i>
Nonutilities (Excl. Cogen.) ^b	0.04	0.04	0.05	0.05	0.04	0.04	<i>0.05</i>	<i>0.05</i>	<i>0.05</i>	<i>0.04</i>	<i>0.05</i>	<i>0.05</i>	0.18	<i>0.18</i>	<i>0.19</i>
Total Demand.....	6.65	4.71	4.64	5.33	6.77	4.77	<i>4.54</i>	<i>5.64</i>	<i>7.22</i>	<i>4.96</i>	<i>4.64</i>	<i>5.61</i>	21.33	<i>21.72</i>	<i>22.43</i>

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

^bQuarterly estimates and projections for gas consumption by nonutility generators are based on estimates for quarterly gas-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Annual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by CNEAF.

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

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

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

(Million Short Tons)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Production	281.6	275.4	278.6	282.6	282.3	268.1	266.3	287.9	288.2	279.2	274.4	290.8	1118.1	1104.6	1132.6
Appalachia	119.5	114.0	113.2	113.6	118.2	113.9	106.0	118.6	118.8	116.6	107.1	117.9	460.4	456.8	460.4
Interior	43.1	42.4	41.5	41.4	41.5	37.4	38.0	41.7	40.6	37.2	37.3	40.2	168.4	158.5	155.3
Western.....	119.0	119.0	123.8	127.6	122.5	116.8	122.3	127.6	128.7	125.4	130.1	132.7	489.4	489.3	516.9
Primary Stock Levels ^a															
Opening.....	34.0	41.0	38.3	34.2	36.1	42.4	41.5	35.1	34.4	41.3	41.9	35.5	34.0	36.1	34.4
Closing.....	41.0	38.3	34.2	36.1	42.4	41.5	35.1	34.4	41.3	41.9	35.5	34.6	36.1	34.4	34.6
Net Withdrawals.....	-7.0	2.7	4.2	-2.0	-6.2	0.8	6.5	0.7	-6.9	-0.6	6.4	0.9	-2.2	1.8	-0.3
Imports.....	1.8	2.2	2.1	2.5	2.2	2.1	2.2	2.3	2.5	2.5	2.5	2.6	8.7	8.9	10.2
Exports	18.6	20.7	19.9	18.8	13.0	14.4	17.0	17.8	15.4	15.6	15.9	15.8	78.0	62.1	62.7
Total Net Domestic Supply.....	257.8	259.5	265.0	264.4	265.3	256.6	258.0	273.1	268.4	265.5	267.5	278.4	1046.6	1053.1	1079.9
Secondary Stock Levels ^b															
Opening.....	106.4	114.5	124.3	111.8	129.5	144.2	152.7	131.3	143.8	144.3	156.9	140.1	106.4	129.5	143.8
Closing.....	114.5	124.3	111.8	129.5	144.2	152.7	131.3	143.8	144.3	156.9	140.1	149.7	129.5	143.8	149.7
Net Withdrawals.....	-8.1	-9.8	12.5	-17.6	-14.7	-8.6	21.5	-12.5	-0.6	-12.6	16.8	-9.6	-23.1	-14.3	-6.0
Waste Coal Supplied to IPPs ^c	2.4	2.4	2.4	2.3	2.3	2.4	2.7	2.9	3.2	3.2	3.2	3.2	9.5	10.3	12.7
Total Supply.....	252.0	252.2	279.8	249.0	252.9	250.5	282.2	263.6	271.0	256.2	287.4	272.0	1033.0	1049.1	1086.6
Demand															
Coke Plants.....	6.7	7.2	7.3	7.0	6.8	7.1	6.8	7.1	7.1	6.9	6.8	7.0	28.2	27.8	27.9
Electricity Production															
Electric Utilities.....	220.4	218.4	252.3	219.7	217.3	214.7	244.6	223.1	230.6	218.9	249.4	231.1	910.9	899.7	930.0
Nonutilities (Excl. Cogen.) ^d	6.4	6.5	7.8	8.4	8.8	10.7	12.7	12.7	12.8	12.5	13.3	13.3	29.1	44.9	51.9
Retail and General Industry ^e	20.1	18.3	17.8	19.5	19.4	18.0	18.0	20.6	20.5	17.9	17.9	20.6	75.7	76.1	76.8
Total Demand.....	253.6	250.4	285.2	254.7	252.2	250.5	282.2	263.6	271.0	256.2	287.4	272.0	1043.9	1048.5	1086.6
Discrepancy ^f	-1.6	1.7	-5.3	-5.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.9	0.6	0.0

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

^bSecondary stocks are held by users.

^cEstimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes, 1.2 million tons in 1999 and 3.1 million tons 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).

^eSynfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level.

^fTotal Demand includes estimated IPP consumption.

^gThe 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)

	1998				1999				2000				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1998	1999	2000
Supply															
Net Utility Generation															
Coal	437.6	435.0	500.3	434.5	431.7	426.5	480.2	438.2	458.8	435.5	493.3	457.3	1807.5	1776.5	1844.9
Petroleum.....	20.8	28.5	37.2	23.7	26.9	23.0	40.9	25.3	23.9	17.3	20.8	19.6	110.2	116.0	81.7
Natural Gas	48.0	80.8	121.1	59.3	52.0	81.3	117.4	62.4	57.5	95.0	132.4	65.1	309.2	312.9	349.9
Nuclear	162.6	154.7	179.1	177.3	181.2	166.1	193.8	172.9	177.1	160.8	188.8	170.1	673.7	714.0	696.8
Hydroelectric	86.5	88.1	69.6	60.2	83.4	79.8	70.3	63.8	79.4	79.9	66.0	64.1	304.4	297.4	289.5
Geothermal and Other ^a	1.9	1.4	1.9	2.0	1.6	1.0	0.6	0.7	0.5	0.5	0.6	0.8	7.2	3.8	2.4
Subtotal	757.3	788.6	909.3	757.0	776.8	777.7	903.0	763.2	797.3	789.0	901.9	777.0	3212.2	3220.7	3265.2
Nonutility Generation ^b															
Coal	16.2	16.2	19.4	22.1	21.3	24.8	29.6	30.6	29.2	28.3	30.6	31.6	73.9	106.3	119.7
Petroleum.....	3.9	3.8	4.1	4.6	4.0	3.9	4.2	4.7	4.1	4.0	4.3	4.8	16.4	16.8	17.2
Natural Gas	49.8	47.7	51.9	58.1	50.9	48.7	53.0	59.4	51.9	49.8	54.1	60.6	207.6	212.0	216.5
Other Gaseous Fuels ^c	3.0	2.9	3.1	3.5	2.9	2.8	3.1	3.4	2.9	2.7	3.0	3.3	12.5	12.2	11.9
Hydroelectric	4.2	4.0	4.3	4.9	4.3	4.1	4.5	5.0	4.5	4.3	4.7	5.2	17.4	18.0	18.7
Geothermal and Other ^d	15.1	19.4	12.9	3.3	17.8	17.0	19.1	22.1	18.9	17.9	19.8	22.0	50.7	76.0	78.5
Subtotal	92.3	94.0	95.8	96.5	101.3	101.4	113.5	125.2	111.4	107.0	116.5	127.7	378.6	441.4	462.6
Total Generation.....	849.6	882.6	1005.0	853.5	878.0	879.1	1016.6	888.5	908.7	896.0	1018.4	904.7	3590.7	3662.1	3727.7
Net Imports ^e	5.8	6.9	10.9	5.2	2.0	7.6	9.8	7.6	6.0	6.1	8.9	6.4	28.8	27.0	27.4
Total Supply.....	855.4	889.5	1015.9	858.6	880.0	886.7	1026.3	896.1	914.7	902.1	1027.2	911.1	3619.5	3689.1	3755.1
Losses and Unaccounted for ^f	48.3	80.4	52.0	35.4	55.7	73.9	56.5	61.5	48.8	76.3	66.1	64.5	216.1	247.6	255.7
Demand															
Electric Utility Sales															
Residential.....	274.4	249.7	347.7	255.8	286.0	249.2	346.2	263.5	305.1	259.4	339.1	268.8	1127.7	1145.0	1172.5
Commercial.....	221.0	235.0	277.5	235.0	226.0	236.5	278.5	236.0	238.1	238.2	276.5	239.0	968.5	977.0	991.7
Industrial.....	248.0	261.8	269.7	260.5	248.5	264.6	275.9	263.1	256.2	264.3	275.3	265.5	1040.0	1052.1	1061.4
Other	24.5	25.0	28.0	26.1	23.9	24.4	27.7	25.5	26.0	25.2	28.0	26.1	103.5	101.5	105.3
Subtotal	767.9	771.5	923.0	777.4	784.4	774.6	928.3	788.2	825.4	787.1	919.0	799.4	3239.8	3275.5	3330.9
Nonutility Gener. for Own Use ^b ..	39.2	37.6	40.9	45.8	39.8	38.1	41.5	46.5	40.4	38.7	42.1	47.2	163.6	166.0	168.5
Total Demand.....	807.2	809.1	963.9	823.3	824.3	812.7	969.8	834.6	865.9	825.8	961.1	846.6	3403.4	3441.5	3499.4
Memo:															
Nonutility Sales to															
Electric Utilities ^b	53.0	56.4	54.8	50.7	61.4	63.2	72.0	78.7	71.0	68.2	74.4	80.5	215.0	275.4	294.1

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

^bElectricity from nonutility sources, including cogenerators and small power producers. Quarterly estimates and projections for nonutility net sales, own use, and generation by fuel source supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867, "Annual Nonutility Power Producer Report."

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

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

^eData for 1998 are estimates.

^fBalancing item, mainly transmission and distribution losses.

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

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following 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		
	1997	1998	1999	2000	1997-1998	1998-1999	1999-2000
Electric Utilities							
Hydroelectric Power ^a	3.521	3.178	<i>3.162</i>	<i>3.022</i>	-9.7	<i>-0.5</i>	<i>-4.4</i>
Geothermal, Solar and Wind Energy ^b	0.115	0.109	<i>0.037</i>	<i>0.008</i>	-5.2	<i>-66.1</i>	<i>-78.4</i>
Biofuels ^c	0.020	0.021	<i>0.021</i>	<i>0.021</i>	5.0	<i>0.0</i>	<i>0.0</i>
Total	3.656	3.307	<i>3.220</i>	<i>3.052</i>	-9.5	<i>-2.6</i>	<i>-5.2</i>
Nonutility Power Generators							
Hydroelectric Power ^a	0.185	0.179	<i>0.186</i>	<i>0.192</i>	-3.2	<i>3.9</i>	<i>3.2</i>
Geothermal, Solar and Wind Energy ^b	0.235	0.253	<i>0.294</i>	<i>0.351</i>	7.7	<i>16.2</i>	<i>19.4</i>
Biofuels ^c	0.576	0.584	<i>0.580</i>	<i>0.578</i>	1.4	<i>-0.7</i>	<i>-0.3</i>
Total.....	0.996	1.016	<i>1.060</i>	<i>1.121</i>	2.0	<i>4.3</i>	<i>5.8</i>
Total Power Generation	4.652	4.323	<i>4.280</i>	<i>4.173</i>	-7.1	<i>-1.0</i>	<i>-2.5</i>
Other Sectors ^d							
Residential and Commercial ^e	0.553	0.568	<i>0.574</i>	<i>0.583</i>	2.7	<i>1.1</i>	<i>1.6</i>
Industrial ^f	1.498	1.515	<i>1.542</i>	<i>1.569</i>	1.1	<i>1.8</i>	<i>1.8</i>
Transportation ^g	0.087	0.095	<i>0.096</i>	<i>0.095</i>	9.2	<i>1.1</i>	<i>-1.0</i>
Total.....	2.138	2.178	<i>2.212</i>	<i>2.247</i>	1.9	<i>1.6</i>	<i>1.6</i>
Net Imported Electricity ^h	0.259	0.233	<i>0.219</i>	<i>0.222</i>	-10.0	<i>-6.0</i>	<i>1.4</i>
Total Renewable Energy Demand.....	7.048	6.734	<i>6.710</i>	<i>6.642</i>	-4.5	<i>-0.4</i>	<i>-1.0</i>

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

^bAlso includes photovoltaic and solar thermal energy.

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

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

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

^fConsists 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															
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Real Gross Domestic Product (GDP) (billion chained 1992 dollars).....	5488	5649	5865	6062	6136	6079	6244	6390	6611	6762	6995	7270	7552	<i>7837</i>	<i>8012</i>	
Imported Crude Oil Price ^a (nominal dollars per barrel)	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.12	<i>17.21</i>	<i>21.86</i>	
Petroleum Supply																
Crude Oil Production ^b (million barrels per day)	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	<i>5.98</i>	<i>5.96</i>	
Total Petroleum Net Imports (including SPR) (million barrels per day)	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	<i>9.85</i>	<i>10.25</i>	
Energy Demand																
World Petroleum (million barrels per day)	61.8	63.1	64.9	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.3	73.0	73.8	<i>74.9</i>	<i>76.2</i>	
U.S. Petroleum (million barrels per day)	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	<i>19.38</i>	<i>19.38</i>	
Natural Gas (trillion cubic feet)	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.33	<i>21.72</i>	<i>22.43</i>	
Coal (million short tons).....	797	830	877	891	897	898	907	943	950	962	1006	1029	1044	<i>1048</i>	<i>1087</i>	
Electricity (billion kilowatthours)																
Utility Sales ^c	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3140	3240	<i>3276</i>	<i>3331</i>	
Nonutility Own Use ^d	NA	NA	NA	97	113	122	137	138	150	158	158	161	164	<i>166</i>	<i>168</i>	
Total	2369	2457	2578	2744	2826	2884	2901	2999	3085	3171	3256	3301	3403	<i>3441</i>	<i>3499</i>	
Total Energy Demand ^e (quadrillion Btu)	NA	NA	NA	NA	84.2	84.3	85.6	87.4	89.3	91.0	94.0	94.2	94.7	<i>96.4</i>	<i>97.8</i>	
Total Energy Demand per Dollar of GDP (thousand Btu per 1992 Dollar).....	NA	NA	NA	NA	13.72	13.86	13.71	13.68	13.50	13.45	13.43	12.96	12.54	<i>12.30</i>	<i>12.20</i>	

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

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *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 CONTROL0999.

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

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Macroeconomic															
Real Gross Domestic Product (billion chained 1992 dollars)	5488	5649	5865	6062	6136	6079	6244	6390	6611	6762	6995	7270	7552	<i>7837</i>	<i>8012</i>
GDP Implicit Price Deflator (Index, 1992=1.000).....	0.806	0.831	0.861	0.897	0.936	0.973	1.000	1.026	1.051	1.075	1.096	1.116	1.127	<i>1.141</i>	<i>1.158</i>
Real Disposable Personal Income (billion chained 1992 Dollars).....	4077	4155	4325	4412	4490	4484	4605	4667	4773	4906	5043	5183	5348	<i>5509</i>	<i>5676</i>
Manufacturing Production (Index, 1987=1.000).....	0.881	0.928	0.971	0.990	0.985	0.962	1.000	1.037	1.099	1.159	1.214	1.296	1.349	<i>1.389</i>	<i>1.406</i>
Real Fixed Investment (billion chained 1992 dollars)	805	799	818	832	806	741	783	843	916	966	1051	1138	1268	<i>1377</i>	<i>1414</i>
Real Exchange Rate (Index, 1990=1.000).....	NA	NA	NA	NA	0.999	1.007	1.013	1.057	1.034	0.961	1.017	1.105	1.152	<i>1.164</i>	<i>1.152</i>
Business Inventory Change (billion chained 1992 dollars)	-4.2	5.1	9.5	19.2	6.6	-6.1	-9.2	6.1	11.1	11.2	12.0	20.1	19.9	<i>-0.5</i>	<i>1.0</i>
Producer Price Index (index, 1982=1.000).....	1.002	1.028	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	<i>1.254</i>	<i>1.285</i>
Consumer Price Index (index, 1982-1984=1.000)	1.097	1.137	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.631	<i>1.668</i>	<i>1.715</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.532	0.568	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	<i>0.599</i>	<i>0.737</i>
Non-Farm Employment (millions).....	99.3	102.0	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	<i>128.5</i>	<i>130.3</i>
Commercial Employment (millions).....	62.9	65.2	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	<i>89.4</i>	<i>91.1</i>
Total Industrial Production (index, 1987=1.000).....	0.890	0.932	0.974	0.991	0.989	0.970	1.000	1.035	1.091	1.144	1.196	1.267	1.314	<i>1.345</i>	<i>1.367</i>
Housing Stock (millions).....	98.0	99.8	101.6	102.9	103.5	104.5	105.5	106.8	108.2	109.6	111.0	112.5	114.3	<i>115.9</i>	<i>117.2</i>
Weather ^a															
Heating Degree-Days															
U.S.	4295	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	<i>4353</i>	<i>4494</i>
New England.....	6517	6546	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	<i>6209</i>	<i>6520</i>
Middle Atlantic	5665	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	<i>5547</i>	<i>5751</i>
U.S. Gas-Weighted	4442	4391	4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4185	<i>4588</i>	<i>4734</i>
Cooling Degree-Days (U.S.).....	1249	1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1156	1411	<i>1317</i>	<i>1233</i>

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

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 CONTROL0999.

Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Demand ^a															
OECD															
U.S. (50 States)	16.3	16.7	17.3	17.4	17.0	16.8	17.1	17.2	17.7	17.7	18.3	18.6	18.9	19.4	19.4
Europe ^b	12.1	12.3	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.7	14.8	15.0
Japan.....	4.4	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.5	5.6
Other OECD.....	2.5	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2	3.3
Total OECD.....	35.3	36.0	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	42.3	42.9	43.3
Non-OECD															
Former Soviet Union.....	9.0	9.0	8.9	8.7	8.4	8.3	6.8	5.6	4.8	4.6	4.0	4.3	4.2	4.2	4.2
Europe.....	2.2	2.2	2.2	2.1	1.9	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.6
China.....	2.0	2.1	2.3	2.4	2.3	2.5	2.7	3.0	3.1	3.3	3.5	3.8	3.9	4.1	4.3
Other Asia.....	3.8	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.9	7.9	8.5	8.8	8.7	8.8	9.1
Other Non-OECD.....	9.5	9.7	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.1	12.4	12.8	13.2	13.4	13.7
Total Non-OECD.....	26.5	27.1	27.7	28.3	28.5	28.5	28.0	28.1	29.0	29.3	29.9	31.2	31.5	32.0	32.9
Total World Demand.....	61.8	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.9	69.9	71.3	73.0	73.8	74.9	76.2
Supply ^c															
OECD															
U.S. (50 States)	11.0	10.7	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.0
Canada.....	1.8	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.6
North Sea ^d	3.8	3.8	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.2	6.2	6.6
Other OECD.....	1.4	1.4	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.6
Total OECD.....	17.9	17.9	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	19.7	19.3	19.9
Non-OECD															
OPEC.....	19.3	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.4	30.6
Former Soviet Union.....	12.3	12.5	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.3	7.3
China.....	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.3
Mexico.....	2.8	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.5	3.6
Other Non-OECD.....	6.8	11.3	7.3	7.7	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.5	10.8	11.1	11.3
Total Non-OECD.....	43.9	44.6	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	55.2	54.4	56.2
Total World Supply.....	61.8	62.5	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	74.9	73.7	76.0
Total Stock Withdrawals.....	0.0	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.3	0.1	0.0	-0.4	-1.1	-1.1	1.2	0.2
OECD Comm. Stocks, End (bill. bbls.).....	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.6	2.6
Net Exports from Former Soviet Union.....	3.4	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.5	3.0	2.9	3.0	3.1	3.1

^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, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

SPR: Strategic Petroleum Reserve

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

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

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

Table A4. Annual Average U. S. Energy Prices
(Nominal Dollars)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Imported Crude Oil ^a (dollars per barrel)	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.12	17.21	21.86
Natural Gas Wellhead (dollars per thousand cubic feet)	1.94	1.66	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.16	2.32	1.96	2.18	2.37
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades	0.88	0.91	0.92	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.33
Regular Unleaded.....	0.88	0.91	0.91	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.29
No. 2 Diesel Oil, Retail (dollars per gallon).....	0.88	0.93	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.10	1.22	1.19	1.04	1.12	1.25
No. 2 Heating Oil, Wholesale (dollars per gallon).....	0.49	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.51	0.65
No. 2 Heating Oil, Retail (dollars per gallon).....	0.84	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.89	0.87	0.99	0.99	0.85	0.87	1.05
No. 6 Residual Fuel Oil, Retail ^c (dollars per barrel)	14.46	17.76	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.73	16.45	21.37
Electric Utility Fuels															
Coal (dollars per million Btu).....	1.58	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.23	1.22
Heavy Fuel Oil ^d (dollars per million Btu).....	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.66	3.45
Natural Gas (dollars per million Btu).....	2.35	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.64	2.89
Other Residential															
Natural Gas (dollars per thousand cubic feet)	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.82	6.72	7.14
Electricity (cents per kilowatthour)	7.4	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.4	8.4	8.4	8.3	8.2	8.0

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

^bAverage self-service cash prices.

^cAverage for all sulfur contents.

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

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Crude Oil Supply															
Domestic Production ^a	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.98	5.96
Alaska	1.87	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.95
Lower 48	6.81	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.93	5.01
Net Imports (including SPR) ^b	4.02	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.60	8.58	9.00
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Stock Draw (Including SPR)	-0.08	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.06	-0.05	0.06	-0.04
Product Supplied and Losses	-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.14	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.25	0.21
Total Crude Oil Supply	12.72	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.91	15.13
Other Supply															
NGL Production	1.55	1.59	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.78	1.77
Other Hydrocarbon and Alcohol Inputs	0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.37	0.37
Crude Oil Product Supplied	0.05	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Processing Gain	0.62	0.64	0.66	0.66	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.88	0.89
Net Product Imports ^c	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.27	1.26
Product Stock Withdrawn	-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.17	-0.03
Total Supply	16.33	16.72	17.33	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.38	19.38
Demand															
Motor Gasoline ^d	6.94	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.42	8.55
Jet Fuel	1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.68	1.71
Distillate Fuel Oil	2.91	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.56	3.56
Residual Fuel Oil	1.42	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.86	0.73
Other Oils ^e	3.75	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	4.87	4.85
Total Demand	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.38	19.38
Total Petroleum Net Imports	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.85	10.25
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	331	349	330	341	323	325	318	335	337	303	284	305	324	301	316
Total Motor Gasoline	233	226	228	213	220	219	216	226	215	202	195	210	216	201	207
Jet Fuel	50	50	44	41	52	49	43	40	47	40	40	44	45	45	44
Distillate Fuel Oil	155	134	124	106	132	144	141	141	145	130	127	138	156	140	140
Residual Fuel Oil	47	47	45	44	49	50	43	44	42	37	46	40	45	39	43
Other Oils	265	260	267	257	261	267	263	273	275	258	250	259	291	264	266

^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.

^dFor 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.

^eIncludes 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.

^fIncludes 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*, Table C1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Total Dry Gas Production.....	16.06	16.62	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.79	18.90	18.86	<i>18.67</i>	<i>18.97</i>
Net Imports.....	0.69	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	<i>3.32</i>	<i>3.60</i>
Supplemental Gaseous Fuels.....	0.11	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.12	<i>0.12</i>	<i>0.13</i>
Total New Supply.....	16.86	17.66	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.69	21.84	21.97	<i>22.12</i>	<i>22.70</i>
Total Underground Storage															
Opening.....	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	<i>7.04</i>	<i>6.80</i>
Closing.....	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.52	7.04	<i>6.80</i>	<i>6.68</i>
Net Withdrawals.....	-0.12	0.02	-0.10	0.33	-0.61	0.16	0.14	-0.01	-0.32	0.46	-0.01	-0.01	-0.52	<i>0.24</i>	<i>0.12</i>
Total Supply.....	16.74	17.68	18.32	19.02	18.77	19.61	20.02	20.42	21.08	21.86	21.68	21.84	21.45	<i>22.36</i>	<i>22.82</i>
Balancing Item ^a	-0.52	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.29	0.13	-0.12	<i>-0.64</i>	<i>-0.39</i>
Total Primary Supply.....	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.33	<i>21.72</i>	<i>22.43</i>
Demand															
Lease and Plant Fuel.....	0.92	1.15	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.24	<i>1.23</i>	<i>1.24</i>
Pipeline Use.....	0.49	0.52	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.73	<i>0.74</i>	<i>0.75</i>
Residential.....	4.31	4.31	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.48	<i>4.78</i>	<i>4.98</i>
Commercial.....	2.32	2.43	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.22	3.02	<i>3.16</i>	<i>3.35</i>
Industrial (Incl. Nonutilities).....	5.58	5.95	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.84	8.60	<i>8.53</i>	<i>8.46</i>
Cogenerators ^b	NA	NA	NA	NA	1.30	1.41	1.70	1.80	1.98	2.18	2.30	2.16	2.14	<i>2.19</i>	<i>2.23</i>
Other Nonutil. Gen. ^b	NA	NA	NA	NA	0.09	0.16	0.18	0.22	0.16	0.17	0.16	0.18	0.18	<i>0.18</i>	<i>0.19</i>
Electric Utilities.....	2.60	2.84	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	<i>3.28</i>	<i>3.66</i>
Total Demand.....	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.97	21.33	<i>21.72</i>	<i>22.43</i>

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

^bAnnual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by the office of Coal, Nuclear, Electric and Alternative Fuels, Energy Information Administration.

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

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

Table A7. Annual U.S. Coal Supply and Demand
(Million Short Tons)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Production.....	890.3	918.8	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1118.1	<i>1104.6</i>	<i>1132.6</i>
Appalachia.....	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	456.8	460.4
Interior.....	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	158.5	155.3
Western.....	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	489.4	489.3	516.9
Primary Stock Levels ^a															
Opening.....	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	<i>36.1</i>	<i>34.4</i>
Closing.....	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.1	<i>34.4</i>	<i>34.6</i>
Net Withdrawals.....	1.0	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.2	<i>1.8</i>	<i>-0.3</i>
Imports.....	2.2	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	<i>8.9</i>	<i>10.2</i>
Exports.....	85.5	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	<i>62.1</i>	<i>62.7</i>
Total Net Domestic Supply.....	808.0	844.7	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1046.6	<i>1053.1</i>	<i>1079.9</i>
Secondary Stock Levels ^b															
Opening.....	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	<i>129.5</i>	<i>143.8</i>
Closing.....	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.5	<i>143.8</i>	<i>149.7</i>
Net Withdrawals.....	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.1	<i>-14.3</i>	<i>-6.0</i>
Waste Coal Supplied to IPPs ^c	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.5	<i>10.3</i>	<i>12.7</i>
Total Supply.....	803.1	834.4	882.3	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1033.0	<i>1049.1</i>	<i>1086.6</i>
Demand															
Coke Plants.....	35.9	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	<i>27.8</i>	<i>27.9</i>
Electricity Production															
Electric Utilities.....	685.1	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	<i>899.7</i>	<i>930.0</i>
Nonutilities (Excl. Co-gen.) ^d	NA	NA	NA	0.9	1.6	10.2	14.6	17.1	19.5	20.8	22.2	21.6	29.1	44.9	51.9
Retail and General Industry ^e	75.6	75.2	76.3	82.3	83.1	81.5	80.2	81.1	81.2	78.9	76.9	77.1	75.7	<i>76.1</i>	<i>76.8</i>
Total Demand.....	796.6	830.0	876.5	890.6	897.1	897.8	907.0	943.1	949.7	961.7	1005.6	1029.2	1043.9	<i>1048.5</i>	<i>1086.6</i>
Discrepancy ^f	6.5	4.4	5.8	5.9	2.4	-6.4	0.8	-6.6	4.3	-1.3	1.2	4.0	-10.9	<i>0.6</i>	<i>0.0</i>

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

^bSecondary stocks are held by users.

^cEstimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes, 1.2 million tons in 1999 and 3.1 million tons 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).

^eSynfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level.

^fTotal Demand includes estimated IPP consumption.

^gThe 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)

	Year														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Supply															
Net Utility Generation															
Coal.....	1385.8	1463.8	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1787.8	1807.5	1776.5	1844.9
Petroleum	136.6	118.5	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	77.8	110.2	116.0	81.7
Natural Gas.....	248.5	272.6	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	283.6	309.2	312.9	349.9
Nuclear.....	414.0	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	714.0	696.8
Hydroelectric.....	290.8	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	304.4	297.4	289.5
Geothermal and Other ^a	11.5	12.3	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.2	3.8	2.4
Subtotal.....	2487.3	2572.1	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3220.7	3265.2
Nonutility Generation ^b	NA	NA	NA	NA	221.5	253.3	301.8	325.2	354.9	375.9	382.4	384.7	378.6	441.4	462.6
Total Generation.....	NA	NA	NA	NA	3029.6	3078.3	3099.0	3207.8	3265.6	3370.4	3459.9	3507.2	3590.7	3662.1	3727.7
Net Imports	35.9	46.3	31.8	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	28.8	27.0	27.4
Total Supply	NA	NA	NA	NA	3032.0	3098.0	3124.4	3235.6	3310.5	3409.6	3497.9	3543.8	3619.5	3689.1	3755.1
Losses and Unaccounted for ^c	NA	NA	NA	NA	206.2	214.2	223.7	236.3	225.7	238.4	242.3	242.8	216.1	247.6	255.7
Demand															
Electric Utility Sales															
Residential.....	819.1	850.4	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.8	1127.7	1145.0	1172.5
Commercial.....	630.5	660.4	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.4	968.5	977.0	991.7
Industrial.....	830.5	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1030.4	1032.7	1040.0	1052.1	1061.4
Other.....	88.6	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	101.5	105.3
Subtotal.....	2368.8	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3097.8	3139.8	3239.8	3275.5	3330.9
Nonutility Own Use ^b	NA	NA	NA	NA	113.2	121.7	137.3	137.8	150.2	158.0	157.8	161.2	163.6	166.0	168.5
Total Demand.....	NA	NA	NA	2744.0	2825.8	2883.7	2900.7	2999.2	3084.8	3171.3	3255.6	3301.0	3403.4	3441.5	3499.4
Memo:															
Nonutility Sales															
to Electric Utilities ^d	NA	NA	NA	NA	108.2	131.6	164.4	187.5	204.7	217.9	224.7	223.5	215.0	275.4	294.1

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

^bFor 1989 to 1991, estimates for nonutility generation are estimates made by the Energy Markets and Contingency Information Division, based on Form EIA-867 (Annual Nonutility Power Producer Report) data. Historical data and Projections for the same items are from the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration, based on Form EIA-867.

^cBalancing item, mainly transmission and distribution losses.

^dHistorical data for nonutility sales to electric utilities are from the Energy Information Administration, *Annual Energy Review*, DOE/EIA-0389, Table 8.1, for 1982 to 1988; from Form EIA-867 (Annual Nonutility Power Producer Report) for 1989 to 1996.

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

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