November 2000

Overview

Oil prices are defying gravity, remaining well above $30.00 per barrel ($33.10 for WTI in October and similar levels for the first week of November). This situation persists despite estimates of significant world production above demand requirements and despite another round of announced OPEC increases. Israeli/Palestinian tensions notwithstanding, we do not see how prices can remain detached from the corrective forces of the world market if production is as high as is implied by OPEC statements and by typical estimates of non-OPEC output currently in circulation. Sooner or later (probably before the end of winter) we expect crude oil prices to fall (perhaps by $4 to $5 per barrel from current levels) under the weight of excess supply if the world oil market balance we are currently projecting is close to being correct. Continued high prices and lack of hard evidence that world oil inventories are increasing significantly will be taken as a sign that our projected balance is not correct and that the inevitable market "rebalancing" will take longer than we have been expecting to this point.

With the first month of the heating season in the United States out of the way, we offer consumers first the good news: so far heating demand has been below expectations (October heating degree-days were about 12 percent below normal). Now the bad news: despite strong efforts by U.S. refiners to increase heating oil output this season, heating oil stocks remain well below normal and below previous expectations. This description of current heating oil market conditions leaves aside the fact that the newly established Northeast Heating Oil Reserve (NHOR) is completely filled (2 million barrels). The NHOR volumes are relatively small and are assumed to be unavailable under any but the most extreme circumstances. We recognize that some of the unusually high output of heating oil observed between August and October probably made its way into secondary and tertiary inventories (these are held at the dealer and consumer level, and hence are not in our accounting of primary stocks) ahead of schedule this year. Perhaps because of this, we are as much as 6-8 million barrels better off at this time than the official inventory figures suggest. It is important to note that this early downstream stockpiling, to whatever extent it actually occurred, really has no net effect on the adequacy of winter supply because it is a one-time shift in timing, not an increase in overall storage.

North American gas drilling activity continues at a torrid pace in terms of active rigs drilling and expected well completions for 2000 and 2001. The overall gas

supply situation is improving somewhat, and we have increased our estimates for production growth in 2001 to about 350 billion cubic feet (1.9 percent) from 240 billion cubic feet (1.3 percent) in previous Outlooks. Meanwhile, near-term natural gas prices have fallen from the recent highs seen in mid-October. We expect spot and futures prices to remain quite sensitive to indicators of demand or supply changes, such as weather or storage. Spot and average wellhead prices, while still relatively high, should ease further away from the $5-per-thousand-cubic-feet level through 2001 than previously projected.

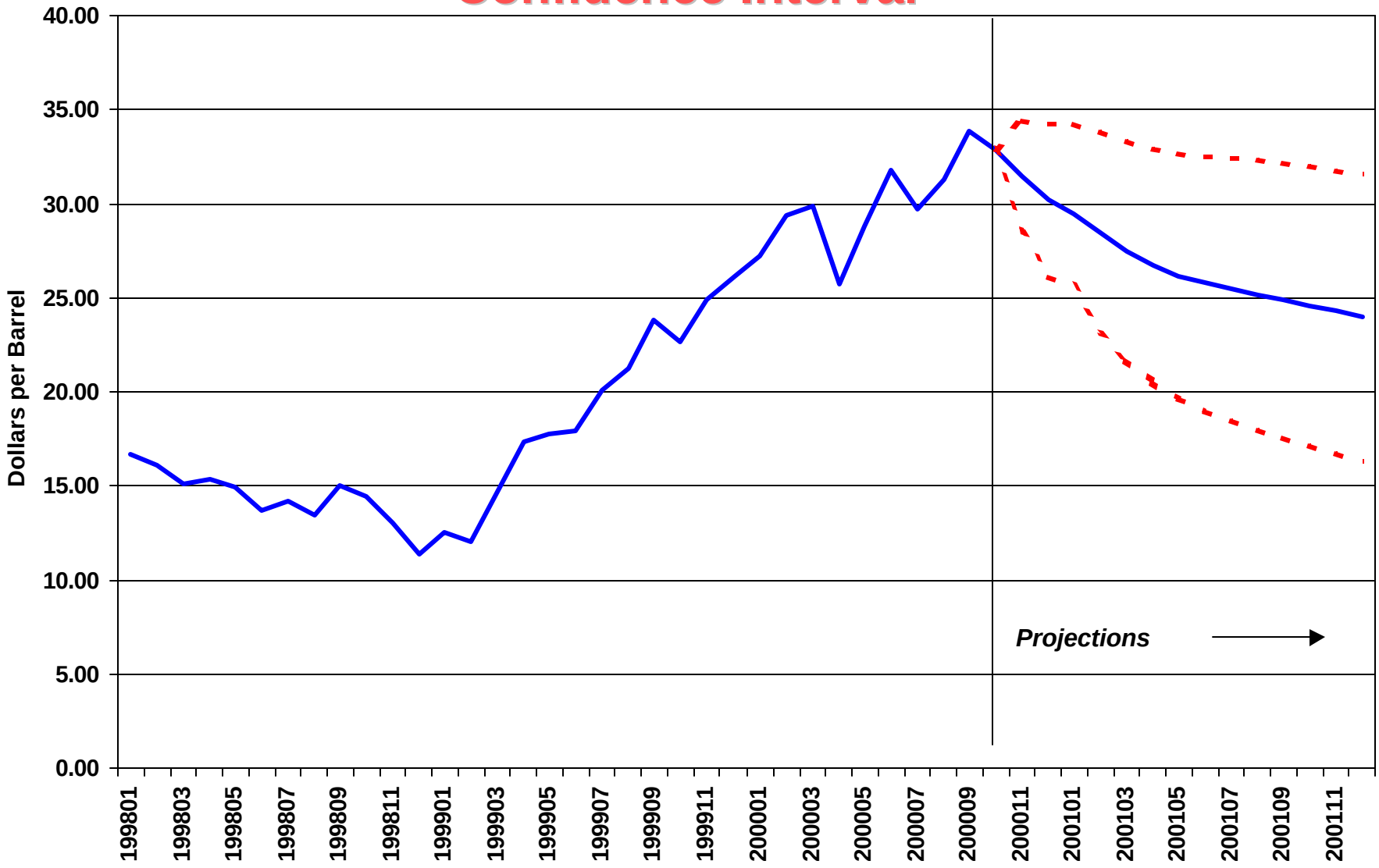
Our electricity balance this month includes preliminary adjustments to 1999 nonutility output and fuel consumption based on the newly released annual data for 1999 in *EIA's Electric Power Annual 1999, Volume II*. More precise seasonal estimates will be incorporated when they become available. On an annual basis, the adjustments boost 1999 nonutility output upward by 37 billion kilowatt-hours (7.2 percent) compared to estimates previously reported from EIA's monthly nonutility survey. Total power output (utility and nonutility combined) for 1999 was consequently revised upward by 1.0 percent, resulting in a revised estimation for growth between 1998 and 1999 of about 3 percent in the United States from 2.0 percent reported earlier.

As always, weather patterns intrude into discussions of short-term energy market assessments. Once again, despite the statistically justifiable and straightforward application of weather-as-normal in our base case projections, warmer-than-normal conditions have prevailed thus far in the early 2000-2001 heating season. With consistency of mission, we assume normal temperatures for the *rest* of the winter in this Outlook. Our view of "normal" temperatures involves higher ones than those widely published by the Commerce Department in the form of 30-year averages. But that only serves to enhance the significance of what has transpired so far: October 2000 heating degree-days were about 12 percent below normal nationally. The bulk of the winter lies ahead, of course, and the National Oceanographic and Atmospheric Administration's winter weather outlook still calls for significantly lower average temperatures this winter compared to the previous two winters in the main heating demand regions of the country.

International Petroleum

Crude Oil Prices. The monthly U.S. imported crude oil price in October was an estimated $30.75 per barrel ($33.10 estimated for West Texas Intermediate crude oil), about $1.10 less than in September (Figure 1), but still the second highest monthly average level in the decade since the Gulf War. On August 14, the average OPEC basket price rose above the $28 level, and stayed above it through October.

Figure 1. WTI Crude Oil Price: Base Case and 95% Confidence Interval



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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During its March 2000 meetings, OPEC set a target range for the OPEC basket price of oil between $22 and $28 per barrel and adopted an informal price-band mechanism to adjust OPEC supply in order to maintain world oil prices within that range. This mechanism was not activated through September. However, with the OPEC basket price continuing to remain above the $28 level since August 14, OPEC renewed the count to activate the mechanism on October 1. Following an additional 20 trading days of an OPEC basket price above the $28 level, OPEC activated the mechanism effective October 31 in an effort to reduce world oil prices. This step increased aggregate OPEC production quotas by 500,000 barrels per day.

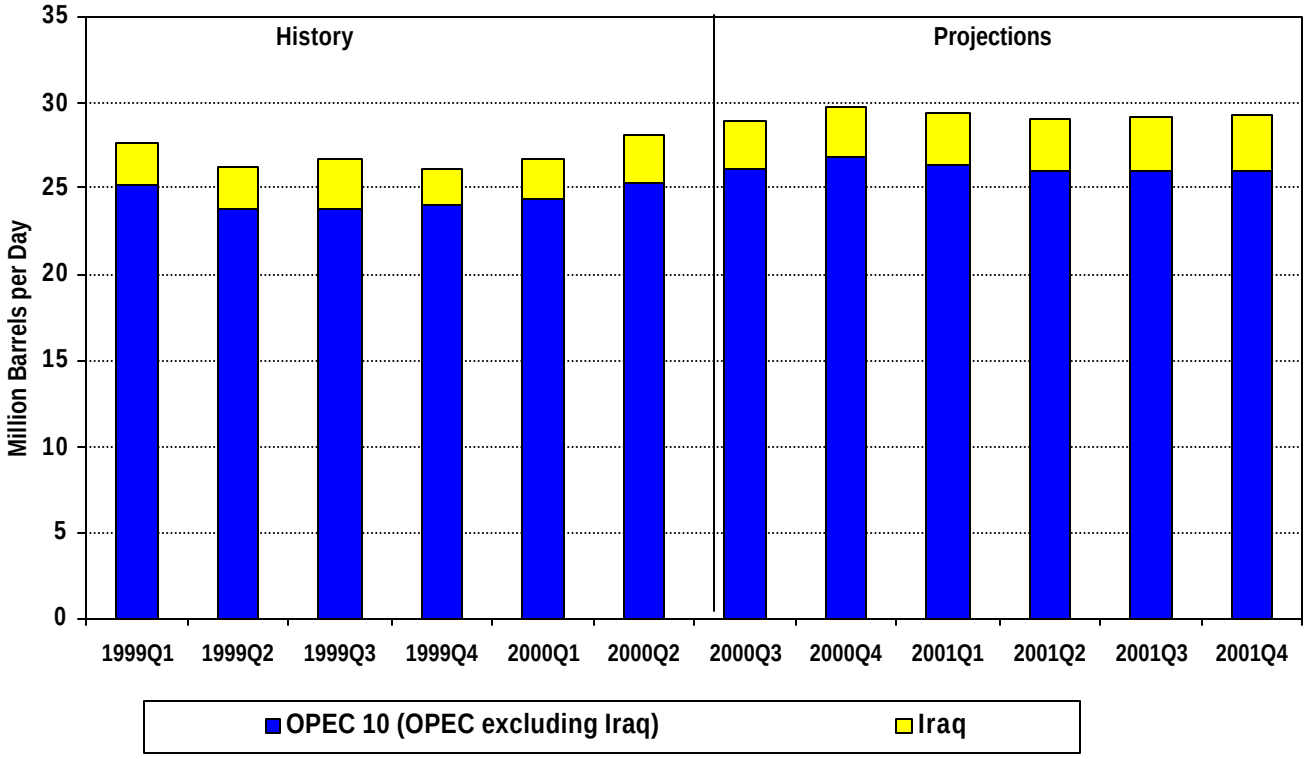
EIA estimates of world oil supply and demand suggest that, while the monthly U.S. imported crude oil price may remain above $28 per barrel for the remainder of the year (corresponding to over $30 for West Texas Intermediate crude oil), a significant developing oversupply should start to move prices down soon. From currently inflated levels, we believe that prices may move downward by $3 to $4 per barrel before the end of winter. Prices are expected to continue declining in 2001 and, on an annual basis, average about $24 per barrel, or close to $4.00 below the annual average for 2000.

International Oil Supply. At its September meeting, the OPEC 10 (Organization of Petroleum Exporting Countries excluding Iraq) agreed to increase their production quotas by 800,000 barrels per day beginning October 1. Concerns that this quota adjustment might not be sufficient to significantly lower prices led OPEC to restart the count on its informal price-band mechanism concurrently with the October 1 quota adjustments, whereby crude oil supplies would be increased by an additional 500,000 barrels per day if the OPEC oil price basket remained above $28 per barrel for 20 consecutive trading days. This condition was met, and OPEC announced that it would increase its oil production by this amount effective October 31.

The EIA forecast assumes that OPEC 10 production in the fourth quarter of 2000 will be 0.6 million barrels per day higher than in the previous quarter (Figure 2). After this latest round of quota adjustments and production increases, only Saudi Arabia, and to a lesser degree, the United Arab Emirates, will have significant short-term capacity to expand production within the OPEC 10 countries. However, we believe this level of OPEC production cannot be sustained into the spring without resulting in large downward price pressures. EIA's Outlook assumes that OPEC 10 production will begin to decline by spring 2001 by 600,000 barrels per day.

Iraqi crude oil production is estimated to have increased from 2.3 million barrels

Figure 2. OPEC Crude Oil Production 1999-2001



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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per day in the first quarter to 2.9 - 3.0 million barrels per day in August and September 2000. This production is projected to increase to 3.0 - 3.1 million barrels per day through the remainder of the year, and increase to 3.2 million barrels per day by end-2001. These projections of Iraqi crude oil production are assumptions that do not reflect any official U.S. Government view, and are less than Iraq's own estimate that production could reach as high as 3.5 million barrels per day in 2001.

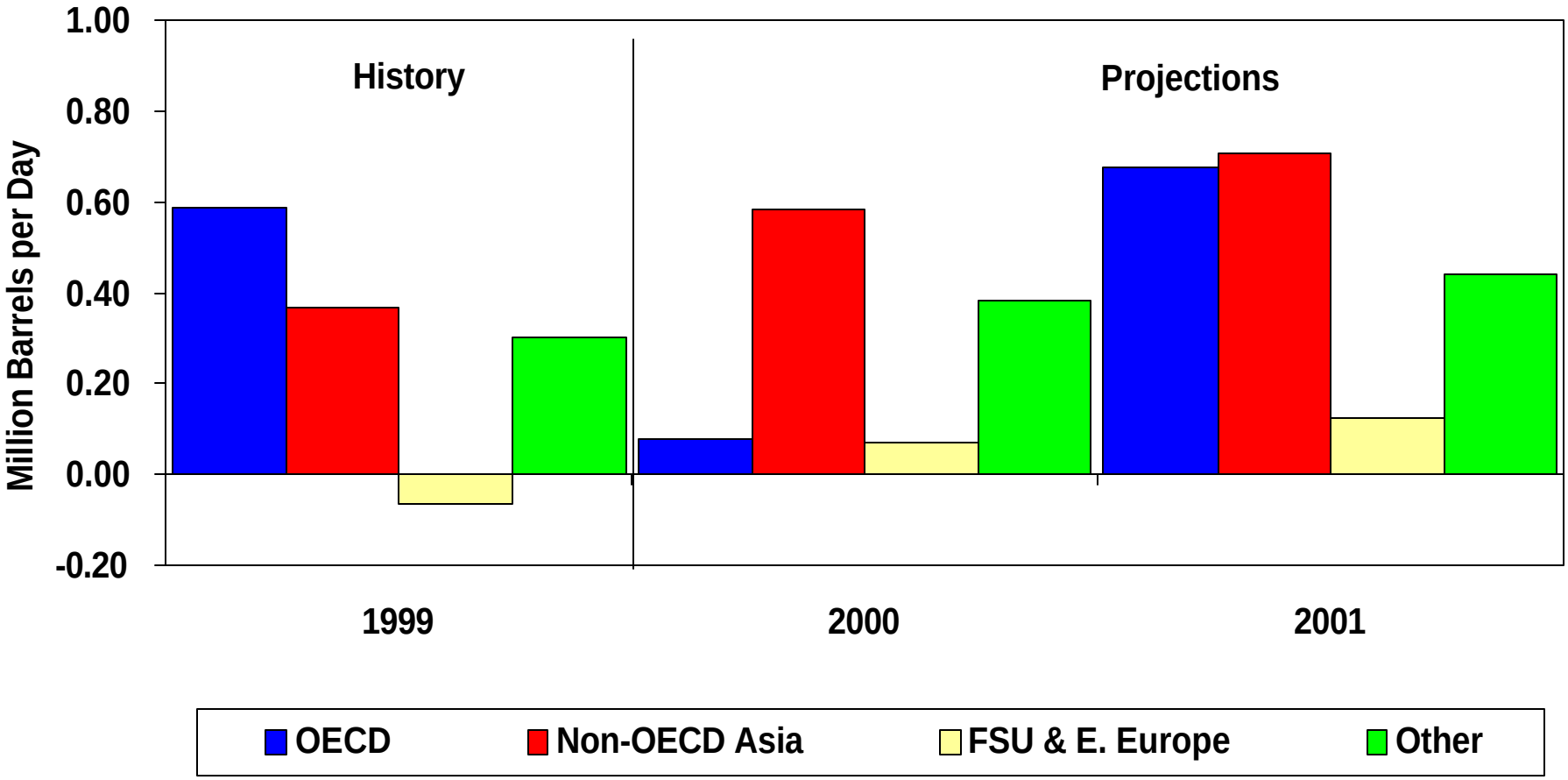
Non-OPEC production is expected to increase by 1.3 million barrels per day in 2000 and by another 0.8 million barrels per day in 2001, primarily from the former Soviet Union, with smaller increases from other regions (Table 3). Oil production from the former Soviet Union has risen as Russian production has recovered, and further increases are expected at end-2001 with the opening of the Caspian Pipeline Consortium (CPC)'s pipeline to transport oil from Kazakhstan to world oil markets. No further increases are expected in the North Sea in 2001 as output from new fields is not expected to outstrip declines in maturing fields.

International Oil Demand. This month's Outlook assumes growth in world oil demand in 2000 of a little more than 1 million barrels per day (about 1.5 percent), to average almost 76 million barrels per day for the year (Figure 3). This is the lowest growth rate since 1993 with the exception of 1998, when Asian economies were suffering from a financial crisis. World oil demand growth in 2001 is expected to be about 2 million barrels per day, similar to the growth that was seen in the 1995-1997 period.

Non-OECD Asia is expected once again to be the predominant region for oil demand growth this year, although near-term growth rates there are unlikely to match those seen in the early to mid 1990s. By 2001, not only is non-OECD oil demand expected to grow even more, but OECD oil demand growth is expected to be strong as well.

World Oil Inventories. EIA does not attempt to estimate oil inventory levels on a global basis; however, the direction global oil inventories are headed is discerned from EIA's world oil supply and demand estimates. These estimates provide only a rough guide because of what has come to be known as the "missing barrels problem". The available limited data for tracking inventories suggest that inventories have not been building as fast as any of the global supply / demand estimates (including EIA's) would indicate, and that some of the oil that is being produced worldwide simply becomes unaccounted for. As a result, EIA's estimated global inventory increases may be overstated because they include an uncertain "missing barrels" component. Given these caveats, the implied global stock changes suggest that inventories have been rebuilding from their very low levels, particularly when viewed on a forward-cover or days-

Figure 3. Annual World Oil Demand
(Changes from Previous Year)



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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supply basis. The increased production levels seen from OPEC in the third quarter and further expected OPEC production in the next year imply an expected oil inventory build of as much as 1 million barrels per day in 2000, followed by a lesser but still large additional build of as much as 700,000 barrels per day in 2001. These kinds of builds, including a 1.4 million-barrels-per-day (counterseasonal) build in fourth quarter 2000, are not consistent with WTI prices well above $30 per barrel. Therefore, either the balance that gives rise to the stockbuild estimates is wrong or oil prices will retreat from the current high levels soon.

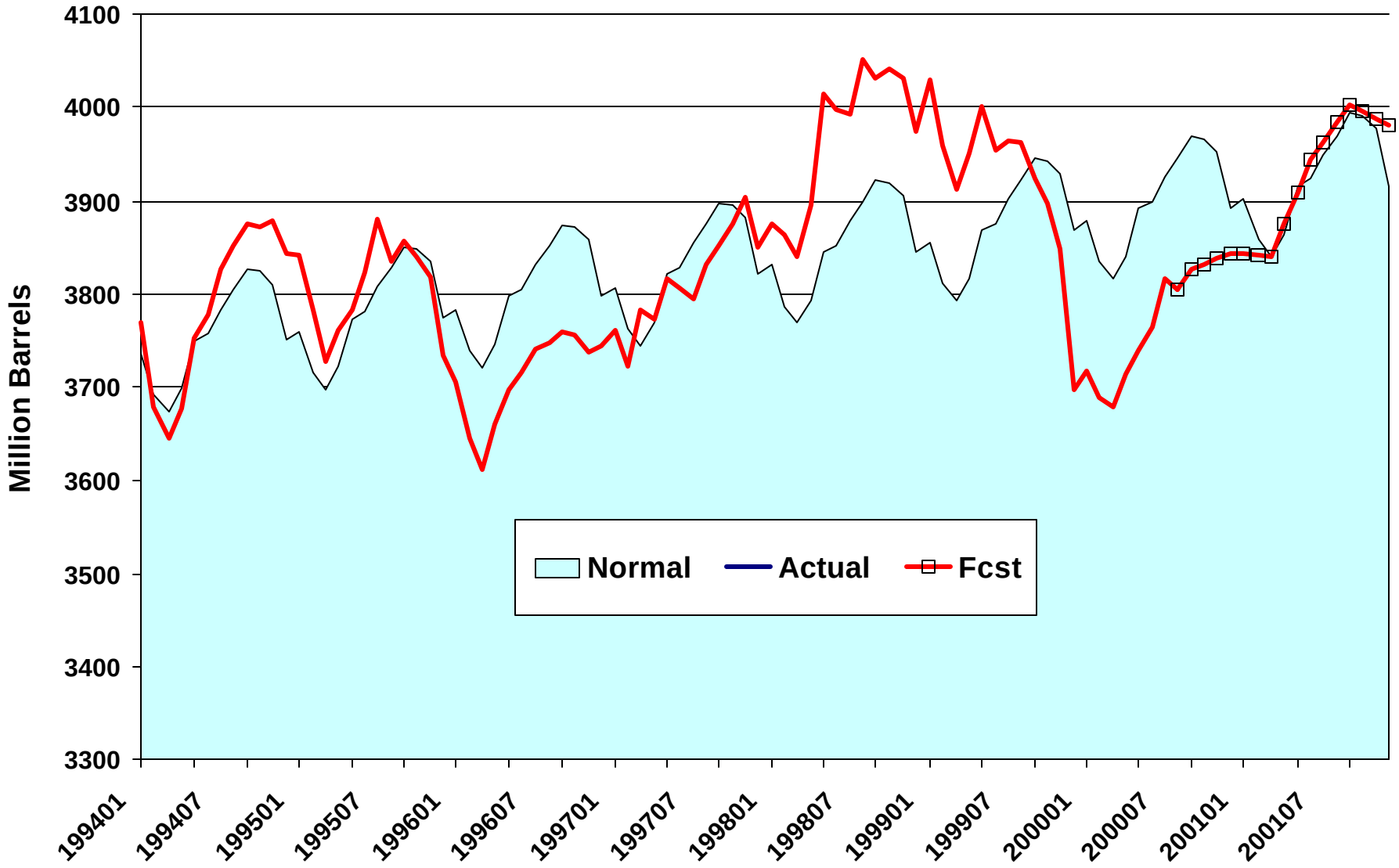
OECD stock levels, which EIA does estimate, are projected to rise from their very low levels reached at the beginning of the year so that by end-2000 they will be about 2 days of supply higher than year-earlier levels, leaving world oil markets less vulnerable to a disruption in oil supplies or an extreme cold snap during next winter (Figure 4). The increased projected levels of OPEC production are also expected to result in further stockbuilds in 2001 of almost another 2 days supply. Failure to see a turnaround in OECD stocks and a consequent retreat in prices would imply a much tighter demand/supply balance than we are estimating and a further delay in the anticipated world oil market "rebalancing."

U. S. Energy Prices

Distillate Fuel (Heating Oil and Diesel Fuel). Retail heating oil prices have gained considerably since late July, increasing by about 27 cents per gallon in the space of 3 months (Figure 5). The national average price in October, $1.42 per gallon, was 47 cents per gallon above the price in October 1999. Over the same period, crude oil prices have risen by about 22 cents per gallon. The unusually low level of inventories for distillate fuel, particularly heating oil, explains the bulk of the rest of the price gain. If the currently depressed level of distillate stocks continues into winter, the result could be a high level of prices for the distillate fuels through the winter. Last February, a period of very cold weather in the Northeast, in combination with notably low stocks of distillate fuel, led to heating oil and diesel fuel prices that averaged more than $2.00 per gallon in New England and other areas in the Northeast. It should be pointed out that except for a period from late January through the first half of February, the winter in the Northeast (where 75 percent of the nation's heating oil is consumed) was actually warmer than normal.

As we have been stating in the last several *Outlooks*, a risk exists this winter for distillate fuel price spikes similar to what happened last February unless inventories are built to sufficient levels by the end of the year. For the U.S., distillate stocks are currently about 29 million barrels below the low end of the normal range (Figure 6). Admittedly, EIA's definition of the average range for

Figure 4. Total OECD Oil Stocks*



*Total includes commercial and government stocks

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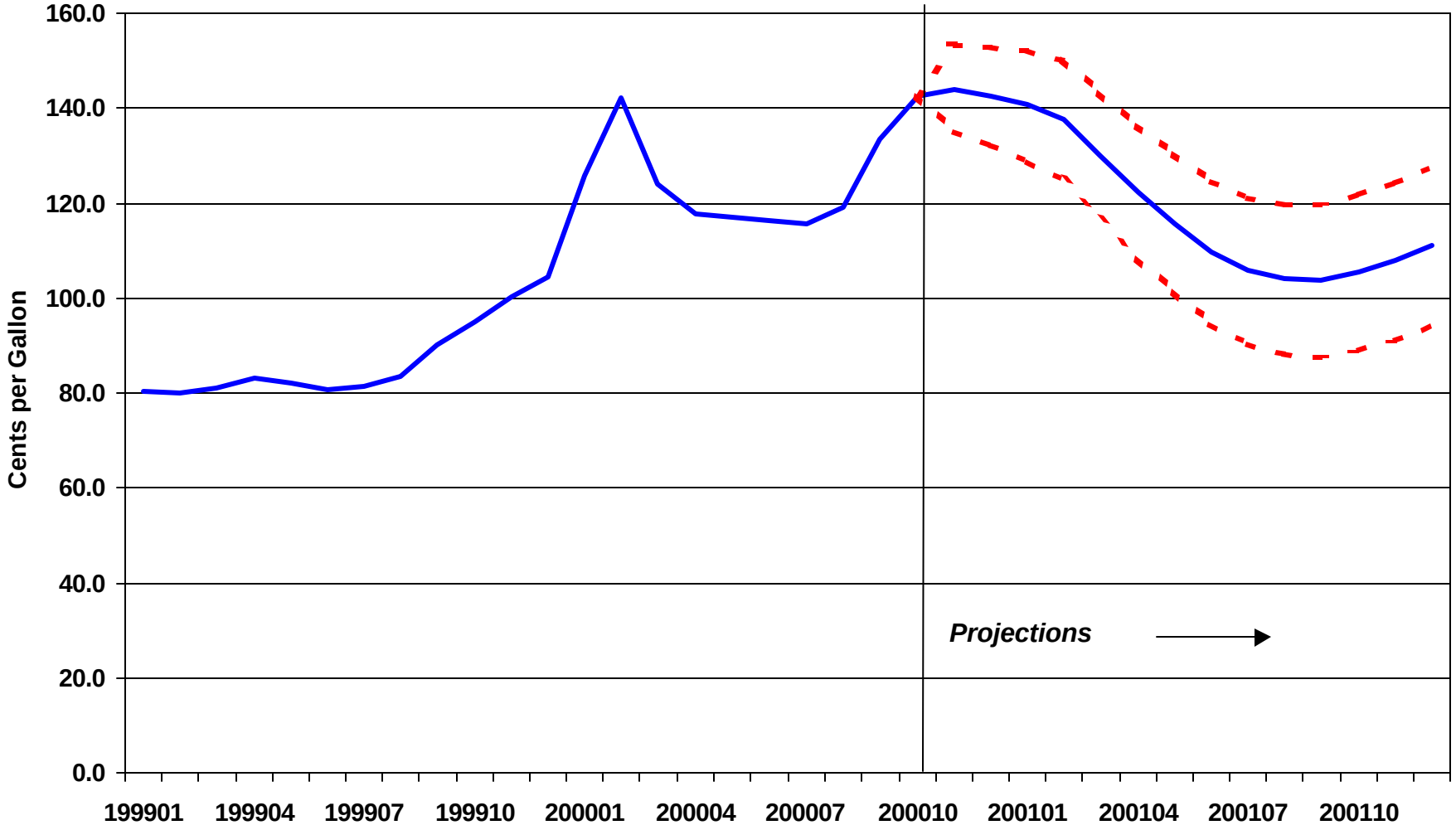
Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

Figure 5. Residential Heating Oil Prices: Base Case and 95% Confidence Interval



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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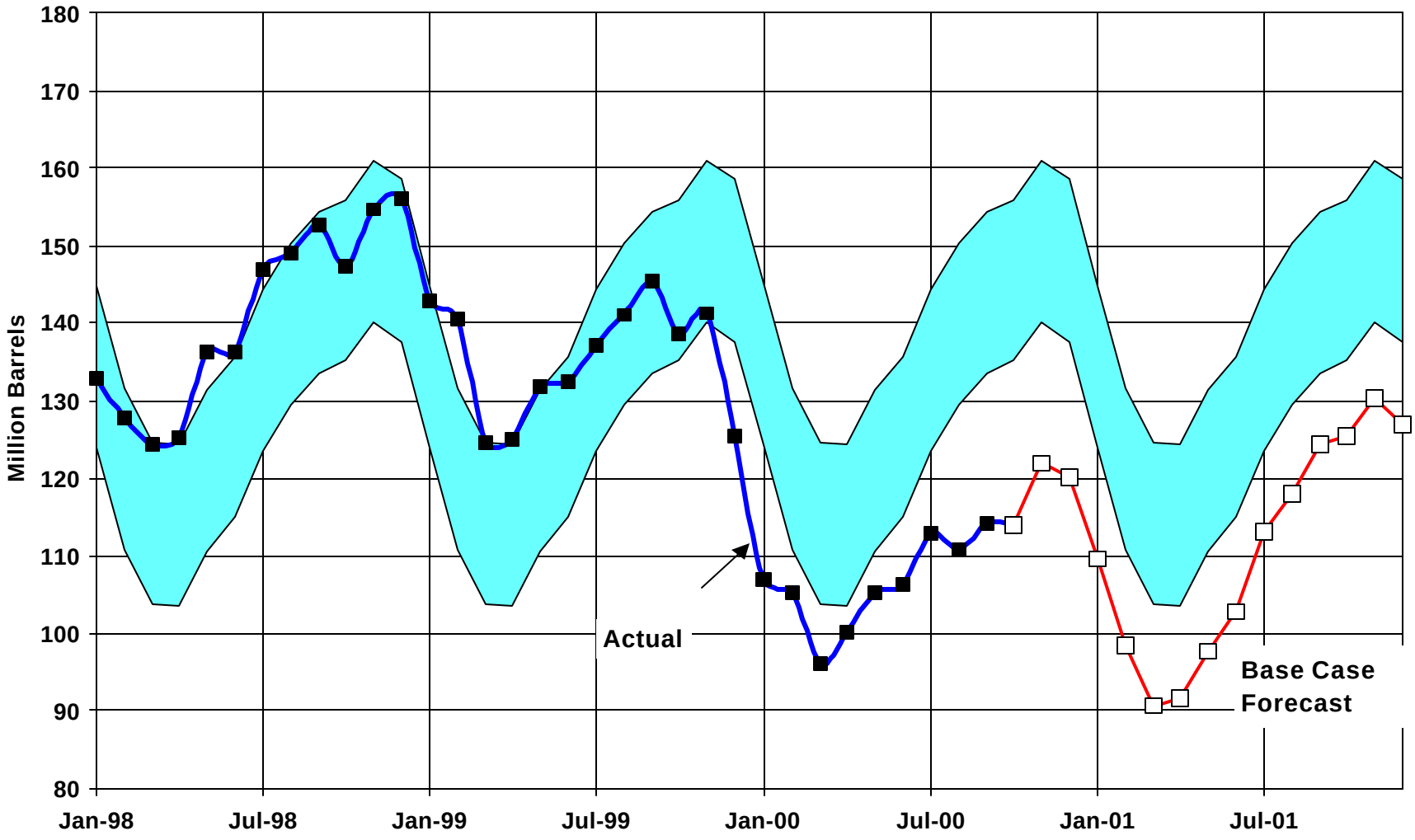
Figure 6. U.S. Total Distillate Fuel Stocks



NOTE: *Colored band is normal stock range*

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Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

petroleum product stocks is based on only 3 years of monthly data (January 1997- December 1999), while the end-of-October distillate stock levels for those three years were high by historical standards. Nevertheless, the current supply of distillate fuel oil is low relative to expected demand. The additional supplies of crude oil released from the Strategic Petroleum Reserve under an exchange program late last month should help ameliorate the situation, resulting in an estimated 3-5 million additional barrels of distillate fuel added to the U.S market this winter.

Higher-than-expected apparent demand for distillate fuel in general (and heating oil in particular) since mid-summer suggest the possibility that product has flowed beyond the primary supply system into distributor and consumer stockpiles somewhat ahead of schedule, a development that would seem to mitigate some of the apparent deficiency in primary supplies. We estimate that this might enhance early-season supplies by about 6-8 million barrels of heating oil fuel [see Recent Developments in Distillate Product Supplied in the Appendix). Since early stockpiling has a one-time impact on observed supply patterns (i.e., it cannot be repeated as the season moves on), implications of such a development include a slowing down of shipments (perhaps to below-normal levels) and a strong recovery in primary stocks this month. Failure to observe this pattern would reduce the likelihood that early downstream stockpiling was a significant factor in observed supply patterns this year. In and of itself, early stockpiling has little or no effect on the winter market because it is just a minor timing issue, not related to any effective increase in capacity or aggregate product in storage.

We do expect distillate inventories to grow through November, but the mid-winter levels are not likely to be sufficient to provide much of a buffer against severe weather conditions in the Northeast. Unless the winter in the Northeast is unusually mild or world crude oil prices drop significantly, the projected high prices for heating oil and diesel fuel will continue until next spring. There is a bit of comforting news for heating oil consumers: national average retail prices have actually eased slightly in the last 2 weeks. This was due to unusually mild weather in the Northeast in October combined with a fall in the price of crude oil from the high levels reached in late September.

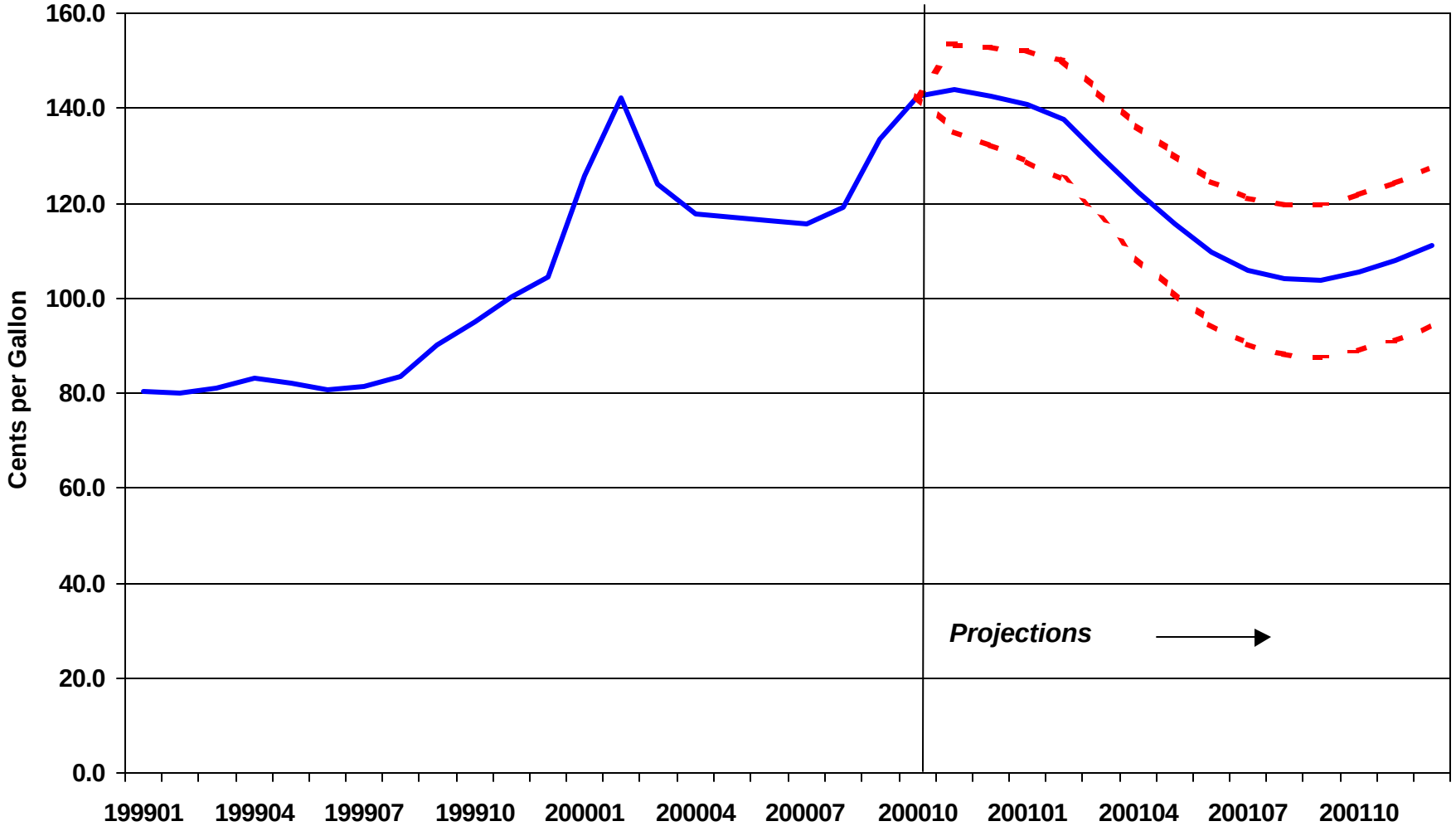
Assuming normal heating demand, with tight stocks and relatively high crude oil prices, we expect that winter residential heating oil prices will average $1.40 per gallon, or about 25 cents more per gallon compared to the last winter (Table 4). We note that this average is about 3 cents per gallon above our winter average projections reported last month.

Motor Gasoline. Assuming that our base case crude oil price path holds, we project that retail motor gasoline prices will recede this winter and continue to decline until next year's driving season begins in the spring. By year's end, the monthly average retail price of regular unleaded (self-service) motor gasoline is projected to be about $1.45 per gallon (Figure 7). However, the currently low supply situation for motor gasoline--caused in part by the need to produce more heating oil--may flatten the normal seasonal price declines for gasoline (Figure 8). For 2001, we expect an annual average price dip of about 11 cents per gallon at the pump, assuming, again, that our base case crude oil price path holds.

Natural Gas. Since June, spot wellhead prices have been averaging over $4.00 per thousand cubic feet. For most of September and the first three weeks of October, these prices hovered above $5.00 per thousand cubic feet, more than double the price of one year ago (Figure 9). Spot prices have never been this high for such a sustained period of time. Although high oil prices have contributed to the current strength in gas prices, the predominant reason for these sustained high gas prices was, and still is to some extent, perceptions about the supply situation going into the winter. For much of the summer, low levels of underground storage raised concerns about the availability of winter supplies. On the other hand, there was some feeling among observers of the gas industry that the market may have overreacted. The downward tumble in spot prices over the last few weeks may be evidence of this. Storage injections picked up recently due to warm weather in the last half of October. This produced a spot gas price drop of over $1.00 per thousand cubic feet in a period of less than three weeks. But November may be the more critical month in terms of determining gas supplies and prices for the remainder of the winter. The month of November is generally the last month available in the year for injections into storage. Given the presently low state of natural gas inventories, a cold November would curtail net injections into storage and could send spot prices over $5.00 again. Furthermore, cold weather for prolonged periods this winter would strain supplies and result in even higher spot prices. Given the recent variability in the natural gas spot market, spot prices of natural gas are likely to hit or breach the upper level of the uncertainty bands if the winter in the gas consuming regions of the country turn out to be severe. On the other hand, we have seen from what happened in October that spot gas prices would be expected to fall sharply if warm weather continues.

Underground working gas storage levels are currently about 8-9 percent below year-ago levels (Figure 10). Thus, assuming normal weather for the remainder of the heating season, wellhead prices this winter should probably stay above $4.00 per thousand cubic feet levels. We are projecting that natural gas prices at the wellhead will increase by about 90 percent this winter (October-March) compared to last winter. Of course, higher end-use prices will result from higher

Figure 7. Retail Motor Gasoline Prices*: Base Case and 95% Confidence Interval



* Regular unleaded self-service

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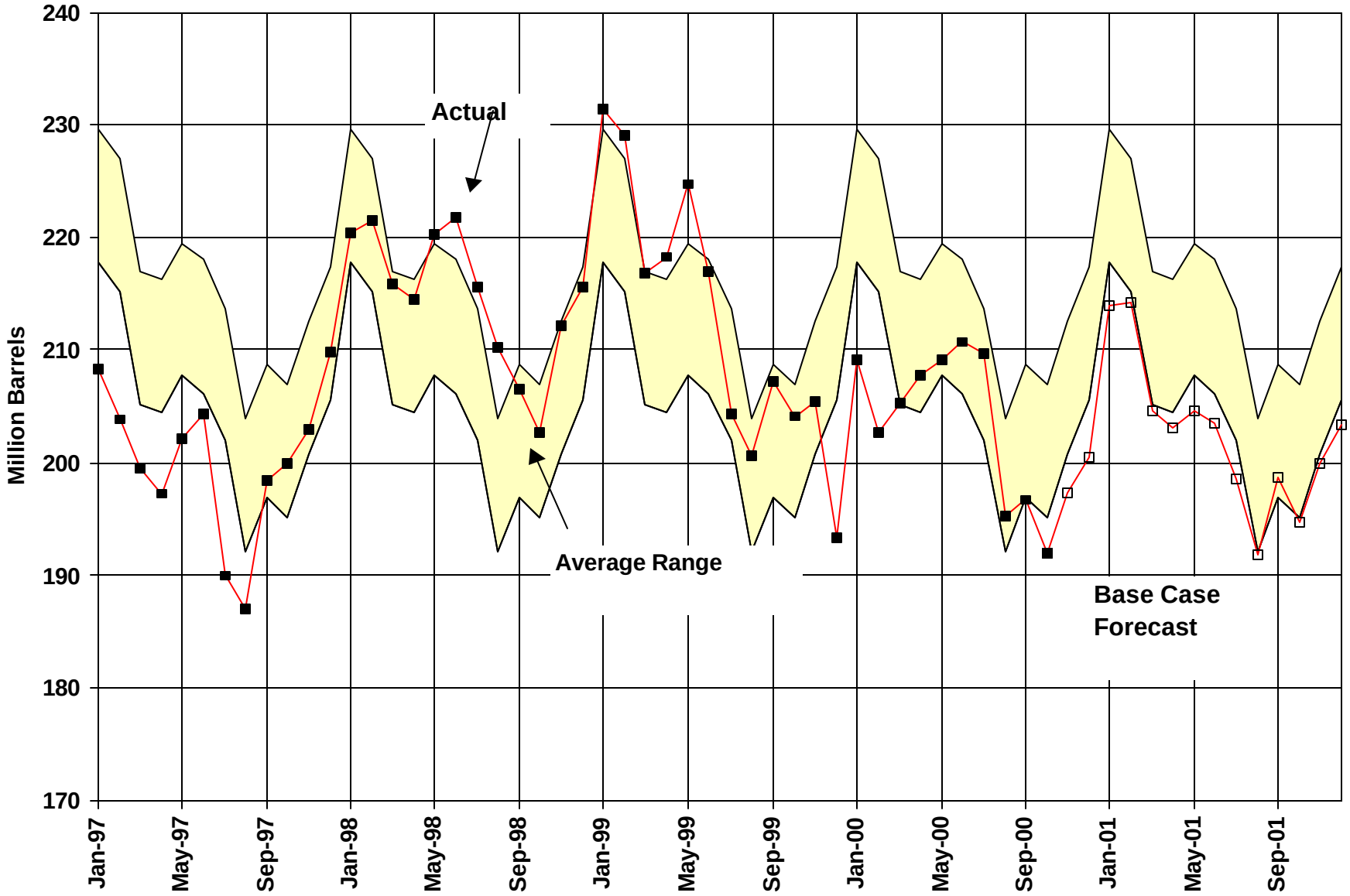
Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

Figure 8. Gasoline Stocks



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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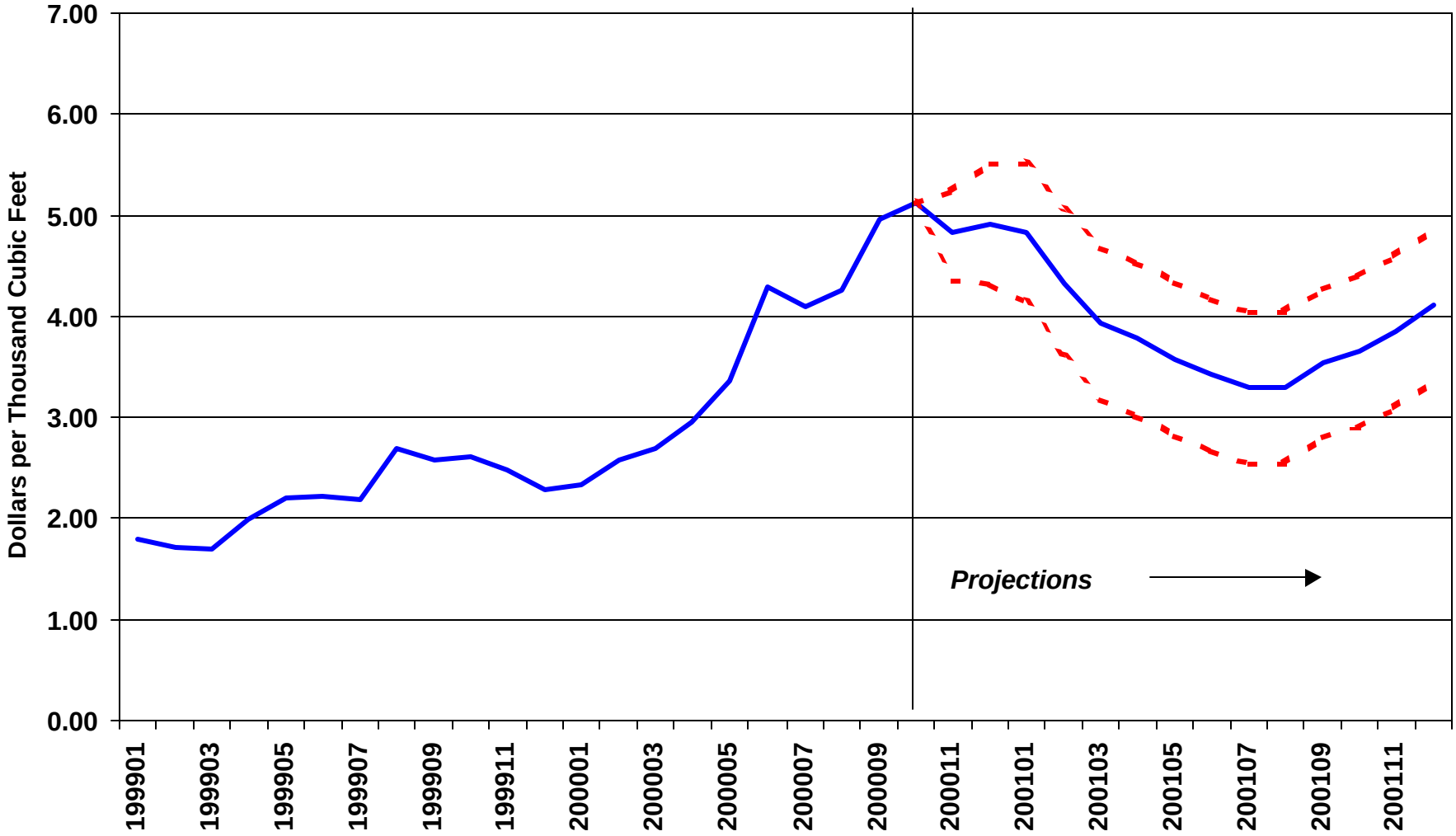
Figure 9. Natural Gas Spot Prices: Base Case and 95% Confidence Interval



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

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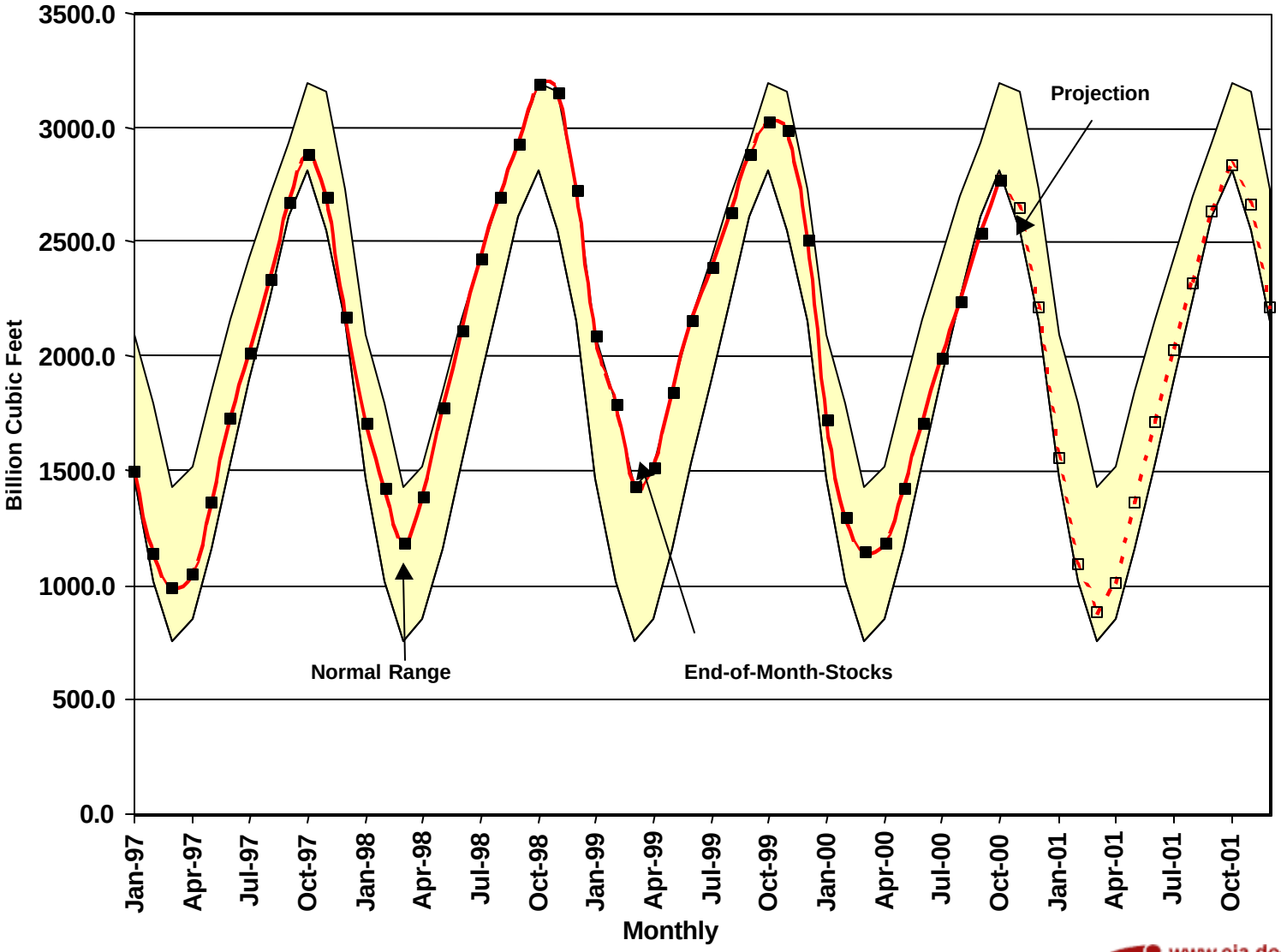
Figure 10. Working Gas in Storage



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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projected wellhead prices. If our base case projections hold, residential prices for natural gas would be about 29 percent higher than last year during that period. For the entire year 2000, the average wellhead price for natural gas is projected to average $3.37 per thousand cubic feet (Table 4).

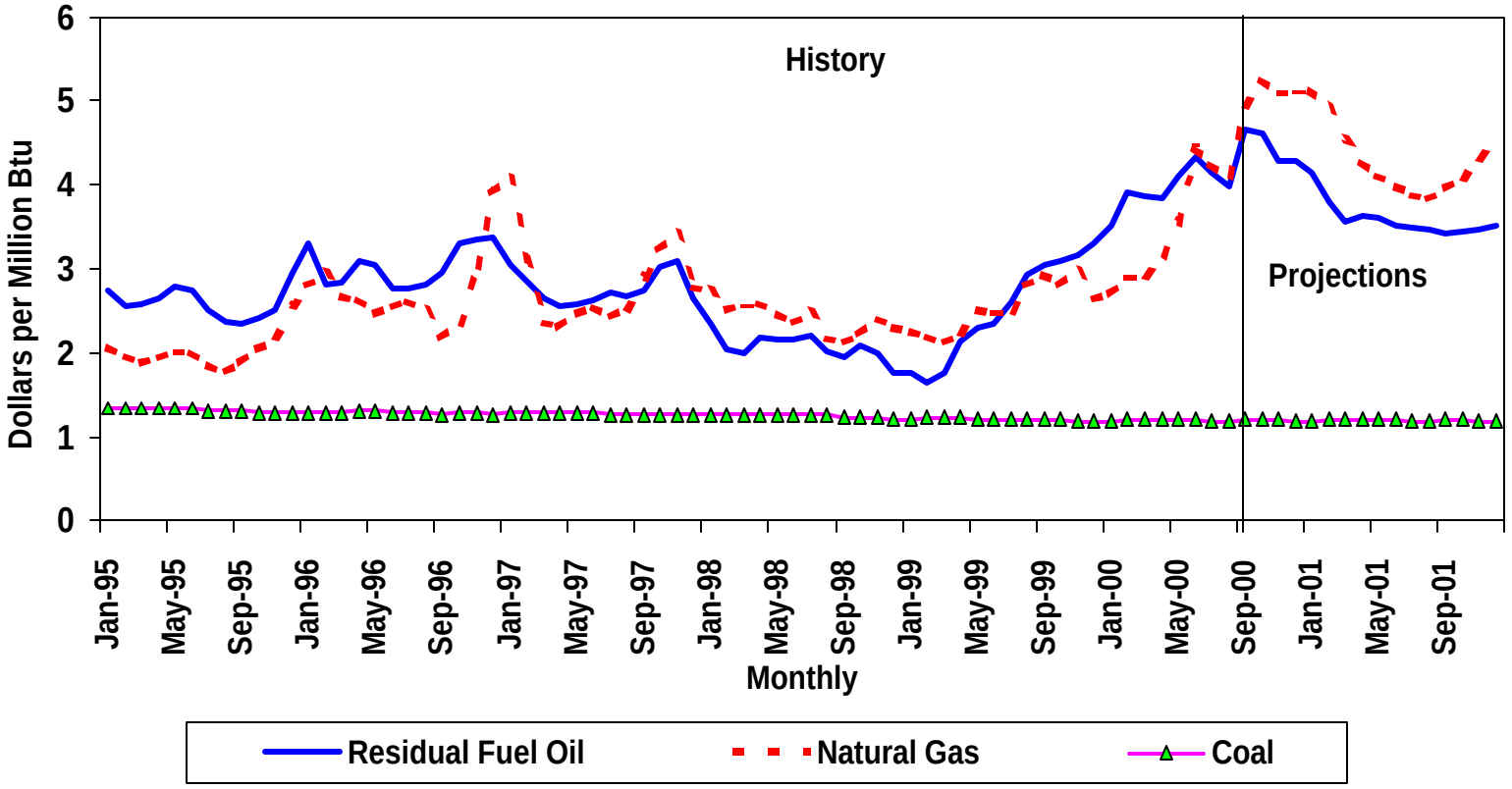
Electric Utility Fuels. The rapid rise in gas prices this summer and fall has pulled delivered gas prices above heavy fuel oil prices, on a cost per Btu basis. (Figure 11). As this situation is likely to persist, we anticipate some recovery in the amount of oil used for power generation over the very low levels seen since late 1999.

U.S. Oil Demand

For the year 2000, total petroleum demand is projected to be 70,000 barrels-per-day, or a 0.4 percent increase over 1999 (Figure 12). For the first half of the year, overall petroleum consumption lagged behind that of 1999. Despite continued robust, broadly-based economic growth, oil consumption growth was dampened by several factors. Among these were: record mild weather of the first quarter despite the cold snaps in January and February; the Y2K-related shift of shipments (primarily transportation fuels) from early 2000 into late 1999; price-induced declines in motor gasoline consumption, especially during the second quarter; and fuel substitution away from heavy fuel oil in the price-sensitive electric power sector. Third-quarter consumption registered only slight growth. That period--the peak driving season--witnessed continued but more moderate declines in motor gasoline shipments as prices began to retreat from their earlier levels. The combination of high prices and cooler-than-normal weather resulted in year-to-year declines in electricity sales, undercutting fuel oil purchases by power generators. Distillate sales to residential and commercial customers, however, registered sizeable gains: consumers began filling their tanks earlier than normal as a result of concerns that supply disruptions, which sent retail prices in some markets above $2.00 per gallon last winter and disrupted deliveries, might be repeated (see Appendix). Residual fuel oil shipments during the third quarter have been buoyed by purchases by electric power generators. The decline in the relative price of fuel oil to other fuels in that sector results from the combination of oil-price declines from their high summer highs and the recent sharp increases in natural gas prices. In the fourth quarter, the relative price of heavy fuel oil is projected to decline further, boosting sales to electric power customers, at least on a year-over-year basis.

For 2001, total petroleum demand is projected to increase by about 400,000 barrels per day, or 2.0 percent, despite projected moderation in economic growth. That would bring the average annual demand for petroleum products within striking distance of 20 million barrels per day for the first time. Motor gasoline

Figure 11. Fossil Fuel Prices to Electric Utilities



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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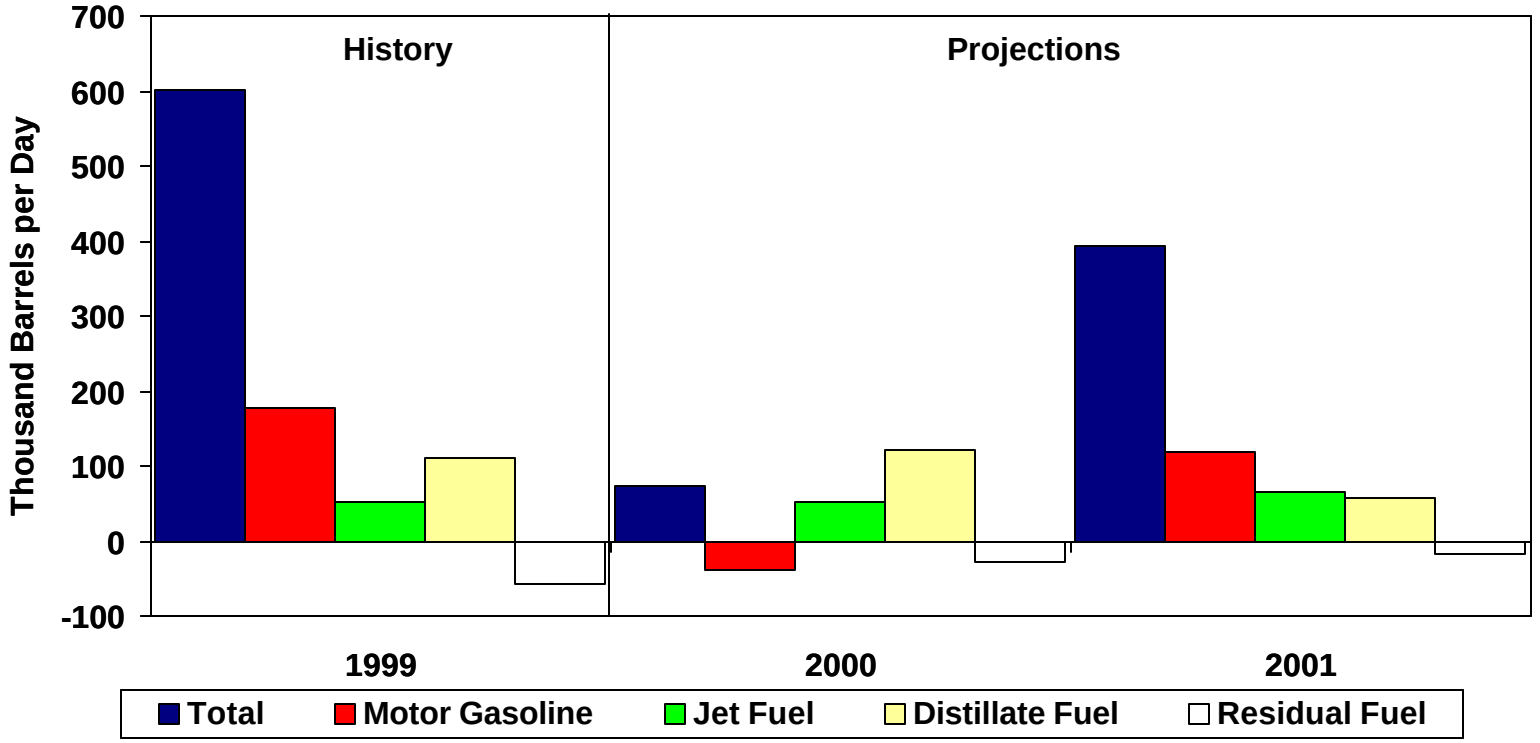
Figure 12. Petroleum Products Demand
(Year-to-Year Change)



Sources: History: EIA; Projections: Short-Term Energy Outlook,November 2000.

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demand in 2001 is projected to increase 1.4 percent as retail prices continue to decline. After three consecutive warmer-than-normal first quarters, weather during the heating season is assumed to display “normal” patterns, boosting both distillate and propane demand. Residual fuel demand is projected to shrink, but a recovery in shipments to electric power generators is expected to offset part of the decline to other sectors.

U.S. Oil Supply

The steady decline of domestic production of crude oil during the 1990s of about 2.5 percent per year has slowed this year to 0.7 percent or by about 0.06 million barrels per day (Figure 13). For 2001, a 0.8 percent increase is expected, which results in a production rate of 5.88 million barrels of oil per day average for the year.

Lower-48 States oil production is expected to increase by 45,000 barrels per day to a rate of 4.88 million barrels per day in 2000,and followed by an increase of 6,000 barrels per day in 2001. Oil production from the Mars, Auger, Troika, Ursa, and Diana-Hoover Federal Offshore fields is expected to account for about 9 percent of the lower-48 oil production by the fourth quarter of 2001.

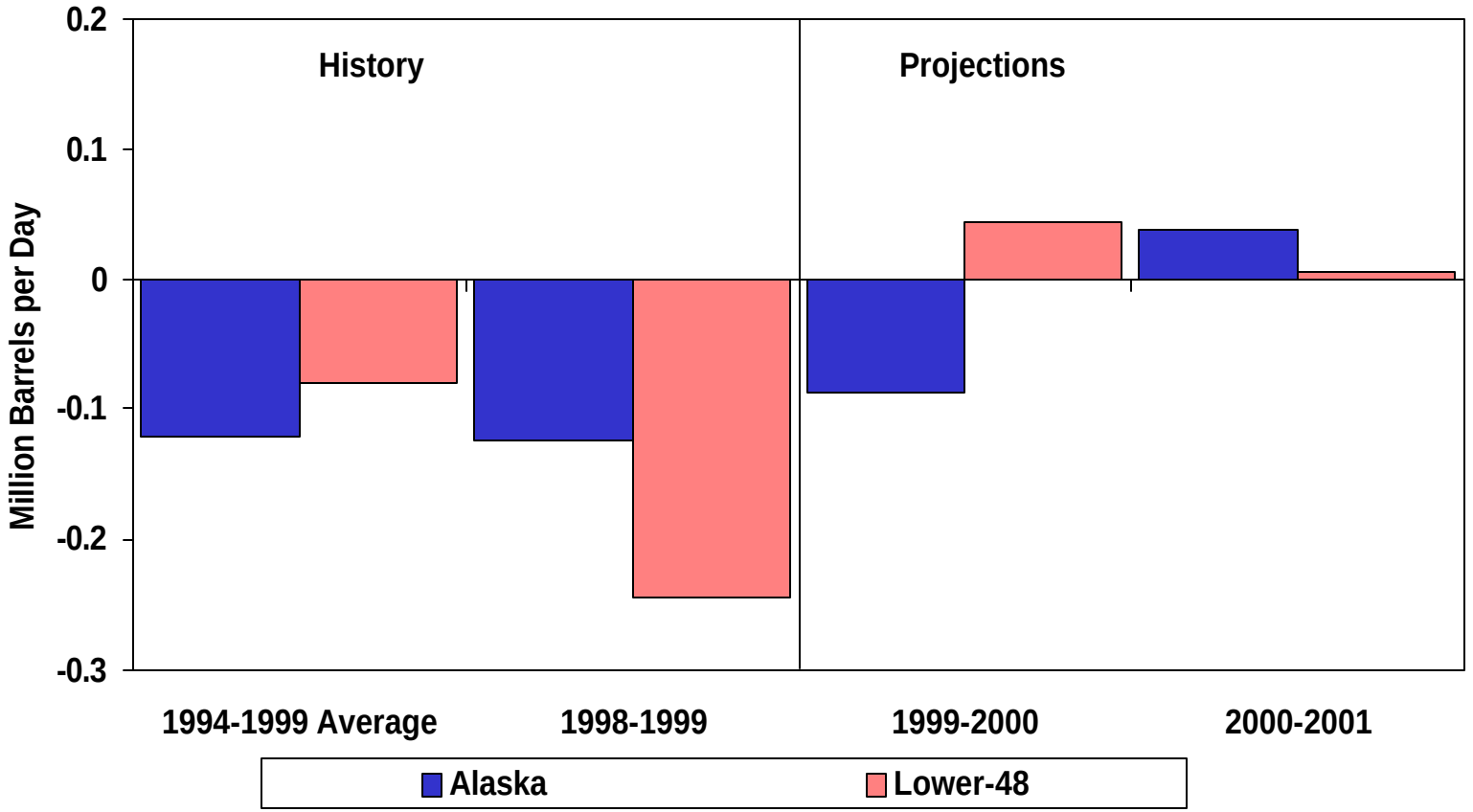
Alaska is expected to account for about 17 percent of total U.S. oil production in 2001. Alaska production is anticipated to dip below 1.0 million barrels per day starting in May 2000, recovering to over the 1.0 million mark in the first half of 2001 before falling back again. This translates to an expected decrease in production of 8.4 percent in 2000, followed by a 4.0 percent increase in 2001. A substantial portion of Alaska oil production comes from the giant Prudhoe Bay Field. Other than routine maintenance, no major investments are planned for this field during the forecast period. Oil production from recent discoveries, such as Sambuca and Midnight Sun, are marginal and are not expected to substantially offset the decline in oil production from the Prudhoe Bay and other fields in the North Slope in 2000. Production from the Kuparuk River,West Sak, Tabasco and Tarn fields is expected to stay at an average of 236,000 barrels per day in the 2000-2001 forecast period. The Alpine field is expected to come on in the last quarter of 2000 at an initial rate of 40,000 barrels per day, and to peak at 80,000 barrels per day in mid 2001.

Natural Gas Demand and Supply

The forecast for overall natural gas demand growth in 2000 is 3.3 percent for the year, down somewhat from our projected October growth rate based on recent monthly data (Figure 14). In 2001, the forecast calls for a 2.1 percent growth rate, with the slowing principally due to higher gas prices relative to fuel oil prices.

This winter, (October 2000 through March 2001) natural gas demand is expected to be up by 5.1 percent over last winter's demand, assuming normal weather. Normal weather implies an 11 percent rise in gas-weighted heating degree-days compared with last winter, which was much warmer than normal. Residential

Figure 13. U.S. Crude Oil Production
(Year-to-Year Change)



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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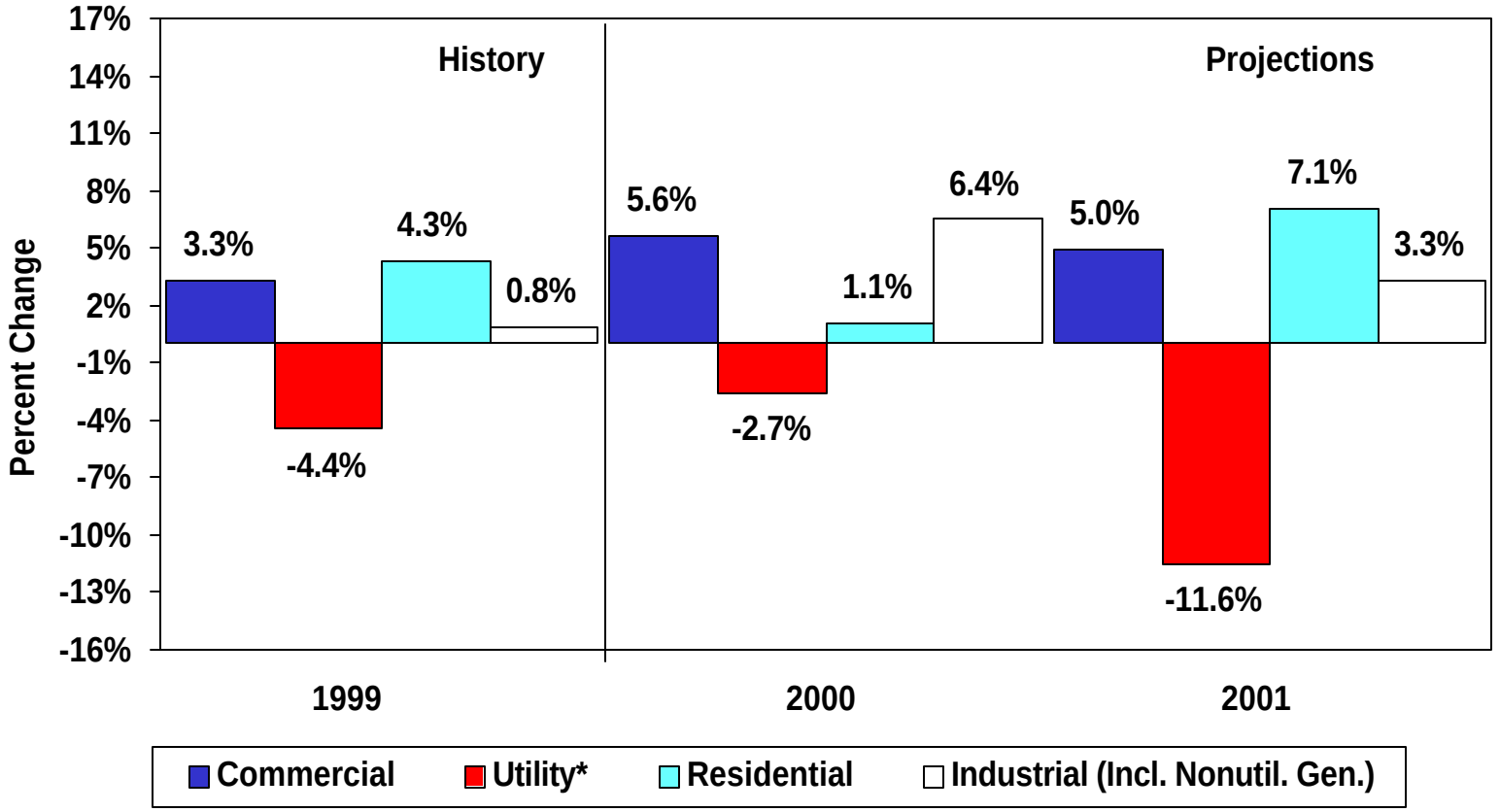
Figure 14. Annual Changes in Natural Gas Demand by Sector



* Electric utility gas demand changes in recent years in part reflect sale of assets to the nonutility sector

Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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and commercial sector demands for natural gas in the fourth quarter of 2000 and first quarter 2001 are both projected to be up by between 10 and 11 percent over last year, same time, due to the assumption of normal winter weather, i.e., weather colder than last winter's.

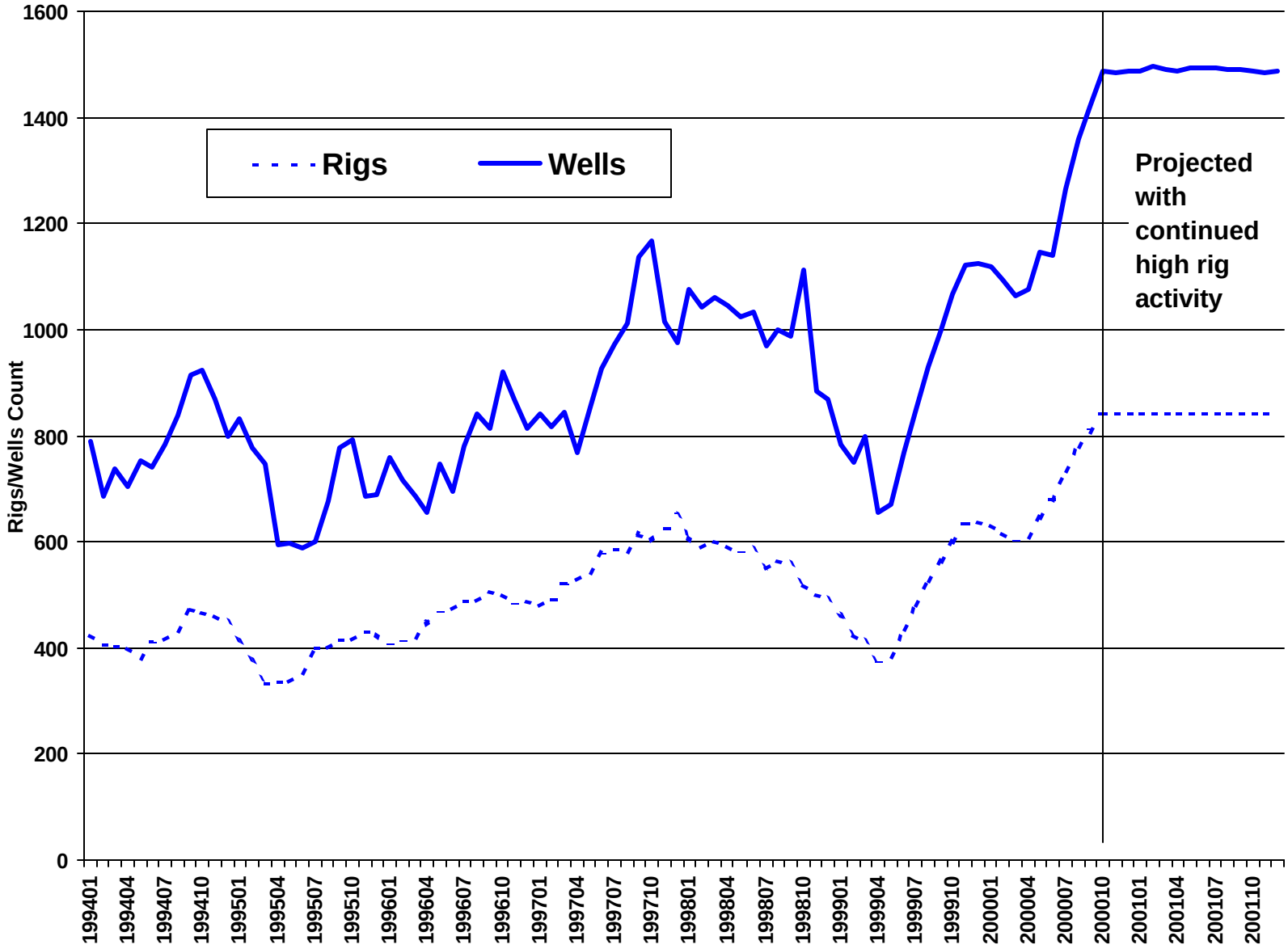
In 2000, natural gas demand in the industrial sector is expected to increase by 6.4 percent, while electric utility gas demand is expected to decline by 2.7 percent. This dichotomy is due in large part to sales of electric generating plants by electric utilities to unregulated generating companies, fuel consumption by which is currently recorded by EIA in the industrial sector. For the power sector as a whole (utility sector and industrial sector own use), gas demand is expected to be 6.3 percent above its 1999 level in 2000 and flat or down slightly in 2001. The reduced growth rate next year is largely due to the reversal in relative prices of fuel oil and natural gas which began in June, with fuel oil gaining the price advantage as gas prices are projected to fall more slowly than oil prices.

Domestic gas production for 2000 and 2001 is expected to increase as production begins to respond to the high rates of drilling experienced over the past year. Production is projected to rise by 0.7 percent in 2000 and by 1.9 percent in 2001. The U.S. natural gas rig count on November 3 was at a high of 845 rigs. If the rig count holds at this level through 2001, we would expect to see about 15,000 gas well completions in 2000 and 2001 (Figure 15). This level of new gas well completions has not been seen in the U.S. for at least 15 years.

Also, gas storage levels are expected to begin the heating season at closer to average levels than previously anticipated, aided by mild weather in October and a relative price advantage for competing fuels in the Northeast, freeing up some gas for injection into storage. Net additions to gas storage during the last two weeks of October were unexpectedly high compared with last year. As of October 27, gas in storage was about 8 percent below the previous 5-year average (Figure 16).

Net imports of natural gas are projected to rise by about 12 percent in 2001. During the winter months, net imports are about 10 percent higher than flows during the rest of the year and usually increase to full pipeline capacity. That capacity is scheduled to rise at the end of 2000, when the Alliance Pipeline begins carrying gas from western Canada to the Midwest. Assuming that it will take several months before Alliance reaches its full capacity of 1.3 billion cubic feet per day, that pipeline may not fully contribute to advancing new gas supplies until the heating season is nearly over. Even if Alliance is near capacity at mid winter, it is likely that a substantial portion of the volumes contracted for delivery on the system will have been de-contracted from other systems, particularly the TransCanada Pipeline

Figure 15. U.S. Gas Rigs and Well Completions



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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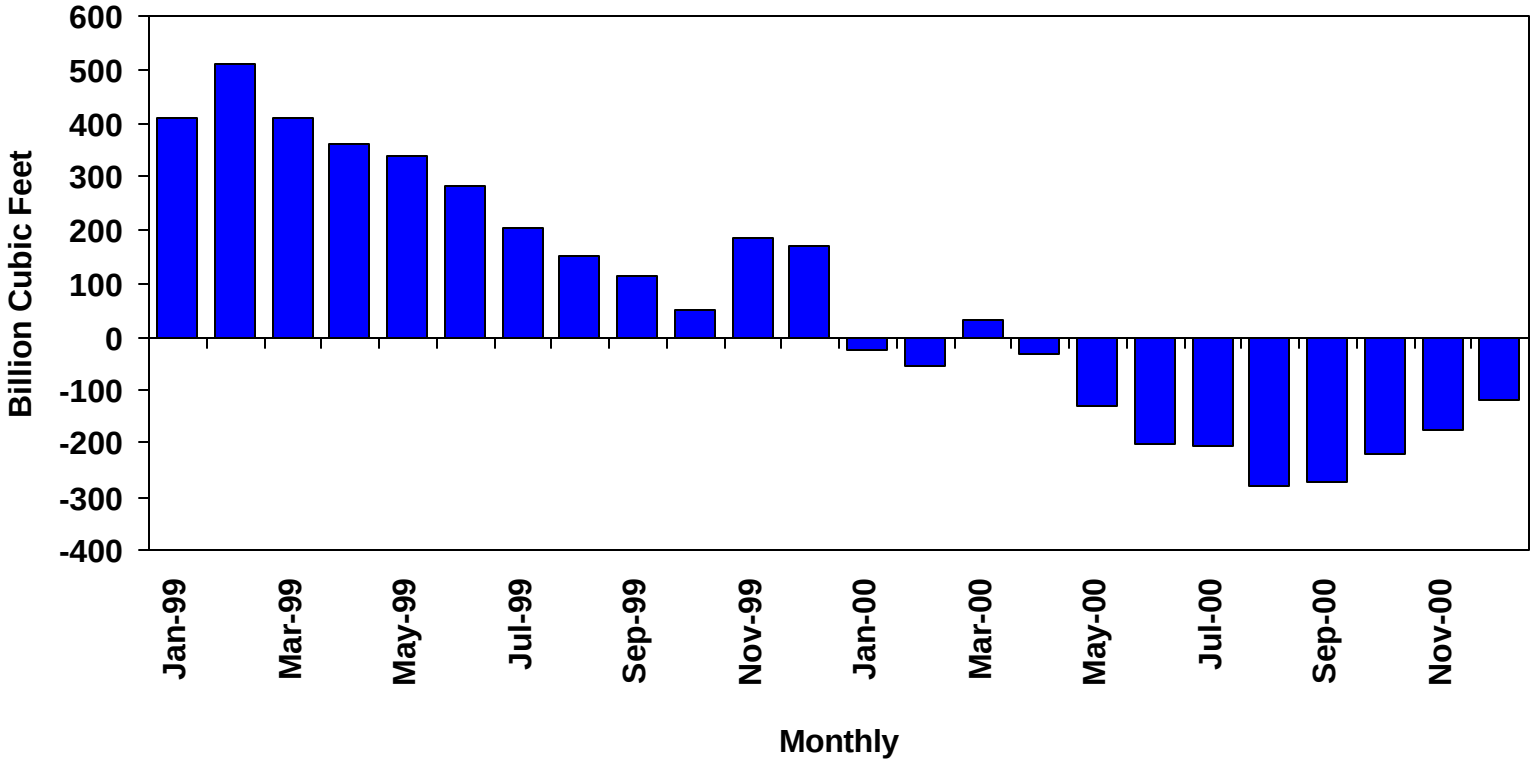
Figure 16. Natural Gas in Storage
(Difference from Previous 5-Year Average)



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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System. Thus it is an important question as to just how significant Alliance will be with respect to net new supply from Canada.

Coal Demand and Supply

Utility coal demand in 2000 has been revised downward slightly compared with the October Outlook due to the generally cooler than normal summer temperatures overall, and by revised estimates of nonutility electricity generation. Annual total coal demand growth is now projected to be 2.0 percent in 2000. Total coal demand is expected to grow by 2.3 percent in 2001.

Coal production is expected to grow very weakly in 2000 at 0.1 percent. Coal production will grow by 1.3 percent in 2001, as consumers will also draw down stocks to meet demand.

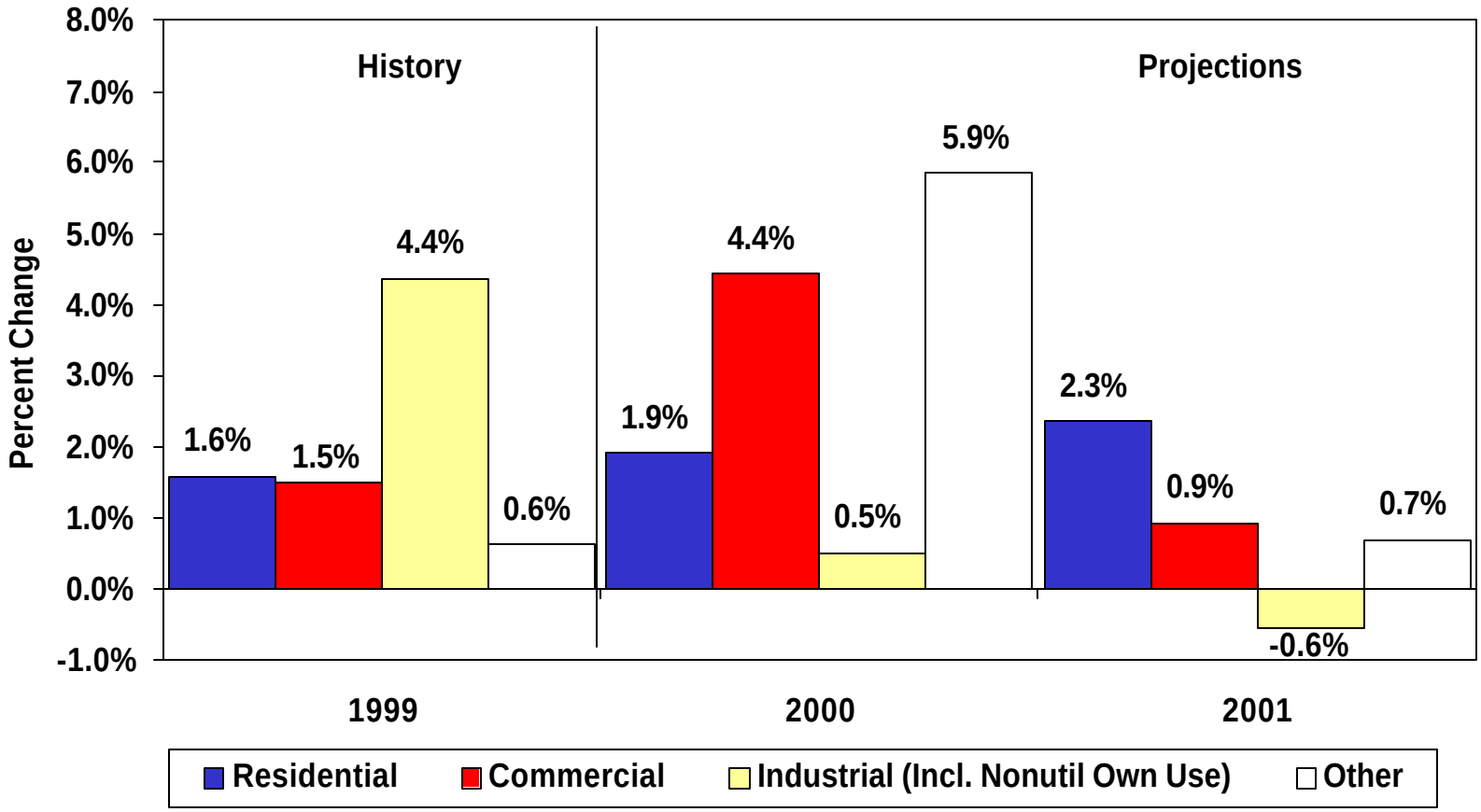
Electricity Demand and Supply

Projections of total annual electricity demand growth (utility sales plus industrial generation for own use) are somewhat lower than they were in the October Outlook at 2.2 percent in 2000 and 0.9 percent in 2001.

This winter's heating degree-days (HDD) are assumed to be 10 percent above last winter's HDD, which were well below normal. This winter, total electricity sales by electric utilities are expected to be up by 2.9 percent over last winter under normal weather assumptions, driven by increased demand in the residential and commercial sectors, which are expected to be up by 4.4 and 4.1 percent, respectively (Figure 17 and Table 10).

In the fourth quarter of 2000, previously falling demand for oil-fired generation is expected to turn around relative to gas-fired generation, as the price differential between fuels in the electricity generating sector shifts to favor oil, causing those plants which can switch to oil to do so. The favorable price differential for oil relative to gas is expected to continue through 2001.

Figure 17. Annual Changes in U.S. Electricity Demand



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 2000.

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Appendix:
Recent Developments in Distillate Product Supplied

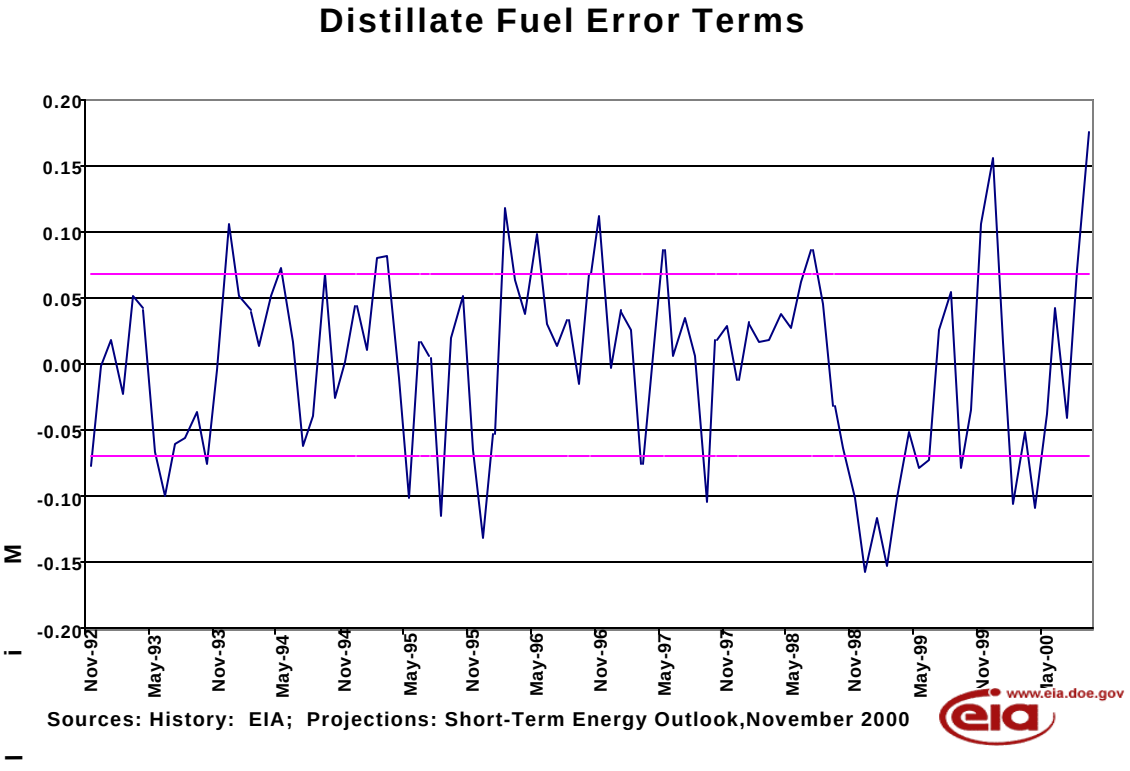
During the last 3 months, total distillate deliveries, i.e., products supplied or demand from primary supply, have displayed unusual strength, buoyed by larger-than-expected sales of heating oil. In August and September, shipments averaged 3.75 million barrels per day, 319,000 barrels-per-day--or 9.3 percent--higher than a year ago. Available data since then indicate continuing but moderating strength in those shipments. Table 1 summarizes 4-week deliveries averages since the middle of the year.

Table 1
Distillate Deliveries—Thousand Barrels per Day

4 weeks ending:	2000	1999	% Change
7 / 07	3,531	3,433	+2.9
7 / 14	3,432	3,441	-0.3
7 / 21	3,413	3,459	-1.6
7 / 28	3,360	3,477	-3.4
8 / 04	3,506	3,475	+0.9
8 / 11	3,541	3,464	+2.2
8 / 18	3,600	3,454	+4.2
8 / 25	3,643	3,443	+5.8
9 / 01	3,710	3,437	+7.9
9 / 08	3,706	3,436	+7.9
9 / 15	3,705	3,434	+7.9
9 / 22	3,785	3,433	+10.3
9 / 29	3,816	3,431	+11.2
10 / 06	3,846	3,488	+10.3
10 / 13	3,932	3,567	+10.2
10 / 20	3,969	3,647	+8.8
10 / 27	3,889	3,726	+4.4
11 / 03	3,901	3,739	+4.3

The Table shows that since the middle of August, year-to-year growth in total distillate deliveries have been well above the growth trend, cresting at more than 11 percent in late September before subsiding to growth rates averaging 4.3 percent. Deliveries for that period have also been much higher than estimates based on simulations of the *Short-Term Energy Outlook* model used to derive projections. The accompanying graph--based on two-month moving averages--

depicts these deviations. It shows that the standard error of these deviations is 69,000 barrels per day, or about 2 percent of average deliveries. That is a measure of the volatility inherent in the data, even under "normal" market conditions. The data show that the average August-September 2000 model error is 175,000 barrels per day, or about 5 percent of average shipments. That deviation--the largest seen for two-month average data--is more than 100,000 barrels per day above the allowance for normal fluctuations.



It should be noted that the September data are based on weekly data, and may contribute to the size of the model error. Although there are several sources of revision, export data have often undergone sizeable revisions, affecting product supplied calculations. As with the August data, the eventual release of monthly statistics for September may reflect substantive changes in export data, reducing the model error somewhat.

Nonetheless, it is believed that heating-oil market conditions account for much of the recent surge in distillate shipments that resulted in the large model deviation. The most important factor is a temporary, but significant, change in *non-primary* stock behavior. Non-primary stocks consist of secondary (wholesaler and distributor) and tertiary (residential and commercial) inventories. Although EIA collects monthly and weekly data on primary stocks, it has limited data on end-

user (residential and commercial) stocks or storage capacity and almost no information on wholesaler and distributor inventories.

In contrast to seasonal norms, primary stocks, held by refineries and bulk terminals, have been flat for several weeks and have remained well below the normal range. Non-primary stocks, on the other hand, are believed to have increased substantially. That divergence indicates an apparent stock shift from refiners to points further down the distribution chain, including end-users.

It is important to note that, while such a shift from primary to non-primary stocks may have generated unseasonably high apparent distillate demand, the net effect on the distillate supply/demand balances is small, especially for the winter as a whole. By this time of year, residential tanks are usually filled, and this season should be no exception. The early shipments to downstream storage are likely to be offset by lower-than-normal shipments in the coming weeks. The result should be a substantial primary storage build during that period, as projected in the *Short-Term Energy Outlook*.

Single-family homes constitute the bulk of tertiary heating-oil stock capacity. More importantly, they account for almost all of the earlier-than-normal tertiary stock build. Capacity for most single-family storage tanks are 275 gallons, but some of the larger, and many of the newer, homes are equipped with 550- or 1000-gallon tanks. For this analysis, the average capacity for all residential storage tanks is estimated to be 315 gallons, or 7.5 barrels. Aggregate residential storage capacity is therefore 48.75 million barrels, based on an estimated 6.5 million heating oil-burning single-family homes. Total tank capacity for multi-unit households is unknown but estimated to be 10-15 million barrels.

But the typical household begins the heating season with fuel oil purchased during the previous season. Because the last fill-up in New England often occurs in May, the average residential storage tank in that region contains 200-225 gallons at season's end. The typical first fill-up for the heating season is therefore only 50-75 gallons for a 275-gallon tank. In the mid-Atlantic region, the last fill-up for the season usually occurs in March or April. As a result, the typical fill-up is estimated to be 100-125 gallons. Another factor limiting fill-ups is that some households continue to take deliveries after the heating season to heat their water.

Table 2 below summarizes hypothetical inventory replenishment estimates for the August-September period. Under normal conditions, average season's-end inventory is 175 gallons and that 25 percent of residential customers will have filled their tanks to capacity before the end of September, usually under price-protection plans marketed by dealers during the summer months. The three

alternative cases for this year define a plausible set of estimates for the additional consumer purchases.

Table 2

Incremental Tertiary Stock Demand (August/September)

	% filling tanks	Amount in tanks prior to fill (gals)	Fill (gals)	Total (mmb)	Total (mbpd)
Normal	25	175	140	5.4	89
This year (low)	45	175	140	9.8	159
This year (mid)	50	150	165	12.8	209
This year (high)	55	125	190	16.2	265
Difference from normal (low)				4.4	70
Difference from normal (mid)				7.4	120
Difference from normal (high)				10.8	176

The range of estimates for this and previous years is based on information provided by several regional heating-oil dealer associations. These organizations assert that the major concern of consumers has been the threat of supply curtailments, based on media reports during the summer about the prospects of insufficient supplies. Although some customers do obtain their first fill-up during August and September under price-protection plans offered by heating-oil dealers, they have typically averaged about only 25 percent of the customer base. This year, far more consumers replenished their stocks during the August-September period under price-protection plans guaranteeing them automatic delivery. Many associations have reported that the share of customers opting for such plans and moving their purchases forward has more than doubled, as reflected in the Table above. Other households -- especially those with larger fill-ups -- took advantage of the summer decline in oil prices, and purchased fuel on a "will-call" basis rather than paying higher prices inherent in price-protection plans.

Although secondary stock data are unavailable, these quantities constitute a substantial buffer against unanticipated movements in supply or demand. Because wholesalers and distributors did not foresee the strength and timing of residential sales, secondary stocks were likely to have initially declined before making only a partial recovery. Wholesalers' and distributors' apparent inability (or reluctance) to restore stocks to earlier levels attenuates the impact of consumer behavior on refinery shipments. It is therefore possible that sales to residences approached the "high" estimates shown above. But that would have increased the likelihood that wholesalers and distributors would be required to

absorb a greater share of that incremental demand by drawing down their stocks. Nonetheless, the data in Table 1 show that refinery deliveries did respond to the surge in consumer purchases of heating oil.

Another factor believed to have boosted distillate deliveries has been the creation of the 2-million-barrel heating-oil reserve on the East Coast. By the end of September, 1.2 million barrels were delivered to the reserve. For the August-September period, that averages only 20,000 barrels per day, or 0.5 percent of total deliveries. But in the 4 weeks ending October 20, the period during which the reserve was filled, those shipments averaged 70,000 barrels per day. The creation of the heating-oil reserve may have had a smaller impact on refinery shipments than these data indicate to the extent that the incentive of secondary-stock entities to replenish inventories to earlier levels was reduced.

From the information above, the effects of the change in residential consumer behavior and the creation of the heating oil reserve on refinery shipments can be estimated. Table 3 summarizes these impacts.

Table 3

Sources of Incremental Demand (August/September averages)

(Thousand Barrels Per Day)

	Low	Mid	High
Tertiary Stock Build	70	120	176
Heating-Oil Reserve	20	20	20
Total Initial Impact	90	140	196
Secondary-Stock Offsets	(10)	(30)	(50)
Net Impact on Deliveries	80	110	146

The Table shows that refinery shipments accommodate the bulk of the incremental demand in all three scenarios. The broad range of secondary-stock offsets reflects the lack of available data. The mid-level estimate shows a net increase in deliveries of 110,000 barrels per day, which approximates the difference between the model error for the August-September period (175,000 barrels per day) and the standard deviation (69,000 barrels per day).

As mentioned above, the most recent data indicate moderating growth in distillate shipments. For the 4-week averages ending October 27 and November 3, deliveries (excluding shipments to the reserve) were up less than 4 percent. Shipments appear to be returning to more sustainable growth rates and may turn

out to weaker than normal now that consumers' have replenished their stocks earlier in the season. That should allow for a substantial re-balancing of primary stocks during the next several weeks.

Table HL1. U. S. Energy Supply and Demand

	Year				Annual Percentage Change		
	1998	1999	2000	2001	1998-1999	1999-2000	2000-2001
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	**8516**	**8876**	*9341*	*9696*	**4.2**	*5.2*	*3.8*
Imported Crude Oil Price [a] (nominal dollars per barrel)	**12.08**	**17.22**	*28.11*	*24.01*	**42.5**	*63.2*	*-14.6*
Petroleum Supply (million barrels per day)							
Crude Oil Production [b]	**6.25**	**5.88**	*5.84*	*5.88*	**-5.9**	*-0.7*	*0.7*
Total Petroleum Net Imports (including SPR)	**9.76**	**9.91**	*10.16*	*10.76*	**1.5**	*2.5*	*5.9*
Energy Demand							
World Petroleum (million barrels per day)	**73.6**	**74.8**	*75.9*	*77.9*	**1.6**	*1.5*	*2.6*
Petroleum (million barrels per day)	**18.92**	**19.52**	*19.59*	*19.99*	**3.2**	*0.4*	*2.0*
Natural Gas (trillion cubic feet)	**21.26**	**21.56**	*22.28*	*22.74*	**1.4**	*3.3*	*2.1*
Coal [c] (million short tons)	**1039**	**1039**	*1059*	*1083*	**0.0**	*1.9*	*2.3*
Electricity (billion kilowatthours)							
Utility Sales [d]	**3240**	**3296**	*3378*	*3430*	**1.7**	*2.5*	*1.5*
Nonutility/Sales [e]	**156**	**185**	*195*	*199*	**18.6**	*5.4*	*2.1*
Total	**3396**	**3481**	*3573*	*3629*	**2.5**	*2.6*	*1.6*
Total Energy Demand [f] (quadrillion Btu)	**94.7**	**96.5**	*97.6*	*99.3*	**1.8**	*1.2*	*1.7*
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	**11.12**	**10.87**	*10.45*	*10.24*	**-2.2**	*-3.9*	*-2.0*
Renewable Energy as Percent of Total [g]	**7.0**	**7.0**	*6.7*	*6.7*			

[a] Refers to the refiner acquisition cost (RAC) of imported crude oil.

[b] Includes lease condensate.

[c] Total Demand includes estimated Independent Power Producer (IPP) coal consumption.

[d] Total annual electric utility sales for historical periods are initially derived from the sum of monthly sales figures based on submissions by electric utilities of Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions." Final annual totals are taken from compilations from Form EIA -861, ":Annual Electric Utility Report."

[e] Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1999 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

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 CONTROL0900.

Table 1. U.S. Macroeconomic and Weather Assumptions

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Macroeconomic [a]															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR)	**8730**	**8783**	**8906**	**9084**	**9192**	**9309**	*9391*	*9472*	*9563*	*9651*	*9739*	*9833*	**8876**	*9341*	*9696*
Percentage Change from Prior Year	**3.9**	**3.8**	**4.3**	**5.0**	**5.3**	**6.0**	*5.4*	*4.3*	*4.0*	*3.7*	*3.7*	*3.8*	**4.2**	*5.2*	*3.8*
Annualized Percent Change from Prior Quarter	**3.5**	**2.4**	**5.6**	**8.0**	**4.7**	**5.1**	*3.5*	*3.5*	*3.9*	*3.6*	*3.7*	*3.9*			
GDP Implicit Price Deflator (Index, 1996=1.000)	**1.043**	**1.046**	**1.049**	**1.053**	**1.062**	**1.068**	*1.074*	*1.080*	*1.087*	*1.092*	*1.096*	*1.101*	**1.048**	*1.071*	*1.094*
Percentage Change from Prior Year	**1.5**	**1.5**	**1.5**	**1.5**	**1.8**	**2.1**	*2.4*	*2.6*	*2.4*	*2.2*	*2.1*	*2.0*	**1.5**	*2.2*	*2.2*
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	**6264**	**6307**	**6342**	**6412**	**6443**	**6497**	*6555*	*6599*	*6709*	*6797*	*6871*	*6943*	**6331**	*6524*	*6830*
Percentage Change from Prior Year	**3.7**	**3.2**	**2.9**	**3.1**	**2.9**	**3.0**	*3.4*	*2.9*	*4.1*	*4.6*	*4.8*	*5.2*	**3.2**	*3.0*	*4.7*
Manufacturing Production (Index, 1996=1.000)	**1.148**	**1.162**	**1.175**	**1.195**	**1.216**	**1.237**	*1.255*	*1.274*	*1.284*	*1.295*	*1.307*	*1.317*	**1.170**	*1.245*	*1.301*
Percentage Change from Prior Year	**3.5**	**4.1**	**4.4**	**4.8**	**6.0**	**6.5**	*6.8*	*6.6*	*5.6*	*4.7*	*4.1*	*3.4*	**4.2**	*6.5*	*4.4*
OECD Economic Growth (percent) [b]													**2.6**	*3.6*	*3.0*
Weather [c]															
Heating Degree-Days															
U.S.	**2153**	**489**	**79**	**1448**	**2023**	**485**	*96*	*1591*	*2236*	*519*	*86*	*1622*	**4169**	*4195*	*4463*
New England	**3040**	**784**	**86**	**2042**	**3007**	**909**	*200*	*2230*	*3177*	*885*	*167*	*2238*	**5952**	*6346*	*6467*
Middle Atlantic	**2816**	**628**	**68**	**1839**	**2713**	**692**	*126*	*1950*	*2895*	*701*	*105*	*2003*	**5351**	*5481*	*5703*
U.S. Gas-Weighted	**2275**	**517**	**85**	**1522**	**2115**	**512**	*100*	*1678*	*2354*	*555*	*90*	*1714*	**4399**	*4405*	*4714*
Cooling Degree-Days (U.S.)	**35**	**353**	**831**	**78**	**45**	**380**	*759*	*75*	*32*	*346*	*781*	*76*	**1297**	*1259*	*1235*

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

[b] 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.

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

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 CONTROL0900.

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

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Macroeconomic [a]															
Real Fixed Investment (billion chained 1996 dollars-SAAR)	**1574**	**1607**	**1638**	**1667**	**1731**	**1794**	*1814*	*1850*	*1879*	*1910*	*1933*	*1955*	**1621**	*1797*	*1919*
Real Exchange Rate (index)	**1.090**	**1.127**	**1.168**	**1.167**	**1.221**	**1.279**	*1.257*	*1.220*	*1.223*	*1.213*	*1.197*	*1.173*	**1.138**	*1.244*	*1.202*
Business Inventory Change (billion chained 1996 dollars-SAAR)	**-1.1**	**-9.5**	**3.5**	**7.6**	**10.3**	**7.4**	*8.8*	*8.6*	*6.5*	*6.9*	*6.8*	*5.5*	**0.1**	*8.8*	*6.4*
Producer Price Index (index, 1982=1.000)	**1.230**	**1.245**	**1.268**	**1.276**	**1.302**	**1.319**	*1.352*	*1.364*	*1.364*	*1.356*	*1.349*	*1.350*	**1.255**	*1.334*	*1.355*
Consumer Price Index (index, 1982-1984=1.000)	**1.648**	**1.662**	**1.672**	**1.684**	**1.701**	**1.716**	*1.730*	*1.741*	*1.748*	*1.753*	*1.759*	*1.766*	**1.667**	*1.722*	*1.757*
Petroleum Product Price Index (index, 1982=1.000)	**0.446**	**0.591**	**0.682**	**0.716**	**0.833**	**0.911**	*0.916*	*0.935*	*0.892*	*0.816*	*0.758*	*0.739*	**0.609**	*0.899*	*0.801*
Non-Farm Employment (millions)	**127.8**	**128.4**	**129.1**	**129.8**	**130.6**	**131.5**	*131.6*	*132.0*	*132.4*	*132.8*	*133.1*	*133.4*	**128.8**	*131.4*	*132.9*
Commercial Employment (millions)	**88.6**	**89.2**	**89.8**	**90.5**	**91.2**	**91.7**	*92.1*	*92.6*	*93.1*	*93.5*	*93.9*	*94.4*	**89.5**	*91.9*	*93.7*
Total Industrial Production (index, 1996=1.000)	**1.127**	**1.139**	**1.153**	**1.168**	**1.186**	**1.207**	*1.224*	*1.241*	*1.251*	*1.261*	*1.270*	*1.279*	**1.147**	*1.215*	*1.265*
Housing Stock (millions)	**115.4**	**115.8**	**116.0**	**116.1**	**116.3**	**116.8**	*116.8*	*116.5*	*116.8*	*117.1*	*117.4*	*117.8*	**115.8**	*116.6*	*117.3*
Miscellaneous															
Gas Weighted Industrial Production (index, 1996=1.000)	**1.062**	**1.060**	**1.068**	**1.091**	**1.096**	**1.096**	*1.099*	*1.103*	*1.112*	*1.121*	*1.131*	*1.141*	**1.070**	*1.098*	*1.126*
Vehicle Miles Traveled [b] (million miles/day)	**6731**	**7556**	**7706**	**7358**	**6820**	**7596**	*7739*	*7279*	*6921*	*7639*	*7823*	*7382*	**7341**	*7359*	*7444*
Vehicle Fuel Efficiency (index, 1999=1.000)	**0.991**	**0.992**	**1.007**	**1.006**	**0.996**	**1.011**	*1.016*	*1.002*	*1.002*	*1.004*	*1.008*	*1.001*	**0.999**	*1.006*	*1.004*
Real Vehicle Fuel Cost (cents per mile)	**2.98**	**3.35**	**3.51**	**3.76**	**4.16**	**4.28**	*4.21*	*4.32*	*4.06*	*3.91*	*3.77*	*3.75*	**3.40**	*4.24*	*3.87*
Air Travel Capacity (mill. available ton-miles/day)	**431.0**	**453.8**	**469.4**	**462.1**	**452.9**	**480.8**	*498.6*	*487.4*	*484.4*	*507.0*	*524.8*	*514.3*	**454.2**	*480.0*	*507.8*
Aircraft Utilization (mill. revenue ton-miles/day)	**242.2**	**264.2**	**277.5**	**266.0**	**254.9**	**283.6**	*297.7*	*283.8*	*278.6*	*297.5*	*311.5*	*296.7*	**262.6**	*280.0*	*296.2*
Airline Ticket Price Index (index, 1982-1984=1.000)	**2.130**	**2.186**	**2.180**	**2.254**	**2.309**	**2.419**	*2.489*	*2.509*	*2.521*	*2.509*	*2.489*	*2.493*	**2.188**	*2.432*	*2.503*
Raw Steel Production (millions tons)	**25.11**	**25.97**	**26.26**	**28.54**	**29.02**	**29.33**	*29.06*	*29.32*	*29.32*	*29.46*	*28.88*	*29.23*	**105.88**	*116.73*	*116.88*

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

[b] Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0900.

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

(Million Barrels per Day, Except OECD Commercial Stocks)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Demand [a]															
OECD															
U.S. (50 States)	**19.2**	**19.2**	**19.8**	**19.8**	**19.1**	**19.3**	*19.9*	*20.1*	*19.7*	*19.7*	*20.1*	*20.4*	**19.5**	*19.6*	*20.0*
U.S. Territories	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**	**0.3**	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	**0.3**	*0.3*	*0.4*
Canada	**1.9**	**1.9**	**2.0**	**2.0**	**1.9**	**1.9**	*2.0*	*2.0*	*2.0*	*1.9*	*2.1*	*2.1*	**1.9**	*2.0*	*2.0*
Europe	**15.2**	**13.8**	**14.0**	**15.0**	**14.5**	**13.9**	*14.4*	*15.1*	*14.9*	*14.0*	*14.5*	*15.2*	**14.5**	*14.5*	*14.6*
Japan	**6.2**	**5.0**	**5.2**	**5.9**	**6.0**	**5.0**	*5.3*	*5.7*	*6.2*	*5.0*	*5.3*	*5.7*	**5.6**	*5.5*	*5.5*
Australia and New Zealand	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.1*	**1.0**	*1.0*	*1.0*
Total OECD	**43.8**	**41.2**	**42.4**	**44.1**	**42.9**	**41.4**	*43.1*	*44.4*	*44.1*	*42.1*	*43.4*	*44.8*	**42.9**	*42.9*	*43.6*
Non-OECD															
Former Soviet Union	**3.8**	**3.5**	**3.6**	**3.7**	**3.8**	**3.6**	*3.6*	*3.6*	*3.8*	*3.7*	*3.7*	*3.7*	**3.6**	*3.7*	*3.7*
Europe	**1.6**	**1.6**	**1.5**	**1.6**	**1.6**	**1.6**	*1.6*	*1.6*	*1.7*	*1.7*	*1.7*	*1.7*	**1.6**	*1.6*	*1.7*
China	**4.4**	**4.3**	**4.3**	**4.3**	**4.6**	**4.5**	*4.5*	*4.5*	*4.8*	*4.8*	*4.7*	*4.8*	**4.3**	*4.5*	*4.8*
Other Asia	**8.8**	**8.8**	**8.7**	**9.0**	**9.2**	**9.2**	*9.0*	*9.4*	*9.7*	*9.7*	*9.4*	*9.9*	**8.8**	*9.2*	*9.7*
Other Non-OECD	**13.4**	**13.6**	**13.7**	**13.7**	**13.7**	**14.0**	*14.1*	*14.0*	*14.2*	*14.4*	*14.5*	*14.5*	**13.6**	*14.0*	*14.4*
Total Non-OECD	**31.9**	**31.8**	**31.7**	**32.3**	**32.9**	**33.0**	*32.8*	*33.2*	*34.2*	*34.3*	*34.0*	*34.5*	**31.9**	*33.0*	*34.2*
Total World Demand	**75.7**	**73.1**	**74.1**	**76.3**	**75.8**	**74.4**	*75.9*	*77.6*	*78.4*	*76.4*	*77.4*	*79.3*	**74.8**	*75.9*	*77.9*
Supply [b]															
OECD															
U.S. (50 States)	**8.8**	**8.9**	**9.0**	**9.3**	**9.1**	**9.1**	*9.0*	*9.1*	*9.2*	*9.2*	*9.1*	*9.1*	**9.0**	*9.1*	*9.1*
Canada	**2.6**	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	*2.7*	*2.8*	*2.7*	*2.7*	*2.8*	*2.8*	**2.6**	*2.7*	*2.7*
North Sea [c]	**6.3**	**6.0**	**6.2**	**6.7**	**6.6**	**6.2**	*6.3*	*6.6*	*6.5*	*6.3*	*6.3*	*6.5*	**6.3**	*6.4*	*6.4*
Other OECD	**1.5**	**1.5**	**1.5**	**1.6**	**1.7**	**1.7**	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.8*	**1.5**	*1.7*	*1.7*
Total OECD	**19.2**	**19.0**	**19.3**	**20.2**	**20.2**	**19.7**	*19.7*	*20.2*	*20.2*	*19.9*	*19.8*	*20.2*	**19.4**	*19.9*	*20.0*
Non-OECD															
OPEC	**30.4**	**28.9**	**29.2**	**28.7**	**29.3**	**30.7**	*31.6*	*32.4*	*32.1*	*31.8*	*31.8*	*31.9*	**29.3**	*31.0*	*31.9*
Former Soviet Union	**7.3**	**7.3**	**7.5**	**7.5**	**7.6**	**7.7**	*7.9*	*8.0*	*8.1*	*8.1*	*8.2*	*8.3*	**7.4**	*7.8*	*8.2*
China	**3.2**	**3.2**	**3.2**	**3.2**	**3.3**	**3.3**	*3.3*	*3.3*	*3.3*	*3.3*	*3.3*	*3.3*	**3.2**	*3.3*	*3.3*
Mexico	**3.6**	**3.4**	**3.3**	**3.3**	**3.5**	**3.5**	*3.5*	*3.6*	*3.6*	*3.7*	*3.8*	*3.8*	**3.4**	*3.5*	*3.7*
Other Non-OECD	**11.3**	**11.2**	**11.2**	**11.2**	**11.2**	**11.2**	*11.4*	*11.4*	*11.5*	*11.5*	*11.5*	*11.5*	**11.2**	*11.3*	*11.5*
Total Non-OECD	**55.7**	**54.0**	**54.5**	**54.0**	**54.8**	**56.4**	*57.8*	*58.6*	*58.4*	*58.3*	*58.5*	*58.8*	**54.5**	*56.9*	*58.5*
Total World Supply	**74.9**	**72.9**	**73.8**	**74.2**	**75.0**	**76.1**	*77.5*	*78.9*	*78.6*	*78.2*	*78.3*	*79.0*	**73.9**	*76.9*	*78.6*
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	**0.3**	**-0.2**	**0.3**	**1.3**	**0.1**	**-0.6**	*-0.1*	*0.5*	*0.2*	*-0.6*	*-0.4*	*0.2*	**0.4**	*0.0*	*-0.1*
Other	**0.5**	**0.4**	**0.0**	**0.8**	**0.6**	**-1.1**	*-1.5*	*-1.8*	*-0.4*	*-1.3*	*-0.5*	*0.0*	**0.4**	*-1.0*	*-0.6*
Total Stock Withdrawals	**0.8**	**0.1**	**0.3**	**2.2**	**0.7**	**-1.7**	*-1.6*	*-1.3*	*-0.2*	*-1.8*	*-0.9*	*0.2*	**0.9**	*-1.0*	*-0.7*
OECD Comm. Stocks, End (bill. bbls.)	**2.8**	**2.8**	**2.8**	**2.6**	**2.6**	**2.6**	*2.7*	*2.7*	*2.7*	*2.8*	*2.9*	*2.8*	**2.6**	*2.7*	*2.8*
Non-OPEC Supply	**44.6**	**44.0**	**44.5**	**45.4**	**45.7**	**45.4**	*45.9*	*46.5*	*46.5*	*46.4*	*46.5*	*47.1*	**44.6**	*45.9*	*46.6*
Net Exports from Former Soviet Union	**3.5**	**3.8**	**3.9**	**3.8**	**3.9**	**4.1**	*4.3*	*4.4*	*4.2*	*4.4*	*4.5*	*4.6*	**3.8**	*4.2*	*4.5*

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

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

[c] Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U. S. Energy Prices

(Nominal Dollars)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Imported Crude Oil Prices															
Imported Average[a]	**10.88**	**15.43**	**19.70**	**23.01**	**26.84**	**26.55**	*29.54*	*29.36*	*26.50*	*24.24*	*23.20*	*22.31*	**17.22**	*28.11*	*24.01*
WTI[b] Spot Average	**13.07**	**17.65**	**21.73**	**24.56**	**28.82**	**28.78**	*31.61*	*31.41*	*28.46*	*26.22*	*25.18*	*24.28*	**19.25**	*30.16*	*26.03*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**1.74**	**2.04**	**2.27**	**2.26**	**2.26**	**2.97**	*3.71*	*4.51*	*4.11*	*3.50*	*3.31*	*3.69*	**2.08**	*3.37*	*3.65*
Petroleum Products															
Gasoline Retail[c] (dollars per gallon)															
All Grades	**0.99**	**1.17**	**1.25**	**1.30**	**1.44**	**1.57**	*1.56*	*1.53*	*1.45*	*1.45*	*1.41*	*1.35*	**1.18**	*1.53*	*1.41*
Regular Unleaded	**0.95**	**1.13**	**1.21**	**1.26**	**1.40**	**1.53**	*1.52*	*1.49*	*1.40*	*1.41*	*1.38*	*1.31*	**1.14**	*1.49*	*1.38*
No. 2 Diesel Oil, Retail (dollars per gallon)	**0.97**	**1.08**	**1.18**	**1.26**	**1.42**	**1.41**	*1.51*	*1.62*	*1.52*	*1.40*	*1.34*	*1.33*	**1.12**	*1.49*	*1.40*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.36**	**0.44**	**0.56**	**0.65**	**0.85**	**0.78**	*0.91*	*0.95*	*0.85*	*0.74*	*0.69*	*0.68*	**0.51**	*0.88*	*0.75*
No. 2 Heating Oil, Retail (dollars per gallon)	**0.80**	**0.82**	**0.86**	**1.01**	**1.31**	**1.17**	*1.24*	*1.43*	*1.37*	*1.18*	*1.05*	*1.09*	**0.88**	*1.32*	*1.22*
No. 6 Residual Fuel Oil, Retail[d] (dollars per barrel)	**11.29**	**14.03**	**18.12**	**21.27**	**23.64**	**24.55**	*25.77*	*27.33*	*25.00*	*21.93*	*20.97*	*21.67*	**16.02**	*25.40*	*22.43*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.24**	**1.23**	**1.21**	**1.20**	**1.21**	**1.21**	*1.19*	*1.20*	*1.21*	*1.22*	*1.20*	*1.19*	**1.22**	*1.20*	*1.20*
Heavy Fuel Oil[e] (dollars per million Btu)	**1.73**	**2.26**	**2.82**	**3.17**	**3.74**	**4.18**	*4.23*	*4.40*	*3.85*	*3.59*	*3.47*	*3.49*	**2.39**	*4.18*	*3.60*
Natural Gas (dollars per million Btu)	**2.19**	**2.42**	**2.74**	**2.82**	**2.85**	**3.78**	*4.40*	*5.18*	*4.84*	*4.11*	*3.89*	*4.29*	**2.57**	*4.08*	*4.18*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**6.07**	**6.86**	**8.64**	**6.85**	**6.48**	**7.70**	*9.74*	*8.68*	*8.40*	*8.75*	*9.84*	*8.21*	**6.62**	*7.58*	*8.50*
Electricity (cents per kilowatthour)	**7.76**	**8.25**	**8.40**	**8.10**	**7.76**	**8.34**	*8.62*	*8.23*	*7.81*	*8.39*	*8.63*	*8.21*	**8.14**	*8.25*	*8.27*

[a] Refiner acquisition cost (RAC) of imported crude oil.

[b] West Texas Intermediate.

[c] Average self-service cash prices.

[d] Average for all sulfur contents.

[e] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first quarter of 2000. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Million Barrels per Day, Except Closing Stocks)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Crude Oil Supply															
Domestic Production [a]	**5.94**	**5.84**	**5.79**	**5.96**	**5.86**	**5.84**	*5.81*	*5.84*	*5.97*	*5.93*	*5.83*	*5.81*	**5.88**	*5.84*	*5.88*
Alaska	**1.13**	**1.04**	**0.98**	**1.05**	**1.02**	**0.97**	*0.92*	*0.95*	*1.02*	*1.01*	*0.97*	*1.00*	**1.05**	*0.96*	*1.00*
Lower 48	**4.80**	**4.80**	**4.82**	**4.91**	**4.84**	**4.87**	*4.90*	*4.89*	*4.95*	*4.92*	*4.86*	*4.81*	**4.83**	*4.88*	*4.88*
Net Imports (including SPR) [b]	**8.43**	**8.90**	**8.85**	**8.27**	**8.14**	**9.15**	*9.44*	*8.91*	*8.70*	*9.38*	*9.68*	*9.39*	**8.61**	*8.91*	*9.29*
Other SPR Supply	**0.01**	**0.03**	**0.01**	**0.00**	**0.02**	**0.17**	*0.07*	*0.07*	*0.00*	*0.00*	*0.17*	*0.17*	**0.01**	*0.08*	*0.09*
SPR Stock Withdrawn or Added (-)	**-0.01**	**-0.03**	**-0.01**	**0.09**	**-0.02**	**0.01**	*-0.02*	*0.26*	*0.00*	*0.00*	*-0.17*	*-0.17*	**0.01**	*0.06*	*-0.09*
Other Stock Withdrawn or Added (-)	**-0.24**	**0.15**	**0.31**	**0.21**	**-0.14**	**0.03**	*0.08*	*-0.05*	*-0.21*	*-0.03*	*0.17*	*0.03*	**0.11**	*-0.02*	*-0.01*
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	**0.30**	**0.15**	**0.27**	**0.05**	**0.29**	**0.40**	*0.37*	*0.19*	*0.21*	*0.22*	*0.22*	*0.21*	**0.19**	*0.31*	*0.21*
Total Crude Oil Supply	**14.42**	**15.01**	**15.22**	**14.57**	**14.16**	**15.42**	*15.68*	*15.15*	*14.66*	*15.50*	*15.72*	*15.27*	**14.80**	*15.10*	*15.29*
Other Supply															
NGL Production	**1.72**	**1.82**	**1.90**	**1.95**	**1.97**	**1.94**	*1.93*	*1.97*	*1.98*	*1.98*	*1.96*	*2.01*	**1.85**	*1.95*	*1.98*
Other Inputs	**0.37**	**0.37**	**0.38**	**0.38**	**0.37**	**0.40**	*0.38*	*0.40*	*0.38*	*0.37*	*0.36*	*0.39*	**0.38**	*0.38*	*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	**0.82**	**0.86**	**0.90**	**0.97**	**0.94**	**0.94**	*0.92*	*0.93*	*0.88*	*0.92*	*0.93*	*0.90*	**0.89**	*0.93*	*0.91*
Net Product Imports [c]	**1.34**	**1.52**	**1.41**	**0.92**	**1.36**	**1.21**	*1.11*	*1.29*	*1.39*	*1.49*	*1.56*	*1.45*	**1.30**	*1.24*	*1.47*
Product Stock Withdrawn or Added (-)	**0.54**	**-0.36**	**0.00**	**1.03**	**0.31**	**-0.62**	*-0.12*	*0.34*	*0.37*	*-0.55*	*-0.38*	*0.39*	**0.30**	*-0.02*	*-0.04*
Total Supply	**19.21**	**19.23**	**19.80**	**19.83**	**19.11**	**19.30**	*19.90*	*20.08*	*19.67*	*19.71*	*20.15*	*20.42*	**19.52**	*19.60*	*19.99*
Demand															
Motor Gasoline	**7.95**	**8.60**	**8.61**	**8.55**	**8.02**	**8.49**	*8.57*	*8.49*	*8.09*	*8.59*	*8.73*	*8.62*	**8.43**	*8.39*	*8.51*
Jet Fuel	**1.69**	**1.63**	**1.68**	**1.69**	**1.64**	**1.67**	*1.79*	*1.79*	*1.78*	*1.75*	*1.80*	*1.83*	**1.67**	*1.72*	*1.79*
Distillate Fuel Oil	**3.71**	**3.38**	**3.45**	**3.75**	**3.76**	**3.56**	*3.63*	*3.83*	*3.98*	*3.63*	*3.57*	*3.82*	**3.57**	*3.69*	*3.75*
Residual Fuel Oil	**0.93**	**0.78**	**0.84**	**0.78**	**0.73**	**0.75**	*0.91*	*0.82*	*0.83*	*0.74*	*0.78*	*0.79*	**0.83**	*0.80*	*0.79*
Other Oils [d]	**4.93**	**4.84**	**5.23**	**5.05**	**4.96**	**4.83**	*5.01*	*5.13*	*4.99*	*5.00*	*5.26*	*5.36*	**5.01**	*4.98*	*5.15*
Total Demand	**19.21**	**19.23**	**19.80**	**19.83**	**19.11**	**19.29**	*19.90*	*20.06*	*19.67*	*19.71*	*20.15*	*20.42*	**19.52**	*19.59*	*19.99*
Total Petroleum Net Imports	**9.77**	**10.43**	**10.27**	**9.19**	**9.51**	**10.37**	*10.55*	*10.20*	*10.09*	*10.87*	*11.23*	*10.84*	**9.91**	*10.16*	*10.76*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**345**	**332**	**304**	**284**	**297**	**294**	*287*	*292*	*311*	*313*	*298*	*296*	**284**	*292*	*296*
Total Motor Gasoline	**217**	**217**	**207**	**193**	**205**	**211**	*197*	*201*	*205*	*204*	*199*	*203*	**193**	*201*	*203*
Finished Motor Gasoline	**169**	**173**	**162**	**154**	**158**	**165**	*155*	*160*	*159*	*163*	*158*	*162*	**154**	*160*	*162*
Blending Components	**48**	**44**	**45**	**39**	**47**	**45**	*42*	*41*	*45*	*41*	*41*	*41*	**39**	*41*	*41*
Jet Fuel	**42**	**46**	**49**	**41**	**41**	**44**	*43*	*42*	*40*	*42*	*43*	*41*	**41**	*42*	*41*
Distillate Fuel Oil	**125**	**133**	**145**	**125**	**96**	**106**	*114*	*120*	*91*	*103*	*124*	*127*	**125**	*120*	*127*
Residual Fuel Oil	**40**	**42**	**41**	**36**	*36*	*37*	*36*	*37*	*35*	*35*	*37*	*38*	**36**	*37*	*38*
Other Oils [e]	**280**	**298**	**294**	**246**	*235*	*271*	*290*	*249*	*247*	*283*	*298*	*256*	**246**	*249*	*256*
Total Stocks (excluding SPR)	**1048**	**1068**	**1039**	**926**	*910*	*964*	*967*	*941*	*927*	*979*	*999*	*961*	**926**	*941*	*961*
Crude Oil in SPR	**572**	**575**	**575**	**567**	*569*	*569*	*571*	*546*	*546*	*546*	*562*	*578*	**567**	*546*	*578*
Heating Oil Reserve	**0**	**0**	**0**	**0**	*0*	*0*	*0*	*2*	*2*	*2*	*2*	*2*	**0**	*2*	*2*
Total Stocks (including SPR)	**1620**	**1642**	**1615**	**1493**	*1479*	*1533*	*1538*	*1488*	*1473*	*1526*	*1561*	*1538*	**1493**	*1488*	*1538*

[a] Includes lease condensate.

[b] Net imports equals gross imports plus SPR imports minus exports.

[c] Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

[a] Percent change in demand quantity resulting from specified percent changes in model inputs.

[b] Short-Term Integrated Forecasting System.

[c] Refiner acquisitions cost of imported crude oil.

[d] Average unit value of marketed natural gas production reported by States.

[e] Refers to percent changes in degree-days.

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

Table 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	*6.12*	*5.49*	*0.63*	*0.08*	*0.55*
Lower 48 States	*5.11*	*4.51*	*0.60*	*0.07*	*0.53*
Alaska	*1.01*	*0.98*	*0.04*	*0.02*	*0.02*

Note: Components provided are for the fourth quarter 2001. Totals may not add to sum of components due to independent rounding.
Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

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

(Trillion Cubic Feet)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Total Dry Gas Production	**4.65**	**4.67**	**4.65**	**4.68**	**4.70**	**4.64**	*4.73*	*4.72*	*4.76*	*4.78*	*4.80*	*4.80*	**18.66**	*18.79*	*19.14*
Net Imports	**0.83**	**0.79**	**0.87**	**0.88**	**0.87**	**0.80**	*0.87*	*0.92*	*0.95*	*0.93*	*1.00*	*1.00*	**3.38**	*3.46*	*3.88*
Supplemental Gaseous Fuels	**0.03**	**0.02**	**0.02**	**0.03**	**0.03**	**0.02**	*0.02*	*0.03*	*0.04*	*0.03*	*0.03*	*0.03*	**0.10**	*0.11*	*0.12*
Total New Supply	**5.51**	**5.49**	**5.55**	**5.59**	**5.60**	**5.46**	*5.62*	*5.67*	*5.74*	*5.74*	*5.83*	*5.83*	**22.14**	*22.36*	*23.15*
Working Gas in Storage															
Opening	**2.73**	**1.43**	**2.16**	**2.88**	**2.51**	**1.15**	*1.71*	*2.50*	*2.22*	*0.89*	*1.72*	*2.64*	**2.73**	*2.51*	*2.22*
Closing	**1.43**	**2.16**	**2.88**	**2.51**	**1.15**	**1.71**	*2.50*	*2.22*	*0.89*	*1.72*	*2.64*	*2.22*	**2.51**	*2.22*	*2.22*
Net Withdrawals	**1.30**	**-0.73**	**-0.73**	**0.38**	**1.36**	**-0.56**	*-0.79*	*0.28*	*1.33*	*-0.83*	*-0.92*	*0.42*	**0.22**	*0.29*	*0.00*
Total Supply	**6.81**	**4.76**	**4.82**	**5.96**	**6.96**	**4.91**	*4.83*	*5.95*	*7.08*	*4.91*	*4.91*	*6.25*	**22.36**	*22.64*	*23.15*
Balancing Item [a]	**0.00**	**-0.04**	**-0.28**	**-0.48**	**-0.06**	**0.07**	*-0.15*	*-0.24*	*0.24*	*0.05*	*-0.24*	*-0.44*	**-0.80**	*-0.37*	*-0.40*
Total Primary Supply	**6.80**	**4.72**	**4.55**	**5.49**	**6.91**	**4.98**	*4.68*	*5.71*	*7.31*	*4.96*	*4.66*	*5.81*	**21.56**	*22.28*	*22.74*
Demand															
Lease and Plant Fuel	**0.31**	**0.31**	**0.31**	**0.31**	**0.31**	**0.30**	*0.31*	*0.31*	*0.31*	*0.31*	*0.31*	*0.31*	**1.23**	*1.23*	*1.24*
Pipeline Use	**0.20**	**0.14**	**0.14**	**0.16**	**0.21**	**0.15**	*0.13*	*0.17*	*0.21*	*0.14*	*0.13*	*0.17*	**0.64**	*0.66*	*0.66*
Residential	**2.25**	**0.81**	**0.38**	**1.27**	**2.22**	**0.77**	*0.37*	*1.41*	*2.45*	*0.84*	*0.36*	*1.46*	**4.72**	*4.77*	*5.10*
Commercial	**1.28**	**0.59**	**0.42**	**0.81**	**1.28**	**0.64**	*0.47*	*0.89*	*1.40*	*0.65*	*0.46*	*0.92*	**3.10**	*3.27*	*3.43*
Industrial (Incl. Nonutility Use)	**2.23**	**2.03**	**2.15**	**2.35**	**2.33**	**2.28**	*2.32*	*2.38*	*2.52*	*2.33*	*2.39*	*2.40*	**8.76**	*9.32*	*9.64*
Electric Utilities	***0.53***	***0.85***	***1.15***	**0.59**	**0.56**	**0.83**	*1.08*	*0.55*	*0.43*	*0.69*	*1.02*	*0.55*	**3.11**	*3.03*	*2.68*
Total Demand	**6.80**	**4.72**	**4.55**	**5.49**	**6.91**	**4.98**	*4.68*	*5.71*	*7.31*	*4.96*	*4.66*	*5.81*	**21.56**	*22.28*	*22.74*

[a] The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

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

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

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

(Million Short Tons)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Production	**283.5**	**264.0**	**273.9**	**272.6**	**274.1**	**260.2**	*277.9*	*283.2*	*265.7*	*277.3*	*276.8*	*289.7*	**1094.0**	*1095.3*	*1109.4*
Appalachia	**114.8**	**103.4**	**103.0**	**102.1**	**109.5**	**105.2**	*107.8*	*103.7*	*104.1*	*104.2*	*99.4*	*103.8*	**423.3**	*426.2*	*411.5*
Interior	**40.4**	**40.8**	**42.4**	**38.9**	**36.1**	**35.2**	*41.2*	*38.6*	*34.8*	*39.7*	*39.4*	*37.6*	**162.5**	*151.0*	*151.6*
Western	**128.3**	**119.8**	**128.5**	**131.6**	**128.5**	**119.8**	*128.9*	*140.9*	*126.8*	*133.4*	*137.9*	*148.2*	**508.2**	*518.1*	*546.3*
Primary Stock Levels [a]															
Opening	**36.5**	**42.4**	**41.5**	**35.1**	**36.4**	**41.3**	*41.9*	*35.5*	*36.4*	*41.3*	*41.9*	*35.5*	**36.5**	*36.4*	*36.4*
Closing	**42.4**	**41.5**	**35.1**	**36.4**	**41.3**	**41.9**	*35.5*	*36.4*	*41.3*	*41.9*	*35.5*	*34.6*	**36.4**	*36.4*	*34.6*
Net Withdrawals	**-5.8**	**0.8**	**6.5**	**-1.3**	**-4.9**	**-0.6**	*6.4*	*-0.9*	*-4.9*	*-0.6*	*6.4*	*0.9*	**0.2**	*(S)*	*1.7*
Imports	**2.2**	**2.1**	**2.4**	**2.4**	**2.8**	**2.7**	*3.5*	*2.6*	*2.9*	*2.9*	*2.9*	*2.9*	**9.1**	*11.6*	*11.6*
Exports	**13.0**	**14.4**	**16.1**	**15.0**	**13.6**	**14.4**	*16.3*	*15.2*	*14.9*	*15.1*	*15.3*	*15.2*	**58.5**	*59.4*	*60.5*
Total Net Domestic Supply	**267.0**	**252.5**	**266.6**	**258.7**	**258.4**	**248.0**	*271.5*	*269.7*	*248.8*	*264.5*	*270.7*	*278.2*	**1044.8**	*1047.5*	*1062.3*
Secondary Stock Levels [b]															
Opening	**129.4**	**143.3**	**151.9**	**139.7**	**143.5**	**139.8**	*133.2*	*127.4*	*134.7*	*122.7*	*135.2*	*120.2*	**129.4**	*143.5*	*134.7*
Closing	**143.3**	**151.9**	**139.7**	**143.5**	**139.8**	**133.2**	*127.4*	*134.7*	*122.7*	*135.2*	*120.2*	*126.0*	**143.5**	*134.7*	*126.0*
Net Withdrawals	**-13.9**	**-8.6**	**12.2**	**-3.8**	**3.7**	**6.6**	*5.8*	*-7.3*	*12.0*	*-12.5*	*15.0*	*-5.7*	**-14.1**	*8.8*	*8.7*
Waste Coal Supplied to IPPs [c]	**2.1**	**2.2**	**2.6**	**2.8**	**3.1**	**3.1**	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	**9.7**	*12.2*	*12.2*
Total Supply	**255.2**	**246.1**	**281.4**	**257.6**	**265.2**	**257.6**	*280.3*	*265.5*	*263.9*	*255.1*	*288.8*	*275.5*	**1040.4**	*1068.6*	*1083.3*
Demand															
Coke Plants	**6.8**	**7.1**	**7.0**	**7.2**	**7.3**	**7.2**	*7.1*	*7.3*	*7.3*	*7.3*	*7.2*	*7.3*	**28.1**	*29.0*	*29.1*
Electricity Production															
Electric Utilities	**216.4**	**213.8**	**247.3**	**216.7**	**214.1**	**202.1**	*228.9*	*213.1*	*212.9*	*206.6*	*237.1*	*222.4*	**894.1**	*858.2*	*879.0*
Nonutilities (Excl. Cogen.) [d]	**8.4**	**10.3**	**12.3**	**15.0**	**24.6**	**23.6**	*26.8*	*25.5*	*25.2*	*24.2*	*27.5*	*26.1*	**45.9**	*100.5*	*102.9*
Retail and General Industry	**18.6**	**17.1**	**16.9**	**17.6**	**18.1**	**16.7**	*17.1*	*19.5*	*18.5*	*17.0*	*17.0*	*19.7*	**70.3**	*71.3*	*72.2*
Total Demand [e]	**250.2**	**248.3**	**283.6**	**256.5**	**264.1**	**249.6**	*279.9*	*265.5*	*263.9*	*255.1*	*288.8*	*275.5*	**1038.5**	*1059.0*	*1083.3*
Discrepancy [f]	**5.0**	**-2.1**	**-2.1**	**1.2**	**1.1**	**8.0**	*0.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	***1.9***	*9.6*	*0.0*

[a] Primary stocks are held at the mines, preparation plants, and distribution points.

[b] Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

[c] Estimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

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

[e] Total Demand includes estimated IPP consumption.

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

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

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

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

(Billion Kilowatt-hours)

	1999				2000				2001				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1999	2000	2001
Supply															
Net Utility Generation															
Coal	**430.0**	**423.8**	**487.6**	**426.2**	**425.7**	**401.2**	*444.6*	*417.0*	*417.1*	*404.3*	*465.9*	*436.1*	**1767.7**	*1688.5*	*1723.4*
Petroleum	**25.7**	**22.1**	**27.4**	**11.7**	**11.0**	**16.4**	*21.9*	*17.5*	*20.0*	*17.9*	*24.0*	*19.2*	**86.9**	*66.8*	*81.0*
Natural Gas	**51.5**	**80.7**	**107.5**	**56.7**	**54.4**	**79.1**	*101.9*	*52.4*	*40.6*	*65.1*	*96.5*	*51.9*	**296.4**	*287.8*	*254.1*
Nuclear	**181.2**	**166.1**	**195.0**	**182.6**	**185.0**	**177.4**	*189.1*	*179.7*	*186.9*	*170.9*	*195.7*	*175.8*	**725.0**	*731.1*	*729.2*
Hydroelectric	**83.4**	**79.8**	**69.9**	**60.9**	**66.9**	**73.0**	*59.8*	*61.3*	*70.5*	*74.6*	*62.1*	*61.1*	**293.9**	*261.0*	*268.3*
Geothermal and Other [a]	**1.6**	**1.0**	**0.6**	**0.5**	**0.5**	**0.6**	*0.6*	*0.6*	*0.5*	*0.5*	*0.6*	*0.6*	**3.7**	*2.2*	*2.2*
Subtotal	**773.4**	**773.6**	**888.0**	**738.7**	**743.4**	**747.6**	*817.9*	*728.6*	*735.7*	*733.3*	*844.8*	*744.6*	**3173.7**	*3037.5*	*3058.3*
Nonutility Generation [b]															
Coal	**21.3**	**25.3**	**35.7**	**43.2**	**55.2**	**58.5**	*74.3*	*60.5*	*59.1*	*59.2*	*69.3*	*59.0*	**125.6**	*248.4*	*246.7*
Petroleum	**5.2**	**5.8**	**5.8**	**4.6**	**11.1**	**8.8**	*11.0*	*9.9*	*9.7*	*9.7*	*11.3*	*9.6*	**21.4**	*40.8*	*40.4*
Natural Gas	**59.0**	**64.9**	**86.1**	**77.5**	**66.9**	**76.0**	*88.7*	*74.6*	*81.0*	*81.2*	*95.0*	*80.8*	**287.5**	*306.3*	*338.0*
Other Gaseous Fuels [c]	**2.0**	**2.2**	**2.9**	**2.6**	**2.5**	**2.8**	*2.6*	*2.3*	*2.1*	*2.1*	*2.1*	*2.2*	**9.5**	*10.1*	*8.5*
Nuclear	**0.0**	**0.0**	**3.1**	**6.0**	**5.2**	**5.0**	*8.8*	*6.3*	*6.3*	*6.3*	*6.3*	*6.3*	**9.1**	*25.3*	*25.2*
Hydroelectric	**5.9**	**6.1**	**4.7**	**4.9**	**3.9**	**5.0**	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	**21.5**	*17.9*	*18.0*
Geothermal and Other [d]	**17.2**	**20.3**	**23.0**	**19.6**	**21.8**	**22.2**	*23.2*	*23.3*	*22.1*	*22.0*	*22.3*	*22.7*	**80.0**	*90.5*	*89.1*
Subtotal	**110.5**	**124.5**	**161.3**	**158.3**	**166.6**	**178.3**	*213.2*	*181.4*	*184.9*	*185.0*	*210.8*	*185.1*	**554.7**	*739.4*	*765.8*
Total Generation	**883.9**	**898.2**	**1049.3**	**897.0**	**910.0**	**925.9**	*1031.1*	*909.9*	*920.5*	*918.3*	*1055.6*	*929.7*	**3728.4**	*3776.9*	*3824.1*
Net Imports [e]	**2.5**	**7.3**	**12.4**	**8.4**	**9.1**	**8.1**	*9.0*	*7.2*	*6.5*	*8.0*	*10.8*	*7.3*	**30.6**	*33.4*	*32.6*
Total Supply	**886.4**	**905.5**	**1061.7**	**905.4**	**919.1**	**934.0**	*1040.1*	*917.1*	*927.0*	*926.3*	*1066.4*	*937.0*	**3759.0**	*3810.4*	*3856.7*
Losses and Unaccounted for [f]	**57.1**	**81.3**	**71.2**	**68.1**	**60.2**	**72.8**	*43.7*	*61.1*	*40.9*	*62.9*	*59.2*	*65.2*	**277.6**	*237.7*	*228.1*
Demand															
Electric Utility Sales															
Residential	**287.7**	**251.0**	**350.9**	**256.1**	**292.5**	**264.2**	*343.9*	*267.0*	*305.9*	*266.4*	*349.5*	*273.3*	**1145.7**	*1167.6*	*1195.0*
Commercial	**227.8**	**238.6**	**279.6**	**236.8**	**236.2**	**254.3**	*289.2*	*246.8*	*245.5*	*250.2*	*289.8*	*250.3*	**982.9**	*1026.4*	*1035.8*
Industrial	**252.1**	**267.7**	**277.6**	**265.7**	**260.0**	**268.5**	*277.6*	*267.7*	*260.0*	*271.9*	*283.1*	*272.9*	**1063.3**	*1073.8*	*1087.9*
Other	**24.7**	**25.3**	**28.4**	**25.7**	**26.4**	**27.4**	*29.7*	*26.8*	*26.6*	*27.0*	*30.2*	*27.3*	**104.2**	*110.3*	*111.1*
Subtotal	**792.4**	**782.6**	**936.6**	**784.4**	**815.1**	**814.3**	*940.4*	*808.3*	*838.1*	*815.4*	*952.5*	*823.7*	**3296.0**	*3378.1*	*3429.8*
Nonutility Use/Sales [b]	**36.9**	**41.6**	**53.9**	**52.9**	**43.8**	**46.9**	*56.1*	*47.7*	*48.0*	*48.0*	*54.7*	*48.1*	**185.3**	*194.5*	*198.8*
Total Demand	**829.3**	**824.2**	**990.5**	**837.3**	**858.9**	**861.2**	*996.4*	*856.0*	*886.1*	*863.5*	*1007.2*	*871.8*	**3481.3**	*3572.6*	*3628.6*
Memo:															
Nonutility Sales to Electric Utilities [b]	**73.6**	**82.9**	**107.4**	**105.4**	**122.8**	**131.4**	*157.1*	*133.6*	*136.9*	*137.0*	*156.1*	*137.1*	**369.4**	*544.9*	*567.0*

[a] "Other" includes generation from wind, wood, waste, and solar sources.

[b] Electricity(net Generation) from nonutility sources, including cogenerators and small power producers.

[c] Includes refinery still gas and other process or waste gases and liquefied petroleum gases.

[d] Includes geothermal, solar, wind, wood, waste, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

[e] Data for 1999 are estimates.

[f] Balancing item, mainly transmission and distribution losses.

[g] Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1999 are estimates.

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

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

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

(Quadrillion Btu)

	Year				Annual Percentage Change		
	1998	1999	2000	2001	1998-1999	1999-2000	2000-2001
Electric Utilities							
Hydroelectric Power [a]	**3.189**	**3.079**	*2.735*	*2.811*	**-3.4**	*-11.2*	*2.8*
Geothermal, Solar and Wind Energy [b]	**0.109**	**0.036**	*0.004*	*0.004*	**-67.0**	*-88.9*	*0.0*
Biofuels [c]	**0.021**	**0.021**	*0.021*	*0.021*	**0.0**	*0.0*	*0.0*
Total	**3.319**	**3.136**	*2.759*	*2.835*	**-5.5**	*-12.0*	*2.8*
Nonutility Power Generators							
Hydroelectric Power [a]	**0.149**	**0.223**	*0.185*	*0.186*	**49.7**	*-17.0*	*0.5*
Geothermal, Solar and Wind Energy [b]	**0.240**	**0.373**	*0.335*	*0.333*	**55.4**	*-10.2*	*-0.6*
Biofuels [c]	**0.523**	**0.576**	*0.741*	*0.729*	**10.1**	*28.6*	*-1.6*
Total	**0.912**	**1.171**	*1.261*	*1.249*	**28.4**	*7.7*	*-1.0*
Total Power Generation	**4.231**	**4.307**	*4.020*	*4.084*	**1.8**	*-6.7*	*1.6*
Other Sectors [d]							
Residential and Commercial [e]	**0.568**	**0.574**	*0.583*	*0.583*	**1.1**	*1.6*	*0.0*
Industrial [f]	**1.515**	**1.542**	*1.569*	*1.569*	**1.8**	*1.8*	*0.0*
Transportation [g]	**0.095**	**0.100**	*0.108*	*0.106*	**5.3**	*8.0*	*-1.9*
Total	**2.178**	**2.216**	*2.261*	*2.258*	**1.7**	*2.0*	*-0.1*
Net Imported Electricity [h]	**0.214**	**0.249**	*0.272*	*0.265*	**16.4**	*9.2*	*-2.6*
Total Renewable Energy Demand	**6.623**	**6.771**	*6.553*	*6.607*	**2.2**	*-3.2*	*0.8*

[a] Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

[b] Also includes photovoltaic and solar thermal energy. Sharp declines since 1998 in the electric utility sector and corresponding increases in the nonutility sector for this category mostly reflect sale of geothermal facilities to the nonutility sector.

[c] Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

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

[e] Includes biofuels and solar energy consumed in the residential and commercial sectors.

[f] onsists primarily of biofuels for use other than in electricity cogeneration.

[g] Ethanol blended into gasoline.

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

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

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

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Real Gross Domestic Product (GDP)															
(billion chained 1996 dollars)	**6113**	**6368**	**6592**	**6708**	**6676**	**6880**	**7063**	**7348**	**7544**	**7813**	**8159**	**8516**	**8876**	*9341*	*9696*
Imported Crude Oil Price [a]															
(nominal dollars per barrel)	**18.13**	**14.57**	**18.08**	**21.75**	**18.70**	**18.20**	**16.14**	**15.52**	**17.14**	**20.61**	**18.50**	**12.08**	**17.22**	*28.11*	*24.01*
Petroleum Supply															
Crude Oil Production [b]															
(million barrels per day)	**8.35**	**8.14**	**7.61**	**7.36**	**7.42**	**7.17**	**6.85**	**6.66**	**6.56**	**6.46**	**6.45**	**6.25**	**5.88**	*5.84*	*5.88*
Total Petroleum Net Imports (including SPR)															
(million barrels per day)	**5.91**	**6.59**	**7.20**	**7.16**	**6.63**	**6.94**	**7.62**	**8.05**	**7.89**	**8.50**	**9.16**	**9.76**	**9.91**	*10.16*	*10.76*
Energy Demand															
World Petroleum															
(million barrels per day)	**63.0**	**64.8**	**65.9**	**66.0**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**73.1**	**73.6**	**74.8**	*75.9*	*77.9*
U.S. Petroleum															
(million barrels per day)	**16.72**	**17.34**	**17.37**	**17.04**	**16.77**	**17.10**	**17.24**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	*19.59*	*19.99*
Natural Gas															
(trillion cubic feet)	**17.21**	**18.03**	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.56**	*22.28*	*22.74*
Coal															
(million short tons)	**830**	**877**	**891**	**897**	**898**	**907**	**943**	**950**	**962**	**1006**	**1029**	**1039**	**1039**	*1059*	*1083*
Electricity (billion kilowatthours)															
Utility Sales [c]	**2457**	**2578**	**2647**	**2713**	**2762**	**2763**	**2861**	**2935**	**3013**	**3098**	**3140**	**3240**	**3296**	*3378*	*3430*
Nonutility Own Use [d]	**NA**	**NA**	**91**	**113**	**119**	**122**	**127**	**138**	**145**	**145**	**148**	**156**	**185**	*181*	*160*
Total	**NA**	**NA**	**2738**	**2826**	**2881**	**2885**	**2988**	**3073**	**3159**	**3243**	**3288**	**3396**	**3481**	*3559*	*3590*
Total Energy Demand [e]															
(quadrillion Btu)	**NA**	**NA**	**84.2**	**84.2**	**84.5**	**85.6**	**87.4**	**89.2**	**90.9**	**93.9**	**94.2**	**94.7**	**96.5**	*97.6*	*99.3*
Total Energy Demand per Dollar of GDP															
(thousand Btu per 1996 Dollar)	**NA**	**NA**	**12.77**	**12.55**	**12.66**	**12.44**	**12.37**	**12.14**	**12.07**	**12.02**	**11.54**	**11.12**	**10.87**	*10.45*	*10.24*

[a] Refers to the imported cost of crude oil to U.S. refiners.

[b] Includes lease condensate.

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

[d] Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1999 are estimates.

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

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 CONTROL0900.

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

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars)	**6113**	**6368**	**6592**	**6708**	**6676**	**6880**	**7063**	**7348**	**7544**	**7813**	**8159**	**8516**	**8876**	*9341*	*9696*
GDP Implicit Price Deflator (Index, 1996=1.000)	**0.776**	**0.802**	**0.833**	**0.865**	**0.897**	**0.919**	**0.941**	**0.960**	**0.981**	**1.000**	**1.020**	**1.032**	**1.048**	*1.071*	*1.094*
Real Disposable Personal Income (billion chained 1996 Dollars)	**4582**	**4784**	**4907**	**5014**	**5033**	**5189**	**5261**	**5397**	**5539**	**5678**	**5854**	**6134**	**6331**	*6524*	*6830*
Manufacturing Production (Index, 1996=1.000)	**0.765**	**0.801**	**0.816**	**0.812**	**0.793**	**0.825**	**0.855**	**0.907**	**0.955**	**1.000**	**1.070**	**1.123**	**1.170**	*1.245*	*1.301*
Real Fixed Investment (billion chained 1996 dollars)	**856**	**887**	**911**	**895**	**833**	**886**	**958**	**1046**	**1109**	**1213**	**1329**	**1485**	**1621**	*1797*	*1919*
Real Exchange Rate (Index, 1996=1.000)	**NA**	**NA**	**NA**	**0.963**	**0.966**	**0.960**	**1.001**	**0.981**	**0.927**	**1.000**	**1.102**	**1.137**	**1.138**	*1.244*	*1.202*
Business Inventory Change (billion chained 1996 dollars)	**8.5**	**17.0**	**14.2**	**8.9**	**-6.8**	**-4.7**	**3.6**	**12.1**	**14.1**	**10.1**	**15.2**	**25.6**	**0.1**	*8.8*	*6.4*
Producer Price Index (index, 1982=1.000)	**1.028**	**1.069**	**1.122**	**1.163**	**1.165**	**1.172**	**1.189**	**1.205**	**1.247**	**1.277**	**1.275**	**1.244**	**1.255**	*1.334*	*1.355*
Consumer Price Index (index, 1982-1984=1.000)	**1.137**	**1.184**	**1.240**	**1.308**	**1.363**	**1.404**	**1.446**	**1.483**	**1.525**	**1.570**	**1.606**	**1.631**	**1.667**	*1.722*	*1.757*
Petroleum Product Price Index (index, 1982=1.000)	**0.568**	**0.539**	**0.612**	**0.748**	**0.671**	**0.647**	**0.620**	**0.591**	**0.608**	**0.701**	**0.680**	**0.513**	**0.609**	*0.899*	*0.801*
Non-Farm Employment (millions)	**102.0**	**105.2**	**107.9**	**109.4**	**108.3**	**108.6**	**110.7**	**114.1**	**117.2**	**119.6**	**122.7**	**125.8**	**128.8**	*131.4*	*132.9*
Commercial Employment (millions)	**65.2**	**67.8**	**70.0**	**71.3**	**70.8**	**71.2**	**73.2**	**76.1**	**78.8**	**81.1**	**83.9**	**86.6**	**89.5**	*91.9*	*93.7*
Total Industrial Production (index, 1996=1.000)	**0.780**	**0.815**	**0.830**	**0.828**	**0.812**	**0.837**	**0.866**	**0.914**	**0.958**	**1.000**	**1.063**	**1.108**	**1.147**	*1.215*	*1.265*
Housing Stock (millions)	**99.8**	**101.6**	**102.9**	**103.5**	**104.5**	**105.5**	**106.8**	**108.2**	**109.6**	**111.0**	**112.5**	**114.3**	**115.8**	*116.6*	*117.3*
Weather [a]															
Heating Degree-Days															
U.S.	**4334**	**4653**	**4726**	**4016**	**4200**	**4441**	**4700**	**4483**	**4531**	**4713**	**4542**	**3951**	**4169**	*4195*	*4463*
New England	**6546**	**6715**	**6887**	**5848**	**5960**	**6844**	**6728**	**6672**	**6559**	**6679**	**6662**	**5680**	**5952**	*6346*	*6467*
Middle Atlantic	**5699**	**6088**	**6134**	**4998**	**5177**	**5964**	**5948**	**5934**	**5831**	**5986**	**5809**	**4812**	**5351**	*5481*	*5703*
U.S. Gas-Weighted	**4391**	**4804**	**4856**	**4139**	**4337**	**4458**	**4754**	**4659**	**4707**	**4980**	**4802**	**4183**	**4399**	*4405*	*4714*
Cooling Degree-Days (U.S.)	**1269**	**1283**	**1156**	**1260**	**1331**	**1040**	**1218**	**1220**	**1293**	**1180**	**1156**	**1410**	**1297**	*1259*	*1235*

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

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 CONTROL0900.

Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Demand [a]															
OECD															
U.S. (50 States)	**16.7**	**17.3**	**17.3**	**17.0**	**16.7**	**17.0**	**17.2**	**17.7**	**17.7**	**18.3**	**18.6**	**18.9**	**19.5**	*19.6*	*20.0*
Europe [b]	**12.3**	**12.4**	**12.5**	**12.6**	**13.4**	**13.6**	**13.5**	**13.6**	**14.1**	**14.3**	**14.4**	**14.7**	**14.5**	*14.5*	*14.6*
Japan	**4.5**	**4.8**	**5.0**	**5.1**	**5.3**	**5.4**	**5.4**	**5.7**	**5.7**	**5.9**	**5.7**	**5.5**	**5.6**	*5.5*	*5.5*
Other OECD	**2.5**	**2.6**	**2.7**	**2.7**	**2.7**	**2.7**	**2.8**	**2.9**	**3.0**	**3.0**	**3.1**	**3.1**	**3.3**	*3.3*	*3.4*
Total OECD	**35.9**	**37.1**	**37.6**	**37.5**	**38.1**	**38.8**	**39.0**	**39.9**	**40.6**	**41.4**	**41.8**	**42.3**	**42.9**	*42.9*	*43.6*
Non-OECD															
Former Soviet Union	**9.0**	**8.9**	**8.7**	**8.4**	**8.3**	**6.8**	**5.6**	**4.8**	**4.6**	**4.0**	**3.9**	**3.8**	**3.6**	*3.7*	*3.7*
Europe	**2.2**	**2.2**	**2.1**	**1.9**	**1.4**	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.5**	**1.5**	**1.6**	*1.6*	*1.7*
China	**2.1**	**2.3**	**2.4**	**2.3**	**2.5**	**2.7**	**3.0**	**3.2**	**3.4**	**3.6**	**3.9**	**4.1**	**4.3**	*4.5*	*4.8*
Other Asia	**4.1**	**4.4**	**4.9**	**5.3**	**5.7**	**6.2**	**6.8**	**7.3**	**7.9**	**8.5**	**9.0**	**8.7**	**8.8**	*9.2*	*9.7*
Other Non-OECD	**9.7**	**10.0**	**10.3**	**10.5**	**10.6**	**11.0**	**11.4**	**11.8**	**12.1**	**12.4**	**13.0**	**13.3**	**13.6**	*14.0*	*14.4*
Total Non-OECD	**27.1**	**27.7**	**28.3**	**28.5**	**28.5**	**28.0**	**28.0**	**28.4**	**29.3**	**30.0**	**31.3**	**31.3**	**31.9**	*33.0*	*34.2*
Total World Demand	**63.0**	**64.8**	**65.9**	**66.0**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**73.1**	**73.6**	**74.8**	*75.9*	*77.9*
Supply [c]															
OECD															
U.S. (50 States)	**10.7**	**10.5**	**9.9**	**9.7**	**9.9**	**9.8**	**9.6**	**9.4**	**9.4**	**9.4**	**9.5**	**9.3**	**9.0**	*9.1*	*9.1*
Canada	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**2.6**	**2.7**	**2.6**	*2.7*	*2.7*
North Sea [d]	**3.8**	**3.8**	**3.7**	**3.9**	**4.1**	**4.5**	**4.8**	**5.5**	**5.9**	**6.3**	**6.2**	**6.2**	**6.3**	*6.4*	*6.4*
Other OECD	**1.4**	**1.5**	**1.4**	**1.5**	**1.5**	**1.4**	**1.4**	**1.5**	**1.5**	**1.5**	**1.6**	**1.6**	**1.5**	*1.7*	*1.7*
Total OECD	**17.9**	**17.8**	**17.1**	**17.1**	**17.5**	**17.9**	**18.0**	**18.7**	**19.2**	**19.7**	**19.9**	**19.7**	**19.4**	*19.9*	*20.0*
Non-OECD															
OPEC	**19.6**	**21.5**	**23.3**	**24.5**	**24.6**	**25.8**	**26.6**	**27.0**	**27.6**	**28.3**	**29.9**	**30.4**	**29.3**	*31.0*	*31.9*
Former Soviet Union	**12.5**	**12.5**	**12.1**	**11.4**	**10.4**	**8.9**	**8.0**	**7.3**	**7.1**	**7.1**	**7.1**	**7.2**	**7.4**	*7.8*	*8.2*
China	**2.7**	**2.7**	**2.8**	**2.8**	**2.8**	**2.8**	**2.9**	**2.9**	**3.0**	**3.1**	**3.2**	**3.2**	**3.2**	*3.3*	*3.3*
Mexico	**2.9**	**2.9**	**2.9**	**3.0**	**3.2**	**3.2**	**3.2**	**3.2**	**3.1**	**3.3**	**3.4**	**3.5**	**3.4**	*3.5*	*3.7*
Other Non-OECD	**6.9**	**11.7**	**7.7**	**8.0**	**8.1**	**8.4**	**8.7**	**9.2**	**9.9**	**10.2**	**10.5**	**10.8**	**11.2**	*11.3*	*11.5*
Total Non-OECD	**44.6**	**47.0**	**48.9**	**49.7**	**49.1**	**49.1**	**49.4**	**49.6**	**50.7**	**52.0**	**54.2**	**55.2**	**54.5**	*56.9*	*58.5*
Total World Supply	**62.5**	**64.8**	**65.9**	**66.8**	**66.7**	**67.0**	**67.4**	**68.3**	**69.9**	**71.8**	**74.1**	**74.9**	**73.9**	*76.9*	*78.6*
Total Stock Withdrawals	**0.5**	**0.1**	**0.0**	**-0.8**	**-0.1**	**-0.3**	**-0.4**	**0.0**	**0.0**	**-0.4**	**-1.0**	**-1.3**	**0.9**	*-1.0*	*-0.7*
OECD Comm. Stocks, End (bill. bbls.)	**2.7**	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	**2.8**	**2.8**	**2.7**	**2.7**	**2.7**	**2.8**	**2.6**	*2.7*	*2.8*
Net Exports from Former Soviet Union	**3.5**	**3.6**	**3.4**	**3.0**	**2.1**	**2.1**	**2.3**	**2.4**	**2.6**	**3.0**	**3.3**	**3.5**	**3.8**	*4.2*	*4.5*

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

[b] OECD Europe includes the former East Germany.

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

[d] Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table A4. Annual Average U. S. Energy Prices

(Nominal Dollars)

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Imported Crude Oil Prices															
Imported Average[a]	**18.13**	**14.57**	**18.08**	**21.75**	**18.70**	**18.20**	**16.14**	**15.52**	**17.14**	**20.61**	**18.50**	**12.08**	**17.22**	*28.11*	*24.01*
WTI[b] Spot Average	**19.20**	**15.98**	**19.78**	**24.48**	**21.60**	**20.54**	**18.49**	**17.16**	**18.41**	**22.11**	**20.61**	**14.45**	**19.25**	*30.16*	*26.03*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**1.66**	**1.69**	**1.69**	**1.71**	**1.64**	**1.74**	**2.04**	**1.85**	**1.55**	**2.17**	**2.32**	**1.95**	**2.08**	*3.37*	*3.65*
Petroleum Products															
Gasoline Retail [b] (dollars per gallon)															
All Grades	**0.91**	**0.92**	**1.02**	**1.17**	**1.15**	**1.14**	**1.13**	**1.13**	**1.16**	**1.25**	**1.24**	**1.07**	**1.18**	*1.53*	*1.41*
Regular Unleaded	**0.91**	**0.91**	**0.99**	**1.13**	**1.10**	**1.09**	**1.07**	**1.08**	**1.11**	**1.20**	**1.20**	**1.03**	**1.14**	*1.49*	*1.38*
No. 2 Diesel Oil, Retail (dollars per gallon)	**0.93**	**0.91**	**0.99**	**1.16**	**1.12**	**1.10**	**1.11**	**1.11**	**1.10**	**1.22**	**1.19**	**1.04**	**1.12**	*1.49*	*1.40*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.53**	**0.47**	**0.56**	**0.70**	**0.62**	**0.58**	**0.54**	**0.51**	**0.51**	**0.64**	**0.59**	**0.42**	**0.51**	*0.88*	*0.75*
No. 2 Heating Oil, Retail (dollars per gallon)	**0.80**	**0.81**	**0.90**	**1.06**	**1.02**	**0.93**	**0.91**	**0.88**	**0.87**	**0.99**	**0.99**	**0.85**	**0.88**	*1.32*	*1.22*
No. 6 Residual Fuel Oil, Retail [c] (dollars per barrel)	**17.76**	**14.04**	**16.20**	**18.66**	**14.32**	**14.21**	**14.00**	**14.79**	**16.49**	**19.01**	**17.82**	**12.83**	**16.02**	*25.40*	*22.43*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.51**	**1.47**	**1.44**	**1.45**	**1.45**	**1.41**	**1.38**	**1.36**	**1.32**	**1.29**	**1.27**	**1.25**	**1.22**	*1.20*	*1.20*
Heavy Fuel Oil [d] (dollars per million Btu)	**2.98**	**2.41**	**2.85**	**3.22**	**2.49**	**2.46**	**2.36**	**2.40**	**2.60**	**3.01**	**2.79**	**2.07**	**2.39**	*4.18*	*3.60*
Natural Gas (dollars per million Btu)	**2.24**	**2.26**	**2.36**	**2.32**	**2.15**	**2.33**	**2.56**	**2.23**	**1.98**	**2.64**	**2.76**	**2.38**	**2.57**	*4.08*	*4.18*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**5.55**	**5.47**	**5.64**	**5.80**	**5.82**	**5.89**	**6.17**	**6.41**	**6.06**	**6.35**	**6.95**	**6.83**	**6.62**	*7.58*	*8.50*
Electricity (cents per kilowatthour)	**7.4**	**7.5**	**7.6**	**7.8**	**8.1**	**8.2**	**8.3**	**8.4**	**8.4**	**8.4**	**8.4**	**8.3**	**8.1**	*8.3*	*8.3*

[a]Refiner acquisition cost (RAC) of imported crude oil.
[b]West Texas Intermediate.
[c]Average self-service cash prices.
[d]Average for all sulfur contents.
[e]Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Crude Oil Supply															
Domestic Production [a]	**8.35**	**8.14**	**7.61**	**7.36**	**7.42**	**7.17**	**6.85**	**6.66**	**6.56**	**6.46**	**6.45**	**6.25**	**5.88**	*5.84*	*5.88*
Alaska	**1.96**	**2.02**	**1.87**	**1.77**	**1.80**	**1.71**	**1.58**	**1.56**	**1.48**	**1.39**	**1.30**	**1.17**	**1.05**	*0.96*	*1.00*
Lower 48	**6.39**	**6.12**	**5.74**	**5.58**	**5.62**	**5.46**	**5.26**	**5.10**	**5.08**	**5.07**	**5.16**	**5.08**	**4.83**	*4.88*	*4.88*
Net Imports (including SPR) [b]	**4.52**	**4.95**	**5.70**	**5.79**	**5.67**	**5.99**	**6.69**	**6.96**	**7.14**	**7.40**	**8.12**	**8.60**	**8.61**	*8.91*	*9.29*
Other SPR Supply	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.01**	*0.08*	*0.09*
Stock Draw (Including SPR)	**-0.13**	**0.00**	**-0.09**	**0.02**	**-0.01**	**0.00**	**-0.08**	**-0.02**	**0.09**	**0.05**	**-0.06**	**-0.07**	**0.09**	*-0.03*	*-0.01*
Product Supplied and Losses	**-0.03**	**-0.04**	**-0.03**	**-0.02**	**-0.02**	**-0.01**	**-0.01**	**-0.01**	**-0.01**	**-0.01**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*
Unaccounted-for Crude Oil	**0.14**	**0.20**	**0.20**	**0.26**	**0.20**	**0.26**	**0.17**	**0.27**	**0.19**	**0.22**	**0.14**	**0.11**	**0.19**	*0.31*	*0.21*
Total Crude Oil Supply	**12.85**	**13.25**	**13.40**	**13.41**	**13.30**	**13.41**	**13.61**	**13.87**	**13.97**	**14.19**	**14.66**	**14.89**	**14.80**	*15.10*	*15.29*
Other Supply															
NGL Production	**1.59**	**1.62**	**1.55**	**1.56**	**1.66**	**1.70**	**1.74**	**1.73**	**1.76**	**1.83**	**1.82**	**1.76**	**1.85**	*1.95*	*1.98*
Other Inputs	**0.12**	**0.11**	**0.11**	**0.13**	**0.15**	**0.20**	**0.25**	**0.26**	**0.30**	**0.31**	**0.34**	**0.38**	**0.38**	*0.38*	*0.37*
Crude Oil Product Supplied	**0.03**	**0.04**	**0.03**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*
Processing Gain	**0.64**	**0.66**	**0.66**	**0.68**	**0.71**	**0.77**	**0.77**	**0.77**	**0.77**	**0.84**	**0.85**	**0.89**	**0.89**	*0.93*	*0.91*
Net Product Imports [c]	**1.39**	**1.63**	**1.50**	**1.38**	**0.96**	**0.94**	**0.93**	**1.09**	**0.75**	**1.10**	**1.04**	**1.17**	**1.30**	*1.24*	*1.47*
Product Stock Withdrawn	**0.09**	**0.03**	**0.13**	**-0.14**	**-0.04**	**0.06**	**-0.05**	**0.00**	**0.15**	**0.03**	**-0.09**	**-0.17**	**0.30**	*-0.02*	*-0.04*
Total Supply	**16.72**	**17.33**	**17.37**	**17.04**	**16.76**	**17.10**	**17.26**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	*19.60*	*19.99*
Demand															
Motor Gasoline [d]	**7.19**	**7.36**	**7.40**	**7.31**	**7.23**	**7.38**	**7.48**	**7.60**	**7.79**	**7.89**	**8.02**	**8.25**	**8.43**	*8.39*	*8.51*
Jet Fuel	**1.38**	**1.45**	**1.49**	**1.52**	**1.47**	**1.45**	**1.47**	**1.53**	**1.51**	**1.58**	**1.60**	**1.62**	**1.67**	*1.72*	*1.79*
Distillate Fuel Oil	**2.98**	**3.12**	**3.16**	**3.02**	**2.92**	**2.98**	**3.04**	**3.16**	**3.21**	**3.37**	**3.44**	**3.46**	**3.57**	*3.69*	*3.75*
Residual Fuel Oil	**1.26**	**1.38**	**1.37**	**1.23**	**1.16**	**1.09**	**1.08**	**1.02**	**0.85**	**0.85**	**0.80**	**0.89**	**0.83**	*0.80*	*0.79*
Other Oils [e]	**3.90**	**4.03**	**3.95**	**3.95**	**3.99**	**4.20**	**4.17**	**4.41**	**4.36**	**4.63**	**4.77**	**4.69**	**5.01**	*4.98*	*5.15*
Total Demand	**16.72**	**17.34**	**17.37**	**17.04**	**16.77**	**17.10**	**17.24**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	*19.59*	*19.99*
Total Petroleum Net Imports	**5.91**	**6.59**	**7.20**	**7.16**	**6.63**	**6.94**	**7.62**	**8.05**	**7.89**	**8.50**	**9.16**	**9.76**	**9.91**	*10.16*	*10.76*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**349**	**330**	**341**	**323**	**325**	**318**	**335**	**337**	**303**	**284**	**305**	**324**	**284**	*292*	*296*
Total Motor Gasoline	**226**	**228**	**213**	**220**	**219**	**216**	**226**	**215**	**202**	**195**	**210**	**216**	**193**	*201*	*203*
Jet Fuel	**50**	**44**	**41**	**52**	**49**	**43**	**40**	**47**	**40**	**40**	**44**	**45**	**41**	*42*	*41*
Distillate Fuel Oil	**134**	**124**	**106**	**132**	**144**	**141**	**141**	**145**	**130**	**127**	**138**	**156**	**125**	*120*	*127*
Residual Fuel Oil	**47**	**45**	**44**	**49**	**50**	**43**	**44**	**42**	**37**	**46**	**40**	**45**	**36**	*37*	*38*
Other Oils [f]	**260**	**267**	**257**	**261**	**267**	**263**	**273**	**275**	**258**	**250**	**259**	**291**	**246**	*249*	*256*

[a] Includes lease condensate.

[b] Net imports equals gross imports plus SPR imports minus exports.

[c] Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

[d] For years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, *Short-Term Energy Outlook*, EIA/DOE-0202(93/3Q), for details on this adjustment.

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's *Petroleum Supply Monthly*, TableC1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Trillion Cubic Feet)

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Total Dry Gas Production	**16.62**	**17.10**	**17.31**	**17.81**	**17.70**	**17.84**	**18.10**	**18.82**	**18.60**	**18.85**	**18.90**	**18.71**	**18.66**	*18.79*	*19.14*
Net Imports	**0.94**	**1.22**	**1.27**	**1.45**	**1.64**	**1.92**	**2.21**	**2.46**	**2.69**	**2.78**	**2.84**	**2.99**	**3.38**	*3.46*	*3.88*
Supplemental Gaseous Fuels	**0.10**	**0.10**	**0.11**	**0.12**	**0.11**	**0.12**	**0.12**	**0.11**	**0.11**	**0.11**	**0.10**	**0.10**	**0.10**	*0.11*	*0.12*
Total New Supply	**17.66**	**18.42**	**18.69**	**19.38**	**19.45**	**19.88**	**20.42**	**21.39**	**21.40**	**21.75**	**21.84**	**21.80**	**22.14**	*22.36*	*23.15*
Working Gas in Storage															
Opening	**2.75**	**2.76**	**2.85**	**2.51**	**3.07**	**2.82**	**2.60**	**2.32**	**2.61**	**2.15**	**2.17**	**2.17**	**2.73**	*2.51*	*2.22*
Closing	**2.76**	**2.85**	**2.51**	**3.07**	**2.82**	**2.60**	**2.32**	**2.61**	**2.15**	**2.17**	**2.17**	**2.73**	**2.51**	*2.22*	*2.22*
Net Withdrawals	**-0.01**	**-0.09**	**0.34**	**-0.56**	**0.24**	**0.23**	**0.28**	**-0.28**	**0.45**	**-0.02**	**0.00**	**-0.56**	**0.22**	*0.29*	*0.00*
Total Supply	**17.65**	**18.33**	**19.03**	**18.82**	**19.70**	**20.11**	**20.70**	**21.11**	**21.85**	**21.73**	**21.84**	**21.25**	**22.36**	*22.64*	*23.15*
Balancing Item [a]	**-0.44**	**-0.30**	**-0.23**	**-0.11**	**-0.66**	**-0.56**	**-0.42**	**-0.40**	**-0.27**	**0.24**	**0.11**	**0.01**	**-0.80**	*-0.37*	*-0.40*
Total Primary Supply	**17.21**	**18.03**	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.56**	*22.28*	*22.74*
Demand															
Lease and Plant Fuel	**1.15**	**1.10**	**1.07**	**1.24**	**1.13**	**1.17**	**1.17**	**1.12**	**1.22**	**1.25**	**1.20**	**1.16**	**1.23**	*1.23*	*1.24*
Pipeline Use	**0.52**	**0.61**	**0.63**	**0.66**	**0.60**	**0.59**	**0.62**	**0.69**	**0.70**	**0.71**	**0.75**	**0.64**	**0.64**	*0.66*	*0.66*
Residential	**4.31**	**4.63**	**4.78**	**4.39**	**4.56**	**4.69**	**4.96**	**4.85**	**4.85**	**5.24**	**4.98**	**4.52**	**4.72**	*4.77*	*5.10*
Commercial	**2.43**	**2.67**	**2.72**	**2.62**	**2.73**	**2.80**	**2.86**	**2.90**	**3.03**	**3.16**	**3.21**	**3.00**	**3.10**	*3.27*	*3.43*
Industrial (Incl. Nonutilities)	**5.95**	**6.38**	**6.82**	**7.02**	**7.23**	**7.53**	**7.98**	**8.17**	**8.58**	**8.87**	**8.83**	**8.69**	**8.76**	*9.32*	*9.64*
Electric Utilities	**2.84**	**2.64**	**2.79**	**2.79**	**2.79**	**2.77**	**2.68**	**2.99**	**3.20**	**2.73**	**2.97**	**3.26**	**3.11**	*3.03*	*2.68*
Total Demand	**17.21**	**18.03**	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.56**	*22.28*	*22.74*

[a] The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

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

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

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

(Million Short Tons)

	Year														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Production	**918.8**	**950.3**	**980.7**	**1029.**	**996.0**	**997.5**	**945.4**	**1033.5**	**1033.0**	**1063.9**	**1089.9**	**1117.5**	**1094.0**	*1095.3*	*1109.4*
Appalachia	**NA**	**NA**	**464.8**	**489.0**	**457.8**	**456.6**	**409.7**	**445.4**	**434.9**	**451.9**	**467.8**	**460.4**	**423.3**	*426.2*	*411.5*
Interior	**NA**	**NA**	**198.1**	**205.8**	**195.4**	**195.7**	**167.2**	**179.9**	**168.5**	**172.8**	**170.9**	**168.4**	**162.5**	*151.0*	*151.6*
Western	**NA**	**NA**	**317.9**	**334.3**	**342.8**	**345.3**	**368.5**	**408.3**	**429.6**	**439.1**	**451.3**	**488.8**	**508.2**	*518.1*	*546.3*
Primary Stock Levels [a]															
Opening	**32.1**	**28.3**	**30.4**	**29.0**	**33.4**	**33.0**	**34.0**	**25.3**	**33.2**	**34.4**	**28.6**	**34.0**	**36.5**	*36.4*	*36.4*
Closing	**28.3**	**30.4**	**29.0**	**33.4**	**33.0**	**34.0**	**25.3**	**33.2**	**34.4**	**28.6**	**34.0**	**36.5**	**36.4**	*36.4*	*34.6*
Net Withdrawals	**3.8**	**-2.1**	**1.4**	**-4.4**	**0.4**	**-1.0**	**8.7**	**-7.9**	**-1.2**	**5.8**	**-5.3**	**-2.6**	**0.2**	*S*	*1.7*
Imports	**1.7**	**2.1**	**2.9**	**2.7**	**3.4**	**3.8**	**7.3**	**7.6**	**7.2**	**7.1**	**7.5**	**8.7**	**9.1**	*11.6*	*11.6*
Exports	**79.6**	**95.0**	**100.8**	**105.8**	**109.0**	**102.5**	**74.5**	**71.4**	**88.5**	**90.5**	**83.5**	**78.0**	**58.5**	*59.4*	*60.5*
Total Net Domestic Supply	**844.7**	**855.3**	**884.2**	**921.6**	**890.9**	**897.8**	**886.9**	**961.8**	**950.4**	**986.3**	**1008.5**	**1045.7**	**1044.8**	*1047.5*	*1062.3*
Secondary Stock Levels [b]															
Opening	**175.2**	**185.5**	**158.4**	**146.1**	**168.2**	**167.7**	**163.7**	**120.5**	**136.1**	**134.6**	**123.0**	**106.4**	**129.4**	*143.5*	*134.7*
Closing	**185.5**	**158.4**	**146.1**	**168.2**	**167.7**	**163.7**	**120.5**	**136.1**	**134.6**	**123.0**	**106.4**	**129.4**	**143.5**	*134.7*	*126.0*
Net Withdrawals	**-10.2**	**27.0**	**12.3**	**-22.1**	**0.5**	**4.0**	**43.2**	**-15.7**	**1.5**	**11.7**	**16.6**	**-23.0**	**-14.1**	*8.8*	*8.7*
Waste Coal Supplied to IPPs [c]	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**6.0**	**6.4**	**7.9**	**8.5**	**8.8**	**8.1**	**8.6**	**9.7**	*12.2*	*12.2*
Total Supply	**834.4**	**882.3**	**896.5**	**899.4**	**891.4**	**907.8**	**936.5**	**954.0**	**960.4**	**1006.7**	**1033.2**	**1031.3**	**1040.4**	*1068.6*	*1083.3*
Demand															
Coke Plants	**37.0**	**41.9**	**40.5**	**38.9**	**33.9**	**32.4**	**31.3**	**31.7**	**33.0**	**31.7**	**30.2**	**28.2**	**28.1**	*29.0*	*29.1*
Electricity Production															
Electric Utilities	**717.9**	**758.4**	**766.9**	**773.5**	**772.3**	**779.9**	**813.5**	**817.3**	**829.0**	**874.7**	**900.4**	**910.9**	**894.1**	*858.2*	*879.0*
Nonutilities (Excl. Cogen.) [d]	**NA**	**NA**	**0.9**	**1.6**	**10.2**	**14.6**	**17.1**	**19.5**	**20.8**	**22.2**	**21.6**	**26.9**	**45.9**	*100.5*	*102.9*
Retail and General Industry	**75.2**	**76.3**	**82.3**	**83.1**	**81.5**	**80.2**	**81.1**	**81.2**	**78.9**	**76.9**	**77.1**	**73.0**	**70.3**	*71.3*	*72.2*
Total Demand [e]	**830.0**	**876.5**	**890.6**	**897.1**	**897.8**	**907.0**	**943.1**	**949.7**	**961.7**	**1005.6**	**1029.2**	**1039.0**	**1038.5**	*1059.0*	*1083.3*
Discrepancy [f]	**4.4**	**5.8**	**5.9**	**2.4**	**-6.4**	**0.8**	**-6.6**	**4.3**	**-1.3**	**1.2**	**4.0**	**-7.7**	***1.9***	*9.6*	*0.0*

[a] Primary stocks are held at the mines, preparation plants, and distribution points.

[b] Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

[c] Estimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

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

[e] Total Demand includes estimated IPP consumption.

[f] The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period. 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														
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Supply															
Net Utility Generation															
Coal	**1463.8**	**1540.7**	**1553.7**	**1559.6**	**1551.2**	**1575.9**	**1639.2**	**1635.5**	**1652.9**	**1737.5**	**1787.8**	**1807.5**	**1767.7**	*1688.5*	*1723.4*
Petroleum	**118.5**	**148.9**	**158.3**	**117.0**	**111.5**	**88.9**	**99.5**	**91.0**	**60.8**	**67.3**	**77.8**	**110.2**	**86.9**	*66.8*	*81.0*
Natural Gas	**272.6**	**252.8**	**266.6**	**264.1**	**264.2**	**263.9**	**258.9**	**291.1**	**307.3**	**262.7**	**283.6**	**309.2**	**296.4**	*287.8*	*254.1*
Nuclear	**455.3**	**527.0**	**529.4**	**576.9**	**612.6**	**618.8**	**610.3**	**640.4**	**673.4**	**674.7**	**628.6**	**673.7**	**725.0**	*731.1*	*729.2*
Hydroelectric	**249.7**	**222.9**	**265.1**	**279.9**	**275.5**	**239.6**	**265.1**	**243.7**	**293.7**	**328.0**	**337.2**	**304.4**	**293.9**	*261.0*	*268.3*
Geothermal and Other [a]	**12.3**	**12.0**	**11.3**	**10.7**	**10.1**	**10.2**	**9.6**	**8.9**	**6.4**	**7.2**	**7.5**	**7.2**	**3.7**	*2.2*	*2.2*
Subtotal	**2572.1**	**2704.3**	**2784.3**	**2808.2**	**2825.0**	**2797.2**	**2882.5**	**2910.7**	**2994.5**	**3077.4**	**3122.5**	**3212.2**	**3173.7**	*3037.5*	*3058.3*
Nonutility Generation [b]	**0.0**	**0.0**	**187.6**	**216.7**	**246.3**	**286.1**	**314.4**	**343.1**	**363.3**	**369.6**	**371.7**	**405.7**	**554.7**	*739.4*	*765.8*
Total Generation	**2572.1**	**2704.3**	**2971.9**	**3024.9**	**3071.3**	**3083.4**	**3196.9**	**3253.8**	**3357.8**	**3447.0**	**3494.2**	**3617.9**	**3728.4**	*3776.9*	*3824.1*
Net Imports [c]	**46.3**	**31.8**	**11.0**	**2.3**	**19.6**	**25.4**	**27.8**	**44.8**	**39.2**	**38.0**	**36.6**	**27.6**	**30.6**	*33.4*	*32.6*
Total Supply	**2618.5**	**2736.0**	**2982.8**	**3027.2**	**3091.0**	**3108.8**	**3224.7**	**3298.6**	**3397.1**	**3485.0**	**3530.8**	**3645.5**	**3759.0**	*3810.4*	*3856.7*
Losses and Unaccounted for [d]	**NA**	**NA**	**243.1**	**207.3**	**215.0**	**223.6**	**236.3**	**225.7**	**238.4**	**242.3**	**242.9**	**249.4**	**277.6**	*237.7*	*228.1*
Demand															
Electric Utility Sales															
Residential	**850.4**	**892.9**	**905.5**	**924.0**	**955.4**	**935.9**	**994.8**	**1008.5**	**1042.5**	**1082.5**	**1075.8**	**1127.7**	**1145.7**	*1167.6*	*1195.0*
Commercial	**660.4**	**699.1**	**725.9**	**751.0**	**765.7**	**761.3**	**794.6**	**820.3**	**862.7**	**887.4**	**928.4**	**968.5**	**982.9**	*1026.4*	*1035.8*
Industrial	**858.2**	**896.5**	**925.7**	**945.5**	**946.6**	**972.7**	**977.2**	**1008.0**	**1012.7**	**1030.4**	**1032.7**	**1040.0**	**1063.3**	*1073.8*	*1087.9*
Other	**88.2**	**89.6**	**89.8**	**92.0**	**94.3**	**93.4**	**94.9**	**97.8**	**95.4**	**97.5**	**102.9**	**103.5**	**104.2**	*110.3*	*111.1*
Subtotal	**2457.3**	**2578.1**	**2646.8**	**2712.6**	**2762.0**	**2763.4**	**2861.5**	**2934.6**	**3013.3**	**3097.8**	**3139.8**	**3239.8**	**3296.0**	*3378.1*	*3429.8*
Nonutility Own Use [e]	**NA**	**NA**	**94.7**	**101.5**	**108.0**	**121.8**	**126.9**	**138.4**	**145.4**	**144.9**	**148.2**	**156.2**	**185.3**	*194.5*	*198.8*
Total Demand	**NA**	**NA**	**2739.7**	**2819.9**	**2875.9**	**2885.1**	**2988.4**	**3073.0**	**3158.7**	**3242.7**	**3287.9**	**3396.0**	**3481.3**	*3572.6*	*3628.6*
Memo:															
Nonutility Sales															
to Electric Utilities	**NA**	**NA**	**92.9**	**115.2**	**138.3**	**164.4**	**187.5**	**204.7**	**217.9**	**224.6**	**223.5**	**249.5**	**369.4**	*544.9*	*567.0*

[a]Other includes generation from wind, wood, waste, and solar sources.

[b]Net generation.

[c]Data for 1999 are estimates.

[d]Balancing item, mainly transmission and distribution losses.

[e]Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1999 are estimates.

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

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