December 2000

Overview

Energy prices have continued to move higher this fall, with oil prices (until recently) showing little or none of the anticipated declines relating to estimated excess production over demand rates. The recent downturn in oil prices may be a temporary perturbation within the typical uncertainty bounds that could be reversed if no solid evidence of increased supplies materializes. To the extent that market perceptions of excess supply gain confirmation in concrete data on inventories, oil prices will probably move closer to the lower end of our probability range. Natural gas spot prices soared to record average levels in November after a taste of winter weather arrived in major heating demand areas. Significant gas supply constraints on the West Coast have launched sky-high prices there. Extraordinarily low heating oil inventories continue to put East Coast markets at risk of sharp price spikes if more cold weather moves in. As a result of all this, we have substantially revised upward our estimates of consumer heating bills for the 2000-2001 heating season.

Oil price movements and reliable indicators of net supply conditions in key markets put in doubt the timing, if not the significance, of presumed oil market "rebalancing" toward lower oil price ranges. We have lowered the trajectory of one key market indicator, OECD country oil stocks, to reflect the annoying reality of languishing actual stockpiles amidst claims of large aggregate excess production. Enough belief remains in the eventual ability of new supply increases to exceed incremental demand to expect declining prices by mid or late 2001. Recent downward crude oil price movements could signal an earlier rather than later correction. In any case, we expect WTI crude oil prices to remain near or above the $30-per-barrel level for some time, perhaps as long as through the middle of 2001. Meanwhile, November apparently brought nothing in the way of bearish price signals to East Coast heating oil markets (and U.S. distillate markets in general). Despite high production rates, an infusion of SPR oil and the possibility for a rebound related to early shipments of product to distributors and end users in earlier months, U.S. commercial distillate stocks eked out only a 2-million-barrels increase last month. Even in a normal year the November stock build is larger than that. The vulnerability of U.S. distillate markets (particularly in the Northeast) to upward price shocks under cold conditions has increased, and this is being reflected in increasing margins for distillate. Our expectations for average heating oil prices have accordingly been adjusted upward, with the winter average price now expected to be about 29 percent above the year-earlier

average. Combined with expected higher consumption rates this winter, typical heating oil bills may be more than a third higher than those seen last winter.

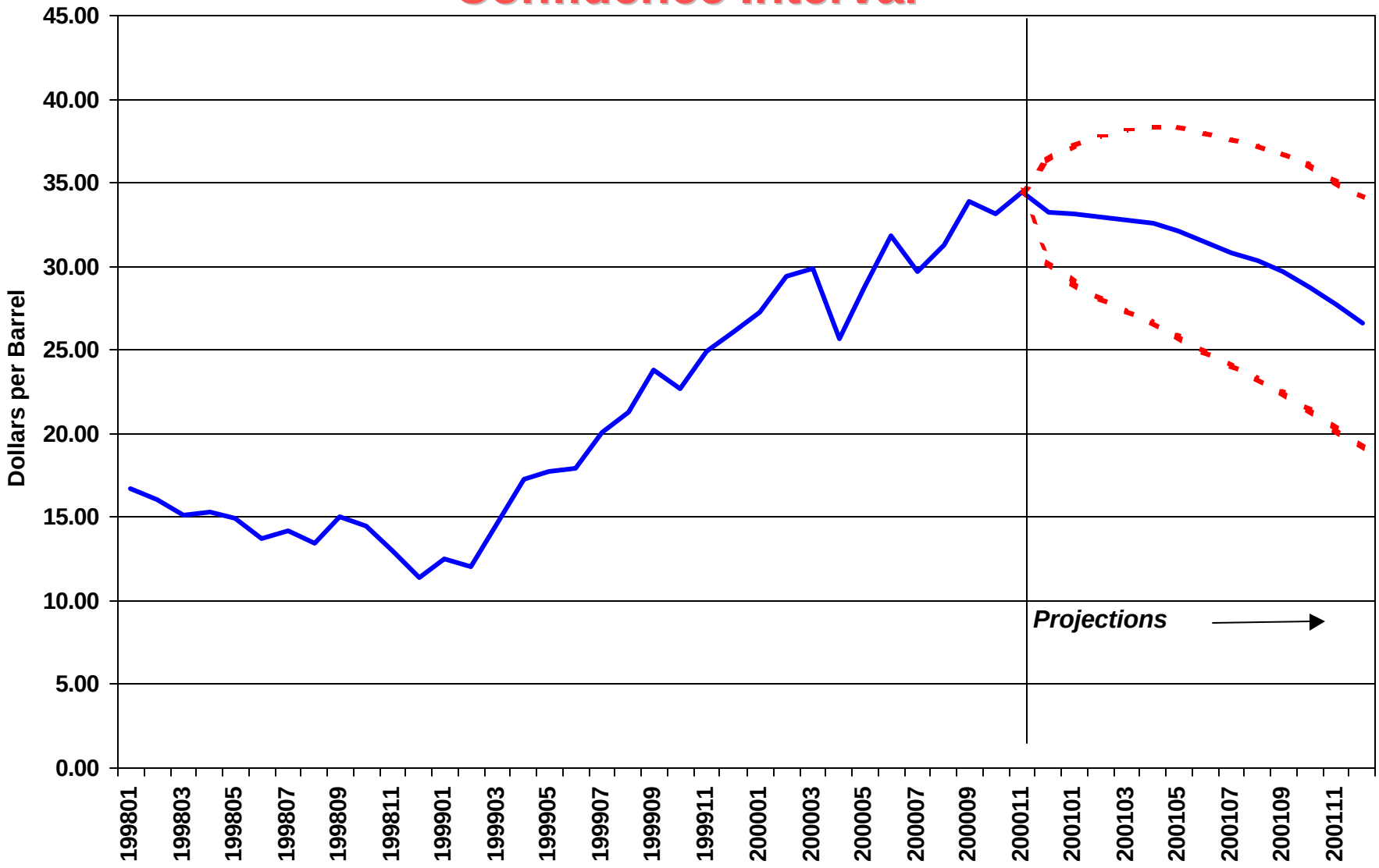
In addition to relatively low stocks now and expected high heating demand this winter, significant increases in natural gas demand from new gas generating plants next year will probably prolong the much-above-normal price environment through 2001, even if a decent turnaround in U.S. and Canadian production materializes for 2001, which we are in fact allowing for in this forecast. We think the strength of these factors are reflected in the current strength of spot prices and have adopted a higher price path through 2001 compared to the previous Outlook. We now see average winter residential prices averaging about $9.21 per thousand cubic feet compared to $6.56 last winter. This increase (40 percent), combined with expected growth in consumption rates, implies an expected increase in typical gas-heated household heating bills this winter of around 50 percent. As was the case with heating oil, November ended with lower-than-anticipated gas storage levels, increasing the probability that the heating season will end with record-low levels of natural gas in storage. We expect that high and volatile gas prices will prevail until solid evidence that the gas supply situation is easing. The net impact of the opening of the Alliance pipeline into the Chicago area (which reportedly began deliveries on December 1) on gas supplies looms larger now as a factor of interest in the United States.

International

Crude Oil Prices. The monthly U.S. imported crude oil price in November was a little over $31 per barrel (about $34 for West Texas Intermediate crude oil), or $1 higher than in October (Figure 1), and the second highest (in nominal terms) monthly average level in the decade since the Gulf War.

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. Although the average OPEC basket price has stayed above the $28 level since August 14, the informal price band mechanism has only been activated once. On October 31, OPEC activated the mechanism to increase aggregate OPEC production quotas by 500,000 barrels per day. However, the price band mechanism was not activated during end-November despite the passing of another 20 trading days of high prices that could have triggered the informal mechanism. OPEC sources have indicated that for the interim, OPEC would use the price band mechanism to boost low prices but not increase production quotas in the face of high prices. EIA's estimates of world oil supply and demand suggest that the monthly average U.S. imported crude oil price will

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



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

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remain relatively high, although precise levels are difficult to project, especially in view of recent volatility.

EIA had earlier expected that the announced OPEC production increases would result in an oversupply situation that would move prices down in early 2001. However, EIA's revised assessments of both the oil stock situation in the OECD countries and of OPEC's willingness to increase supplies to bring world oil prices down has led to an upward revision in our crude oil price projections in 2001. Recent price declines suggest more weakness in the near-term market, but we still think that a significant probability exists that prices will average close to $30 per barrel during the first half of 2001. At end-2001, EIA projects that oil prices may still post averages in the upper half of the OPEC price band.

International Oil Supply. After OPEC increased production quotas at end-October, OPEC could have further increased supplies at end-November by again activating its informal price-band mechanism. However, OPEC has stated that an agreement in principle has been reached to wait until its January 17 meeting before acting on production.

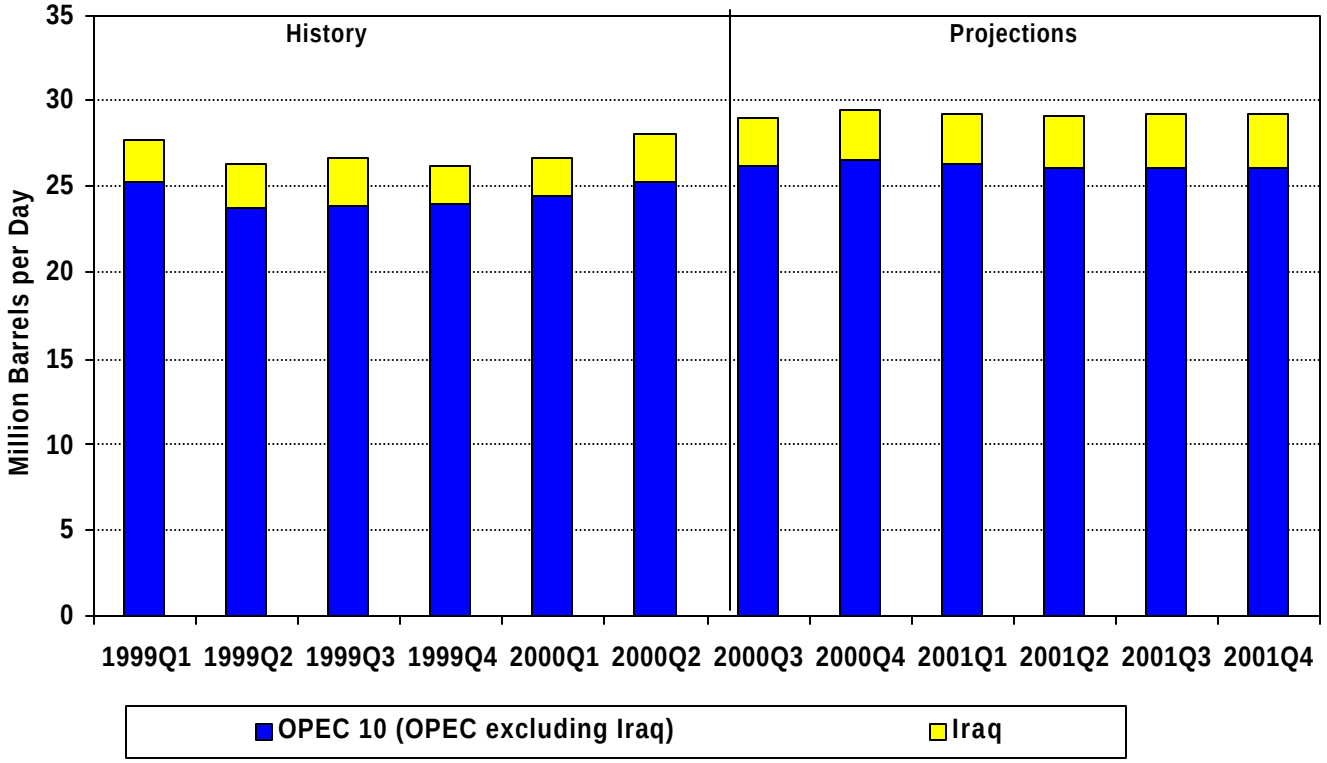
Although Saudi Arabia's oil minister Ali Naimi later issued a caveat that OPEC hasn't ruled out any production increases despite this agreement in principle, EIA has adjusted its forecast assumption that Saudi Arabia would keep increasing production until oil prices fell below $30 per barrel. EIA's projected OPEC production levels for fourth quarter 2000 have been lowered by 300,000 barrels per day from the previous Outlook (Figure 2).

EIA still believes that only Saudi Arabia, and to a lesser degree, the United Arab Emirates, will have significant short-term capacity to expand production, and that world oil excess production capacity will be at its lowest level during the past 3 decades (during non-disruption periods). EIA's Outlook assumes that OPEC 10 (OPEC excluding Iraq) production will decline by 400,000 barrels per day by mid-2001.

Iraqi crude oil production is estimated to have increased from 2.3 million barrels per day in first quarter 2000 to 2.8 million barrels per day by third quarter 2000, and production is expected to further increase to 3 million barrels per day by end-2000 and to 3.2 million barrels per day by end-2001. These projections do not reflect any official U.S. Government view, and assume that Iraqi efforts to end U.N. sanctions do not result in long-term cutbacks in Iraqi exports and production. The projections are also less than Iraq’s own estimate that production could reach as high as 3.5 million barrels per day in 2001.

Non-OPEC production in 2000 is expected to finish 1.2 million barrels per day

Figure 2. OPEC Crude Oil Production 1999-2001



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

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higher than in 1999. It is expected to increase by another 0.9 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 as capacity at export pipelines increases, especially with the opening of the Caspian Pipeline Consortium (CPC)'s pipeline to transport oil from Kazakhstan in June 2001. 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.

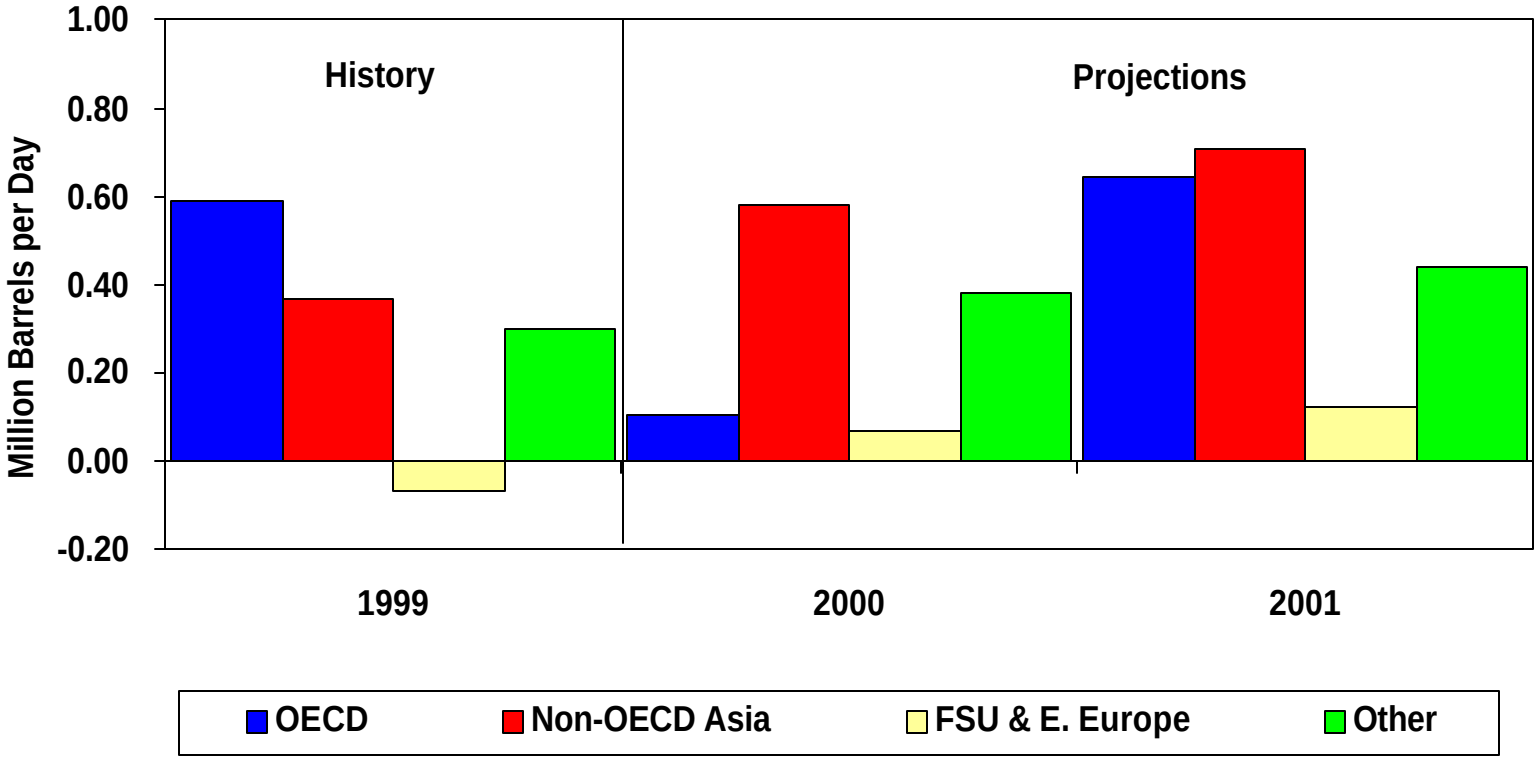
International Oil Demand. World oil demand in 2000 is expected to finish over 1 million barrels per day higher (about 1.5 percent) than in 1999, and average almost 76 million barrels per day (Figure 3). This is the lowest growth rate since 1993 with the exception of 1998, when Asian economies were suffering from a financial crisis. World oil demand growth in 2001 is expected to be almost 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 leading 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 are likely overstated because they include an uncertain "missing barrels" component.

In recognition of this problem, EIA has changed its assessment of OECD stock levels from its previous Outlooks. EIA had previously expected that because of increased OPEC production in 2000, OECD stocks by end-2000 would be about 2 days' of supply higher than year-earlier levels, and begin approaching normal levels (Figure 4). However, EIA now estimates that OECD countries will have at least 1 day less of inventory supplies this winter, leaving them more vulnerable to an interruption in supplies or to a cold spell. EIA's 2001 projection continues unchanged, as the expected continued high levels of OPEC production should bring relief to tight inventories and increase OECD stocks by 2 days' of supply.

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



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

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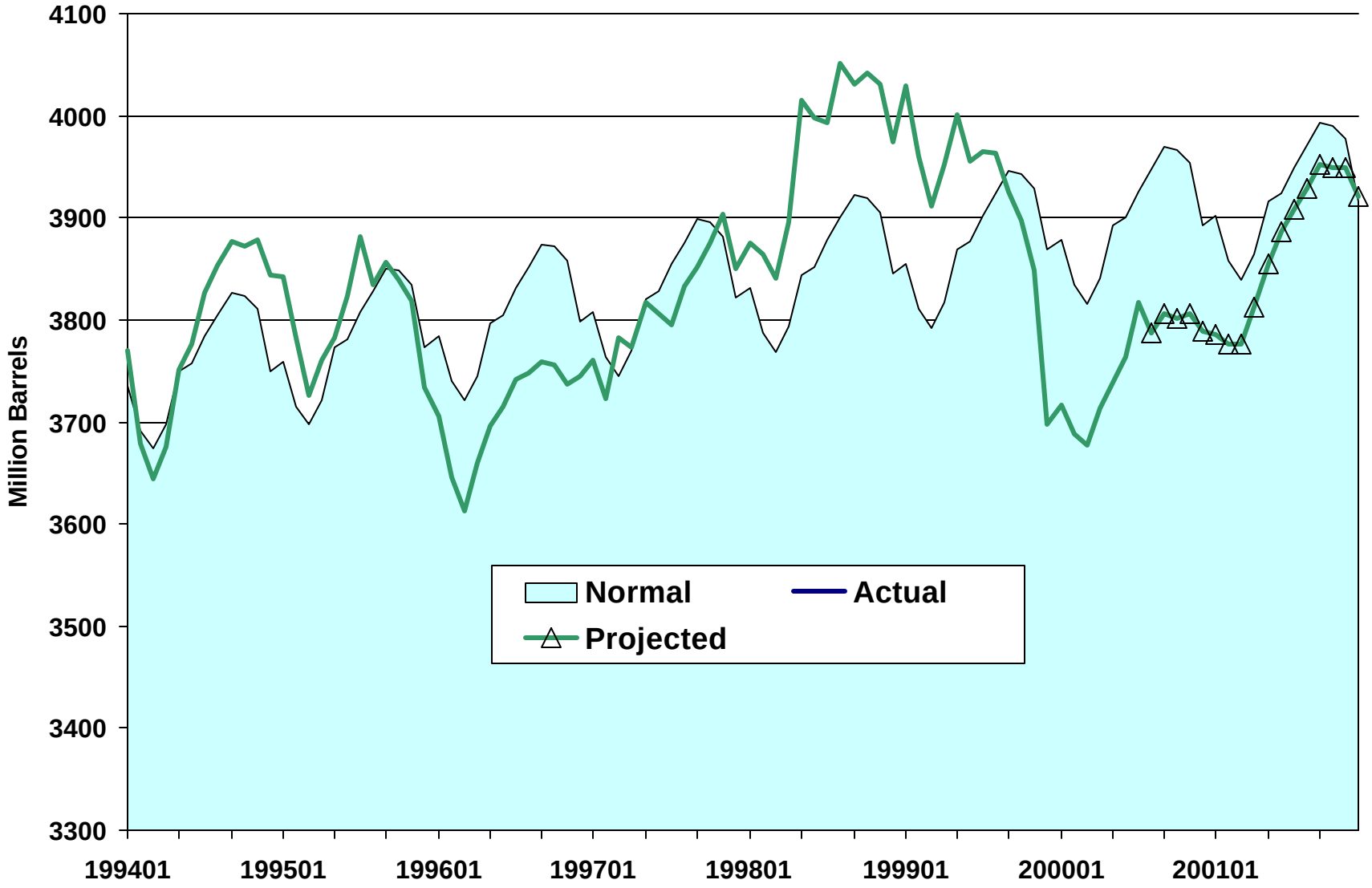
Figure 4. Total OECD Oil Stocks*



*Total includes commercial and government stocks

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

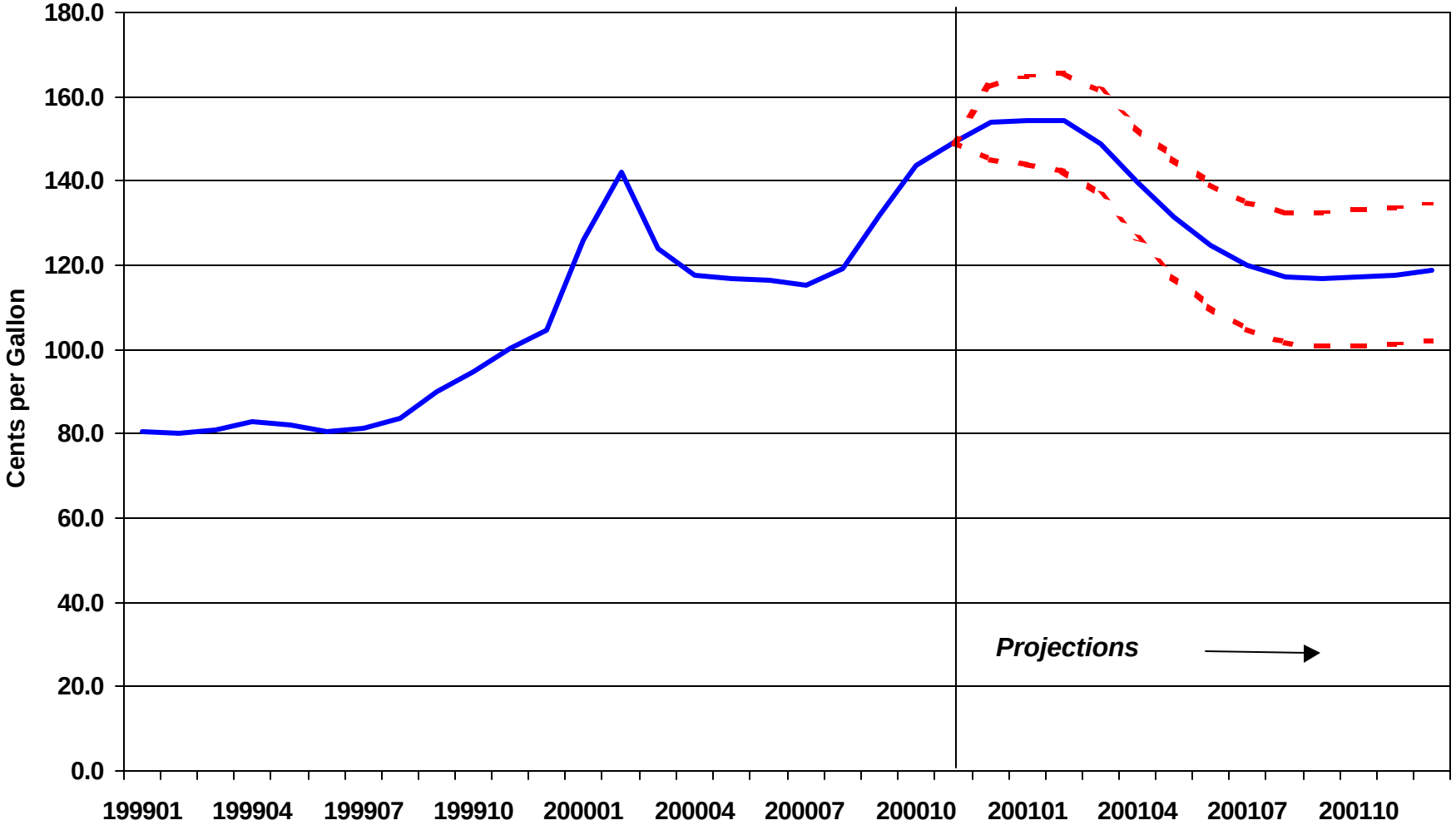
U. S. Energy Prices

Distillate Fuel (Heating Oil and Diesel Fuel). Retail heating oil prices will probably top $1.50 per gallon, the highest average monthly price recorded (in nominal terms) this December. Prices have increased substantially since July, gaining 34 cents per gallon in just 4 months (Figure 5). The national average price in November, $1.49 per gallon, was 49 cents per gallon above the November 1999 price. Over the same period, crude oil prices have risen by about 20 cents per gallon. The critically low level of inventories for distillate fuel, particularly heating oil, explains most of the remainder of the price rise. If the currently depressed level of distillate stocks continues, the result could be strong upward pressure on prices for the distillate fuels through the winter. Already, the spread of 73 cents per gallon between the retail price and the crude oil price is close to the record 76 cents per gallon that occurred last February. Then, a period of very cold weather in the Northeast, in combination with notably low stocks of distillate fuel, led to sharp spikes in heating oil and diesel fuel prices in New England and other areas in the region. (For the month of February 2000, the national average prices of heating oil and diesel fuel were $1.42 and $1.45 per gallon, respectively.) It should be noted 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 repeating in the last several *Outlooks*, a risk exists this winter for distillate fuel price spikes similar to what happened last February, especially if the weather stays unusually cold in the Northeast for more than a few days. For the U.S., distillate stocks are currently about 20 million barrels below the low end of the normal range (Figure 6). The additional supplies of crude oil released from the Strategic Petroleum Reserve under an exchange program in late October probably prevented the U.S. distillate supply situation from becoming even more tenuous than it is now, but hoped-for levels of distillate in storage by end-November have not materialized.

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. Assuming normal heating demand, with tight stocks and relatively high crude oil prices, we expect that winter residential heating oil prices will average $1.52 per gallon, or about 34 cents more per gallon compared to the last winter (Table 4). We note that this average is about 12 cents per gallon above our winter average projections reported last month.

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



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

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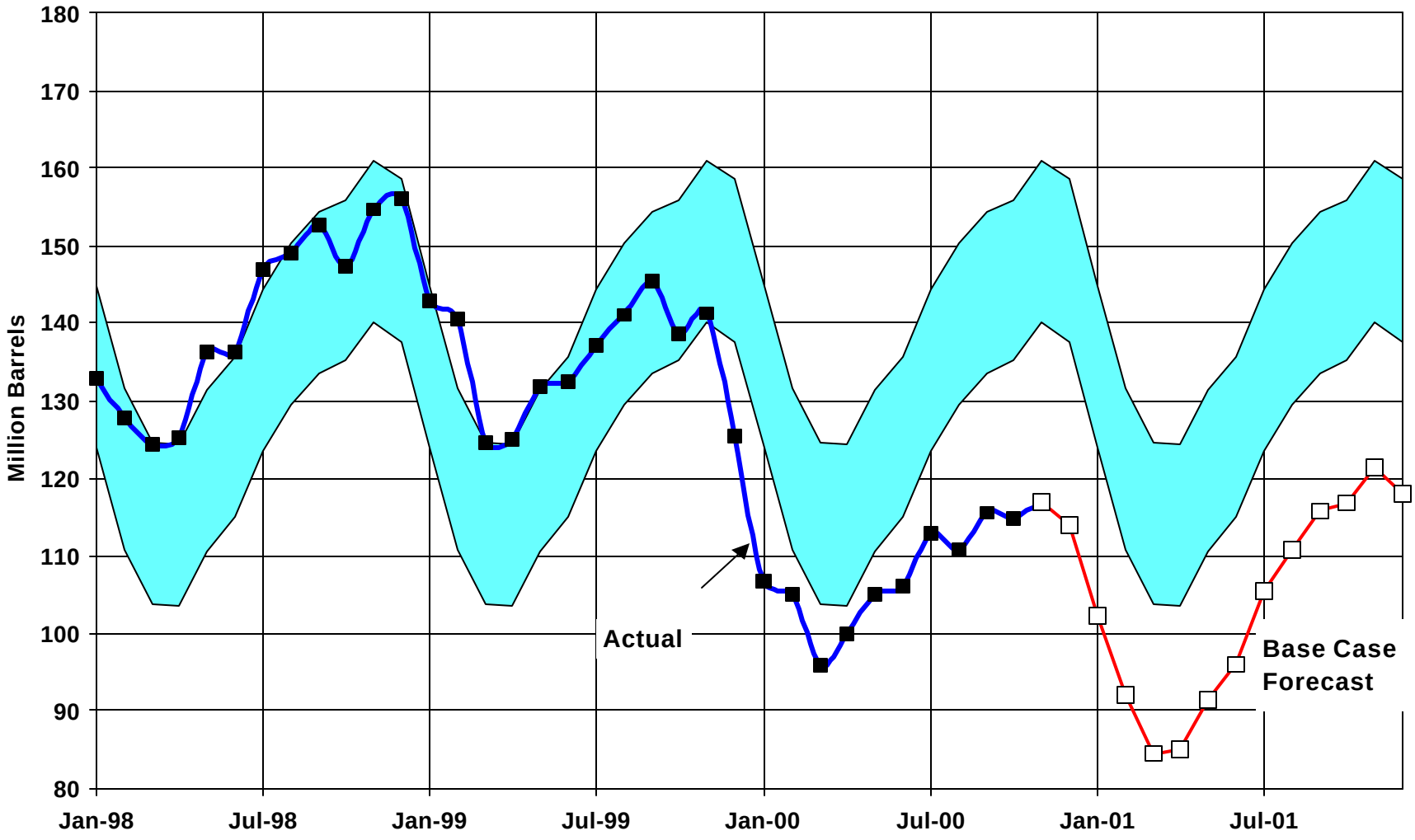
Figure 6. U.S. Total Distillate Fuel Stocks



NOTE: *Colored band is normal stock range*

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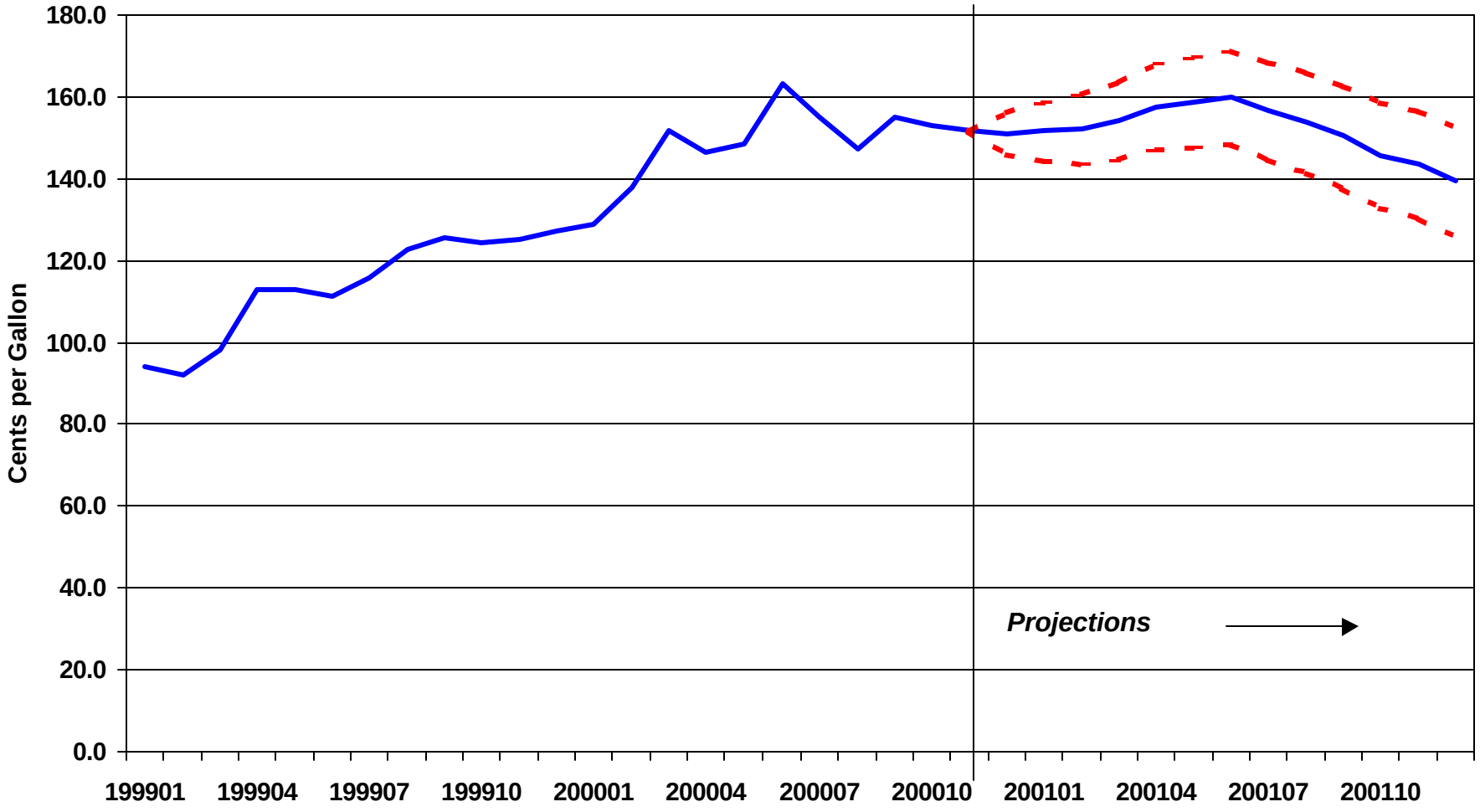
Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2000.

Motor Gasoline. Assuming that our crude oil price path holds, we project that retail motor gasoline prices will decline only slightly (if at all) this winter, then rise modestly when 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 $1.51 per gallon, or less than a nickel below the pump price of last August (Figure 7). Also, the presently low stock levels of motor gasoline--due in part to the need to produce more heating oil--may also be contributing to the unseasonably flattened price path for gasoline (Figure 8). For 2001, we expect an annual average price increase of about 3 cents per gallon at the pump, assuming, again, that our base case crude oil price path holds. The current outlook points to the likelihood of gasoline stocks being relatively low at the beginning of the next driving season, a situation that would once again put spring gas prices under pressure and potentially increase the probability of price runups next summer.

Natural Gas. Starting last June, spot wellhead prices have been averaging well over $4.00 per thousand cubic feet. For most of September through November, these prices have floated above $5.00 per thousand cubic feet, more than double the price of one year ago (Figure 9). Recently, they have been averaging over $6.00 per thousand cubic feet and wellhead prices topped $8.00 on December 6, 2000. Spot gas prices at the wellhead have never been this high for such a sustained period of time. Although high oil prices have encouraged the current strength in gas prices, the predominant reason for these sustained high gas prices was, and still is, apprehension about the supply situation this coming winter. For much of the summer, low levels of underground storage raised concerns about the availability of winter supplies. The low gas inventory situation, combined with fickle weather, has put the market in a very jittery position. This was evident last October when warm weather and high net storage injections produced a downward price plunge of over $1.00 per thousand cubic feet in a period of less than three weeks. Just recently, the spot market has been experiencing daily up and down price gyrations of 30-50 cents per thousand cubic feet or more based on short-term weather forecasts and revised weather forecasts. Cold weather for prolonged periods this winter would strain supplies and could 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 could still plunge sharply if the weather turns warm for any lengthy period of time in the gas consuming regions.

Underground working gas storage levels are currently about 8-9 percent below year-ago levels and about 13 percent below the previous 5-year average (Figure

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



* Regular unleaded self-service

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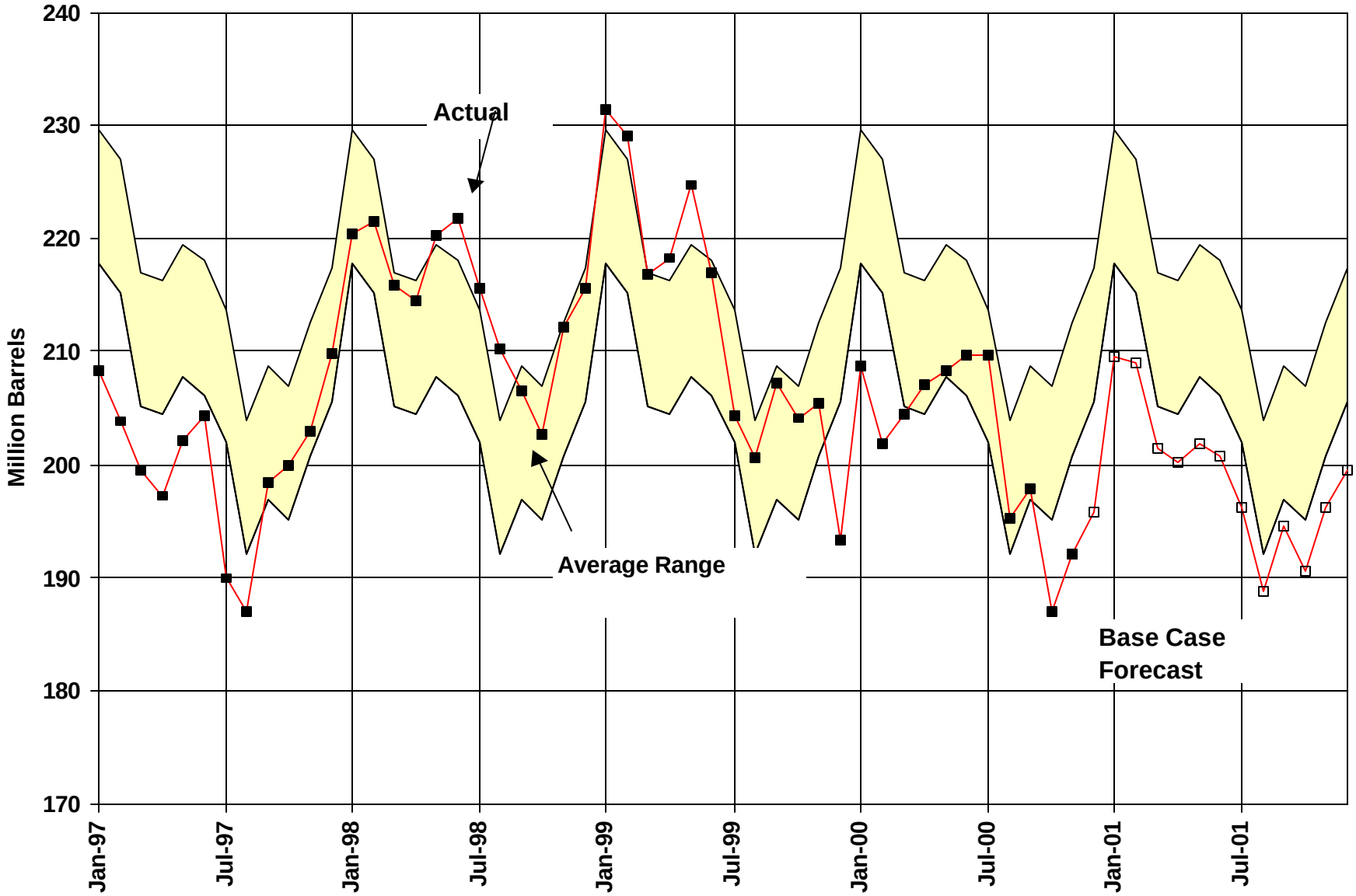
Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2000.

Figure 8. Gasoline Stocks



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

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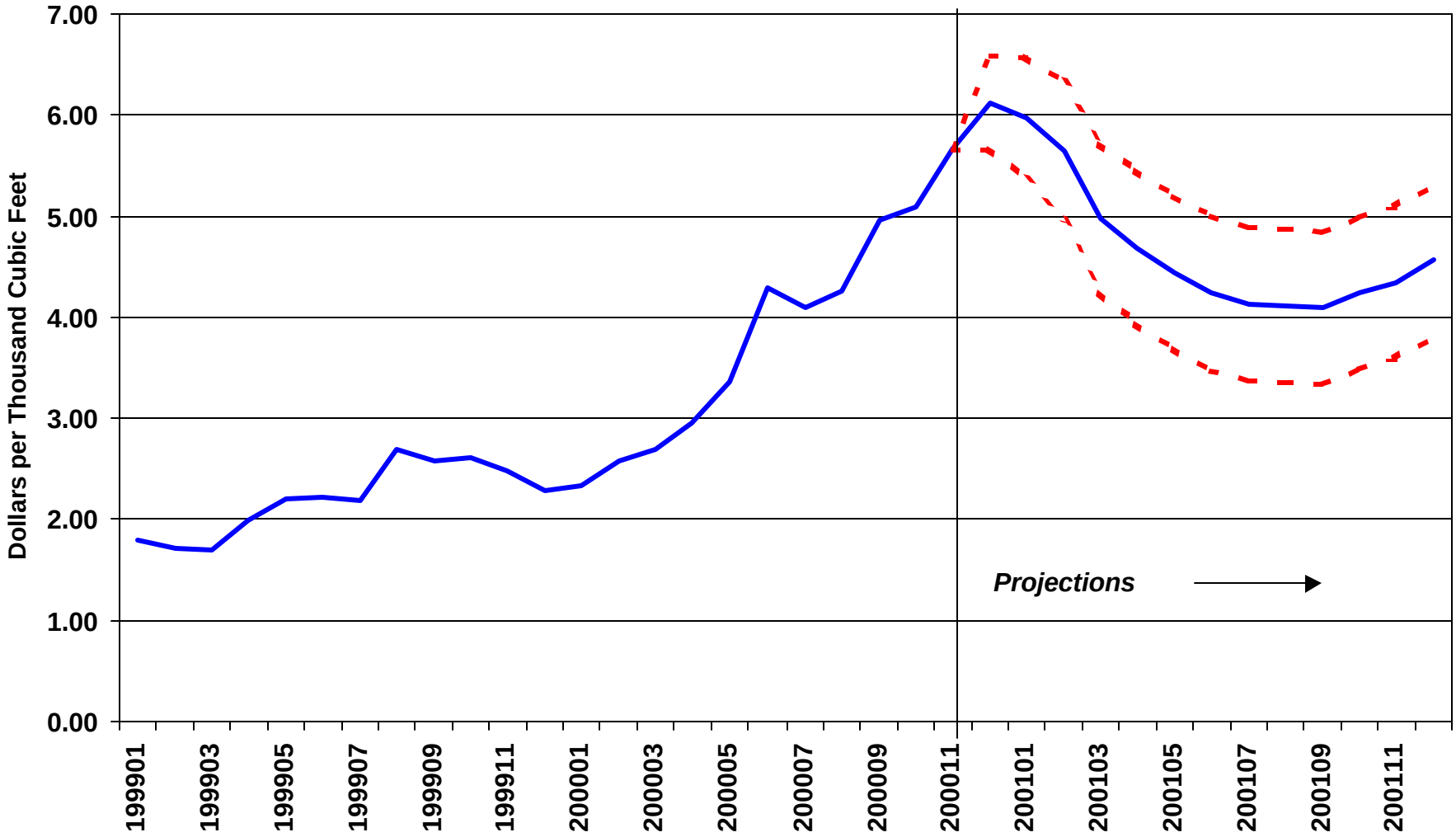
Figure 9. Natural Gas Spot Prices: Base Case and 95% Confidence Interval



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

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10). Thus, assuming normal weather for the remainder of the heating season, wellhead prices this winter should probably stay above $5.00 per thousand cubic feet. We are projecting that winter (October-March); natural gas prices at the wellhead will average about $5.60 per thousand cubic feet, more than double the price of last winter. Without a doubt, higher end-use prices will result from higher projected wellhead prices. If our base case projections hold, residential prices for natural gas would be about 40 percent higher than last year during that period. For the entire year 2000, the average wellhead price for natural gas is projected to average $3.60 per thousand cubic feet, an increase of 73 percent from the previous year (Table 4). Prices should descend from their winter highs in the spring of next year by about $1.00 per cubic foot as the weather-related demand recedes. We expect a continued price decline through the summer. Nevertheless, for the year 2001, assuming normal weather and our upward revision of world oil prices, we do not expect wellhead prices to drop below $4.00 per thousand cubic feet. Increases in production and imports of natural gas needed to keep pace with the rapidly growing demand for natural gas will result, at least in the short-term, in more expensive supplies for gas due to rising production costs and capacity constraints on the pipelines.

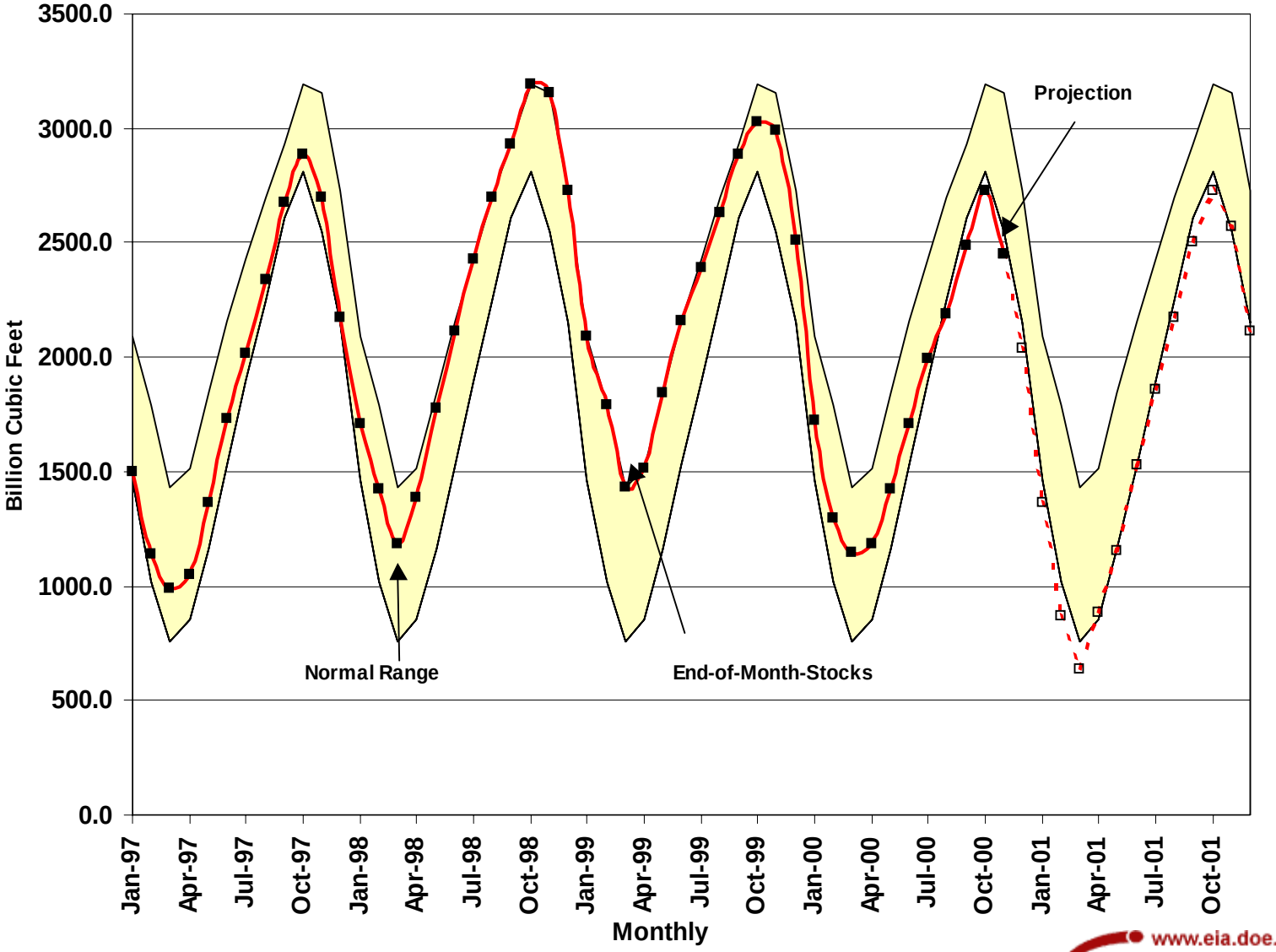
California has been experiencing particularly high natural gas prices (more than twice as high as recent national averages). High demand for gas-fired electricity generation, caused in part by low storage levels as well as low hydro and nuclear generation output coupled with heavy demand for gas for heating due to relatively cold temperatures, has severely strained the system in that State. Adequate supplies of gas from out of state to meet strong gas demand are seriously limited due to pipeline capacity constraints at the Canadian border in the State of Washington and from the Rocky Mountain producing areas.

Electric Utility Fuels. The rapid rise in gas prices last 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

Despite continued economic growth and the prospect of a “normal” winter season, total petroleum demand is projected to post an increase in 2000 of a meager 90,000 barrels per day, or 0.5 percent, over the 1999 level (Figure 12). That contrasts sharply with the average growth of 450,000 barrels per day during the previous two years.

Figure 10. Working Gas in Storage



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

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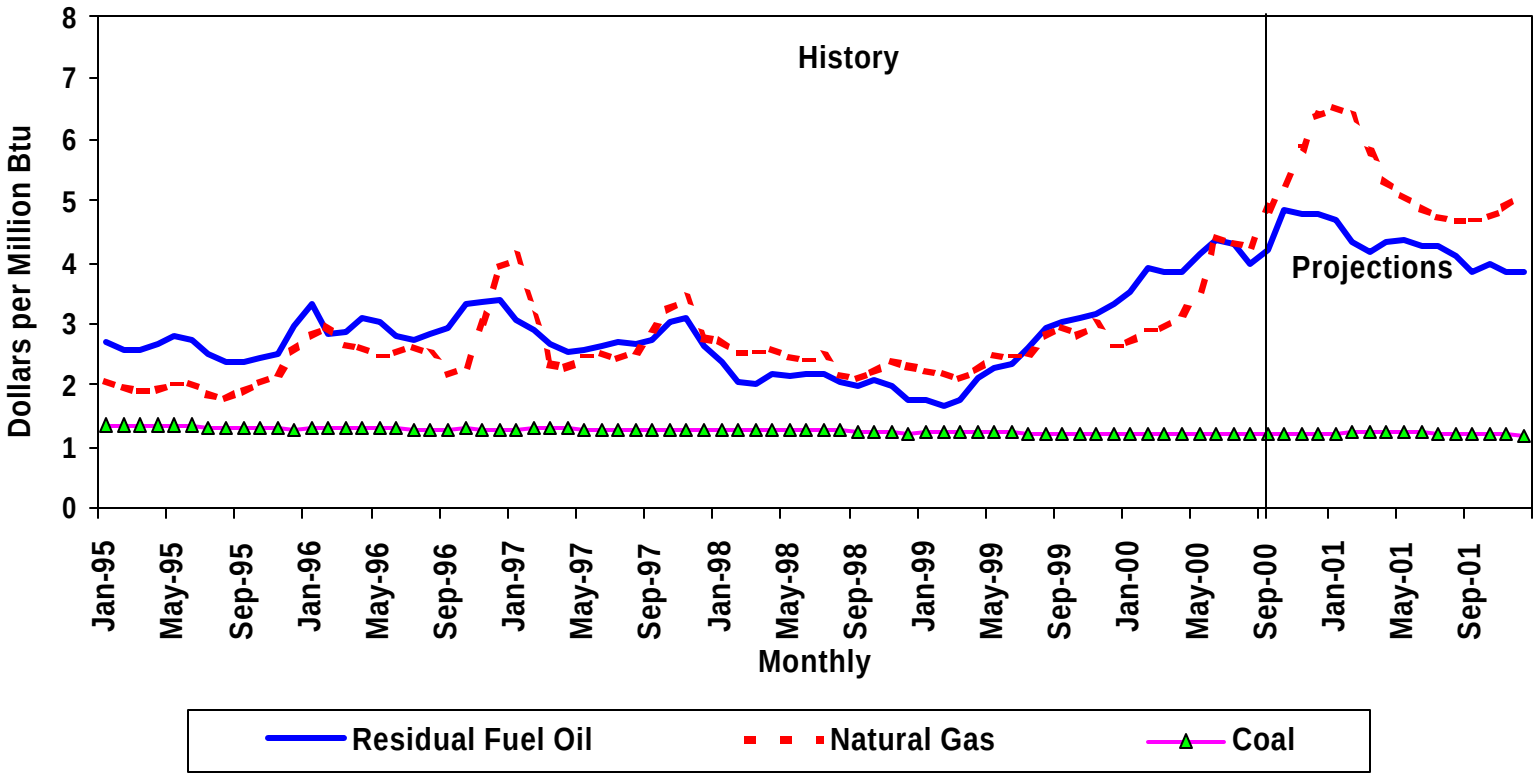
Figure 11. Fossil Fuel Prices to Electric Utilities



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

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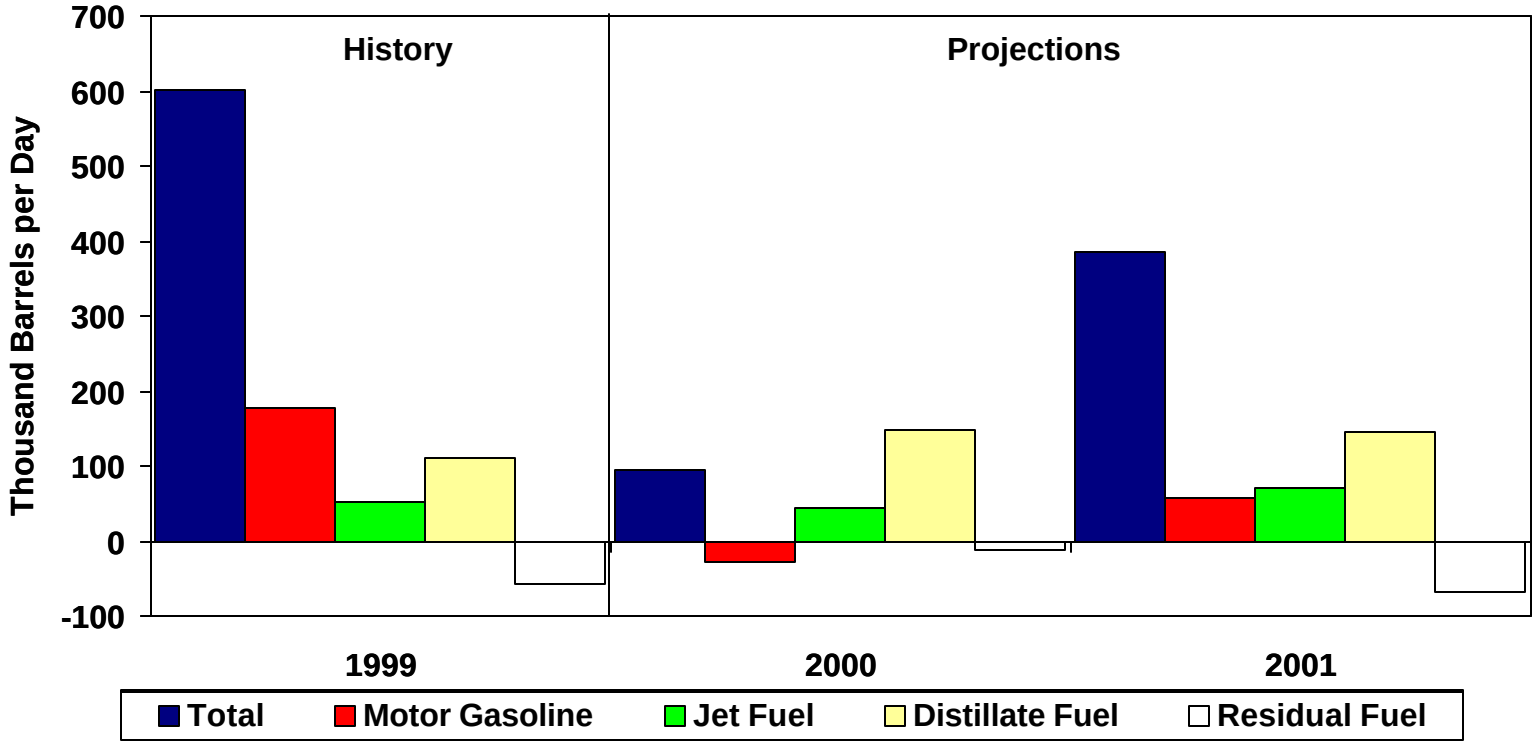
Figure 12. Petroleum Products Demand
(Year-to-Year Change)



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

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During the first half of 2000, several factors contributed to a slight year-over-year decline. These include: mild first-quarter weather (despite episodes of harsh winter conditions that briefly disrupted heating oil supplies, pushing up prices); price-induced changes in consumer behavior in the motor gasoline market, especially in the second quarter; fuel substitution in the power-generation sector, substantially affecting residual fuel oil demand, and Y2K-related concerns that shifted shipments of transportation fuels into late 1999. In contrast, the third quarter witnessed growth in total oil demand, but it was slight. Motor gasoline consumption actually continued to decline, underscoring recently published data showing a year-to-year decline in highway travel during the early summer. Moreover, available data for the fourth quarter indicate a continued slide in motor gasoline shipments. Although retail gasoline prices have retreated somewhat from their summer peaks, they still remain much higher than a year ago. As a result, highway travel is expected to show no growth this year. In addition, the combination of mild winter weather in the first quarter, high oil prices and cooler-than-normal weather in the Northeast during the summer cut into shipments of fuel oil to the power-generation sector. But distillate and propane sales have registered sizeable increases in the current quarter, due primarily to the colder-than-average weather in November. Fourth-quarter purchases by electric power customers are also expected to recover somewhat as a result of presumed "normal" weather for the rest of the year as well as an increase in natural gas prices. Despite continuing weakness in the motor gasoline market, weather patterns, soaring natural gas prices and the interruptible nature of natural gas deliveries all contribute to total expected fourth-quarter petroleum demand exceeding 20 million barrels per day for the first time since the record 20.4 million barrels per day set during the first quarter of 1979.

Total petroleum demand is projected to increase by 330,000 barrels per day, or 1.7 percent, in 2001. That growth is broadly based among most of the products. Motor gasoline demand is expected to reverse the previous year's decline, increasing by 1.6 percent. Although personal disposable income is projected to continue rising at rates similar to those of the previous year, highway travel is expected to be affected by continuing high retail prices. Reversing the recent softening, pump prices are set to rise once again until the summer, approaching those of last year's peak season. Although part of that rise is seasonal, reflecting increases in refining and distribution costs associated with peak demand, the tightness of supply is expected to bring about a larger-than-average increase despite continuing declines in the underlying cost of crude oil inputs. Residual fuel oil demand is projected to continue to recapture market share in the electric power sector but is expected to shrink once again as natural gas prices subside in the latter part of the year.

U.S. Crude Oil Supply

Average domestic oil production is expected to decrease by 46,000 barrels per day or 0.8 percent in 2000, to a level of 5.84 million barrels of oil per day (Figure 13). For 2001, a 1.1-percent increase is expected and results in a production rate of 5.90 million barrels of oil per day average for the year.

Lower-48 States oil production is expected to increase by 41,000 barrels per day to a rate of 4.87 million barrels per day in 2000, followed by an increase of 24,000 barrels per day in 2001. Shell started production in 1999 in their Ursa field, which will peak in production in the year 2001. Exxon's Diana and Hoover fields produce together and have started production. Oil production from the Mars, Auger, Troika, Ursa, and Diana-Hoover Federal Offshore fields is expected to account for about 9.3 percent of the lower-48 oil production by the 4th quarter of 2001.

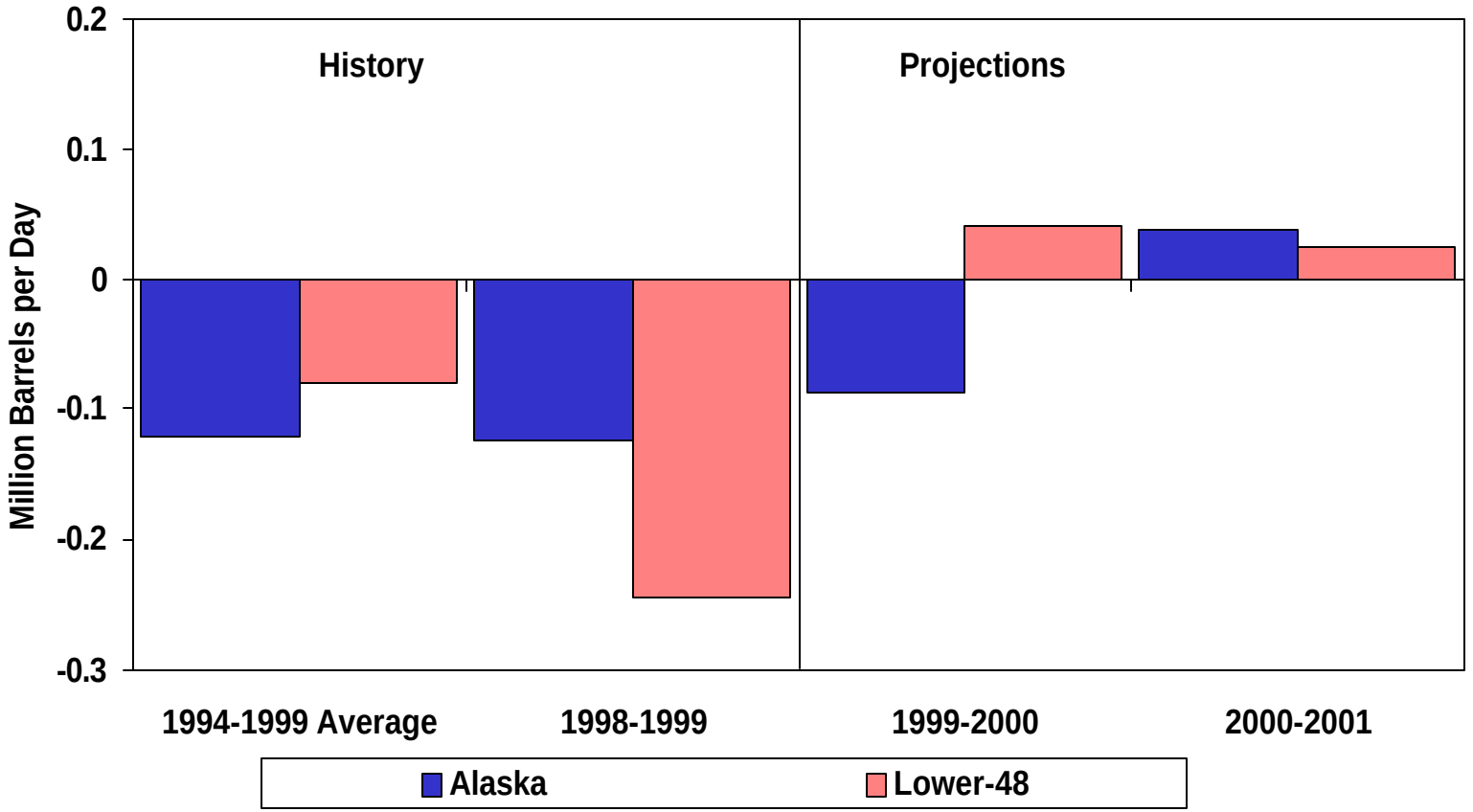
Alaska is expected to account for 17 percent of the total U.S. oil production in 2001. Its oil production is expected to decrease by 8.4 percent in 2000 but increase by 4.0 percent in 2001. A substantial portion of the oil production from Alaska comes from the giant Prudhoe Bay Field. Other than routine maintenance, no major investments are planned for this field during the forecast period. Therefore, the field is expected to follow a steeper decline during this period. Oil 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 field plus like production from 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, peaking 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 3.7 percent for the year, up somewhat from our projected November growth rate based on recent monthly data (Figure 14). In 2001, the forecast calls for a 3.8 percent growth rate, generated by high weather-related demand in the first quarter and continued growth in demand for gas by the power generating sector as new gas-fired plants come on line.

This winter, (October 2000 through March 2001) natural gas demand is expected to be up by 5.9 percent over last winter's demand, assuming normal weather in the remainder of the season. Normal weather implies an 11 percent rise in gas-weighted heating degree-days compared with last winter, which was much

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



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

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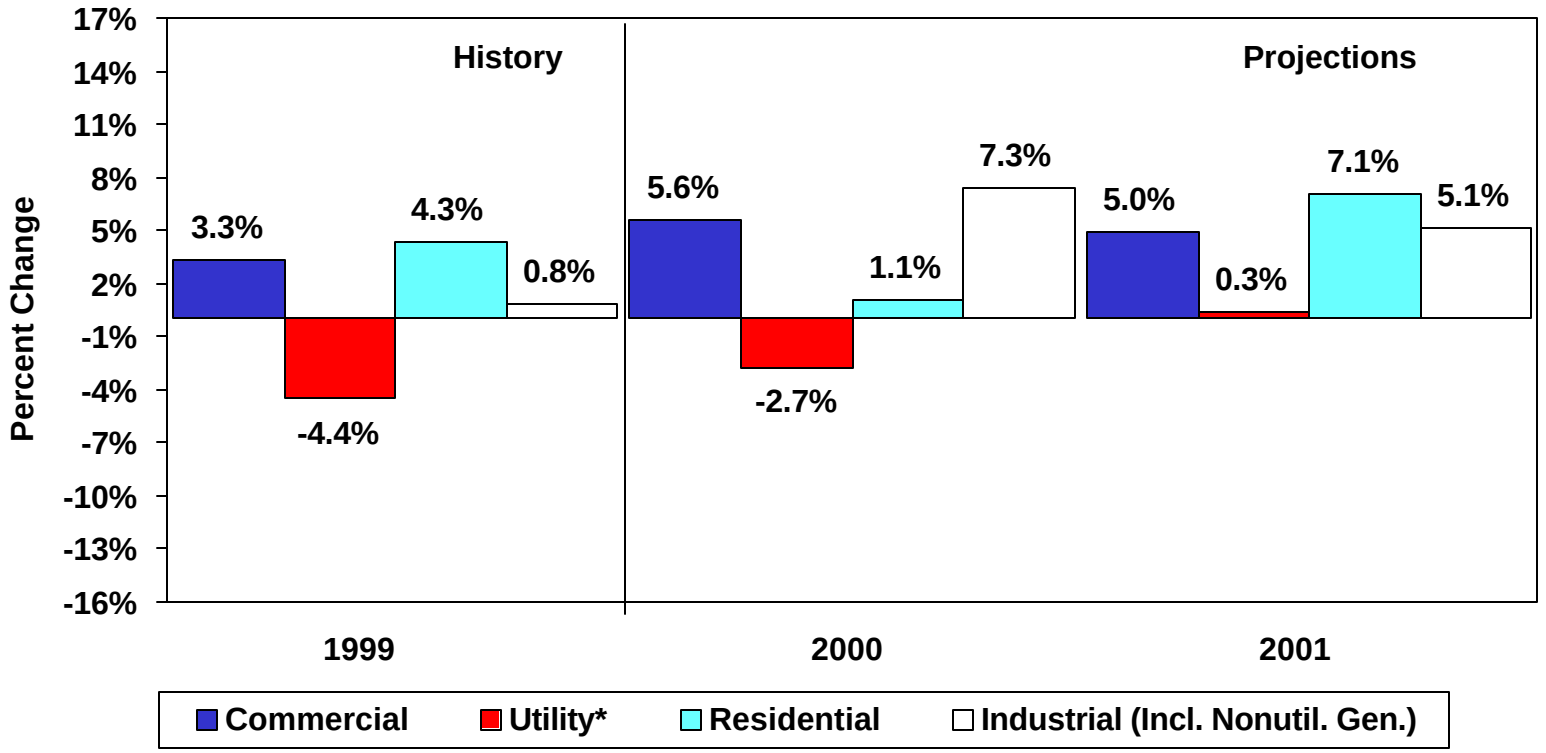
Figure 14. Annual Changes in Natural Gas Demand by Sector



* 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, December 2000.

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warmer than normal. Normal weather assumptions lead to the conclusion that residential and commercial sector demands would be up by around 10 percent over last year during the same period.

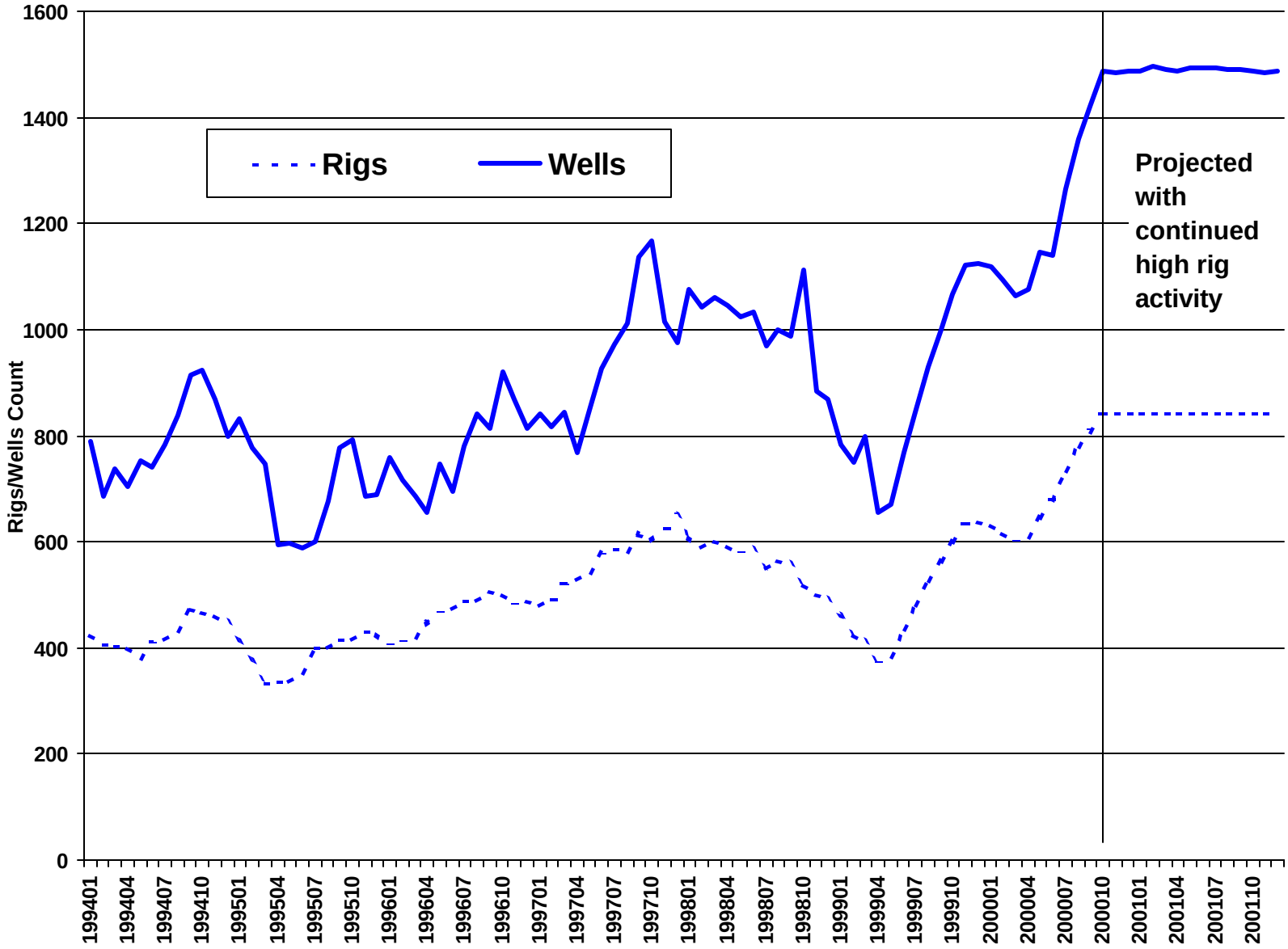
In 2000, natural gas demand in the industrial sector is expected to increase by 7.4 percent, with gas-fired electricity generation by merchant plants and cogenerators combined expected to be up by 18.6 percent. Electric utility gas demand is expected to remain about level with consumption rates seen in 2000. This distinction is due in 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. In 2001, utility gas-fired electricity demand is expected to remain about flat, while industrial gas-fired electricity generation growth continues to grow but at a somewhat slower pace of 11 percent. These reduced growth rates next year represent the net effect of increased growth in gas-fired capacity being offset by the reversal in prices of natural gas relative to oil and a slowing in the growth rate of electricity demand.

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 but by a significantly higher 3.9 rate in 2001. The U.S. natural gas rig count on December 1 was at 834 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.

According to the American Gas Association, during the week ending November 24 a total of 146 billion cubic feet was withdrawn from storage, bringing the total of working gas to 76 percent full. As of November 24, gas in underground storage was about 500 bcf below year-ago levels, and 299 bcf below the previous 5-year average at this time of year (Figure 16). This, together with cold weather in California and the Northeast, caused natural gas prices to rise to near historic highs. Pipeline constraints on the El Paso pipeline have also helped to boost gas prices in California and have caused interruptible gas customers to be cut off.

Net imports of natural gas are projected to rise by about 16 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. While it is unlikely that export capacity will be fully utilized this winter, we expect net imports to rise by 7.3 percent over last winter's imports. The Alliance Pipeline began carrying gas from western Canada to the Midwest on December 1, having been delayed from its original October 2 opening. Even if Alliance is near capacity at mid winter, it is highly likely that a substantial portion of the volumes contracted for delivery on the system will have been de-contracted from other

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



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

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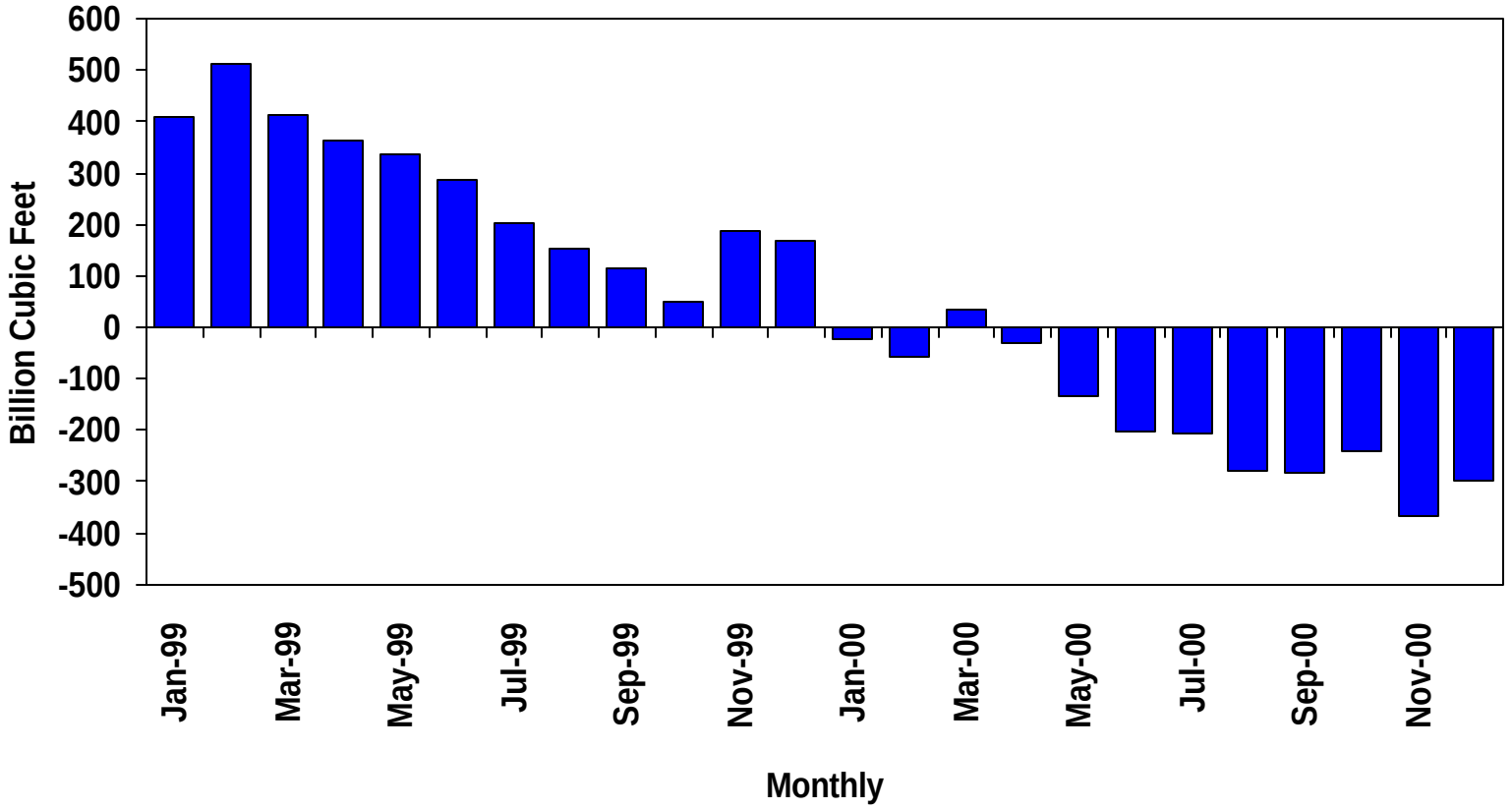
Figure 16. Natural Gas in Storage
(Difference from Previous 5-Year Average)



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

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systems, particularly the TransCanada Pipeline System. Thus it is an important question just how significant Alliance will be with respect to net new supply from Canada. We have now taken a more liberal view of potential production increases in North America for the year 2001. Significant increases in new supply will be required to meet expected increases in demand for space heating and power generation and to prevent storage conditions from deteriorating to a worse condition than has been experienced this year.

Electricity Demand and Supply

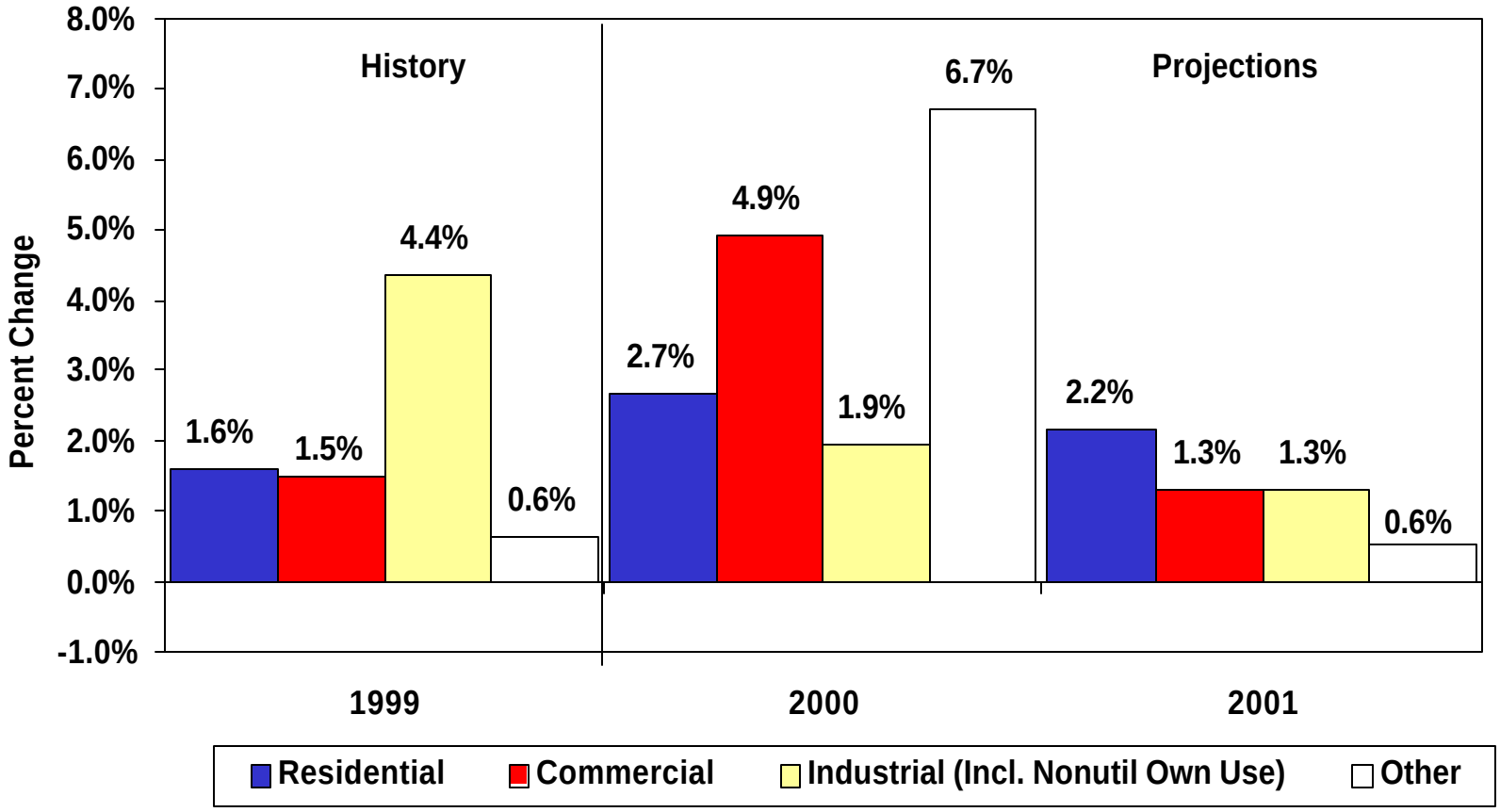
Projections of total annual electricity demand growth (utility sales plus industrial generation for own use) are generally higher than they were in the November Outlook at 3.2 percent in 2000 and 1.6 percent in 2001. Electricity demand growth is expected to be slower in 2001 than it was in 2000 along with economic growth.

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 3.3 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 5.0 and 4.8 percent, respectively (Figure 17 and Table 10).

In the fourth quarter of 2000 and the first quarter of 2001, previously falling demand for oil-fired generation is expected to turn around somewhat 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 the forecast period. Nevertheless, expected increases in gas-fired capacity are expected to keep gas demand for power generation growing and minimize any turnaround in oil consumption at power plants.

Supply problems in California for gas-fired electricity generation have helped to boost gas prices and caused interruptible customers to be cut off in that state. The situation in California is characterized by low gas storage, gas pipeline bottlenecks, continuing cold weather, high demand and low hydro and nuclear generating capacity. Gas prices have been spiking at as high as $15 to $18 per thousand Btu. Due to the state's cap on power prices, many merchant power plant operators say they have been losing money and many have canceled plans for new generating projects timed for next summer. These supply problems are following on last summer's supply problems with no end in sight.

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



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

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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**	*28.41*	*28.72*	**42.5**	*65.0*	*1.1*
Petroleum Supply (million barrels per day)							
Crude Oil Production [b]	**6.25**	**5.88**	*5.84*	*5.90*	**-5.9**	*-0.7*	*1.0*
Total Petroleum Net Imports (including SPR)	**9.76**	**9.91**	*10.15*	*10.73*	**1.5**	*2.4*	*5.7*
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**	*19.61*	*20.00*	**3.2**	*0.5*	*2.0*
Natural Gas (trillion cubic feet)	**21.26**	**21.56**	*22.36*	*23.38*	**1.4**	*3.7*	*4.6*
Coal [c] (million short tons)	**1039**	**1039**	*1065*	*1094*	**0.0**	*2.5*	*2.7*
Electricity (billion kilowatthours)							
Utility Sales [d]	**3240**	**3296**	*3393*	*3445*	**1.7**	*2.9*	*1.5*
Nonutility/Sales [e]	**156**	**185**	*198*	*203*	**18.6**	*7.0*	*2.5*
Total	**3396**	**3481**	*3592*	*3648*	**2.5**	*3.2*	*1.6*
Total Energy Demand [f] (quadrillion Btu)	**94.9**	**96.5**	*97.9*	*100.2*	**1.6**	*1.5*	*2.4*
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	**11.15**	**10.87**	*10.48*	*10.34*	**-2.5**	*-3.6*	*-1.3*
Renewable Energy as Percent of Total [g]	**7.0**	**7.0**	*6.7*	*6.6*			

[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**	**0.912**	*0.929*	*0.995*	*1.019*	*0.957*	*0.880*	*0.826*	**0.609**	*0.917*	*0.920*
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*	*7275*	*6902*	*7603*	*7782*	*7341*	**7341**	*7358*	*7409*
Vehicle Fuel Efficiency (index, 1999=1.000)	**0.991**	**0.992**	**1.007**	**1.006**	**0.995**	**1.010**	*1.015*	*0.999*	*1.004*	*1.006*	*1.010*	*1.001*	**0.999**	*1.005*	*1.005*
Real Vehicle Fuel Cost (cents per mile)	**2.98**	**3.35**	**3.51**	**3.76**	**4.17**	**4.28**	*4.21*	*4.40*	*4.40*	*4.36*	*4.18*	*4.07*	**3.40**	*4.27*	*4.25*
Air Travel Capacity (mill. available ton-miles/day)	**431.0**	**453.8**	**469.4**	**462.1**	**452.9**	**480.8**	*498.6*	*487.5*	*484.5*	*507.1*	*524.9*	*514.4*	**454.2**	*480.0*	*507.9*
Aircraft Utilization (mill. revenue ton-miles/day)	**242.2**	**264.2**	**277.5**	**266.0**	**254.9**	**283.6**	*297.7*	*283.8*	*278.7*	*297.6*	*311.6*	*296.8*	**262.6**	*280.0*	*296.3*
Airline Ticket Price Index (index, 1982-1984=1.000)	**2.130**	**2.186**	**2.180**	**2.254**	**2.309**	**2.419**	*2.491*	*2.517*	*2.544*	*2.543*	*2.529*	*2.532*	**2.188**	*2.434*	*2.537*
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*	*20.2*	*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*	*15.1*	**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*	*5.1*	*5.3*	*5.7*	**5.6**	*5.5*	*5.6*
Australia and New Zealand	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.1*	**1.0**	*1.0*	*1.0*
Total OECD	**43.8**	**41.2**	**42.4**	**44.1**	**42.9**	**41.4**	*43.0*	*44.5*	*44.2*	*42.0*	*43.3*	*44.8*	**42.9**	*43.0*	*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*	*77.7*	*78.5*	*76.4*	*77.4*	*79.2*	**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**	*9.1*	*9.1*	*9.2*	*9.2*	*9.1*	*9.2*	**9.0**	*9.1*	*9.2*
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**	*6.2*	*6.5*	*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*	*20.1*	*20.2*	*19.9*	*19.8*	*20.3*	**19.4**	*19.9*	*20.1*
Non-OECD															
OPEC	**30.4**	**28.9**	**29.2**	**28.7**	**29.3**	**30.7**	*31.6*	*32.1*	*32.0*	*31.9*	*31.9*	*32.0*	**29.3**	*30.9*	*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*	*3.8*
Other Non-OECD	**11.3**	**11.2**	**11.2**	**11.2**	**11.2**	**11.2**	*11.3*	*11.4*	*11.4*	*11.4*	*11.5*	*11.5*	**11.2**	*11.3*	*11.4*
Total Non-OECD	**55.7**	**54.0**	**54.5**	**54.0**	**54.8**	**56.4**	*57.6*	*58.4*	*58.4*	*58.4*	*58.6*	*58.9*	**54.5**	*56.8*	*58.6*
Total World Supply	**74.9**	**72.9**	**73.8**	**74.2**	**75.0**	**76.1**	*77.2*	*78.5*	*78.6*	*78.3*	*78.5*	*79.2*	**73.9**	*76.7*	*78.6*
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	**0.3**	**-0.2**	**0.3**	**1.3**	**0.2**	**-0.6**	*0.0*	*0.6*	*0.2*	*-0.5*	*-0.3*	*0.2*	**0.4**	*0.0*	*-0.1*
Other	**0.5**	**0.4**	**0.0**	**0.8**	**0.6**	**-1.1**	*-1.3*	*-1.4*	*-0.3*	*-1.4*	*-0.7*	*-0.2*	**0.4**	*-0.8*	*-0.7*
Total Stock Withdrawals	**0.8**	**0.1**	**0.3**	**2.2**	**0.7**	**-1.7**	*-1.4*	*-0.8*	*-0.1*	*-2.0*	*-1.1*	*0.1*	**0.9**	*-0.8*	*-0.8*
OECD Comm. Stocks, End (bill. bbls.)	**2.8**	**2.8**	**2.8**	**2.6**	**2.6**	**2.6**	*2.6*	*2.6*	*2.6*	*2.7*	*2.8*	*2.7*	**2.6**	*2.6*	*2.7*
Non-OPEC Supply	**44.6**	**44.0**	**44.5**	**45.4**	**45.7**	**45.4**	*45.6*	*46.4*	*46.6*	*46.5*	*46.6*	*47.2*	**44.6**	*45.8*	*46.7*
Net Exports from Former Soviet Union	**3.5**	**3.8**	**3.9**	**3.8**	**3.9**	**4.1**	*4.3*	*4.4*	*4.3*	*4.5*	*4.5*	*4.7*	**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**	*29.11*	*31.06*	*30.94*	*30.04*	*28.29*	*25.76*	**17.22**	*28.41*	*28.72*
WTI[b] Spot Average	**13.07**	**17.65**	**21.73**	**24.56**	**28.82**	**28.78**	*31.61*	*33.62*	*32.96*	*32.04*	*30.27*	*27.71*	**19.25**	*30.71*	*30.74*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**1.74**	**2.04**	**2.27**	**2.26**	**2.26**	**3.06**	*3.87*	*5.16*	*5.42*	*4.42*	*4.04*	*4.22*	**2.08**	*3.59*	*4.52*
Petroleum Products															
Gasoline Retail[c] (dollars per gallon)															
All Grades	**0.99**	**1.17**	**1.25**	**1.30**	**1.44**	**1.57**	*1.56*	*1.56*	*1.57*	*1.62*	*1.57*	*1.47*	**1.18**	*1.53*	*1.56*
Regular Unleaded	**0.95**	**1.13**	**1.21**	**1.26**	**1.40**	**1.53**	*1.52*	*1.52*	*1.53*	*1.59*	*1.54*	*1.43*	**1.14**	*1.49*	*1.52*
No. 2 Diesel Oil, Retail (dollars per gallon)	**0.97**	**1.08**	**1.18**	**1.26**	**1.42**	**1.41**	*1.50*	*1.62*	*1.61*	*1.52*	*1.45*	*1.42*	**1.12**	*1.49*	*1.50*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.36**	**0.44**	**0.56**	**0.65**	**0.85**	**0.78**	*0.91*	*1.03*	*1.02*	*0.89*	*0.82*	*0.77*	**0.51**	*0.90*	*0.88*
No. 2 Heating Oil, Retail (dollars per gallon)	**0.80**	**0.82**	**0.86**	**1.01**	**1.31**	**1.17**	*1.23*	*1.51*	*1.53*	*1.35*	*1.18*	*1.18*	**0.88**	*1.35*	*1.36*
No. 6 Residual Fuel Oil, Retail[d] (dollars per barrel)	**11.29**	**14.03**	**18.12**	**21.27**	**23.64**	**24.56**	*25.21*	*29.78*	*28.80*	*26.43*	*24.77*	*24.21*	**16.02**	*25.94*	*26.12*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.24**	**1.23**	**1.21**	**1.20**	**1.21**	**1.21**	*1.20*	*1.20*	*1.21*	*1.22*	*1.20*	*1.20*	**1.22**	*1.20*	*1.21*
Heavy Fuel Oil[e] (dollars per million Btu)	**1.73**	**2.26**	**2.82**	**3.17**	**3.74**	**4.18**	*4.15*	*4.81*	*4.43*	*4.33*	*4.12*	*3.91*	**2.39**	*4.26*	*4.20*
Natural Gas (dollars per million Btu)	**2.19**	**2.42**	**2.74**	**2.82**	**2.85**	**3.78**	*4.46*	*5.76*	*6.19*	*5.09*	*4.71*	*4.91*	**2.57**	*4.21*	*5.08*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**6.02**	**6.82**	**8.62**	**6.80**	**6.42**	**7.65**	*9.96*	*9.02*	*9.31*	*9.68*	*10.31*	*8.63*	**6.58**	*7.66*	*9.24*
Electricity (cents per kilowatthour)	**7.78**	**8.28**	**8.43**	**8.12**	**7.76**	**8.34**	*8.59*	*8.34*	*7.87*	*8.38*	*8.66*	*8.23*	**8.16**	*8.27*	*8.30*

[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**	*5.80*	*5.84*	*5.97*	*5.94*	*5.85*	*5.84*	**5.88**	*5.84*	*5.90*
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**	*4.88*	*4.89*	*4.94*	*4.92*	*4.88*	*4.84*	**4.83**	*4.87*	*4.90*
Net Imports (including SPR) [b]	**8.43**	**8.90**	**8.85**	**8.27**	**8.12**	**9.16**	*9.44*	*8.82*	*8.75*	*9.38*	*9.67*	*9.38*	**8.61**	*8.89*	*9.30*
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**	**0.04**	*0.15*	*-0.08*	*-0.20*	*-0.02*	*0.17*	*0.03*	**0.11**	*-0.01*	*0.00*
Product Supplied and Losses	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.00**	*0.00*	*0.00*
Unaccounted-for Crude Oil	**0.30**	**0.15**	**0.27**	**0.05**	**0.31**	**0.39**	*0.25*	*0.29*	*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**	**15.41**	*15.63*	*15.12*	*14.73*	*15.52*	*15.73*	*15.30*	**14.80**	*15.08*	*15.32*
Other Supply															
NGL Production	**1.72**	**1.82**	**1.90**	**1.95**	**1.97**	**1.94**	*1.93*	*1.97*	*2.00*	*1.99*	*1.96*	*2.02*	**1.85**	*1.95*	*1.99*
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**	*0.94*	*0.93*	*0.89*	*0.92*	*0.93*	*0.91*	**0.89**	*0.94*	*0.91*
Net Product Imports [c]	**1.34**	**1.52**	**1.41**	**0.92**	**1.36**	**1.22**	*1.13*	*1.35*	*1.38*	*1.44*	*1.48*	*1.43*	**1.30**	*1.27*	*1.43*
Product Stock Withdrawn or Added (-)	**0.54**	**-0.36**	**0.00**	**1.03**	**0.32**	**-0.62**	*-0.14*	*0.43*	*0.37*	*-0.53*	*-0.35*	*0.37*	**0.30**	*0.00*	*-0.03*
Total Supply	**19.21**	**19.23**	**19.80**	**19.83**	**19.12**	**19.29**	*19.87*	*20.20*	*19.74*	*19.71*	*20.11*	*20.43*	**19.52**	*19.62*	*20.00*
Demand															
Motor Gasoline	**7.95**	**8.60**	**8.61**	**8.55**	**8.03**	**8.49**	*8.58*	*8.51*	*8.05*	*8.53*	*8.67*	*8.57*	**8.43**	*8.40*	*8.46*
Jet Fuel	**1.69**	**1.63**	**1.68**	**1.69**	**1.64**	**1.67**	*1.78*	*1.78*	*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**	*3.64*	*3.93*	*4.11*	*3.75*	*3.68*	*3.93*	**3.57**	*3.72*	*3.87*
Residual Fuel Oil	**0.93**	**0.78**	**0.84**	**0.78**	**0.73**	**0.75**	*0.91*	*0.88*	*0.83*	*0.70*	*0.73*	*0.75*	**0.83**	*0.82*	*0.75*
Other Oils [d]	**4.93**	**4.84**	**5.23**	**5.05**	**4.96**	**4.81**	*4.96*	*5.08*	*4.98*	*4.98*	*5.22*	*5.36*	**5.01**	*4.95*	*5.14*
Total Demand	**19.21**	**19.23**	**19.80**	**19.83**	**19.12**	**19.29**	*19.87*	*20.17*	*19.74*	*19.71*	*20.11*	*20.43*	**19.52**	*19.61*	*20.00*
Total Petroleum Net Imports	**9.77**	**10.43**	**10.27**	**9.19**	**9.48**	**10.38**	*10.57*	*10.17*	*10.13*	*10.83*	*11.14*	*10.81*	**9.91**	*10.15*	*10.73*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**345**	**332**	**304**	**284**	**297**	**294**	*280*	*288*	*306*	*308*	*292*	*289*	**284**	*288*	*289*
Total Motor Gasoline	**217**	**217**	**207**	**193**	**205**	**210**	*198*	*196*	*201*	*201*	*195*	*200*	**193**	*196*	*200*
Finished Motor Gasoline	**169**	**173**	**162**	**154**	**158**	**165**	*155*	*155*	*155*	*159*	*154*	*158*	**154**	*155*	*158*
Blending Components	**48**	**44**	**45**	**39**	**47**	**45**	*43*	*41*	*46*	*42*	*41*	*41*	**39**	*41*	*41*
Jet Fuel	**42**	**46**	**49**	**41**	**41**	**44**	*42*	*42*	*39*	*40*	*42*	*43*	**41**	*42*	*43*
Distillate Fuel Oil	**125**	**133**	**145**	**125**	**96**	**106**	*116*	*114*	*84*	*96*	*116*	*118*	**125**	*114*	*118*
Residual Fuel Oil	**40**	**42**	**41**	**36**	*36*	*37*	*38*	*37*	*34*	*35*	*37*	*38*	**36**	*37*	*38*
Other Oils [e]	**280**	**298**	**294**	**246**	*235*	*272*	*288*	*254*	*250*	*285*	*300*	*256*	**246**	*254*	*256*
Total Stocks (excluding SPR)	**1048**	**1068**	**1039**	**926**	*909*	*962*	*962*	*930*	*915*	*965*	*982*	*944*	**926**	*930*	*944*
Crude Oil in SPR	**572**	**575**	**575**	**567**	*569*	*569*	*570*	*547*	*547*	*547*	*562*	*578*	**567**	*547*	*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**	*1478*	*1531*	*1532*	*1477*	*1461*	*1512*	*1544*	*1522*	**1493**	*1477*	*1522*

[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*	*4.85*	*4.84*	*4.92*	*4.92*	**18.66**	*18.79*	*19.53*
Net Imports	**0.83**	**0.79**	**0.87**	**0.88**	**0.87**	**0.80**	*0.87*	*0.92*	*0.98*	*0.96*	*1.03*	*1.03*	**3.38**	*3.46*	*4.01*
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*	*5.86*	*5.83*	*5.99*	*5.99*	**22.14**	*22.36*	*23.66*
Working Gas in Storage															
Opening	**2.73**	**1.43**	**2.16**	**2.88**	**2.51**	**1.15**	*1.71*	*2.49*	*2.04*	*0.64*	*1.52*	*2.46*	**2.73**	*2.51*	*2.04*
Closing	**1.43**	**2.16**	**2.88**	**2.51**	**1.15**	**1.71**	*2.49*	*2.04*	*0.64*	*1.52*	*2.46*	*2.04*	**2.51**	*2.04*	*2.04*
Net Withdrawals	**1.30**	**-0.73**	**-0.73**	**0.38**	**1.36**	**-0.56**	*-0.78*	*0.45*	*1.40*	*-0.88*	*-0.94*	*0.42*	**0.22**	*0.47*	*0.00*
Total Supply	**6.81**	**4.76**	**4.82**	**5.96**	**6.96**	**4.91**	*4.84*	*6.12*	*7.26*	*4.94*	*5.05*	*6.41*	**22.36**	*22.82*	*23.66*
Balancing Item [a]	**0.00**	**-0.04**	**-0.28**	**-0.48**	**-0.06**	**0.07**	*-0.11*	*-0.38*	*0.14*	*0.19*	*-0.21*	*-0.41*	**-0.80**	*-0.47*	*-0.28*
Total Primary Supply	**6.80**	**4.72**	**4.55**	**5.49**	**6.91**	**4.98**	*4.73*	*5.74*	*7.40*	*5.14*	*4.84*	*6.00*	**21.56**	*22.36*	*23.38*
Demand															
Lease and Plant Fuel	**0.31**	**0.31**	**0.31**	**0.31**	**0.31**	**0.30**	*0.31*	*0.31*	*0.31*	*0.31*	*0.31*	*0.32*	**1.23**	*1.23*	*1.26*
Pipeline Use	**0.20**	**0.14**	**0.14**	**0.16**	**0.21**	**0.15**	*0.13*	*0.17*	*0.21*	*0.14*	*0.14*	*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**	*2.39*	*2.40*	*2.56*	*2.39*	*2.46*	*2.48*	**8.76**	*9.40*	*9.88*
Electric Utilities	***0.53***	***0.85***	***1.15***	**0.59**	**0.56**	**0.83**	*1.07*	*0.56*	*0.47*	*0.80*	*1.12*	*0.65*	**3.11**	*3.03*	*3.04*
Total Demand	**6.80**	**4.72**	**4.55**	**5.49**	**6.91**	**4.98**	*4.73*	*5.74*	*7.40*	*5.14*	*4.84*	*6.00*	**21.56**	*22.36*	*23.38*

[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**	**260.5**	*278.5*	*295.7*	*271.2*	*283.4*	*280.7*	*286.5*	**1094.0**	*1108.7*	*1121.7*
Appalachia	**114.8**	**103.4**	**103.0**	**102.1**	**109.5**	**105.3**	*108.1*	*108.5*	*106.2*	*106.5*	*100.8*	*102.7*	**423.3**	*431.4*	*416.2*
Interior	**40.4**	**40.8**	**42.4**	**38.9**	**36.1**	**35.2**	*41.3*	*39.9*	*35.5*	*40.6*	*40.0*	*37.2*	**162.5**	*152.5*	*153.3*
Western	**128.3**	**119.8**	**128.5**	**131.6**	**128.5**	**120.0**	*129.1*	*147.3*	*129.4*	*136.3*	*139.9*	*146.6*	**508.2**	*524.8*	*552.2*
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**	*3.6*	*2.6*	*2.9*	*2.9*	*2.9*	*2.9*	**9.1**	*11.7*	*11.6*
Exports	**13.0**	**14.4**	**16.1**	**15.0**	**13.6**	**14.4**	*15.8*	*15.2*	*14.9*	*15.1*	*15.3*	*15.2*	**58.5**	*58.9*	*60.5*
Total Net Domestic Supply	**267.0**	**252.5**	**266.6**	**258.7**	**258.4**	**248.3**	*272.7*	*282.2*	*254.3*	*270.6*	*274.7*	*275.0*	**1044.8**	*1061.5*	*1074.6*
Secondary Stock Levels [b]															
Opening	**129.4**	**143.3**	**151.9**	**139.7**	**143.5**	**139.8**	*133.2*	*126.6*	*133.9*	*121.6*	*134.1*	*120.3*	**129.4**	*143.5*	*133.9*
Closing	**143.3**	**151.9**	**139.7**	**143.5**	**139.8**	**133.2**	*126.6*	*133.9*	*121.6*	*134.1*	*120.3*	*126.8*	**143.5**	*133.9*	*126.8*
Net Withdrawals	**-13.9**	**-8.6**	**12.2**	**-3.8**	**3.7**	**6.6**	*6.6*	*-7.3*	*12.3*	*-12.5*	*13.8*	*-6.6*	**-14.1**	*9.6*	*7.1*
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**	**257.9**	*282.3*	*278.0*	*269.7*	*261.2*	*291.6*	*271.5*	**1040.4**	*1083.3*	*1094.0*
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**	*230.1*	*214.8*	*217.7*	*210.7*	*237.3*	*218.2*	**894.1**	*861.1*	*884.0*
Nonutilities (Excl. Cogen.) [d]	**8.4**	**10.3**	**12.3**	**15.0**	**24.6**	**23.6**	*29.1*	*26.5*	*26.1*	*26.2*	*30.0*	*26.3*	**45.9**	*103.7*	*108.7*
Retail and General Industry	**18.6**	**17.1**	**16.9**	**17.6**	**18.1**	**16.7**	*17.0*	*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**	*283.4*	*268.1*	*269.7*	*261.2*	*291.6*	*271.5*	**1038.5**	*1065.1*	*1094.0*
Discrepancy [f]	**5.0**	**-2.1**	**-2.1**	**1.2**	**1.1**	**8.3**	*-1.1*	*9.9*	*0.0*	*0.0*	*0.0*	*0.0*	***1.9***	*18.2*	*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**	*447.4*	*420.8*	*427.9*	*413.5*	*466.3*	*426.7*	**1767.7**	*1695.0*	*1734.5*
Petroleum	**25.7**	**22.1**	**27.4**	**11.7**	**11.0**	**16.4**	*24.7*	*17.5*	*19.5*	*15.7*	*20.8*	*16.6*	**86.9**	*69.5*	*72.6*
Natural Gas	**51.5**	**80.7**	**107.5**	**56.7**	**54.4**	**79.1**	*100.9*	*53.4*	*44.6*	*76.2*	*106.0*	*61.6*	**296.4**	*287.8*	*288.4*
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**	*822.4*	*733.2*	*750.0*	*751.3*	*851.6*	*742.3*	**3173.7**	*3046.7*	*3095.2*
Nonutility Generation [b]															
Coal	**21.3**	**25.3**	**35.7**	**43.2**	**55.2**	**58.5**	*77.9*	*60.5*	*59.1*	*59.2*	*69.3*	*59.0*	**125.6**	*252.0*	*246.7*
Petroleum	**5.2**	**5.8**	**5.8**	**4.6**	**11.1**	**8.8**	*11.7*	*9.9*	*9.7*	*9.7*	*11.3*	*9.6*	**21.4**	*41.4*	*40.4*
Natural Gas	**59.0**	**64.9**	**86.1**	**77.5**	**66.9**	**76.0**	*94.2*	*76.1*	*85.2*	*86.0*	*101.1*	*88.3*	**287.5**	*313.3*	*360.6*
Other Gaseous Fuels [c]	**2.0**	**2.2**	**2.9**	**2.6**	**2.5**	**2.8**	*3.2*	*2.3*	*2.1*	*2.1*	*2.1*	*2.2*	**9.5**	*10.7*	*8.5*
Nuclear	**0.0**	**0.0**	**3.1**	**6.0**	**5.2**	**5.0**	*11.8*	*6.3*	*6.3*	*6.3*	*6.3*	*6.3*	**9.1**	*28.3*	*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**	*23.1*	*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**	*226.3*	*182.9*	*189.0*	*189.8*	*216.9*	*192.6*	**554.7**	*754.0*	*788.4*
Total Generation	**883.9**	**898.2**	**1049.3**	**897.0**	**910.0**	**925.9**	*1048.7*	*916.1*	*939.0*	*941.2*	*1068.5*	*934.9*	**3728.4**	*3800.7*	*3883.6*
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**	*1057.7*	*923.2*	*945.5*	*949.2*	*1079.2*	*942.2*	**3759.0**	*3834.1*	*3916.1*
Losses and Unaccounted for [f]	**57.1**	**81.3**	**71.2**	**68.1**	**60.2**	**72.8**	*45.6*	*64.1*	*54.8*	*80.9*	*67.0*	*65.5*	**277.6**	*242.6*	*268.3*
Demand															
Electric Utility Sales															
Residential	**287.7**	**251.0**	**350.9**	**256.1**	**292.5**	**264.2**	*350.8*	*268.6*	*307.5*	*268.1*	*351.1*	*274.9*	**1145.7**	*1176.1*	*1201.6*
Commercial	**227.8**	**238.6**	**279.6**	**236.8**	**236.2**	**254.3**	*292.9*	*248.0*	*247.6*	*252.5*	*292.1*	*252.7*	**982.9**	*1031.3*	*1044.9*
Industrial	**252.1**	**267.7**	**277.6**	**265.7**	**260.0**	**268.5**	*278.6*	*267.4*	*259.8*	*271.6*	*282.8*	*272.6*	**1063.3**	*1074.5*	*1086.8*
Other	**24.7**	**25.3**	**28.4**	**25.7**	**26.4**	**27.4**	*30.4*	*27.0*	*26.8*	*27.1*	*30.4*	*27.5*	**104.2**	*111.2*	*111.8*
Subtotal	**792.4**	**782.6**	**936.6**	**784.4**	**815.1**	**814.3**	*952.6*	*811.1*	*841.8*	*819.3*	*956.4*	*827.7*	**3296.0**	*3393.1*	*3445.1*
Nonutility Use/Sales [b]	**36.9**	**41.6**	**53.9**	**52.9**	**43.8**	**46.9**	*59.5*	*48.1*	*48.9*	*49.0*	*55.8*	*49.0*	**185.3**	*198.4*	*202.8*
Total Demand	**829.3**	**824.2**	**990.5**	**837.3**	**858.9**	**861.2**	*1012.2*	*859.2*	*890.7*	*868.2*	*1012.3*	*876.7*	**3481.3**	*3591.5*	*3647.9*
Memo:															
Nonutility Sales to Electric Utilities [b]	**73.6**	**82.9**	**107.4**	**105.4**	**122.8**	**131.4**	*166.8*	*134.7*	*140.1*	*140.9*	*161.1*	*143.6*	**369.4**	*555.6*	*585.6*

[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**	*0.337*	*0.333*	**55.4**	*-9.7*	*-1.2*
Biofuels [c]	**0.523**	**0.576**	*0.739*	*0.729*	**10.1**	*28.3*	*-1.4*
Total	**0.912**	**1.171**	*1.261*	*1.249*	**28.4**	*7.7*	*-1.0*
Total Power Generation	**4.231**	**4.307**	*4.021*	*4.084*	**1.8**	*-6.6*	*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**	*0.109*	*0.106*	**5.3**	*9.0*	*-2.8*
Total	**2.178**	**2.216**	*2.262*	*2.258*	**1.7**	*2.1*	*-0.2*
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**	*6.554*	*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**	*28.41*	*28.72*
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*	*5.90*
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**	*10.15*	*10.73*
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**	*19.61*	*20.00*
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**	*22.36*	*23.38*
Coal															
(million short tons)	**830**	**877**	**891**	**897**	**898**	**907**	**943**	**950**	**962**	**1006**	**1029**	**1039**	**1039**	*1065*	*1094*
Electricity (billion kilowatthours)															
Utility Sales [c]	**2457**	**2578**	**2647**	**2713**	**2762**	**2763**	**2861**	**2935**	**3013**	**3098**	**3140**	**3240**	**3296**	*3393*	*3445*
Nonutility Own Use [d]	**NA**	**NA**	**91**	**113**	**119**	**122**	**127**	**138**	**145**	**145**	**148**	**156**	**185**	*198*	*203*
Total	**NA**	**NA**	**2738**	**2826**	**2881**	**2885**	**2988**	**3073**	**3159**	**3243**	**3288**	**3396**	**3481**	*3592*	*3648*
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**	**94.9**	**96.5**	*97.9*	*100.2*
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**	**11.15**	**10.87**	*10.48*	*10.34*

[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**	*0.917*	*0.920*
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*	*5.6*
Other OECD	**2.5**	**2.6**	**2.7**	**2.7**	**2.7**	**2.7**	**2.8**	**2.9**	**3.0**	**3.0**	**3.1**	**3.1**	**3.3**	*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**	*43.0*	*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*	*9.2*
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*	*20.1*
Non-OECD															
OPEC	**19.6**	**21.5**	**23.3**	**24.5**	**24.6**	**25.8**	**26.6**	**27.0**	**27.6**	**28.3**	**29.9**	**30.4**	**29.3**	*30.9*	*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*	*3.8*
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*	*11.4*
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**	*56.8*	*58.6*
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**	*76.7*	*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**	*-0.8*	*-0.8*
OECD Comm. Stocks, End (bill. bbls.)	**2.7**	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	**2.8**	**2.8**	**2.7**	**2.7**	**2.7**	**2.8**	**2.6**	*2.6*	*2.7*
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**	*28.41*	*28.72*
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**	*30.71*	*30.74*
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**	*3.59*	*4.52*
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*	*1.56*
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*	*1.52*
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*	*1.50*
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**	*0.90*	*0.88*
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**	*1.35*	*1.36*
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**	*25.94*	*26.12*
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*	*1.21*
Heavy Fuel Oil [d] (dollars per million Btu)	**2.98**	**2.41**	**2.85**	**3.22**	**2.49**	**2.46**	**2.36**	**2.40**	**2.60**	**3.01**	**2.79**	**2.07**	**2.39**	*4.26*	*4.20*
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**	*4.21*	*5.08*
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**	**6.58**	*7.66*	*9.24*
Electricity (cents per kilowatthour)	**7.41**	**7.49**	**7.64**	**7.85**	**8.05**	**8.23**	**8.34**	**8.40**	**8.40**	**8.36**	**8.43**	**8.26**	**8.16**	*8.27*	*8.30*

[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*	*5.90*
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**	*4.87*	*4.90*
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**	*8.89*	*9.30*
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**	*-0.02*	*0.00*
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**	*15.08*	*15.32*
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*	*1.99*
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**	*0.94*	*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**	*1.27*	*1.43*
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**	*0.00*	*-0.03*
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**	*19.62*	*20.00*
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**	*8.40*	*8.46*
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**	*3.72*	*3.87*
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**	*0.82*	*0.75*
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**	*4.95*	*5.14*
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**	*19.61*	*20.00*
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**	*10.15*	*10.73*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**349**	**330**	**341**	**323**	**325**	**318**	**335**	**337**	**303**	**284**	**305**	**324**	**284**	*288*	*289*
Total Motor Gasoline	**226**	**228**	**213**	**220**	**219**	**216**	**226**	**215**	**202**	**195**	**210**	**216**	**193**	*196*	*200*
Jet Fuel	**50**	**44**	**41**	**52**	**49**	**43**	**40**	**47**	**40**	**40**	**44**	**45**	**41**	*42*	*43*
Distillate Fuel Oil	**134**	**124**	**106**	**132**	**144**	**141**	**141**	**145**	**130**	**127**	**138**	**156**	**125**	*114*	*118*
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**	*254*	*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*	*19.53*
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*	*4.01*
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*	*23.66*
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*	*2.04*
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**	*2.04*	*2.04*
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**	*0.47*	*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**	*22.82*	*23.66*
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**	*-0.47*	*-0.28*
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**	*22.36*	*23.38*
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*	*1.26*
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**	*9.40*	*9.88*
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*	*3.04*
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**	*22.36*	*23.38*

[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**	*1108.7*	*1121.7*
Appalachia	**NA**	**NA**	**464.8**	**489.0**	**457.8**	**456.6**	**409.7**	**445.4**	**434.9**	**451.9**	**467.8**	**460.4**	**423.3**	*431.4*	*416.2*
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**	*152.5*	*153.3*
Western	**NA**	**NA**	**317.9**	**334.3**	**342.8**	**345.3**	**368.5**	**408.3**	**429.6**	**439.1**	**451.3**	**488.8**	**508.2**	*524.8*	*552.2*
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**	*11.7*	*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**	*58.9*	*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**	*1061.5*	*1074.6*
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*	*133.9*
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**	*133.9*	*126.8*
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**	*9.6*	*7.1*
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**	*1083.3*	*1094.0*
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**	*861.1*	*884.0*
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**	*103.7*	*108.7*
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**	*1065.1*	*1094.0*
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***	*18.2*	*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**	*1695.0*	*1734.5*
Petroleum	**118.5**	**148.9**	**158.3**	**117.0**	**111.5**	**88.9**	**99.5**	**91.0**	**60.8**	**67.3**	**77.8**	**110.2**	**86.9**	*69.5*	*72.6*
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*	*288.4*
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**	*3046.7*	*3095.2*
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**	*754.0*	*788.4*
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**	*3800.7*	*3883.6*
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**	*3834.1*	*3916.1*
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**	*242.6*	*268.3*
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**	*1176.1*	*1201.6*
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**	*1031.3*	*1044.9*
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**	*1074.5*	*1086.8*
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**	*111.2*	*111.8*
Subtotal	**2457.3**	**2578.1**	**2646.8**	**2712.6**	**2762.0**	**2763.4**	**2861.5**	**2934.6**	**3013.3**	**3097.8**	**3139.8**	**3239.8**	**3296.0**	*3393.1*	*3445.1*
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**	*198.4*	*202.8*
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**	*3591.5*	*3647.9*
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**	*555.6*	*585.6*

[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.