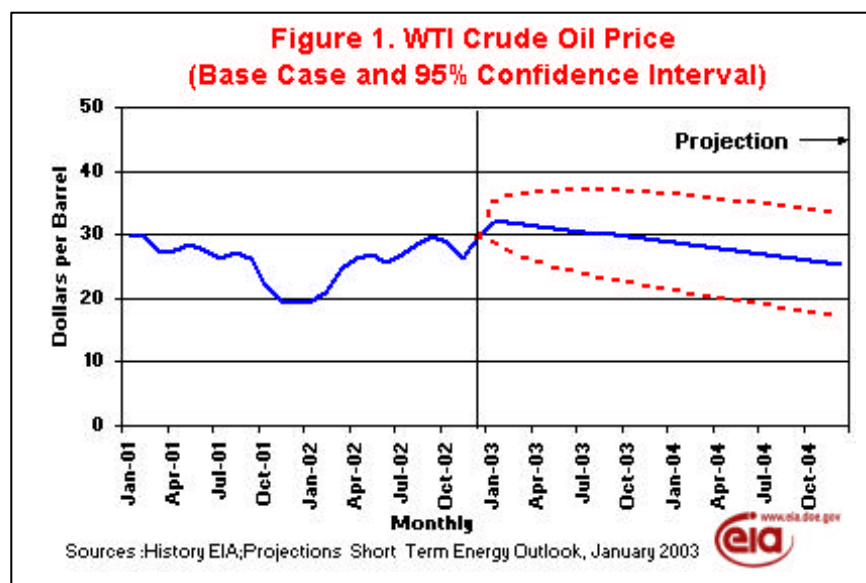


Short-Term Energy Outlook

January 2003

Overview



World Oil Markets. The oil market is vulnerable to a number of forces that could cause substantial price volatility over the coming months. The combination of a sustained loss of most of Venezuela's exports, risk of increased tensions in the Middle East and low oil inventories could cause oil prices to spike at least temporarily above our base case. The average West Texas Intermediate (WTI) price, which stood at \$27.27 per barrel on December 2, closed at \$33.22 per barrel on January 3. If the Venezuelan strike is prolonged and tensions in the Middle East continue, then the chance of a price spike is

high. The magnitude of upward price pressure will depend on the duration of supply loss and on the willingness and ability of other suppliers to make up for the shortfall.

Although risks remain high for price volatility and an oil price spike, our base case employs more neutral assumptions. We assume that the turmoil in Venezuela is resolved by the end of this month and that Iraq maintains recent export levels and that other producers step up production to keep markets stable, leaving the WTI price near current levels through February (Figure 1). Gradual movement toward full capacity output in Venezuela over the next 3 or 4 months, coupled with supplementary output from other OPEC countries, should result in a return to gradual price declines through the forecast horizon. These are admittedly fragile assumptions, given the current vulnerability of the oil market.

Heating Fuels Update. Although December started out colder than normal in key heating regions, the last three weeks of the month were warmer than normal, leaving accumulated heating degree-days for the month only slightly above normal for the Northeast and perhaps a bit below normal for the U.S. as a whole. For the month of December 2002, then, home heating fuel usage probably was not unusually high, particularly outside of the Northeast. Spot prices for fuels surged, however, as crude oil and natural gas prices rose rapidly in the face of the Venezuelan oil export cutoff and sharply falling levels of domestic natural gas in storage. Some of these commodity price changes are still working their way to the consumer level. Normal temperatures through the remainder of the heating season would imply the following increases in household heating expenditures for the winter season (October-March) compared to the 2001-2002 winter: natural gas: 34 percent; heating oil: 43 percent; propane: 20 percent; electricity: 12 percent.

U.S. Natural Gas Markets. The spot price of natural gas at the Henry Hub rose above \$5.00 per million btu during the second week of December. Spot prices have since stayed above this threshold on most days, as abnormally cold weather during the fourth quarter of 2002 reduced underground storage levels at a much

faster rate than was previously anticipated. Considering not only the reduced cushion from natural gas in storage, but also currently high world oil prices, natural gas prices will likely remain relatively high through January or February, unless the rest of the winter turns out to be unusually mild. However, if January and/or February turn colder than normal, spot natural gas prices could easily reach \$6.00 per million btu for a short period.

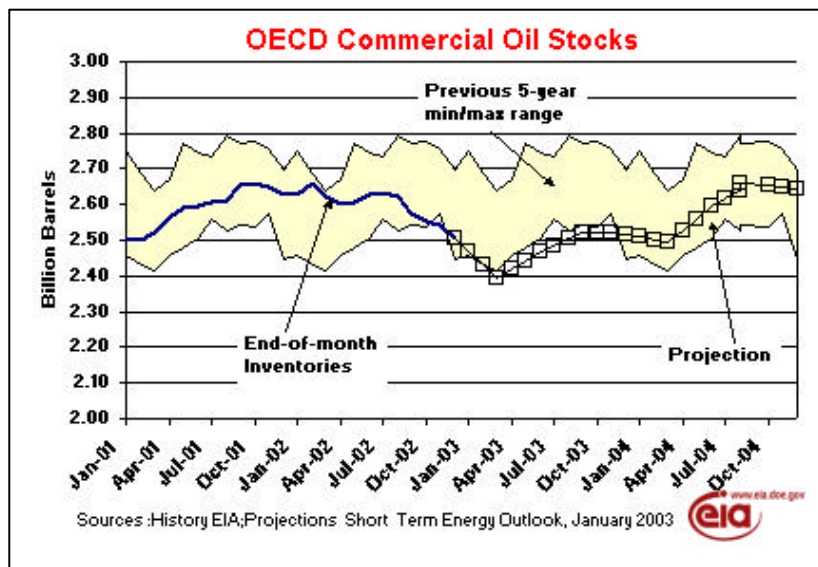
Forecast Note. For this and the next 11 issues of the *Outlook*, our projections will extend through 2004.

Details

International Oil Markets

Crude Oil Prices. Key oil price indicators rose sharply last month, as the Brent, OPEC Basket, and West Texas Intermediate (WTI) crude oil spot prices averaged \$3-\$4 per barrel higher in December than in November ([Figure 1](#)). By month's-end, oil prices had risen to 2-year highs in response to events in Iraq and Venezuela. The OPEC basket price has been above \$22 per barrel since March 8, and the December average of \$28 per barrel marked the tenth consecutive month that it remained within OPEC's original target range of \$22 - \$28 per barrel. The monthly average OPEC basket price is generally projected to remain within this target range throughout the forecast period, although it is likely to be slightly above the range until later this year.

On December 16, the daily OPEC basket price exceeded \$28 per barrel. If it continues to be above this level through January 14 - the 20th trading day since December 16 - it will have met OPEC's unofficial threshold for triggering its price-band mechanism. Under OPEC's price-band mechanism, OPEC could raise its output by 500,000 barrels per day or more if the OPEC basket price stays above \$28 per barrel for 20 consecutive trading days.

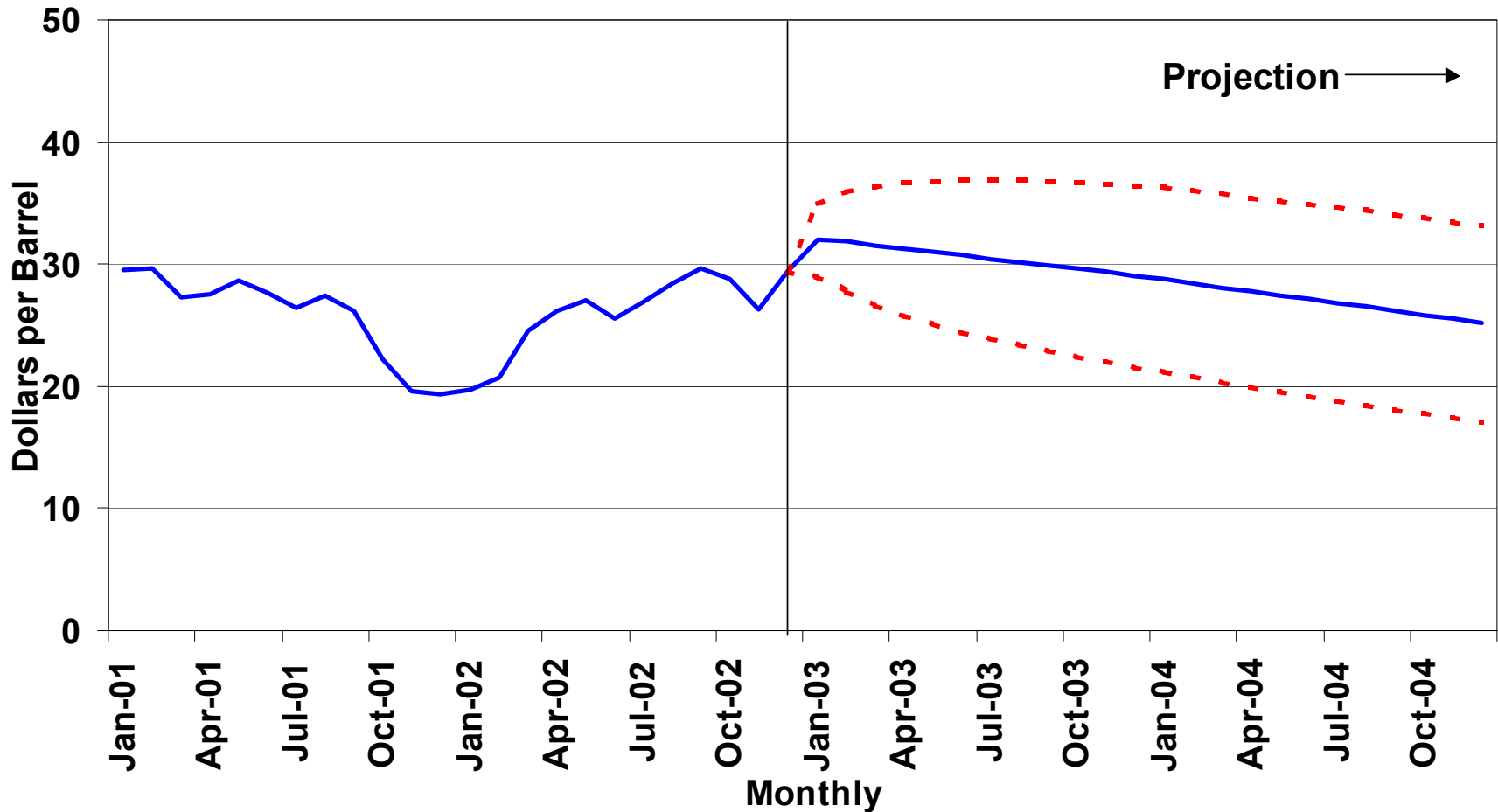


International Oil Supply. As a result of the turmoil in Venezuela, OPEC 10 production in December is estimated to have fallen to 23.2 million barrels per day, a drop of 1.8 million barrels per day from November levels. In a matter of weeks, Venezuelan production fell from about 2.9 million barrels per day in the beginning of the month to 600,000 barrels per day or less by the end of the month, removing an estimated 50 million barrels of oil from world inventories. Venezuelan production almost certainly will continue to be below pre-crisis levels for several months. The base case projections assume that the Venezuelan

situation will be resolved by February, and that it will take about 4 months from that time to reach pre-crisis production levels.

Iraqi production fell slightly in December, as UN-sanctioned oil exports averaged about 60,000 barrels per day below November levels. The *Outlook* assumes that Iraqi production will continue to fluctuate around the October average level of 2.4 million barrels per day. Even if the situations in Venezuela and Iraq are resolved without further oil disruptions, the additional pressure on commercial inventories since early

**Figure 1. WTI Crude Oil Price
(Base Case and 95% Confidence Interval)**



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



December is likely to cause oil stocks to remain near the lower end of the 5-year min/max range through most of 2003 ([Figure 2](#)). Thus, average prices in 2003 are likely to remain above last month's projections.

Prior to the Venezuelan crisis, many analysts assumed that the OPEC 10 would cut output (slightly) in January to comply more closely with its new January 1st production quota of 23 million barrels per day. However, the situation in Venezuela has now raised the possibility that other OPEC countries might individually increase their supply to fill any shortfall, or, collectively, implement the price-band mechanism if oil prices remain high. Should Venezuelan production remain at end-December levels, OPEC 10 production in January would fall below the new quota levels unless the rest of OPEC takes sufficient action to offset the loss.

International Oil Demand. The Venezuelan crisis has deflected attention from the fundamental question of whether world oil demand will recover as expected. We believe that it will. For example, we project that the U.S. economy will grow faster in 2003 than it did in 2002, contributing to the recovery of U.S. oil demand. EIA's projection of U.S. economic growth for 2003, which had been cut in last month's *Outlook* from 3.0 percent to 2.6 percent per year, has been lifted to 2.8 percent in 2003. An acceleration of growth to 4.5 percent per year in 2004 is expected. Almost half of the 1.3 million barrels per day growth in world oil demand in 2003 is projected to come from the U.S., with China and other non-OECD countries projected to provide a total of another 0.5 million barrels per day of demand growth next year. In short, an accelerated economic recovery in 2004 could increase world oil demand by 1.4 million barrels per day ([Figure 3](#)).

U. S. Energy Prices

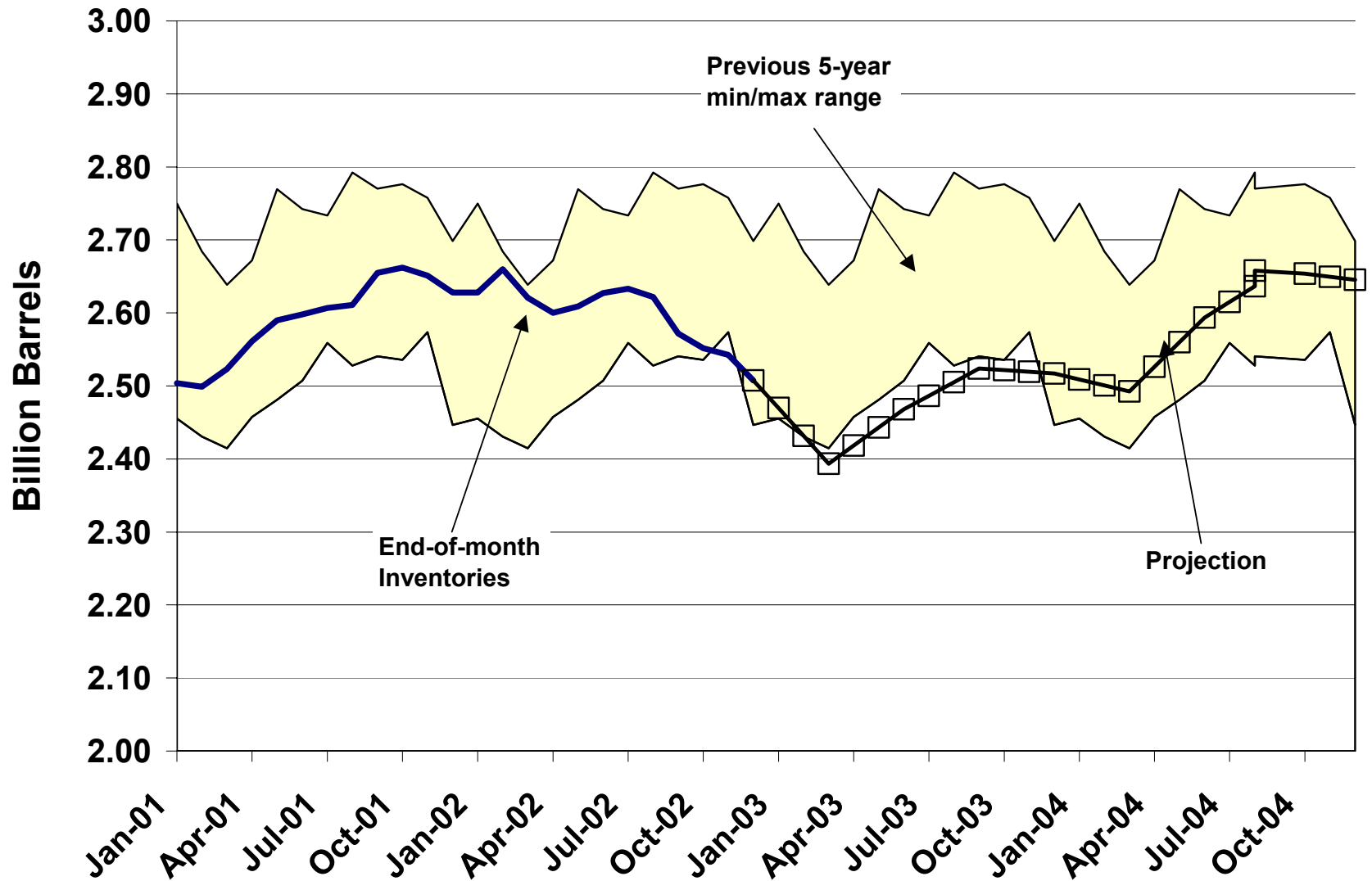
Crude oil prices (WTI) rose by about \$6.00 per barrel from early December to early January in response to the sharp decline in Venezuelan exports and continued concern over potential military action in Iraq. This rapid surge in crude oil prices resulted in higher spot prices and higher retail prices for most petroleum products.

Motor Gasoline: Retail motor gasoline prices in 2002 peaked in October at \$1.44 per gallon. In November, the average cost of regular gasoline actually fell a few cents per gallon. However, pump prices rebounded in the latter part of December because both crude oil prices and wholesale gasoline costs increased. Now, as events in Venezuela and Iraq continue to unfold, it appears that pump prices are poised to rise even further in the near term. We currently expect average regular motor gasoline prices to exceed \$1.50 per gallon in February. These would represent year-to-year increases of about \$0.40 per gallon. Our base case assumptions lead us to expect prices near \$1.54 per gallon by mid-spring ([Figure 4](#)). Additional increases and possible regional price spikes before mid-year would be likely if the Venezuelan situation is not resolved this month, or if conflict arises in Iraq and disrupts oil flows there. Refiner margins (the difference between the refiner price of gasoline and the refiner acquisition cost of crude oil), which were weak this past summer, are expected to strengthen over the next two years, as demand for gasoline rises and the cost of producing gasoline increases (due in part to the likely substitution of costlier ethanol for MTBE in California in 2004) ([Figure 5](#)).

At the end of December, gasoline inventories stood at an estimated 205 million barrels, a level above the lower end of the 5-year min/max range but about 5 million barrels below the December 2001 level ([Figure 6](#)).

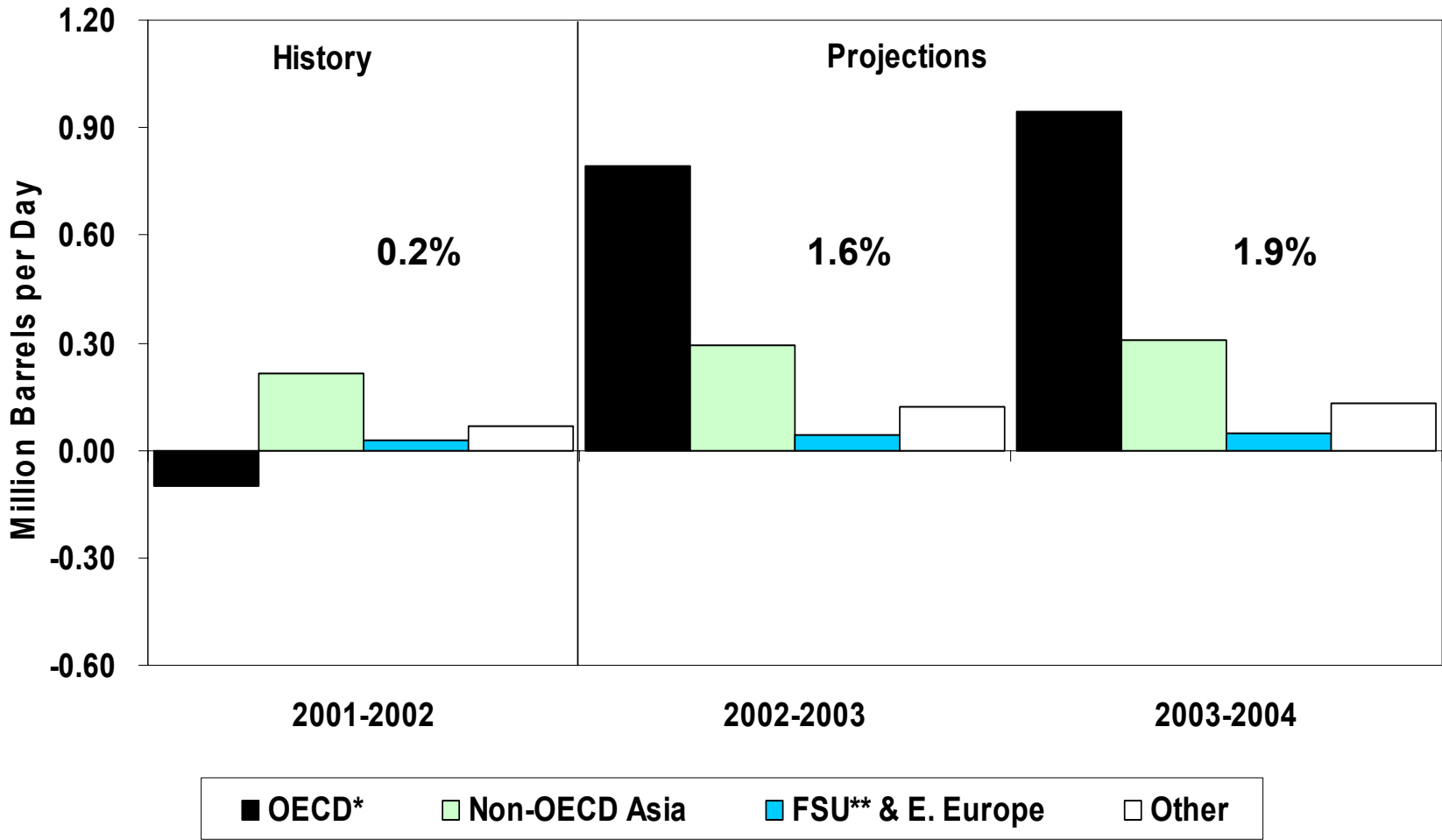
Given our base case crude oil price projections, 2003 pump prices for regular gasoline are expected to increase by 16 cents per gallon on an annual basis to \$1.50 per gallon. Similarly, refiner margins are expected to rebound from their relatively weak levels of last year. In 2004, the annual average pump price is projected to decline by about 5 cents per gallon, falling in line with the expected decline in crude oil prices. However, because crude oil prices are assumed to decrease by 9 cents per gallon (\$4.20 per barrel)

Figure 2. OECD Commercial Oil Stocks



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.

Figure 3. World Oil Demand Growth (Change from Year Ago)



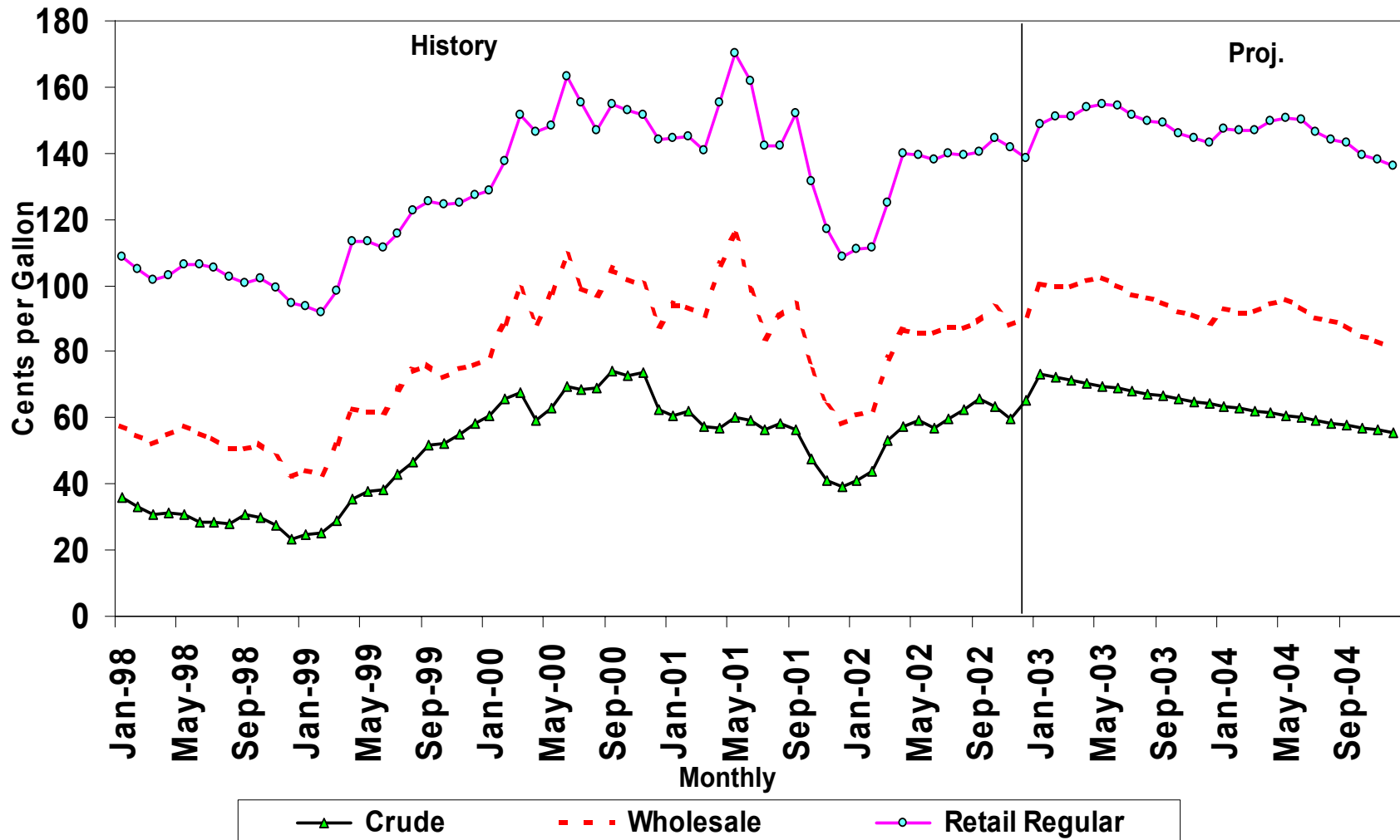
* Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.

** FSU = Former Soviet Union

Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



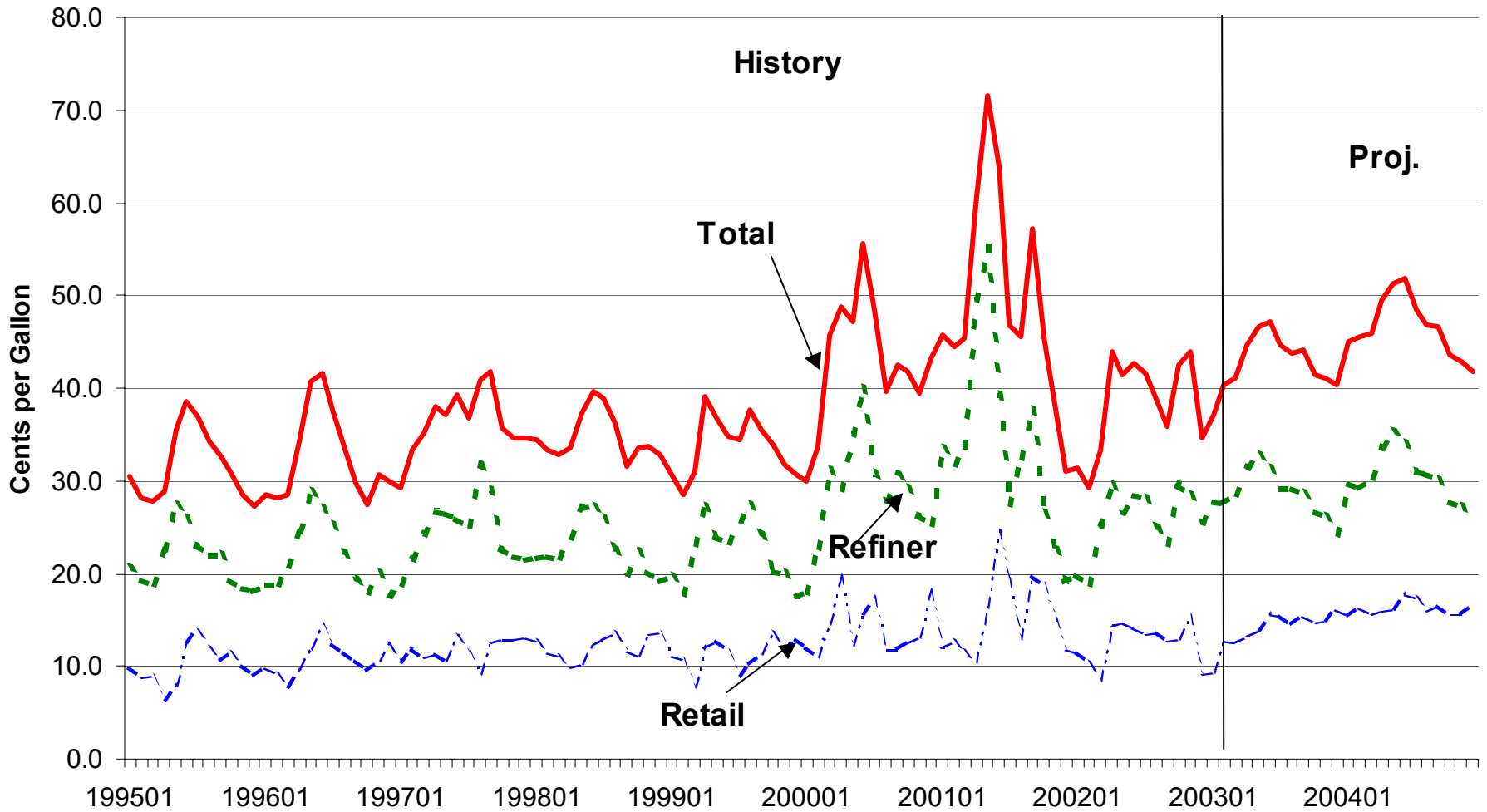
Figure 4. Gasoline Prices and Crude Oil Costs



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003

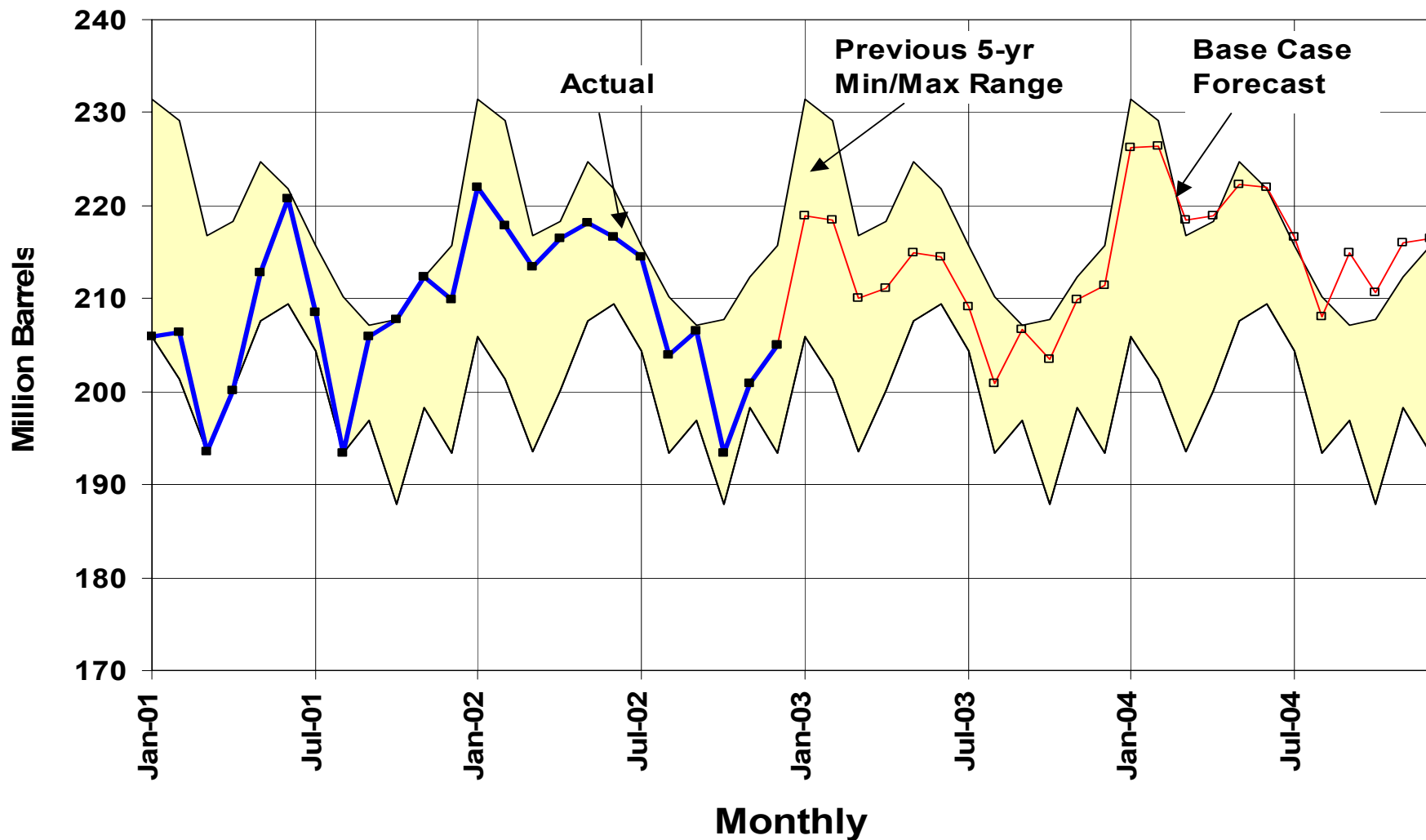


Figure 5. Motor Gasoline Spreads



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.

Figure 6. U.S. Gasoline Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



in 2004, this forecast assumes a continued strengthening of refiner margins.

Distillate Fuel Oil (Heating oil and Diesel Fuel): With much higher crude oil prices and colder weather, residential heating oil prices this winter are expected to post considerable increases over those seen last winter. The current base case projections include an increase of about 26 cents per gallon (23 percent) for residential heating oil for the first quarter of this year compared to the same period one year ago, an expectation supported not only by robust demand and higher crude oil costs, but also by low distillate fuel oil inventories compared to year-ago levels. Colder-than-normal weather in the first half of the heating season advanced heating oil demand while diminishing distillate inventories. Nevertheless, high volumes of distillate fuel oil imports over the last few weeks have kept these inventories from dwindling further. Moreover, these additional imports helped slow the price increase for heating oil for the fourth quarter of last year. In the Northeast, which includes the New England states plus New York, New Jersey and Pennsylvania, the combined October-December period brought colder-than-normal temperatures and a level of heating degree-days that was about 10 percent above normal. At the end of December, distillate fuel oil inventories were about 127 million barrels, which is close to the low end of the 5-year min/max range (Figure 7). With higher crude oil prices projected in 2003, continued economic growth, a more normal (thus higher) level of heating demand in the first quarter 2003 compared to 2002, plus lower projected levels for distillate stocks through the current winter, the annual retail price increase for both heating oil and diesel fuel this year is expected to reach 15 cents per gallon (Figure 8). On the other hand, some of this tightness could evaporate if warmer-than-normal temperatures occur in the North and Northeast for the January-February period.

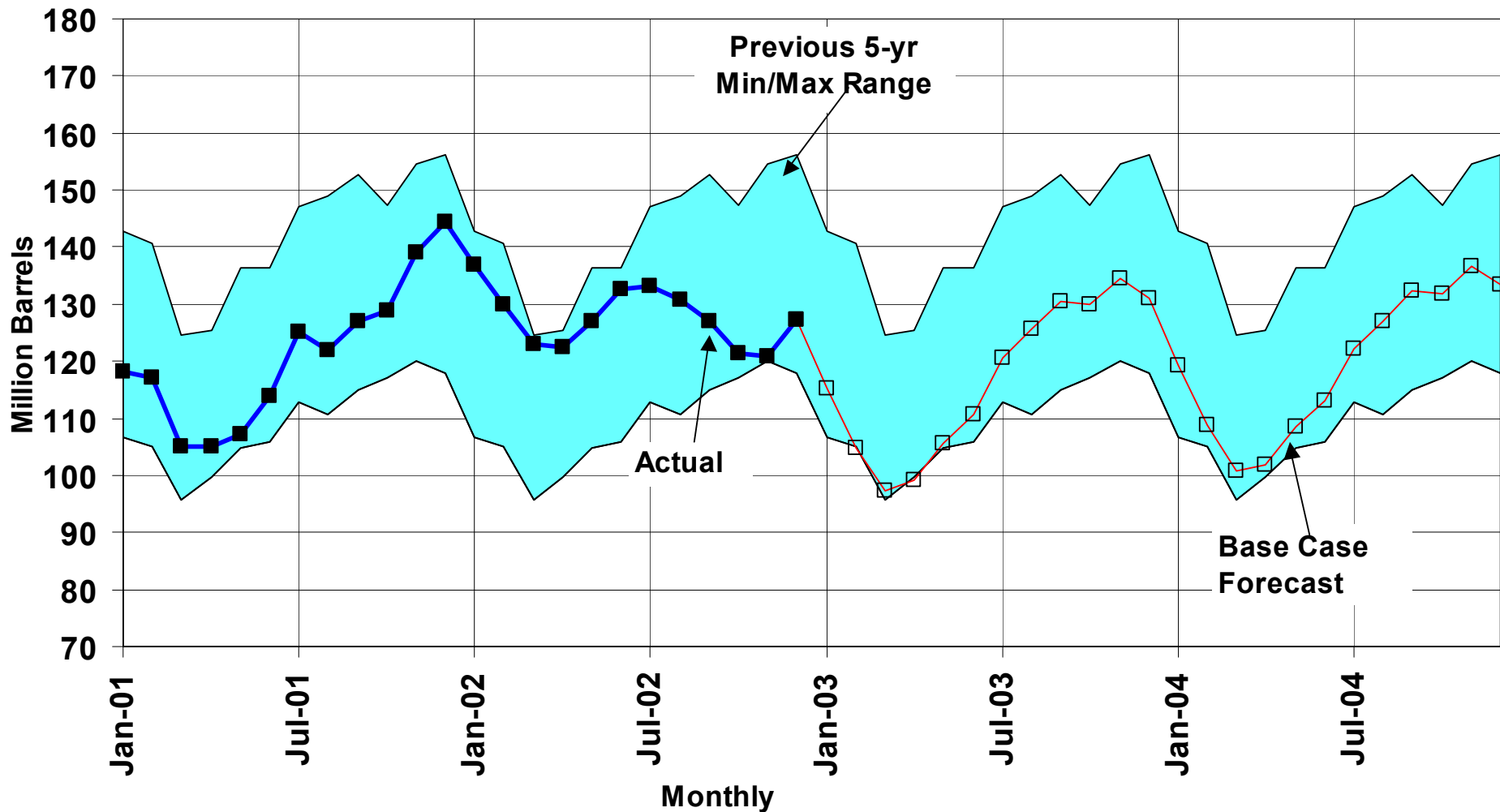
Natural Gas: The spot price of natural gas at the Henry Hub rose above \$5.00 per million btu during the second week of December. Spot prices have mostly stayed near or above this threshold as abnormally cold weather during the fourth quarter of 2002 whittled away underground storage levels at a much faster rate than was previously anticipated (Figure 9).

The weather for October through December was not only considerably colder than last year, but also was colder than normal. Even though the end-of-October storage level was relatively strong when compared to the same period last year and to the previous 5-year average, the cushion began to diminish in late November. Underground storage levels of working gas fell below 3 trillion cubic feet by the end of November, contributing to the increase in natural gas spot prices to over \$4.00 per million btu. Natural gas storage continued to drop rapidly in December. By the end of the year, working gas in storage was about 19-20 percent lower than at the end of December 2001 and about 5 percent below the previous 5-year average. Considering not only the reduced cushion from natural gas in storage but also the currently high world oil prices, natural gas prices are likely to stay relatively high through the winter. Colder than normal weather in January/February could boost spot gas prices to \$6.00 per million btu for a short period.

Assuming a normal winter for the remainder of the heating season (January through March), we project that natural gas wellhead prices this winter (October through March) will average \$3.90 per million btu, or about \$1.55 (68 percent) above last winter's price. For 2002, the annual average natural gas wellhead price is now estimated to be \$2.90 per million btu compared to \$4 in 2001. In 2003, natural gas wellhead prices are projected to show an increase of about \$1 per million btu over the annual 2002 average, boosting the price for the year to \$3.90 per million btu. This projection is based on the expectation of lower volumes of underground gas in storage for all of next year compared with this year and continued increases in demand (particularly in the first quarter) over 2002 levels which results in average wellhead gas prices near \$4.12 in 2004.

U. S. Oil Demand

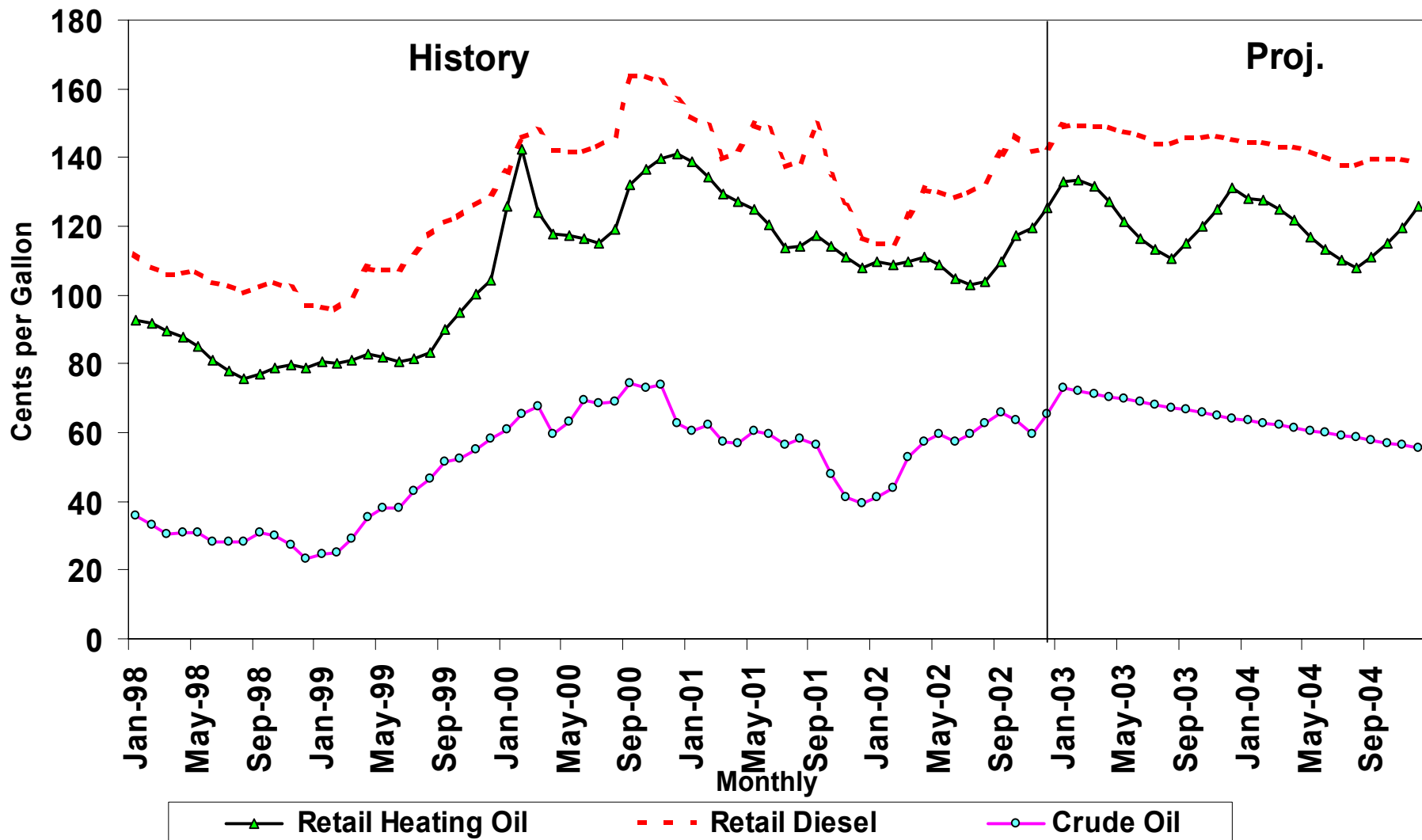
Figure 7. Distillate Fuel Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



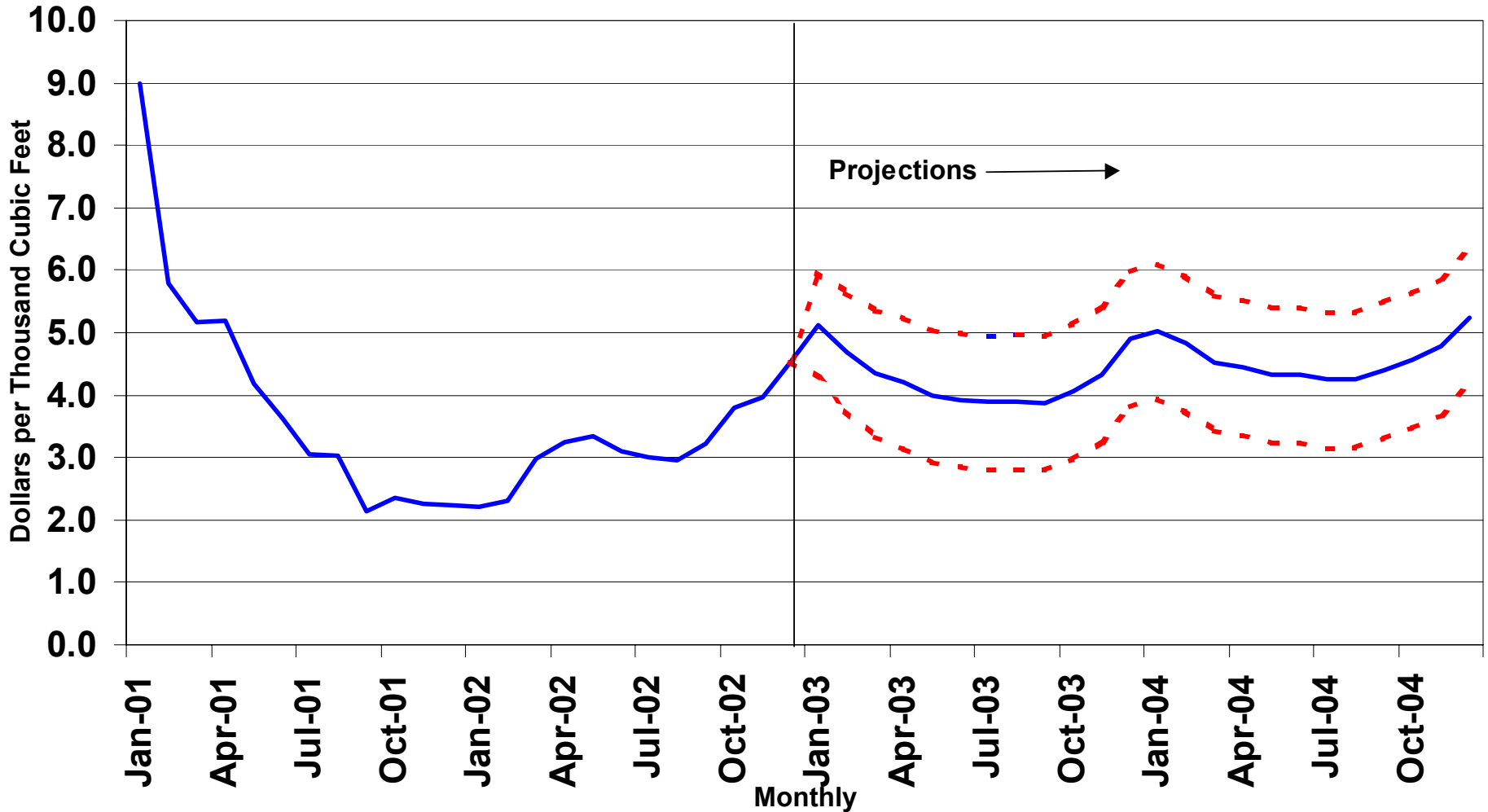
Figure 8. Distillate Fuel Prices



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



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



Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, January 2003.



Colder-than-normal weather conditions for much of the fourth quarter of 2002 and indications of industrial sector recovery coincide with much higher overall petroleum demand for that period compared to Q4 2001. U.S. population-weighted heating degree-days for Q4 2002 were an estimated 21 percent above the previous-year Q4 total. U.S. oil demand estimates for November and December indicate year-to-year growth of 2.5 percent and 6.1 percent, respectively. The December estimate, while very preliminary, suggests an increase of almost 1.2 million barrels per day from December 2001, which would be one of the largest such increases on record.

For 2002 as a whole, however, petroleum demand showed only a slight year-to-year gain compared to 2001. Annual 2002 oil demand, which had been trailing that of the previous year for the first 11 months, would have registered a decline in the absence of the year-to-year swing in fourth quarter weather patterns. Although the events of September 2001 reduced commercial jet fuel demand, weakness in industrial activity in the first half of the year, record warm weather in the first quarter of the year, and unfavorable relative price shifts that displaced sizable quantities of residual fuel oil deliveries all contributed to the apparent lack of overall petroleum demand growth in 2002. The same factors dampened total distillate consumption in all the major consuming sectors for much of the year.

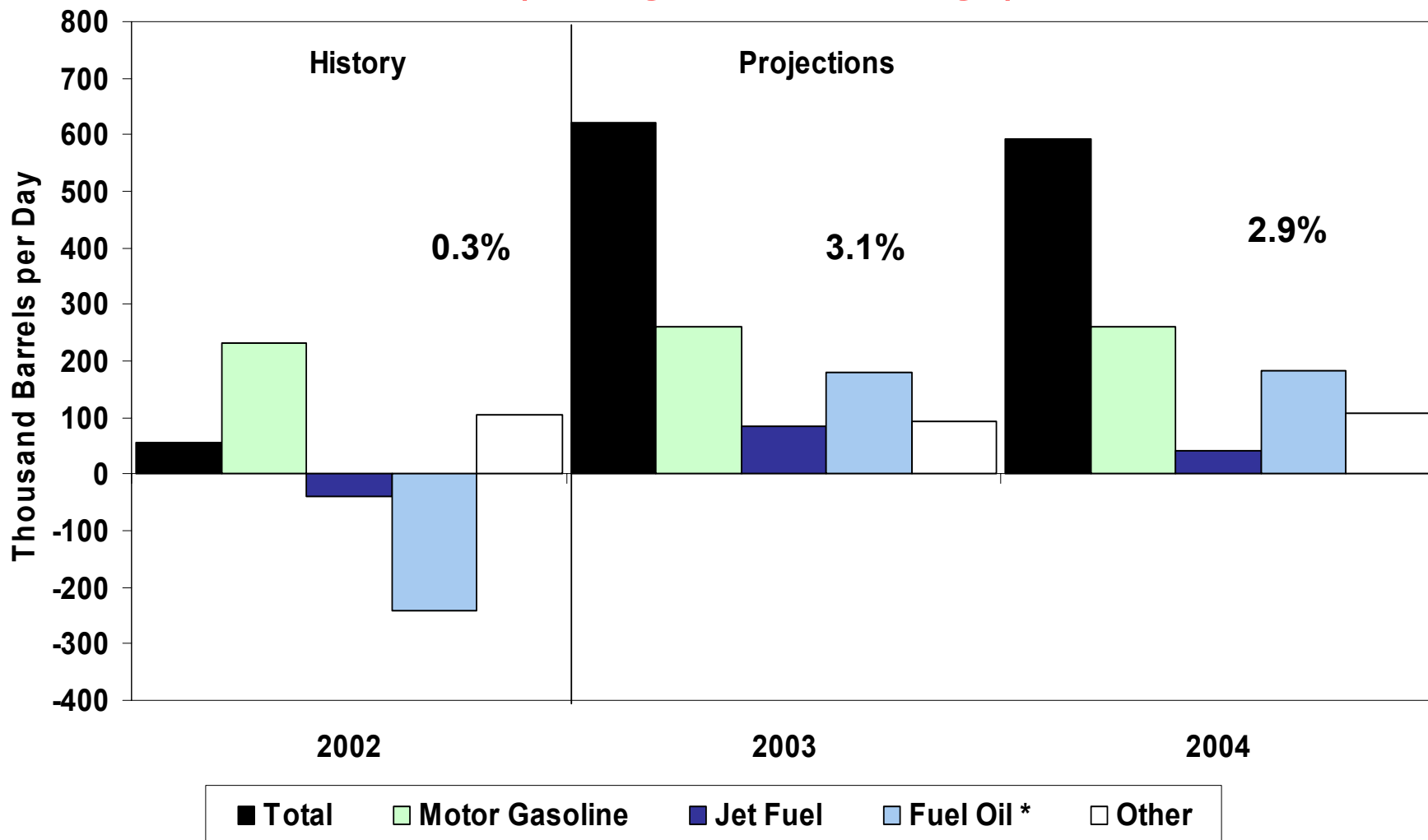
However, strong growth in motor gasoline demand, reflecting (in part) continuing consumer preference for large vehicles, offset any weakness in these areas. Fleet-wide fuel efficiency appears to have continued to decline. Moreover, personal disposable income, buoyed by income tax rate reductions, continued to increase, bolstering consumer demand for travel as well as new vehicles. In addition, total liquefied petroleum gas demand has been exhibiting strength as a petrochemical feedstock. But that demand growth results from a downward shift in extraction costs, which skyrocketed in early 2001 (due to high natural gas prices) and greatly dampened liquefied petroleum gas demand in 2001.

With early estimates of the complete annual oil demand picture, it appears that overall demand grew only slightly (about 0.3 percent) in 2002 from the 2001 level ([Figure 10](#)). The small net gain masked some large underlying (and offsetting) patterns across fuels and a year-end boost in demand.

For this year and next, we see growth in all major fuel categories, leading us to expect strong demand growth (about 3 percent per year) through 2004. Increasing economic growth rates, normal weather, and a relatively tight natural gas market over that period are important elements (or assumptions) supporting this outlook. Some confidence that the overall U.S. airline industry will continue to improve and thus bring stronger jet fuel demand numbers (with particularly strong year-over-year growth patterns in the first half of 2003), also contributes to the expectation of increased consumption. Moreover, on-highway demand, which has generally maintained positive (even robust) growth over the last two years, should show continued strength if the economy picks up speed. Miscellaneous industrial fuels, which have generally been weak along with the economy during the last 2 years, should contribute positively if industrial output stays on an upward track. Thus, a cumulative increase in U.S. oil demand of about 1.2 million barrels per day over this year and next is our initial assessment of the growth prospects for the 2002-2004 period.

In 2003 and 2004, annual growth in petroleum products demand is projected to average about 610,000 barrels per day, or 3.0 percent. In contrast to the previous year, all the major product groups are expected to experience substantial growth across the forecast period. Motor gasoline demand, buoyed by continued growth in income and economic activity (and, thus, highway travel) and by continued declines in average fuel efficiency, is projected to exhibit annual increases averaging 2.9 percent. In 2003, jet-fuel demand is projected to grow 5.2 percent, with particularly strong growth patterns expected in the first half of the year due to the comparison to the very weak numbers posted in early 2002 in the aftermath of 9/11. While this would be sufficient to generate greater jet-fuel demand levels in 2004 than in 2000, it should be noted that the projected demand levels still fall well short of levels achieved by extrapolating trends existing prior to the terrorist attacks. Distillate fuel demand, due to the combined effects of “normal” first-quarter weather

Figure 10. Petroleum Products Demand Growth (Change from Year Ago)



* Sum of distillate and residual fuel.

Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



and the projected recovery in industrial activity, is expected to increase by an average of 3.4 percent. While residual fuel oil demand is expected to recover to an average 726,000 barrels per day during the forecast interval, this level would still be low by recent historical standards. The 100,000 barrels-per-day increase in demand for residual fuel oil in 2003 principally reflects changes in weather and increases in industrial activity.

U.S. Oil Supply

U.S. crude oil production is expected to fall by about 3 percent in 2003 to 5.62 million barrels per day, and then fall by an additional 2 percent in 2004.

Average domestic crude oil production, which declined an average of 140,000 barrels per day per year between 1990 and 2001, last year managed to remain about even with 2001 levels ([Figure 11](#)). In fact, minimal declines were generally seen between 1999 and 2002. For the time being, Alaskan production appears to have more or less leveled out at just under 1 million barrels per day, although gradual declines are expected over the next two years. Lower-48 output is expected to decline by about 180,000 barrels per day in 2003 and by slightly over 100,000 barrels per day in 2004. Crude oil production from Shell's Brutus platform peaked at 100 thousand barrels per day in 2002. Oil production from the Mars, Mad Dog, Na Kika, Ursa and Dianna-Hoover Federal Offshore fields is expected to account for about 8.7 percent of the lower-48 oil production by the fourth quarter of 2004. Alaska is expected to account for 17.3 percent of total U.S. oil production in 2004. Alaskan oil production is expected to decrease by 2.1 percent in 2003 with a further decline of 1.1 percent in 2004. Field facilities expansion in the new satellite Colville River (Alpine) will eventually add 60 to 70 thousand barrels per day. Another satellite field, North Star, came on in November 2001 and currently is producing at a rate of over 60 thousand barrels per day. Total production from the Kuparuk River, West Sak, Tabasco, Tarn and Meltwater fields is expected to stay at an average of 215 thousand barrels per day in the 2003 and 2004 forecast periods.

Natural Gas Demand and Supply

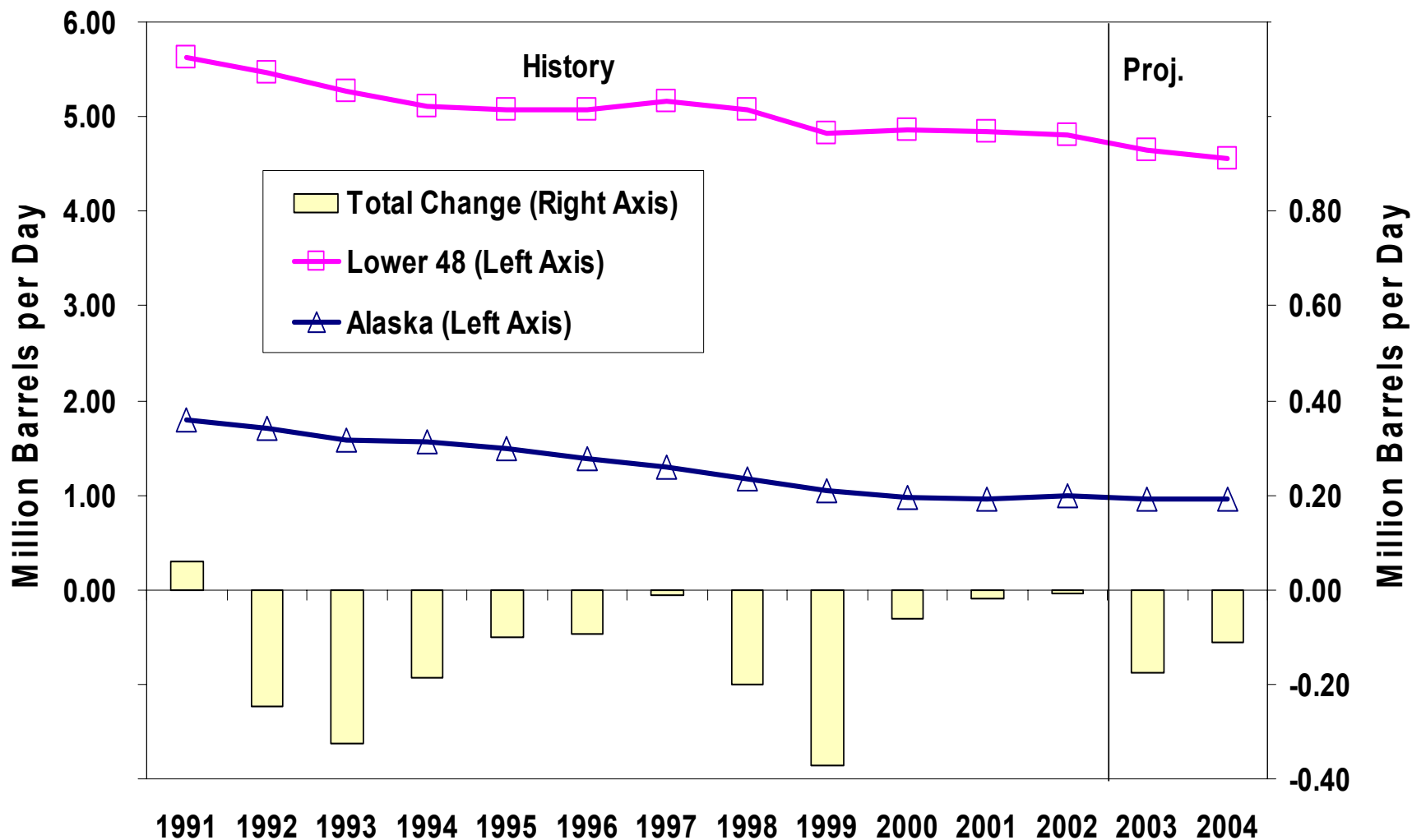
We estimate that total natural gas demand in 2002 declined by 1.7 percent from the 2001 level ([Figure 12](#)). Overall weakness in the industrial sector, particularly in the first three quarters of the year, prevented a posting of positive growth. However, solid growth in natural gas demand of 4.7 percent seems likely in 2003, especially if the industrial sector as a whole expands significantly as expected. In 2004, natural gas demand is projected to rise by an additional 2.7 percent as industrial demand continues its recovery from its 2002 lows.

Natural gas demand this winter is expected to be 8.7 percent above last winter's demand as gas consumption weighted heating degree-days in the fourth quarter of 2002 were 21 percent above the mild fourth quarter 2001 level. For the first quarter of 2003, gas consumption weighted degree-days, if normal, would be about 8 percent higher than the first quarter of 2002.

Working natural gas in storage fell below 2.4 trillion cubic feet at the end of December. The end of year level was about 5 percent below the 5-year average and 19-20 percent below the year-ago level ([Figure 13](#)). An abnormally cold start to the heating season thus far has reduced storage levels, contributing to upward pressure on prices.

Based on estimated data through last September, dry natural gas production appears to have been mostly flat in 2002 compared to the 2001 level, a year in which production grew an estimated 2.4 percent. Lower demand and lower natural gas prices in 2002 reduced production and resource development incentives relative to 2001. However, it should be noted that the increasingly large imbalance between reported or estimated natural gas demand and supply for 2002 suggests either a substantial overestimation of

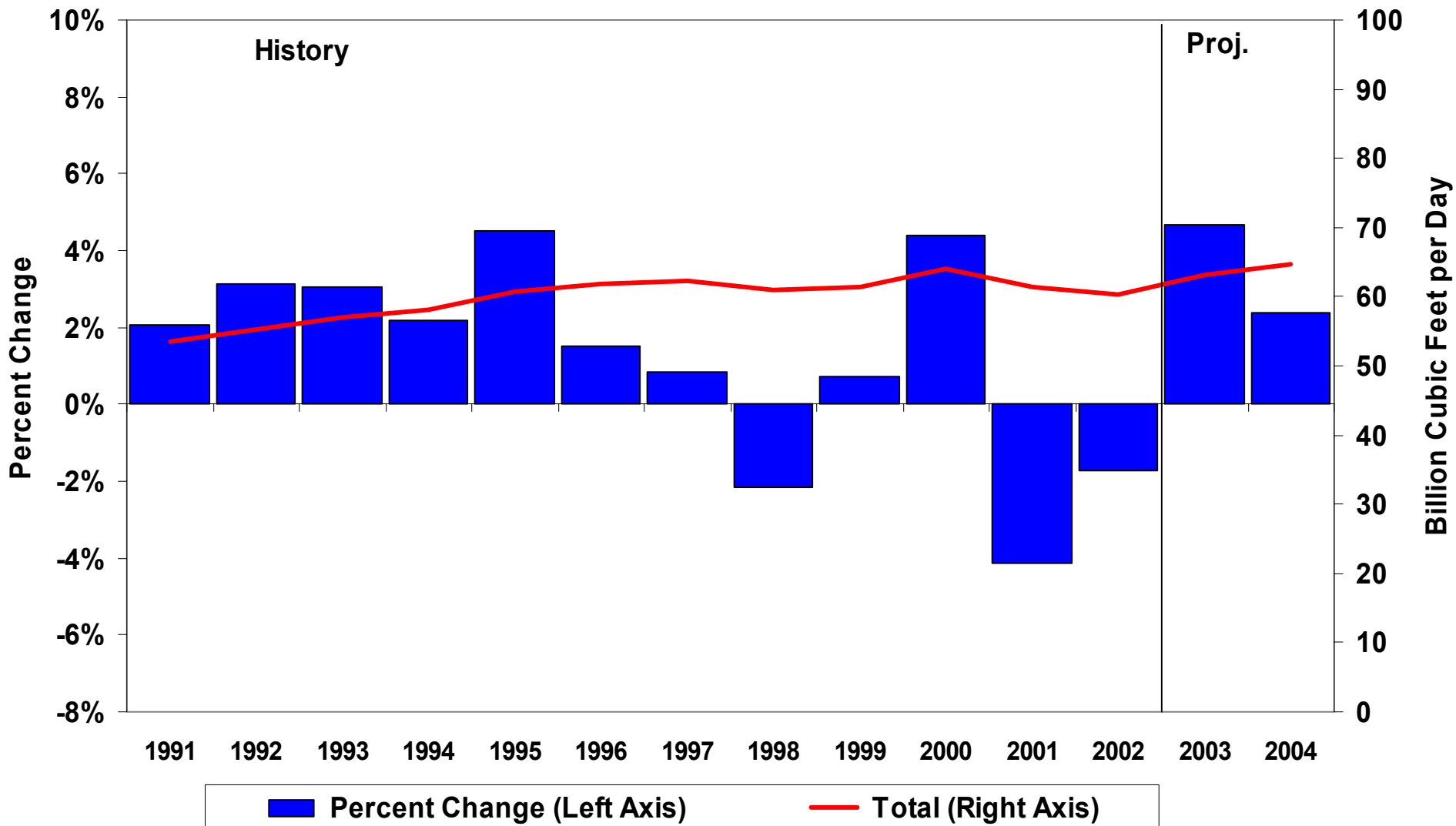
Figure 11. U.S. Crude Oil Production Trends



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



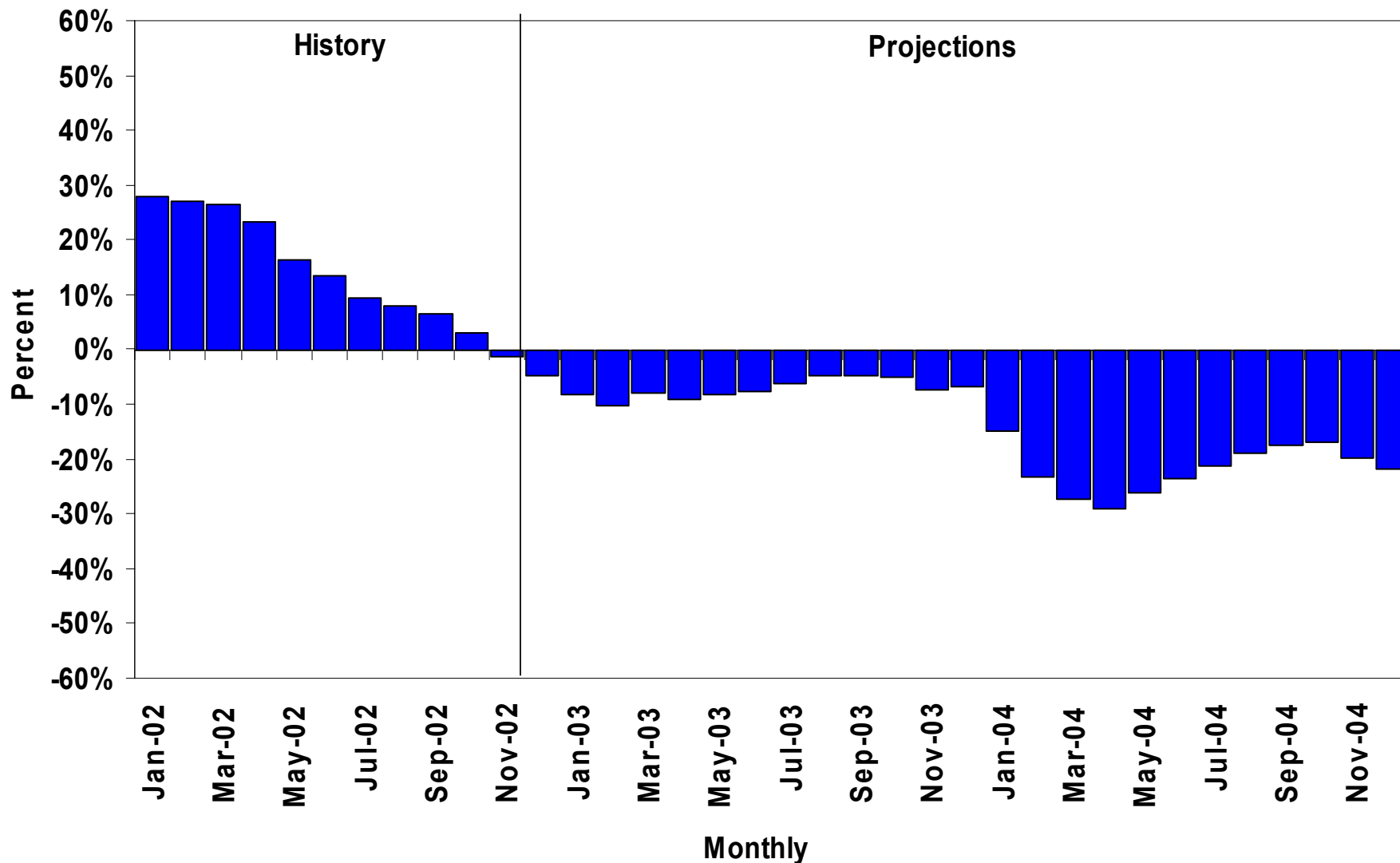
Figure 12. Total Natural Gas Demand Growth Patterns



Note: This chart replaces a previous Figure 12 because of revised data for January 2002.
 Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



Figure 13. Working Gas in Storage (Difference from Previous 5-Year Average)



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



production or a significant underestimation of demand (or some combination) in the preliminary 2002 data (See Tables 8 and A6). Since (beginning with the December 2002 Outlook) we are employing an expanded demand concept that incorporates estimated volumes to nonutility power plants believed to have been previously excluded from the total U.S. demand estimates (see our [note](#) from last month), it is possible that much of the current discrepancy for 2002 comes from overestimates of production. EIA believes that there will be sufficient capacity to meet the expected level of production, but it is likely that utilization rates will go up this year, keeping average prices relatively strong (near \$4.00 on average). Our current assessment is that similarly strong average prices are likely for 2004. Thus, the projected production level of 19.45 trillion cubic feet in 2003, which we think would be sufficient to cover incremental demand growth without extreme price pressures developing, most likely represents a solid increase from the actual level of production achieved in 2002.

After falling in 2002 due to high stocks and lower demand, net imports of natural gas are expected to increase in both 2003 and 2004, which should relieve some of the potential pressure on the domestic market.

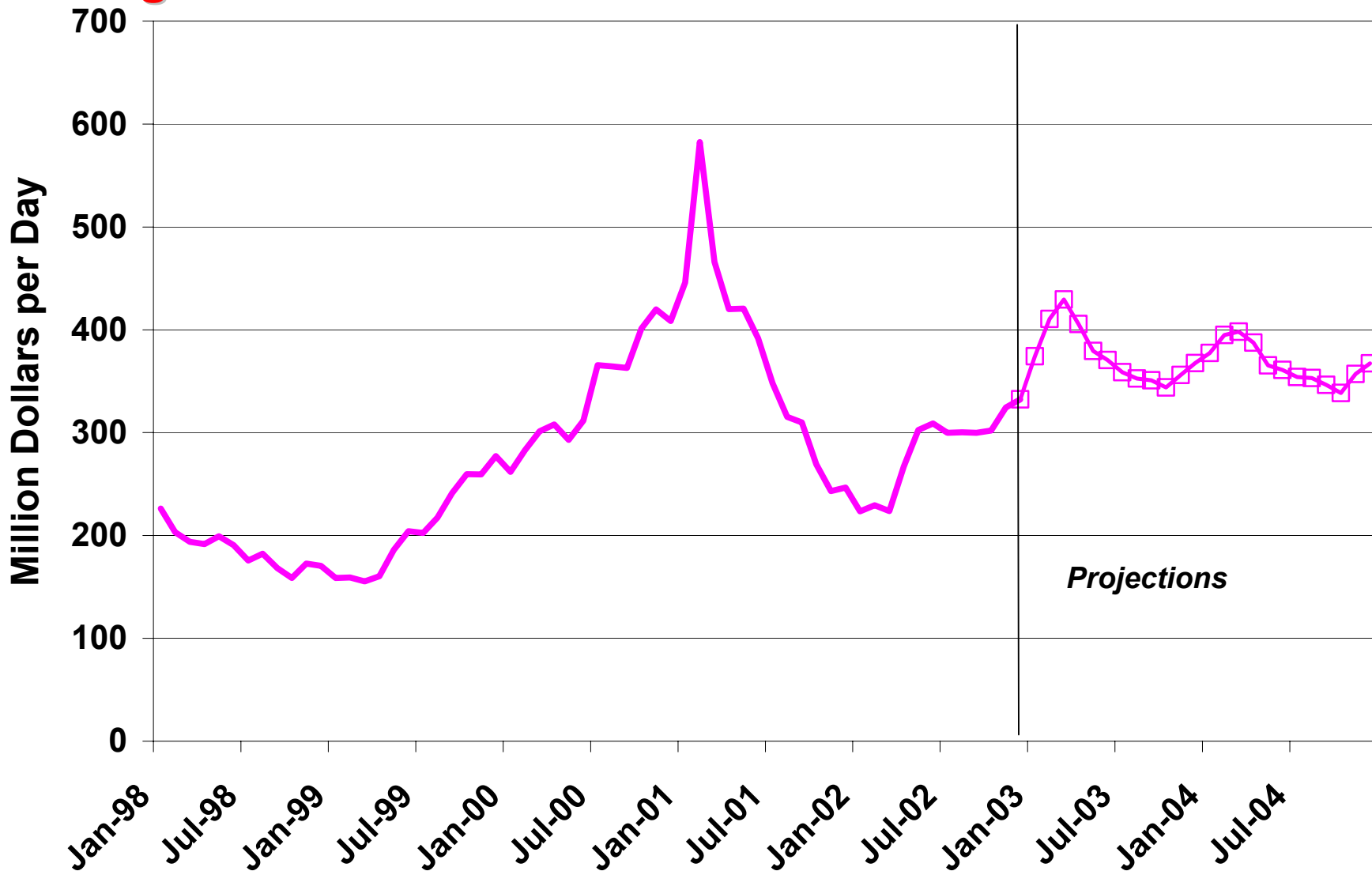
While lower than the spectacular peak seen in mid-2001, natural gas-directed drilling remains strong in the longer historical perspective. Also, the gas-directed rig rate rose in December. [Baker Hughes](#) reported that the average December rate was 714 compared to 683 in November. Aggregate lease revenues from domestic oil and natural gas production are expected to average \$375 million per day in 2003, which would be a 31-percent increase over the average rate seen in 2002 ([Figure 14](#)). The leverage from these revenues should push drilling levels up in 2003 and 2004 ([Figure 15](#)).

Electricity Demand and Supply

Total annual electricity demand growth (retail sales plus industrial generation for own use and other direct sales) is estimated to have grown by a total of 2.8 percent in 2002. Higher heating-related demand in the fourth quarter sharply increased electricity demand over the fourth quarter 2001 level. This followed the sharp increases seen last summer due to abnormally hot weather and high cooling demand. In 2003, while the economy is expected to continue to recover, electricity demand is expected to grow by a relatively subdued rate of about 1.0 percent ([Figure 16](#)) since little or no net weather-related demand growth would be expected under our assumption of normal temperatures. Spring and summer 2003 growth relative to comparable 2002 levels would be particularly weak under normal weather assumptions. In 2004, electric demand is projected to grow by 3.0 percent along with the economy.

Total U.S. electricity demand is expected to be 4.4 percent higher this winter than it was last winter, due to continuing growth in the economy, a cold start to the heating season, and assumptions of normal temperatures for the remainder of the winter, which would imply (overall) 12-percent colder conditions this winter than last.

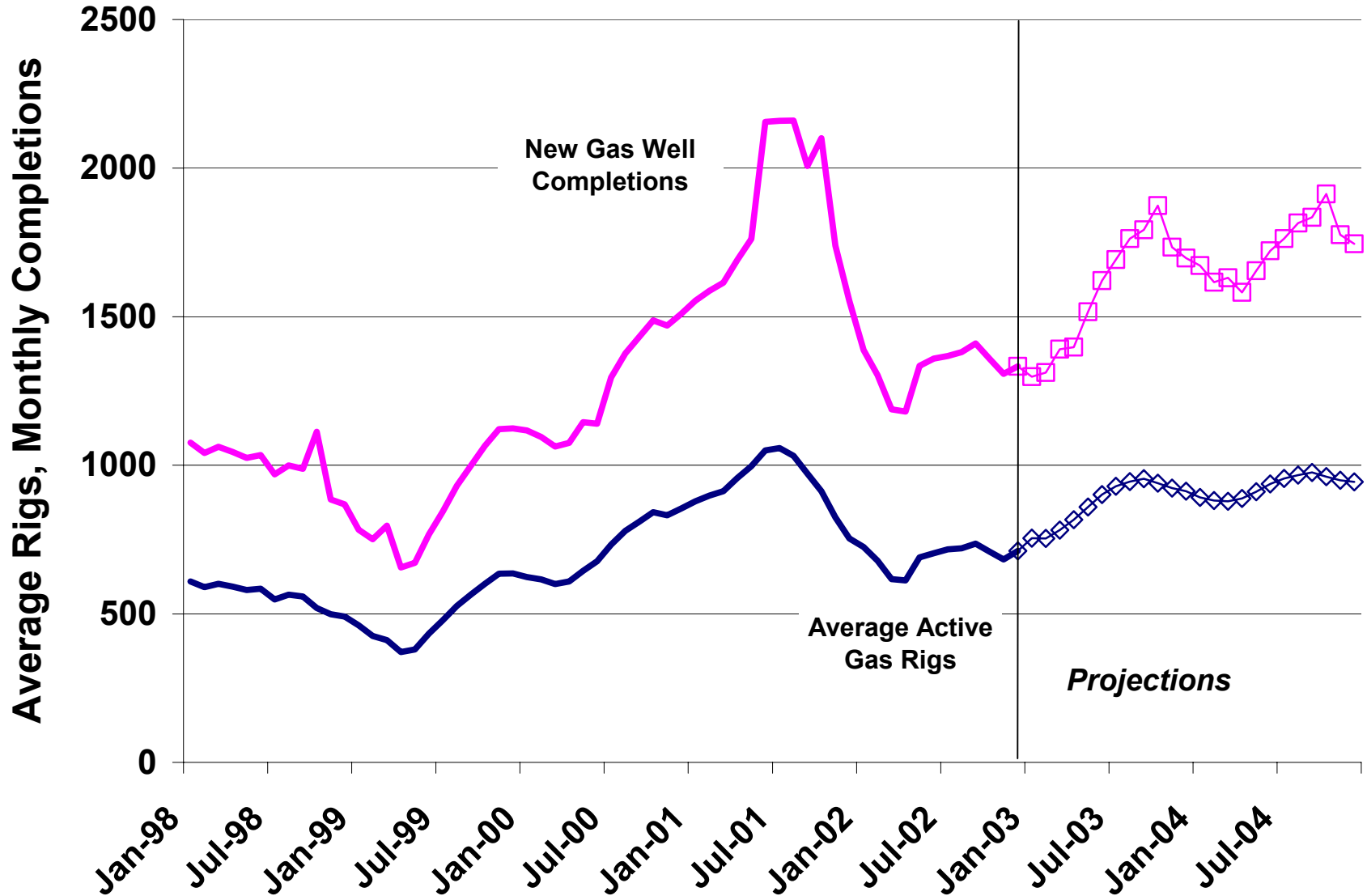
Figure 14. U.S. Oil and Gas Production Revenues



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



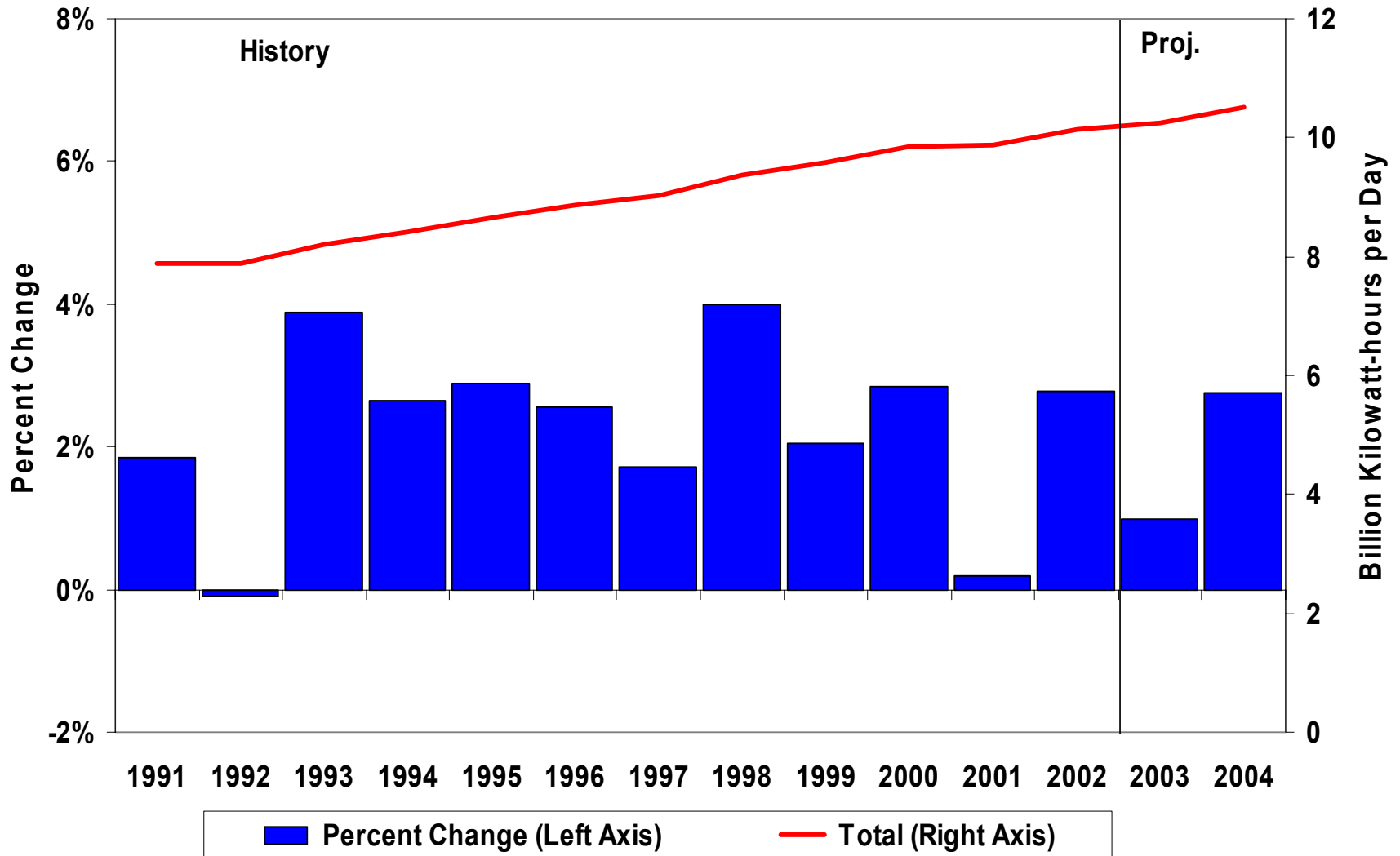
Figure 15. U.S. Natural Gas-Directed Drilling Activity



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



Figure 16 Total Electricity Demand Growth Patterns



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2003.



Table HL1. U.S. Energy Supply and Demand: Base Case

	Year				Annual Percentage Change		
	2001	2002	2003	2004	2001-2002	2002-2003	2003-2004
Real Gross Domestic Product (GDP)							
(billion chained 1996 dollars)	9215	<i>9434</i>	<i>9701</i>	<i>10136</i>	<i>2.4</i>	<i>2.8</i>	<i>4.5</i>
Imported Crude Oil Price ^a (nominal dollars per barrel).....	22.00	<i>23.77</i>	<i>28.26</i>	<i>24.50</i>	<i>8.1</i>	<i>18.9</i>	<i>-13.3</i>
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.80	<i>5.79</i>	<i>5.62</i>	<i>5.50</i>	<i>-0.1</i>	<i>-3.1</i>	<i>-2.0</i>
Total Petroleum Net Imports (including SPR).....	10.90	<i>10.52</i>	<i>11.37</i>	<i>12.05</i>	<i>-3.5</i>	<i>8.1</i>	<i>6.0</i>
Energy Demand							
World Petroleum (million barrels per day)	76.0	<i>76.2</i>	77.5	<i>78.9</i>	<i>0.2</i>	<i>1.6</i>	<i>1.9</i>
Petroleum (million barrels per day)	19.65	<i>19.71</i>	<i>20.33</i>	<i>20.92</i>	<i>0.3</i>	<i>3.1</i>	<i>2.9</i>
Natural Gas (trillion cubic feet)	22.41	<i>22.02</i>	<i>23.05</i>	<i>23.66</i>	<i>-1.7</i>	<i>4.7</i>	<i>2.7</i>
Coal ^c (million short tons)	1059	<i>1050</i>	<i>1078</i>	<i>1109</i>	<i>-0.8</i>	<i>2.6</i>	<i>2.9</i>
Electricity (billion kilowatthours)							
Retail Sales ^d	3397	<i>3465</i>	<i>3482</i>	<i>3595</i>	<i>2.0</i>	<i>0.5</i>	<i>3.2</i>
Other Use/Sales ^e	205	<i>236</i>	<i>256</i>	<i>257</i>	<i>15.3</i>	<i>8.1</i>	<i>0.4</i>
Total	3602	<i>3702</i>	<i>3738</i>	<i>3852</i>	<i>2.8</i>	<i>1.0</i>	<i>3.0</i>
Total Energy Demand ^f (quadrillion Btu)	97.0	<i>97.4</i>	<i>100.3</i>	<i>103.0</i>	<i>0.4</i>	<i>3.0</i>	<i>2.7</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).....	10.52	<i>10.32</i>	<i>10.34</i>	<i>10.17</i>	-1.9	<i>0.2</i>	<i>-1.7</i>
Renewable Energy as Percent of Total ^g	6.4	<i>7.1</i>	<i>7.3</i>	<i>7.2</i>			

^aRefers to the refiner acquisition cost (RAC) of imported crude oil.

^bIncludes lease condensate.

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

^dTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2001 are estimates.

^eDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL1202.

Table 1. U.S. Macroeconomic and Weather Assumptions: Base Case

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic^a															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR).....	9363	9392	9484	9498	9571	9644	9739	9848	9985	10093	10189	10278	9434	9701	10136
Percentage Change from Prior Year.....	1.4	2.2	3.2	2.7	2.2	2.7	2.7	3.7	4.3	4.7	4.6	4.4	2.4	2.8	4.5
Annualized Percent Change from Prior Quarter	5.0	1.2	3.9	0.6	3.1	3.1	3.9	4.5	5.5	4.4	3.8	3.5			
GDP Implicit Price Deflator (Index, 1996=1.000).....	1.101	1.105	1.108	1.115	1.122	1.127	1.134	1.141	1.150	1.156	1.163	1.170	1.107	1.131	1.160
Percentage Change from Prior Year.....	1.4	1.1	0.8	1.5	1.9	2.0	2.4	2.4	2.5	2.6	2.6	2.5	1.2	2.2	2.5
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	6961	7022	7073	7096	7167	7229	7284	7344	7442	7522	7569	7622	7038	7256	7539
Percentage Change from Prior Year.....	3.8	4.9	3.0	5.5	3.0	3.0	3.0	3.5	3.8	4.1	3.9	3.8	4.3	3.1	3.9
Manufacturing Production (Index, 1996=1.000).....	1.176	1.187	1.196	1.191	1.201	1.215	1.236	1.258	1.282	1.303	1.325	1.345	1.188	1.228	1.314
Percentage Change from Prior Year.....	-3.7	-1.2	0.8	2.0	2.1	2.4	3.4	5.6	6.7	7.2	7.2	6.9	-0.6	3.4	7.0
OECD Economic Growth (percent) ^b													0.9	1.8	2.6
Weather^c															
Heating Degree-Days															
U.S.	2098	498	44	1644	2231	518	86	1622	2254	517	85	1621	4284	4456	4477
New England.....	2796	869	119	2392	3171	882	167	2236	3205	880	167	2235	6176	6456	6488
Middle Atlantic.....	2481	653	36	2218	2888	699	105	2001	2919	697	106	2001	5388	5693	5723
U.S. Gas-Weighted	2181	558	43	1741	2348	554	90	1713	2373	554	90	1713	4523	4706	4730
Cooling Degree-Days (U.S.).....	31	372	882	81	32	347	783	76	33	348	784	76	1366	1238	1240

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

^bOECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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

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 Global Insight, "World Economic Outlook," Volume 1. Macroeconomic projections are based on Global Insight Forecast CONTROL1202.

Table 2. U.S. Energy Indicators: Base Case

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic ^a															
Real Fixed Investment (billion chained 1996 dollars-SAAR)...	1641	1637	1638	1649	1656	1673	1693	1719	1757	1798	1843	1880	1641	1685	1820
Real Exchange Rate (index).....	1.192	1.151	1.107	1.117	1.120	1.105	1.083	1.063	1.053	1.046	1.040	1.034	1.142	1.093	1.043
Business Inventory Change (billion chained 1996 dollars-SAAR)...	-32.9	-14.5	-5.0	-6.8	-0.3	4.7	6.9	11.3	18.3	23.5	25.6	24.1	-14.8	5.6	22.9
Producer Price Index (index, 1982=1.000).....	1.292	1.308	1.313	1.324	1.333	1.333	1.339	1.342	1.349	1.354	1.365	1.368	1.309	1.336	1.359
Consumer Price Index (index, 1982-1984=1.000).....	1.781	1.796	1.804	1.817	1.828	1.837	1.848	1.860	1.873	1.884	1.897	1.909	1.799	1.843	1.891
Petroleum Product Price Index (index, 1982=1.000).....	0.656	0.808	0.787	0.871	1.027	0.931	0.866	0.883	0.955	0.873	0.810	0.819	0.781	0.927	0.864
Non-Farm Employment (millions)	130.8	130.7	130.9	130.9	131.1	131.4	131.9	132.9	133.9	134.7	135.5	136.2	130.8	131.8	135.1
Commercial Employment (millions)	92.1	92.2	92.4	92.5	92.8	93.2	93.7	94.6	95.6	96.3	97.0	97.6	92.3	93.6	96.6
Total Industrial Production (index, 1996=1.000).....	1.154	1.166	1.176	1.173	1.182	1.195	1.213	1.233	1.254	1.273	1.293	1.310	1.167	1.206	1.282
Housing Stock (millions)	119.3	119.5	119.8	120.1	120.4	120.7	121.0	121.3	121.6	121.9	122.2	122.5	119.7	120.9	122.0
Miscellaneous															
Gas Weighted Industrial Production (index, 1996=1.000).....	1.069	1.076	1.083	1.081	1.088	1.095	1.109	1.123	1.136	1.148	1.160	1.171	1.077	1.104	1.154
Vehicle Miles Traveled ^b (million miles/day).....	7245	8018	8040	7815	7460	8200	8360	7896	7632	8405	8587	8139	7782	7981	8192
Vehicle Fuel Efficiency (index, 1999=1.000).....	0.996	1.040	1.035	1.034	0.994	1.045	1.049	1.002	0.993	1.043	1.047	1.000	1.027	1.023	1.021
Real Vehicle Fuel Cost (cents per mile)	3.32	3.76	3.78	3.96	4.19	4.08	3.93	3.92	3.98	3.85	3.67	3.64	3.71	4.03	3.78
Air Travel Capacity (mill. available ton-miles/day).....	435.0	475.3	439.0	454.6	466.6	475.5	490.0	490.8	483.9	492.1	509.2	514.2	451.0	480.8	499.9
Aircraft Utilization (mill. revenue ton-miles/day).....	237.6	268.7	270.6	251.5	247.7	273.7	282.1	267.0	261.9	286.3	297.7	284.0	257.2	267.7	282.5
Airline Ticket Price Index (index, 1982-1984=1.000).....	2.317	2.377	2.334	2.247	2.392	2.478	2.519	2.540	2.590	2.609	2.621	2.630	2.319	2.482	2.612
Raw Steel Production (million tons).....	23.92	25.03	25.72	22.63	22.35	24.18	24.43	23.70	26.04	27.31	27.32	26.19	97.31	94.66	106.86

^aMacroeconomic projections from Global Insight model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Table 3. International Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except OECD Commercial Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Demand^a															
OECD															
U.S. (50 States).....	19.4	19.6	19.9	19.9	20.3	20.0	20.4	20.7	20.7	20.5	21.0	21.4	19.7	20.3	20.9
U.S. Territories	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
Canada	2.0	1.9	2.0	2.0	2.0	1.9	2.1	2.1	2.1	2.0	2.2	2.1	2.0	2.0	2.1
Europe	15.2	14.6	15.3	15.7	15.5	14.6	15.2	15.9	15.7	14.8	15.4	16.0	15.2	15.3	15.5
Japan.....	5.7	4.6	5.0	5.6	5.8	4.8	5.0	5.4	5.8	4.8	5.0	5.4	5.2	5.2	5.3
Other OECD	5.3	4.9	4.9	5.2	5.1	5.0	5.3	5.3	5.1	5.0	5.3	5.3	5.1	5.2	5.2
Total OECD	47.9	46.1	47.5	48.8	49.0	46.6	48.2	49.7	49.9	47.5	49.2	50.8	47.6	48.4	49.3
Non-OECD															
Former Soviet Union.....	3.8	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.9	3.7	3.8	3.7	3.7	3.7	3.8
Europe.....	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
China	5.1	5.0	5.0	5.0	5.2	5.2	5.1	5.2	5.4	5.4	5.3	5.4	5.0	5.2	5.4
Other Asia.....	7.4	7.4	7.2	7.5	7.6	7.6	7.3	7.7	7.7	7.7	7.4	7.8	7.4	7.5	7.6
Other Non-OECD.....	11.7	12.0	12.0	11.9	11.8	12.1	12.2	12.1	12.0	12.2	12.3	12.2	11.9	12.0	12.2
Total Non-OECD.....	28.6	28.7	28.4	28.7	29.1	29.1	28.9	29.2	29.6	29.6	29.4	29.7	28.6	29.1	29.6
Total World Demand.....	76.6	74.8	75.9	77.5	78.1	75.7	77.1	78.9	79.4	77.1	78.6	80.4	76.2	77.5	78.9
Supply^b															
OECD															
U.S. (50 States).....	9.1	9.2	8.9	8.9	9.0	8.9	8.8	8.9	8.9	8.8	8.8	8.8	9.0	8.9	8.9
Canada.....	2.9	2.9	3.0	3.1	3.1	3.1	3.2	3.3	3.2	3.2	3.4	3.4	3.0	3.2	3.3
Mexico.....	3.6	3.6	3.6	3.6	3.8	3.8	3.9	3.8	3.9	3.9	4.0	3.9	3.6	3.8	3.9
North Sea ^c	6.3	6.4	5.8	6.3	6.5	6.1	6.2	6.5	6.4	6.0	6.1	6.4	6.2	6.3	6.2
Other OECD	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Total OECD	23.6	23.6	23.0	23.5	23.9	23.5	23.7	24.0	24.0	23.6	23.9	24.1	23.4	23.8	23.9
Non-OECD															
OPEC	27.9	27.4	28.3	29.2	27.9	29.1	29.4	29.6	29.8	29.8	30.0	30.0	28.2	29.0	29.9
Former Soviet Union.....	9.0	9.2	9.6	9.8	9.6	9.7	9.9	10.0	10.1	10.2	10.4	10.5	9.4	9.8	10.3
China	3.3	3.3	3.4	3.5	3.3	3.3	3.4	3.4	3.3	3.3	3.3	3.3	3.4	3.3	3.3
Other Non-OECD.....	11.5	11.5	11.4	11.4	11.6	11.7	11.9	12.0	12.0	12.1	12.4	12.5	11.4	11.8	12.3
Total Non-OECD.....	51.7	51.4	52.6	54.0	52.4	53.8	54.6	55.0	55.2	55.5	56.1	56.3	52.4	53.9	55.8
Total World Supply	75.3	75.0	75.6	77.4	76.3	77.3	78.3	79.0	79.2	79.1	80.0	80.4	75.8	77.7	79.7
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	0.2	-0.4	0.5	0.3	0.3	-0.7	-0.3	0.3	0.1	-0.6	-0.2	0.5	0.1	-0.1	-0.1
Other	1.1	0.2	-0.1	-0.2	1.5	-0.8	-0.8	-0.4	0.1	-1.4	-1.1	-0.5	0.2	-0.1	-0.7
Total Stock Withdrawals	1.3	-0.2	0.3	0.1	1.8	-1.5	-1.2	-0.1	0.2	-2.0	-1.3	0.0	0.4	-0.2	-0.8
OECD Comm. Stocks, End (bill. bbls.).....	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.7
Non-OPEC Supply.....	47.4	47.6	47.4	48.2	48.4	48.2	48.8	49.4	49.4	49.3	50.0	50.4	47.6	48.7	49.8
Net Exports from Former Soviet Union	5.2	5.5	5.9	6.2	5.7	6.0	6.2	6.3	6.2	6.5	6.7	6.7	5.7	6.1	6.5

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

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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 Monthly*, DOE/EIA-0520; Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

Table 4. U.S. Energy Prices: Base Case
(Nominal Dollars)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	19.33	23.84	25.88	25.74	29.83	28.77	27.80	26.82	25.89	24.96	24.08	23.16	23.77	28.26	24.50
WTI ^b Spot Average.....	21.66	26.25	28.34	28.22	31.79	30.99	30.18	29.35	28.43	27.45	26.49	25.51	26.12	30.58	26.97
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	2.34	3.00	2.88	3.67	4.45	3.89	3.65	4.01	4.51	4.10	3.96	4.43	2.97	4.00	4.25
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades.....	1.20	1.43	1.44	1.46	1.56	1.60	1.55	1.49	1.51	1.54	1.49	1.42	1.39	1.55	1.49
Regular Unleaded.....	1.16	1.39	1.40	1.42	1.50	1.54	1.50	1.45	1.47	1.50	1.45	1.38	1.34	1.50	1.45
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	1.18	1.30	1.35	1.44	1.49	1.48	1.45	1.46	1.44	1.42	1.38	1.39	1.32	1.47	1.41
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	0.60	0.68	0.73	0.83	0.91	0.83	0.79	0.83	0.84	0.79	0.76	0.78	0.71	0.85	0.80
No. 2 Heating Oil, Retail															
(dollars per gallon).....	1.09	1.09	1.06	1.22	1.33	1.23	1.13	1.27	1.27	1.19	1.10	1.22	1.12	1.27	1.22
No. 6 Residual Fuel Oil, Retail ^d															
(dollars per barrel)	19.34	24.12	25.72	29.04	31.58	28.56	28.09	28.23	27.07	24.76	23.83	24.06	24.53	29.20	24.97
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.22	1.21	1.22	1.21	1.22	1.23	1.20	1.19	1.20	1.20	1.17	1.16	1.22	1.21	1.18
Heavy Fuel Oil ^e															
(dollars per million Btu).....	2.73	3.58	3.76	4.68	5.16	4.69	4.43	4.49	4.43	4.08	3.77	3.85	3.69	4.69	4.01
Natural Gas															
(dollars per million Btu).....	3.22	3.71	3.40	4.09	5.09	4.42	4.19	4.67	5.27	4.71	4.54	5.13	3.60	4.52	4.84
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	7.13	8.18	10.10	8.59	8.79	9.60	10.57	8.62	8.70	9.70	10.90	9.08	7.97	9.01	9.13
Electricity															
(cents per kilowatthour).....	8.08	8.52	8.71	8.27	7.97	8.56	8.79	8.35	8.04	8.60	8.82	8.37	8.41	8.42	8.47

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

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

Notes: Data are estimated for the fourth quarter of 2001. 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: Base Case

(Million Barrels per Day, Except Closing Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	5.93	5.89	5.66	5.69	5.76	5.61	5.51	5.59	5.63	5.52	5.44	5.43	5.79	5.62	5.50
Alaska.....	1.03	1.01	0.93	0.97	1.02	0.95	0.88	1.00	1.01	0.95	0.92	0.93	0.99	0.96	0.95
Lower 48.....	4.89	4.88	4.73	4.72	4.74	4.66	4.62	4.59	4.62	4.57	4.52	4.49	4.81	4.65	4.55
Net Commercial Imports ^b	8.74	9.29	9.17	9.28	8.99	9.91	10.14	9.77	9.81	10.27	10.49	10.29	9.12	9.71	10.22
Net SPR Withdrawals	-0.13	-0.11	-0.09	-0.11	-0.01	-0.11	-0.11	-0.11	-0.13	0.00	0.00	0.00	-0.11	-0.09	-0.03
Net Commercial Withdrawals.....	-0.24	0.19	0.50	-0.10	-0.14	-0.02	0.11	0.01	-0.23	-0.04	0.08	-0.02	0.09	-0.01	-0.05
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.....	0.11	0.04	-0.02	0.00	0.18	0.20	0.18	0.13	0.17	0.20	0.17	0.12	0.03	0.17	0.17
Total Crude Oil Supply.....	14.41	15.30	15.21	14.76	14.78	15.60	15.82	15.39	15.25	15.96	16.19	15.82	14.92	15.40	15.80
Other Supply															
NGL Production.....	1.86	1.91	1.89	1.88	1.91	1.94	1.94	1.93	1.93	1.96	1.97	1.95	1.89	1.93	1.95
Other Hydrocarbon and Alcohol Inputs.....	0.37	0.44	0.44	0.40	0.41	0.40	0.42	0.42	0.43	0.42	0.45	0.45	0.41	0.41	0.44
Inputs															
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.....	0.96	0.95	0.94	0.94	0.91	0.93	0.95	0.96	0.93	0.94	0.98	0.99	0.95	0.94	0.96
Net Product Imports ^c	1.33	1.50	1.31	1.42	1.81	1.72	1.55	1.58	1.85	1.85	1.82	1.82	1.39	1.67	1.84
Product Stock Withdrawn or Added (-).....	0.52	-0.48	0.05	0.49	0.46	-0.60	-0.32	0.41	0.37	-0.65	-0.39	0.41	0.14	-0.02	-0.07
Total Supply.....	19.44	19.62	19.86	19.90	20.27	19.99	20.36	20.69	20.75	20.48	21.01	21.44	19.70	20.33	20.92
Demand															
Motor Gasoline	8.49	8.99	9.06	8.82	8.75	9.15	9.30	9.19	8.97	9.40	9.57	9.50	8.84	9.10	9.36
Jet Fuel.....	1.57	1.61	1.63	1.65	1.69	1.66	1.71	1.75	1.73	1.69	1.75	1.79	1.62	1.70	1.74
Distillate Fuel Oil.....	3.79	3.70	3.70	3.94	4.10	3.71	3.71	3.98	4.24	3.86	3.89	4.19	3.78	3.87	4.05
Residual Fuel Oil	0.68	0.63	0.57	0.67	0.81	0.71	0.67	0.72	0.79	0.67	0.70	0.79	0.63	0.73	0.74
Other Oils ^d	4.91	4.69	4.90	4.82	4.92	4.76	4.97	5.04	5.01	4.85	5.10	5.17	4.83	4.92	5.03
Total Demand	19.44	19.61	19.86	19.90	20.27	19.99	20.36	20.68	20.75	20.48	21.00	21.44	19.71	20.33	20.92
Total Petroleum Net Imports.....	10.10	10.80	10.47	10.72	10.80	11.64	11.69	11.35	11.65	12.12	12.31	12.11	10.52	11.37	12.05
Closing Stocks(million barrels)															
Crude Oil (excluding SPR).....	333	317	270	279	291	293	283	282	303	307	299	301	279	282	301
Total Motor Gasoline	213	217	207	205	210	214	207	211	218	222	215	216	205	211	216
Finished Motor Gasoline.....	160	169	158	158	157	164	159	163	164	171	166	167	158	163	167
Blending Components	53	48	48	47	53	50	48	48	54	51	49	49	47	48	49
Jet Fuel.....	42	39	41	42	39	40	42	41	39	43	45	44	42	41	44
Distillate Fuel Oil.....	123	133	127	127	97	111	131	131	101	113	132	134	127	131	134
Residual Fuel Oil	34	33	33	33	31	32	34	35	34	37	39	41	33	35	41
Other Oils ^e	265	301	310	264	253	287	301	258	251	288	308	267	264	258	267
Total Stocks (excluding SPR)	1011	1038	987	950	921	977	997	959	947	1010	1038	1003	950	959	1003
Crude Oil in SPR.....	561	576	587	599	601	611	621	631	643	643	643	643	599	631	643
Heating Oil Reserve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (including SPR and HOR)	1574	1617	1576	1552	1524	1590	1620	1592	1592	1655	1684	1648	1552	1592	1648

^aIncludes lease condensate.^bNet imports equals gross imports plus SPR imports minus exports.^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.^dIncludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.^eIncludes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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
(Percent Deviation Base Case)

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

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

^fResponse during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days. Response during the spring/summer period (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	5.60	5.25	0.34	0.07	0.27
Lower 48 States	4.65	4.33	0.32	0.05	0.26
Alaska	0.95	0.92	0.03	0.02	0.01

Note: Components provided are for the fourth quarter 2004. 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: Base Case
(Trillion Cubic Feet)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Total Dry Gas Production	4.84	4.87	4.86	4.85	4.85	4.81	4.87	4.91	4.94	4.87	4.93	4.94	19.42	19.45	19.67
Net Imports	0.89	0.84	0.87	0.89	0.94	0.89	0.91	0.94	0.97	0.92	0.95	0.98	3.50	3.68	3.83
Supplemental Gaseous Fuels.....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.08	0.08	0.08
Total New Supply.....	5.76	5.73	5.75	5.76	5.82	5.71	5.80	5.87	5.93	5.81	5.90	5.94	23.00	23.21	23.57
Working Gas in Storage															
Opening.....	2.90	1.52	2.31	3.06	2.32	1.11	1.88	2.74	2.27	0.87	1.55	2.37	2.90	2.32	2.27
Closing.....	1.52	2.31	3.06	2.32	1.11	1.88	2.74	2.27	0.87	1.55	2.37	1.91	2.32	2.27	1.91
Net Withdrawals.....	1.39	-0.79	-0.75	0.73	1.22	-0.77	-0.86	0.46	1.40	-0.68	-0.81	0.46	0.58	0.05	0.36
Total Supply.....	7.14	4.94	5.00	6.49	7.04	4.94	4.95	6.33	7.33	5.13	5.08	6.39	23.58	23.26	23.94
Balancing Item ^a	-0.35	-0.16	-0.53	-0.51	0.29	0.07	-0.12	-0.44	0.21	0.02	-0.12	-0.39	-1.56	-0.21	-0.28
Total Primary Supply	6.79	4.78	4.47	5.98	7.32	5.00	4.82	5.89	7.54	5.15	4.97	6.00	22.02	23.05	23.66
Demand															
Residential.....	2.19	0.84	0.37	1.42	2.38	0.83	0.37	1.39	2.45	0.83	0.36	1.38	4.83	4.96	5.03
Commercial	1.20	0.62	0.46	0.83	1.20	0.59	0.44	0.84	1.29	0.63	0.47	0.87	3.11	3.08	3.26
Industrial.....	2.09	1.93	1.69	2.27	2.34	2.03	1.94	2.36	2.46	2.14	2.01	2.37	7.98	8.67	8.99
Lease and Plant Fuel.....	0.29	0.29	0.29	0.30	0.30	0.29	0.29	0.30	0.30	0.29	0.29	0.30	1.16	1.18	1.18
Other Industrial.....	1.80	1.64	1.40	1.97	2.04	1.74	1.64	2.06	2.16	1.85	1.71	2.07	6.82	7.49	7.80
CHP ^b	0.34	0.34	0.35	0.35	0.34	0.35	0.36	0.37	0.36	0.37	0.38	0.38	1.38	1.42	1.48
Non-CHP	1.47	1.30	1.05	1.62	1.70	1.39	1.28	1.70	1.80	1.49	1.34	1.69	5.43	6.07	6.32
Transportation ^c	0.19	0.13	0.12	0.20	0.24	0.15	0.14	0.17	0.22	0.14	0.13	0.17	0.64	0.70	0.66
Electric Power ^d	1.1	1.3	1.8	1.3	1.2	1.4	1.9	1.1	1.1	1.4	2.0	1.2	5.5	5.6	5.7
Total Demand.....	6.79	4.78	4.47	5.98	7.32	5.00	4.82	5.89	7.54	5.15	4.97	6.00	22.02	23.05	23.66

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

^bNatural gas used for electricity generation and production of useful thermal output by combined heat and power plants at industrial facilities. Includes a small amount of natural gas consumption at electricity-only plants in the industrial sector.

^cPipeline fuel use plus natural gas used as vehicle fuel.

^dNatural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers. 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: Base Case
(Million Short Tons)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Production.....	281.1	266.8	269.0	277.8	271.8	258.3	274.4	283.4	277.5	262.2	278.7	294.1	1094.7	1087.9	1112.5
Appalachia.....	107.1	98.4	98.1	104.9	101.7	93.3	97.9	101.2	102.0	92.7	97.1	102.6	408.4	394.1	394.3
Interior.....	36.6	37.2	34.5	35.6	33.7	34.5	34.0	31.8	32.7	33.4	32.8	31.0	143.9	133.9	129.9
Western.....	137.5	131.2	136.4	141.4	136.4	130.5	142.6	150.4	142.8	136.1	148.8	160.4	546.4	559.9	588.2
Primary Stock Levels ^a															
Opening.....	33.9	44.5	39.5	33.1	32.5	32.8	31.6	33.0	32.7	32.8	31.6	33.0	33.9	32.5	32.7
Closing.....	44.5	39.5	33.1	32.5	32.8	31.6	33.0	32.7	32.8	31.6	33.0	32.7	32.5	32.7	32.7
Net Withdrawals.....	-10.6	4.9	6.4	0.6	-0.2	1.1	-1.4	0.3	-0.1	1.1	-1.4	0.3	1.4	-0.2	(S)
Imports.....	4.0	3.9	4.5	4.3	4.5	4.5	4.5	4.6	4.7	4.7	4.7	4.7	16.6	18.1	18.8
Exports.....	9.3	11.0	9.3	10.4	10.0	10.2	10.4	10.4	10.4	10.5	10.6	10.6	40.0	41.0	42.1
Total Net Domestic Supply.....	265.3	264.5	270.6	272.2	266.1	253.7	267.2	277.9	271.7	257.6	271.3	288.5	1072.7	1064.9	1089.1
Secondary Stock Levels ^b															
Opening.....	145.6	143.2	147.7	133.8	140.8	141.4	148.3	132.8	139.6	133.4	140.7	124.6	145.6	140.8	139.6
Closing.....	143.2	147.7	133.8	140.8	141.4	148.3	132.8	139.6	133.4	140.7	124.6	134.5	140.8	139.6	134.5
Net Withdrawals.....	2.4	-4.5	13.9	-7.0	-0.7	-6.8	15.5	-6.8	6.2	-7.3	16.1	-9.9	4.8	1.2	5.1
Waste Coal Supplied to IPPs ^c	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.7	3.7	3.7	3.7	11.1	11.6	14.7
Total Supply.....	270.5	262.8	287.3	268.0	268.4	249.8	285.6	274.0	281.6	254.0	291.1	282.3	1088.6	1077.7	1109.0
Demand															
Coke Plants.....	5.5	5.6	5.6	6.4	6.4	6.2	6.3	5.8	6.1	6.0	6.2	5.6	23.1	24.6	23.8
Electric Power Sector ^d	224.5	227.1	265.4	244.4	244.6	228.6	264.3	250.6	258.2	233.1	270.1	259.3	961.5	988.1	1020.7
Retail and General Industry.....	17.1	15.5	15.6	17.8	17.4	15.1	15.0	17.6	17.4	14.9	14.8	17.4	66.0	65.0	64.4
Total Demand ^e	247.0	248.2	286.7	268.6	268.4	249.8	285.6	274.0	281.6	254.0	291.1	282.3	1050.5	1077.7	1109.0
Discrepancy ^f	23.4	14.6	0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	0.0

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

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

^cEstimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

^dCoal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

^eTotal Demand includes estimated IPP consumption.

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

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: Base Case

(Billion Kilowatt-hours)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal	444.8	451.0	521.8	481.2	473.7	441.4	511.2	484.7	508.9	459.4	532.4	511.1	1898.9	1911.0	2011.9
Petroleum.....	18.4	21.4	27.0	19.9	23.4	17.2	30.1	17.5	26.4	20.7	36.4	26.9	86.7	88.2	110.4
Natural Gas.....	118.5	130.8	192.4	132.9	122.7	146.5	203.4	118.9	118.6	146.9	208.5	126.1	574.7	591.5	600.1
Nuclear	195.0	187.8	205.2	191.5	194.5	190.6	205.1	190.3	195.1	191.4	206.2	191.5	779.6	780.5	784.2
Hydroelectric.....	60.0	75.4	63.4	64.0	74.5	80.5	67.5	64.6	76.7	79.7	66.6	65.0	262.7	287.0	288.0
Geothermal and Other ^b	13.2	11.7	15.5	12.4	13.5	12.6	14.3	12.6	14.7	13.0	14.7	13.1	52.7	53.0	55.5
Subtotal.....	849.8	878.3	1025.3	902.0	902.2	888.8	1031.5	888.7	940.5	911.1	1064.7	933.7	3655.3	3711.2	3850.1
Other Sectors ^c	43.8	50.7	51.3	50.9	44.6	51.6	52.4	53.0	46.9	54.0	54.7	55.5	196.6	201.7	211.1
Total Generation	893.6	929.0	1076.5	952.8	946.8	940.5	1083.9	941.7	987.4	965.1	1119.4	989.2	3852.0	3912.9	4061.1
Net Imports ^d	4.9	8.5	6.3	5.6	6.1	7.7	11.1	6.6	3.7	5.3	8.6	4.1	25.3	31.4	21.7
Total Supply	898.5	937.5	1082.9	958.4	952.9	948.2	1094.9	948.2	991.0	970.4	1128.0	993.3	3877.3	3944.3	4082.8
Losses and Unaccounted for ^e	22.1	51.7	24.9	76.9	43.9	67.7	39.9	54.9	43.8	67.5	42.0	77.6	175.7	206.4	231.0
Demand															
Retail Sales ^f															
Residential	312.0	280.4	384.3	293.1	332.6	270.9	381.4	288.7	340.7	274.2	390.4	292.9	1269.7	1273.6	1298.2
Commercial	255.8	279.5	320.8	263.3	259.5	276.1	319.0	269.2	272.5	286.5	333.1	280.0	1119.3	1123.8	1172.1
Industrial	227.5	243.2	258.2	236.5	225.3	243.1	256.1	246.1	241.8	251.6	262.8	251.8	965.3	970.6	1008.0
Other.....	25.6	26.5	30.9	27.7	27.3	27.6	31.2	28.0	28.3	28.2	31.9	28.6	110.7	114.2	116.9
Subtotal.....	820.9	829.6	994.1	820.5	844.8	817.7	987.6	832.1	883.3	840.5	1018.1	853.4	3465.1	3482.2	3595.2
Other Use/Sales ^g	55.5	56.1	63.9	61.0	64.3	62.8	67.4	61.3	64.0	62.4	67.9	62.3	236.5	255.7	256.6
Total Demand	876.4	885.7	1058.0	881.5	909.0	880.5	1055.0	893.4	947.2	902.9	1086.0	915.7	3701.6	3737.9	3851.8

^aElectric Utilities and independent power producers.

^b"Other" includes generation from other gaseous fuels, wind, wood, waste, and solar sources.

^cElectricity generation from combined heat and power facilities and electricity -only plants in the industrial and commercial sectors.

^dData for 2001 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2001 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 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 A1. Annual U.S. Energy Supply and Demand: Base Case

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Real Gross Domestic Product (GDP)															
(billion chained 1996 dollars).....	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	<i>9434</i>	<i>9701</i>	<i>10136</i>
Imported Crude Oil Price ^a (nominal dollars per barrel).....	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	<i>23.77</i>	<i>28.26</i>	<i>24.50</i>
Petroleum Supply															
Crude Oil Production ^b (million barrels per day)	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	<i>5.79</i>	<i>5.62</i>	<i>5.50</i>
Total Petroleum Net Imports (including SPR) (million barrels per day)	7.16	6.42	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	<i>10.52</i>	<i>11.37</i>	<i>12.05</i>
Energy Demand															
World Petroleum (million barrels per day)	66.0	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	76.0	76.0	<i>76.2</i>	<i>77.5</i>	<i>21.0</i>
U.S. Petroleum (million barrels per day)	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	<i>19.71</i>	<i>20.33</i>	<i>20.92</i>
Natural Gas (trillion cubic feet).....	19.16	19.56	20.23	20.79	21.24	22.20	22.60	22.73	22.24	22.39	23.44	22.41	<i>22.02</i>	<i>23.05</i>	<i>23.66</i>
Coal (million short tons)	904	899	908	944	951	962	1006	1030	1037	1039	1084	1059	<i>1050</i>	<i>1078</i>	<i>1109</i>
Electricity (billion kilowatthours)															
Retail Sales ^c	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3397	<i>3465</i>	<i>3482</i>	<i>3595</i>
Other Use/Sales ^d	115	118	122	128	134	144	146	148	161	183	183	205	<i>236</i>	<i>256</i>	<i>257</i>
Total	2828	2880	2885	2989	3069	3157	3247	3294	3425	3495	3604	3602	<i>3702</i>	<i>3738</i>	<i>3852</i>
Total Energy Demand ^e (quadrillion Btu)	84.6	84.6	86.1	87.8	89.6	91.5	94.5	95.0	95.3	97.0	99.3	97.0	<i>97.4</i>	<i>100.3</i>	<i>103.0</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).....	12.61	12.68	12.51	12.43	12.19	12.13	12.10	11.66	11.20	10.95	10.81	10.52	<i>10.32</i>	<i>10.34</i>	<i>10.16</i>

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

^bIncludes lease condensate.

^cTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C.

^dDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 are estimates.

^e"Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, Annual Energy Review, 2001, DOE/EIA-0384(01) (AER), Table 1.1. 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 Monthly DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL202.

Table A2. Annual U.S. Macroeconomic and Weather Indicators: Base Case

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars).....	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	<i>9434</i>	<i>9701</i>	<i>10136</i>
GDP Implicit Price Deflator (Index, 1996=1.000).....	0.865	0.897	0.918	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.069	1.094	<i>1.107</i>	<i>1.131</i>	<i>1.160</i>
Real Disposable Personal Income (billion chained 1996 Dollars).....	5014	5033	5189	5261	5397	5539	5678	5854	6169	6328	6630	6748	<i>7038</i>	<i>7256</i>	<i>7539</i>
Manufacturing Production (Index, 1996=1.000).....	0.811	0.791	0.823	0.853	0.905	0.953	1.000	1.079	1.142	1.191	1.247	1.194	<i>1.188</i>	<i>1.228</i>	<i>1.314</i>
Real Fixed Investment (billion chained 1996 dollars).....	895	833	886	958	1046	1109	1213	1329	1480	1595	1692	1627	<i>1576</i>	<i>1619</i>	<i>1748</i>
Real Exchange Rate (Index, 1996=1.000).....	0.918	0.920	0.926	0.956	0.933	0.869	0.918	0.992	1.044	1.047	1.083	1.141	<i>1.142</i>	<i>1.093</i>	<i>1.043</i>
Business Inventory Change (billion chained 1996 dollars).....	8.9	-6.8	-4.7	3.6	11.9	13.8	9.9	14.8	27.1	14.4	17.5	-36.2	<i>-14.4</i>	<i>5.5</i>	<i>22.2</i>
Producer Price Index (index, 1982=1.000).....	1.163	1.165	1.172	1.189	1.205	1.247	1.277	1.276	1.244	1.255	1.327	1.342	<i>1.309</i>	<i>1.336</i>	<i>1.359</i>
Consumer Price Index (index, 1982-1984=1.000).....	1.307	1.362	1.403	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	1.771	<i>1.799</i>	<i>1.843</i>	<i>1.891</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	0.853	<i>0.781</i>	<i>0.927</i>	<i>0.864</i>
Non-Farm Employment (millions).....	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.9	128.9	131.7	131.9	<i>130.8</i>	<i>131.8</i>	<i>135.1</i>
Commercial Employment (millions).....	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.6	92.0	92.7	<i>92.3</i>	<i>93.6</i>	<i>96.6</i>
Total Industrial Production (index, 1996=1.000).....	0.827	0.810	0.836	0.865	0.912	0.956	1.000	1.069	1.124	1.165	1.218	1.173	<i>1.167</i>	<i>1.206</i>	<i>1.282</i>
Housing Stock (millions).....	103.4	104.4	105.4	106.7	108.0	109.6	110.9	112.3	114.1	115.7	116.2	118.0	<i>119.7</i>	<i>120.9</i>	<i>122.0</i>
Weather ^a															
Heating Degree-Days															
U.S.	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	4223	<i>4284</i>	<i>4456</i>	<i>4477</i>
New England	5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6489	6059	<i>6176</i>	<i>6456</i>	<i>6488</i>
Middle Atlantic	4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5774	5297	<i>5388</i>	<i>5693</i>	<i>5723</i>
U.S. Gas-Weighted.....	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4680	4451	<i>4523</i>	<i>4706</i>	<i>4730</i>
Cooling Degree-Days (U.S.).....	1260	1331	1040	1218	1220	1293	1180	1156	1410	1297	1229	1256	<i>1366</i>	<i>1238</i>	<i>1240</i>

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on Global Insight Forecast CONTROL1202.

Table A3. Annual International Petroleum Supply and Demand Balance: Base Case

(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Demand^a															
OECD															
U.S. (50 States).....	17.0	16.7	17.0	17.2	17.7	17.7	18.3	18.6	18.9	19.5	19.7	19.6	19.7	20.3	20.9
Europe ^b	13.3	13.3	14.0	14.2	14.1	14.2	14.8	15.0	15.3	15.2	15.1	15.3	15.2	15.3	15.5
Japan.....	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.6	5.5	5.4	5.2	5.2	5.3
Other OECD.....	5.4	5.6	5.9	6.2	6.6	6.8	6.9	7.3	7.1	7.4	7.5	7.4	7.4	7.6	7.7
Total OECD.....	40.8	41.6	42.6	43.0	44.2	45.0	46.1	46.6	46.9	47.7	47.9	47.7	47.6	48.4	49.3
Non-OECD															
Former Soviet Union.....	8.4	8.4	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.7	3.7	3.6	3.7	3.7	3.8
Europe.....	1.0	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
China.....	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.8	4.9	5.0	5.2	5.4
Other Asia.....	4.3	4.5	4.7	5.1	5.5	5.9	6.3	6.6	6.7	6.9	7.3	7.3	7.4	7.5	7.6
Other Non-OECD.....	8.9	8.9	9.3	9.7	10.0	10.4	10.7	11.1	11.4	11.6	11.7	11.8	11.9	12.0	12.2
Total Non-OECD.....	24.9	25.0	24.2	24.0	24.1	24.9	25.3	26.2	26.7	27.3	28.1	28.3	28.6	29.1	29.6
Total World Demand.....	65.7	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	76.0	76.0	76.2	77.5	78.9
Supply^c															
OECD															
U.S. (50 States).....	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.1	9.0	9.0	8.9	8.9
Canada.....	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.7	2.8	3.0	3.2	3.3
Mexico.....	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.5	3.6	3.6	3.8	3.9
North Sea ^d	3.9	4.1	4.5	4.8	5.5	5.9	6.3	5.8	5.9	6.0	6.0	6.3	6.2	6.3	6.2
Other OECD.....	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.8	2.1	1.9	2.1	1.6	1.6	1.6	1.6
Total OECD.....	20.2	20.8	21.1	21.2	21.9	22.4	22.7	23.1	23.6	22.9	23.4	23.2	23.4	23.8	23.9
Non-OECD															
OPEC.....	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.3	30.9	30.1	28.2	29.0	29.9
Former Soviet Union.....	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.6	8.1	8.8	9.4	9.8	10.3
China.....	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3	3.4	3.3	3.3
Other Non-OECD.....	7.9	8.1	8.3	8.7	9.1	9.8	10.2	10.4	10.7	11.2	11.2	11.2	11.4	11.8	12.3
Total Non-OECD.....	46.6	45.9	45.9	46.2	46.3	47.5	48.7	50.6	51.6	51.3	53.4	53.4	52.4	53.9	55.8
Total World Supply.....	66.8	66.7	67.0	67.4	68.2	69.9	71.4	73.7	75.2	74.2	76.8	76.7	75.8	77.7	79.7
Total Stock Withdrawals.....	-0.8	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.2	-1.3	0.8	-0.8	-0.7	0.4	-0.2	-0.8
OECD Comm. Stocks, End (bill. bbls.).....	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.4	2.5	2.7	2.6	2.6	2.7
Net Exports from Former Soviet Union.....	3.0	2.1	2.1	2.3	2.4	2.6	3.0	3.3	3.5	3.9	4.5	5.2	5.7	6.1	6.5

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

^bOECD Europe includes the former East Germany.

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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 Monthly, DOE/EIA-0520, and Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.77	28.26	24.50
WTI ^b Spot Average.....	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.12	30.58	26.97
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.69	4.12	2.97	4.00	4.25
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades.....	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.39	1.55	1.49
Regular Unleaded.....	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.34	1.50	1.45
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	1.17	1.13	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.40	1.32	1.47	1.41
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.71	0.85	0.80
No. 2 Heating Oil, Retail															
(dollars per gallon).....	1.04	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.23	1.12	1.27	1.22
No. 6 Residual Fuel Oil, Retail ^c															
(dollars per barrel)	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.24	24.53	29.20	24.97
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.22	1.21	1.18
Heavy Fuel Oil ^d															
(dollars per million Btu).....	3.22	2.48	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.71	3.69	4.69	4.01
Natural Gas															
(dollars per million Btu).....	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.33	4.43	3.60	4.52	4.84
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.63	7.97	9.01	9.13
Electricity															
(cents per kilowatthour).....	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.48	8.41	8.42	8.47

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

^eIncludes 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: Base Case

(Million Barrels per Day, Except Closing Stocks)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	<i>5.79</i>	<i>5.62</i>	<i>5.50</i>
Alaska	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	<i>0.99</i>	<i>0.96</i>	<i>0.95</i>
Lower 48	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	<i>4.81</i>	<i>4.65</i>	<i>4.55</i>
Net Commercial Imports ^b	5.76	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	<i>9.12</i>	<i>9.71</i>	<i>10.22</i>
Net SPR Withdrawals	0.06	0.05	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	<i>-0.11</i>	<i>-0.09</i>	<i>-0.03</i>
Net Commercial Withdrawals	0.00	-0.01	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	<i>0.09</i>	<i>-0.01</i>	<i>-0.05</i>
Product Supplied and Losses	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Unaccounted-for Crude Oil	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	<i>0.03</i>	<i>0.17</i>	<i>0.17</i>
Total Crude Oil Supply	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	<i>14.92</i>	<i>15.40</i>	<i>15.80</i>
Other Supply															
NGL Production	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.87	<i>1.89</i>	<i>1.93</i>	<i>1.95</i>
Other Hydrocarbon and Alcohol Inputs	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	<i>0.41</i>	<i>0.41</i>	<i>0.44</i>
Crude Oil Product Supplied	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Processing Gain	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	<i>0.95</i>	<i>0.94</i>	<i>0.96</i>
Net Product Imports ^c	1.38	0.76	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	<i>1.39</i>	<i>1.67</i>	<i>1.84</i>
Product Stock Withdrawn	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.23	<i>0.14</i>	<i>-0.02</i>	<i>-0.07</i>
Total Supply	17.04	16.56	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	<i>19.70</i>	<i>20.33</i>	<i>20.92</i>
Demand															
Motor Gasoline ^d	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	<i>8.84</i>	<i>9.10</i>	<i>9.36</i>
Jet Fuel	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	<i>1.62</i>	<i>1.70</i>	<i>1.74</i>
Distillate Fuel Oil	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	<i>3.78</i>	<i>3.87</i>	<i>4.05</i>
Residual Fuel Oil	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	<i>0.63</i>	<i>0.73</i>	<i>0.74</i>
Other Oils ^e	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	<i>4.83</i>	<i>4.92</i>	<i>5.03</i>
Total Demand	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	<i>19.71</i>	<i>20.33</i>	<i>20.92</i>
Total Petroleum Net Imports	7.16	6.42	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	<i>10.52</i>	<i>11.37</i>	<i>12.05</i>
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	323	325	318	335	337	303	284	305	324	284	286	312	<i>279</i>	<i>282</i>	<i>301</i>
Total Motor Gasoline	220	219	216	226	215	202	195	210	216	193	196	210	<i>205</i>	<i>211</i>	<i>216</i>
Jet Fuel	52	49	43	40	47	40	40	44	45	41	45	42	<i>42</i>	<i>41</i>	<i>44</i>
Distillate Fuel Oil	132	144	141	141	145	130	127	138	156	125	118	145	<i>127</i>	<i>131</i>	<i>134</i>
Residual Fuel Oil	49	50	43	44	42	37	46	40	45	36	36	41	<i>33</i>	<i>35</i>	<i>41</i>
Other Oils ^f	227	251	292	237	274	348	280	204	212	396	246	178	<i>350</i>	<i>250</i>	<i>223</i>

^aIncludes lease condensate.^bNet imports equals gross imports plus SPR imports minus exports.^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.^dFor years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, Short-Term Energy Outlook, EIA/DOE-0202(93/3Q), for details on this adjustment.^eIncludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.^fIncludes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Total Dry Gas Production	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	19.02	18.83	18.99	19.45	<i>19.42</i>	<i>19.45</i>	<i>19.67</i>
Net Imports	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.65	<i>3.50</i>	<i>3.68</i>	<i>3.83</i>
Supplemental Gaseous Fuels.....	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.08	<i>0.08</i>	<i>0.08</i>	<i>0.08</i>
Total New Supply	19.38	19.45	19.88	20.42	21.39	21.40	21.75	21.84	22.12	22.35	22.61	23.17	<i>23.00</i>	<i>23.21</i>	<i>23.57</i>
Working Gas in Storage															
Opening	2.85	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	<i>2.90</i>	<i>2.32</i>	<i>2.27</i>
Closing.....	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	<i>2.32</i>	<i>2.27</i>	<i>1.91</i>
Net Withdrawals.....	-0.22	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.18	<i>0.58</i>	<i>0.05</i>	<i>0.36</i>
Total Supply.....	19.16	19.70	20.11	20.70	21.11	21.85	21.73	21.84	21.56	22.56	23.41	21.99	<i>23.58</i>	<i>23.26</i>	<i>23.94</i>
Balancing Item ^a	0.00	-0.14	0.12	0.09	0.13	0.35	0.87	0.89	0.67	-0.17	0.03	0.42	<i>-1.56</i>	<i>-0.21</i>	<i>-0.28</i>
Total Primary Supply	19.16	19.56	20.23	20.79	21.24	22.20	22.60	22.73	22.24	22.39	23.44	22.41	<i>22.02</i>	<i>23.05</i>	<i>23.66</i>
Demand															
Residential.....	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.81	<i>4.83</i>	<i>4.96</i>	<i>5.03</i>
Commercial	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.04	<i>3.11</i>	<i>3.08</i>	<i>3.26</i>
Industrial	8.24	8.36	8.70	8.87	8.91	9.38	9.69	9.71	9.49	9.16	9.38	8.66	<i>7.98</i>	<i>8.67</i>	<i>8.99</i>
Lease and Plant Fuel.....	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.13	1.16	<i>1.16</i>	<i>1.18</i>	<i>1.18</i>
Other Industrial	7.01	7.23	7.53	7.70	7.79	8.16	8.44	8.51	8.32	8.08	8.25	7.50	<i>6.82</i>	<i>7.49</i>	<i>7.80</i>
CHP ^b	1.06	1.06	1.11	1.12	1.18	1.26	1.29	1.28	1.36	1.40	1.39	1.37	<i>1.38</i>	<i>1.42</i>	<i>1.48</i>
Non-CHP	5.95	6.17	6.42	6.58	6.61	6.90	7.15	7.23	6.97	6.68	6.87	6.13	<i>5.43</i>	<i>6.07</i>	<i>6.32</i>
Transportation ^c	0.66	0.60	0.59	0.63	0.69	0.70	0.71	0.76	0.64	0.65	0.65	0.62	<i>0.64</i>	<i>0.70</i>	<i>0.66</i>
Electric Power ^d	3.24	3.32	3.45	3.47	3.90	4.24	3.81	4.06	4.59	4.82	5.21	5.29	<i>5.48</i>	<i>5.65</i>	<i>5.73</i>
Total Demand	19.16	19.56	20.23	20.79	21.24	22.20	22.60	22.73	22.24	22.39	23.44	22.41	<i>22.02</i>	<i>23.05</i>	<i>23.66</i>

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

^bNatural gas used for electricity generation and production of useful thermal output by combined heat and power plants at industrial facilities. Includes a small amount of natural gas consumption at electricity-only plants in the industrial sector.

^cPipeline fuel use plus natural gas used as vehicle fuel.

^dNatural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

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: Base Case

(Million Short Tons)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Production	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1121.3	<i>1094.7</i>	<i>1087.9</i>	<i>1112.5</i>
Appalachia.....	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	428.9	<i>408.4</i>	<i>394.1</i>	<i>394.3</i>
Interior	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.7	<i>143.9</i>	<i>133.9</i>	<i>129.9</i>
Western.....	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	544.7	<i>546.4</i>	<i>559.9</i>	<i>588.2</i>
Primary Stock Levels ^a															
Opening.....	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	<i>33.9</i>	<i>32.5</i>	<i>32.7</i>
Closing.....	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	33.9	<i>32.5</i>	<i>32.7</i>	<i>32.7</i>
Net Withdrawals.....	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-2.0	<i>1.4</i>	<i>-0.2</i>	<i>S</i>
Imports.....	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	19.8	<i>16.6</i>	<i>18.1</i>	<i>18.8</i>
Exports	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	<i>40.0</i>	<i>41.0</i>	<i>42.1</i>
Total Net Domestic Supply	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1035.2	1090.4	<i>1072.7</i>	<i>1064.9</i>	<i>1089.1</i>
Secondary Stock Levels ^b															
Opening.....	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	<i>145.6</i>	<i>140.8</i>	<i>139.6</i>
Closing.....	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	145.6	<i>140.8</i>	<i>139.6</i>	<i>134.5</i>
Net Withdrawals.....	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.0	-14.6	35.9	-37.5	<i>4.8</i>	<i>1.2</i>	<i>5.1</i>
Waste Coal Supplied to IPPs ^c	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	10.6	<i>11.1</i>	<i>11.6</i>	<i>14.7</i>
Total Supply.....	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.6	1043.1	1081.2	1063.6	<i>1088.6</i>	<i>1077.7</i>	<i>1109.0</i>
Demand															
Coke Plants	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	<i>23.1</i>	<i>24.6</i>	<i>23.8</i>
Electric Power Sector ^d	782.6	783.9	795.1	831.6	838.4	850.2	896.9	921.4	936.6	940.9	985.8	965.1	<i>961.5</i>	<i>988.1</i>	<i>1020.7</i>
Retail and General Industry.....	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	67.5	<i>66.0</i>	<i>65.0</i>	<i>64.4</i>
Residential and Commercial	0.0	0.0	0.0	6.2	6.0	5.8	6.0	6.5	4.9	4.9	4.1	4.1	<i>4.3</i>	<i>4.0</i>	<i>3.8</i>
Industrial.....	76.3	75.4	74.0	74.9	75.2	73.1	71.7	71.5	67.4	64.7	65.2	63.4	<i>61.7</i>	<i>61.0</i>	<i>60.6</i>
CHP ^e	27.8	27.0	28.2	28.9	29.7	29.4	29.4	29.8	28.5	27.8	28.0	26.4	<i>26.5</i>	<i>27.1</i>	<i>28.1</i>
Non-CHP	48.5	48.4	45.8	46.0	45.5	43.7	42.3	41.7	38.9	37.0	37.2	36.9	<i>35.1</i>	<i>33.9</i>	<i>32.5</i>
Total Demand ^f	904.5	899.2	907.7	944.1	951.3	962.1	1006.3	1029.5	1037.1	1038.6	1084.1	1058.6	<i>1050.5</i>	<i>1077.7</i>	<i>1109.0</i>
Discrepancy ^g	-5.1	-7.9	0.2	-7.6	2.7	-1.7	0.4	3.7	-5.5	4.4	-2.8	4.9	<i>38.1</i>	<i>0.0</i>	<i>0.0</i>

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

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

^cEstimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

^dEstimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2001 and projections for 2002 and 2003 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).

^eCoal used for electricity generation and production of useful thermal output by combined heat and power plants at industrial facilities. Includes a small amount of coal consumption at electricity-only plants in the industrial sector.

^fCoal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

^gTotal Demand includes estimated IPP consumption.

^hThe 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: Base Case

(Billion Kilowatt-hours)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal	1572.1	1568.8	1597.7	1665.5	1666.3	1686.1	1772.0	1820.8	1850.2	1858.6	1943.1	1881.7	1898.9	1911.0	2011.9
Petroleum.....	118.9	112.8	92.2	105.4	98.7	68.1	74.8	86.5	122.2	111.5	105.2	121.2	86.7	88.2	110.4
Natural Gas.....	309.5	317.8	334.3	342.2	385.7	419.2	378.8	399.6	449.3	473.0	518.0	545.9	574.7	591.5	600.1
Nuclear	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	728.3	753.9	768.8	779.6	780.5	784.2
Hydroelectric	286.2	281.5	245.8	273.5	250.6	302.7	338.1	346.6	313.4	308.6	265.8	204.5	262.7	287.0	288.0
Geothermal and Other ^b	37.1	41.4	44.3	46.0	45.9	42.8	44.5	45.8	46.3	48.4	49.5	48.0	52.7	53.0	55.5
Subtotal.....	2900.7	2934.8	2933.2	3042.9	3087.6	3192.3	3282.8	3327.8	3455.1	3528.4	3635.5	3570.2	3655.3	3711.2	3850.1
Other Sectors ^c	137.0	138.8	149.5	153.5	160.9	161.0	161.4	162.4	168.6	166.4	166.6	163.3	196.6	201.7	211.1
Total	3037.7	3073.7	3082.6	3196.4	3248.5	3353.3	3444.2	3490.2	3623.7	3694.8	3802.1	3733.5	3852.0	3912.9	4061.1
Net Imports ^d	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	30.6	34.0	20.3	25.3	31.4	21.7
Total Supply	3040.1	3093.3	3108.1	3224.2	3293.3	3392.5	3482.2	3526.8	3651.3	3725.4	3836.2	3753.8	3877.3	3944.3	4082.8
Losses and Unaccounted for ^e	212.5	213.2	222.7	234.7	224.7	235.2	235.0	233.1	225.9	230.2	231.7	152.0	175.7	206.4	231.0
Demand															
Retail Sales ^f															
Residential	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1201.0	1269.7	1273.6	1298.2
Commercial.....	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1085.0	1119.3	1123.8	1172.1
Industrial	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	994.1	965.3	970.6	1008.0
Other.....	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	116.7	110.7	114.2	116.9
Subtotal.....	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3396.8	3465.1	3482.2	3595.2
Other Use/Sales ^g	115.0	118.0	122.0	128.0	134.0	144.1	146.0	148.1	161.1	183.1	183.0	205.1	236.5	255.7	256.6
Total Demand	2827.6	2880.1	2885.4	2989.5	3068.6	3157.3	3247.2	3293.7	3425.3	3495.2	3604.4	3601.8	3701.6	3737.9	3851.8

^aElectric Utilities and independent power producers.

^b"Other" includes generation from other gaseous fuels, wind, wood, waste, and solar sources.

^cElectricity generation from combined heat and power facilities and electricity-only plants in the industrial and commercial sectors.

^dData for 2001 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2001 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 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.