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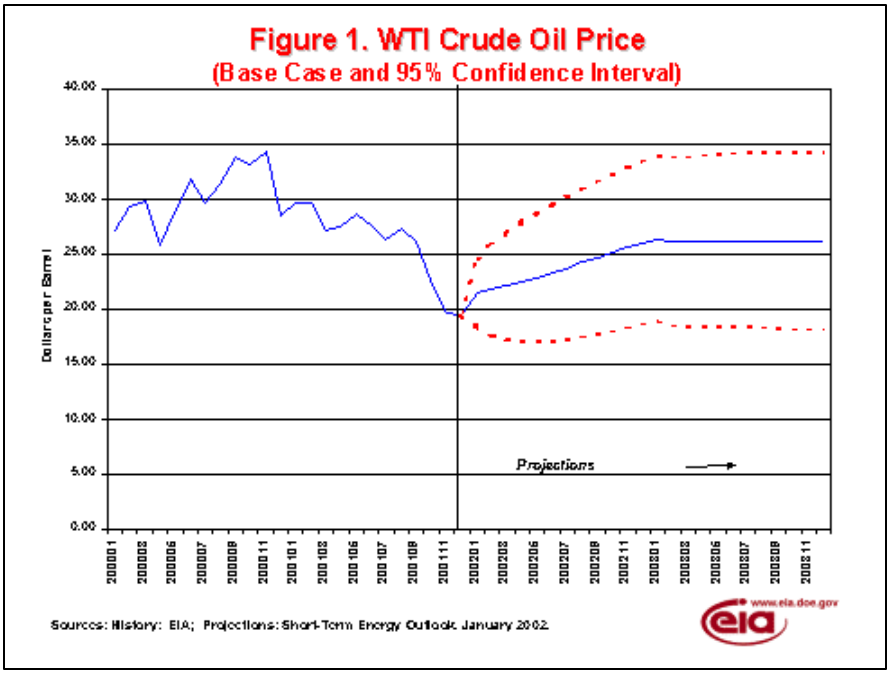
Energy Information Administration

Short-Term Energy Outlook

January 2002



Overview

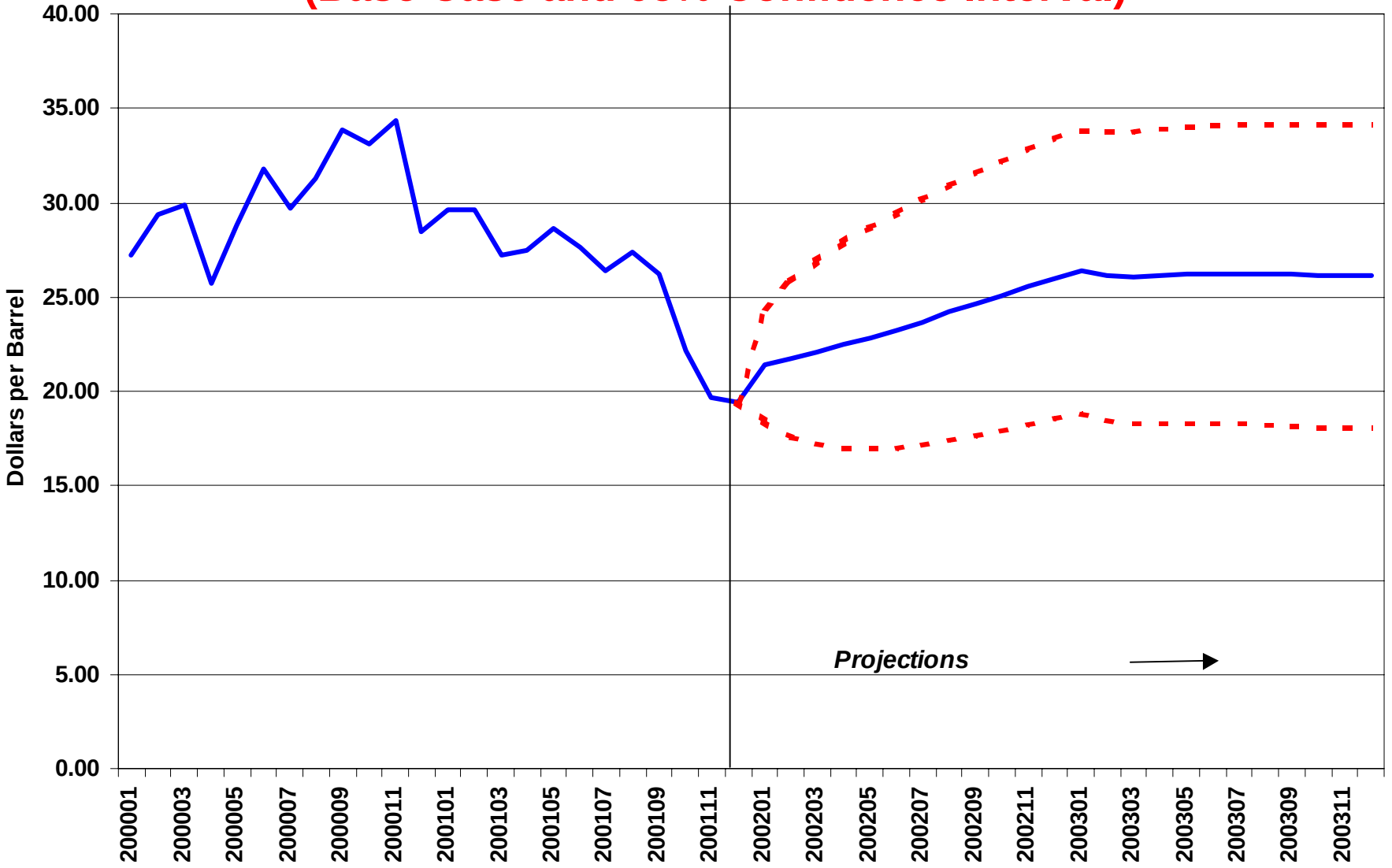
World Oil Markets. OPEC's decision to go forward with an additional oil production quota cut of 1.5 million barrels per day beginning January 1 revealed the Cartel's preference for price support over market share maintenance in the face of weak near-term world oil demand conditions. The strategy, ostensibly to be reviewed at the next ministerial meeting in March, may require signs of renewed strength in the industrialized economies and in world oil demand despite potential price strengthening (before the year 2002 gets too old) to be deemed successful. We believe that the cuts, which are consistent (more or less) with what has been assumed in the Outlook over the last few months, will result in oil prices moving up gradually from the average levels seen in December over the course of 2002. The West Texas Intermediate price, which stood at $19.40 per barrel in December, is expected to move to about the $25-$26 range by the end of 2002 and to remain at about that level through 2003 (Figure 1).

Weather Update. December weather proved to be warmer than normal on average (by about 12-13 percent based on heating degree-days) despite some cold temperatures across the Midwest and Northeast at the close of the month. Comparisons between December 2001 and December 2000 are stark, with reductions in degree-days ranging from 25 percent to 35 percent, depending on the region. This development, which continued the warm trend seen in November, is reflected in lower estimated heating fuel demand and higher end-period inventories for the fourth quarter of 2001, particularly for natural gas.

U.S. Natural Gas Markets. Relatively low levels of heating demand related to the abnormally warm weather during the last quarter of 2001 have left natural gas inventories more in excess than previously expected. We estimate that as of December 31, working gas in storage was approximately 2860 billion cubic feet, 1.1 trillion cubic feet (66 percent) above the year-ago level and 19 percent above the average for the previous 5 years. The last time such a high end-year storage total was seen was during the early 1990's, when a succession of very mild winters and a weak economy prevailed. This reinforces the expectation that gas production may fall in 2002, since incremental domestic supply will not be needed as long as storage returns to more normal levels by year-end.

Energy Expenditures Update. The sharpest annual increase in aggregate energy expenditures in the United States in 20 years was witnessed in 2000. Nominal expenditures for energy throughout the economy increased by about 29 percent between 1999 and 2000. (The average rate of growth in nominal energy

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



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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expenditures between 1987 and 1999 was 3.0 percent). On average, the higher expenditure level was maintained in 2001. The outlook for 2002 suggests a drop in nominal expenditures of about 11 percent. The decline would put nominal expenditures back at trend levels (Figure 2). While expenditures as a percent of GDP spiked sharply in 2000, for the 2002-2003 period the expenditure share appears headed for the declining trend line observed since the early 1990's (Figure 3). A significant portion of the lower expenditures is accruing to households in the form of lower heating bills and lower motor fuel expenses. With regard to heating fuel expenses, we have updated our estimates of household heating bills for selected fuels (Figure 4), with the benefit of being halfway through the heating season. Our base case household heating bills calculations show the following expectations for the six-month period ending next March 31 compared to the 2000-2001 heating season: a 39-percent reduction in average natural gas heating bills per gas-heated household in the Midwest; a 28-percent falloff in oil-heated household heating costs in the Northeast, and a 32-percent decline in comparable expenditures for households using propane for heating in the Midwest.

International Oil Markets

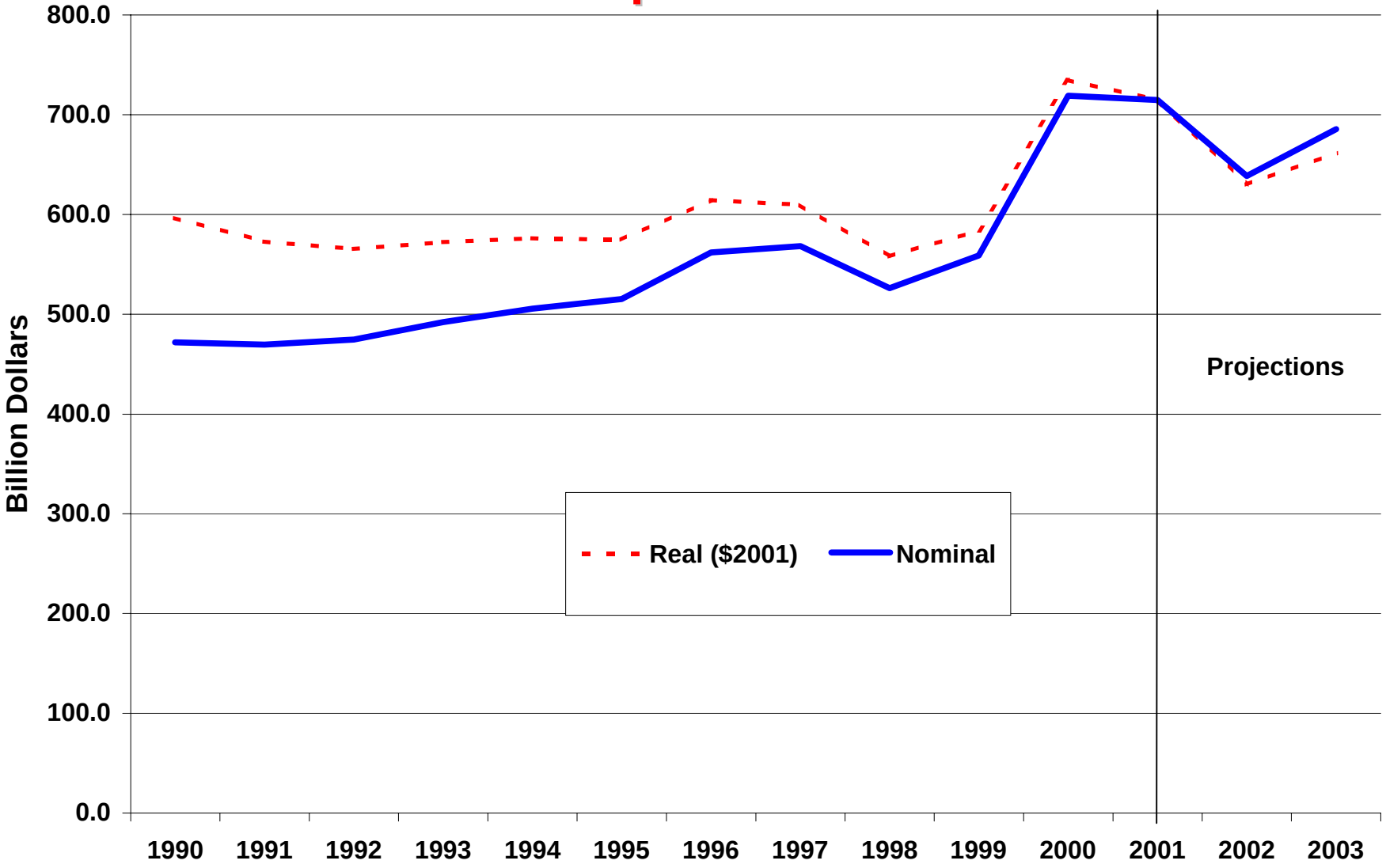
Crude Oil Prices. World oil prices in December fluctuated around November levels as markets waited to see whether OPEC and key non-OPEC suppliers could come to an agreement on supplies and avert a price war. The U.S. average imported crude oil price in December was estimated at about $16 per barrel, while the U.S. benchmark West Texas Intermediate crude oil price averaged a little over $19 per barrel (Figure 1). The OPEC basket price was also roughly the same as in November, averaging a little under $18 per barrel. World oil prices are expected to firm in 2002 as the new supply cuts by OPEC and others take effect on January 1. West Texas Intermediate prices are projected to reach $25-$26 per barrel by the end of 2002 and remain in or near that range through 2003.

International Oil Supply and Demand. After making three production quota cuts, totaling 3.5 million barrels per day in 2001, OPEC members were understandably reluctant to lose further market share to non-OPEC members. OPEC warned other oil suppliers that a price collapse could result if they didn't participate with OPEC in another round of supply cuts. After much negotiation, OPEC pronounced that pledges of supply reductions from Angola, Norway, Oman, Mexico and the Russian Federation totaling 462,500 barrels per day were enough to satisfy OPEC, and OPEC announced that it would cut an additional 1.5 million barrels per day from its production quotas beginning January 1, 2002. Even with this agreement, EIA's Outlook assumes that non-OPEC production will increase by about 1 million barrels per day in 2002.

EIA's global oil demand projections for 2002 suggest world oil demand growth of 700,000 barrels per day, slightly less than in its previous Outlook (Figure 5). With the expected recovery of the global economy by end-2002, oil demand could increase by as much as 1.3 million barrels per day in 2003 over 2002's level, with about half of this coming from the United States. For 2002-2003, worldwide jet fuel demand is still assumed to be about 5-7 percent below what would have been expected prior to the September 11 terrorist attacks.

OECD commercial oil stocks continued to rise above last year's extremely low levels, reaching over 100 million barrels higher at end-2001 than a year ago. With the agreement between OPEC and non-OPEC producers to reduce world oil supplies for the next 6 months, these additional stocks are projected to be worked off as OECD commercial stocks decline toward the lower end of their normal range by mid-2002, building support for firmer world oil prices (Figure 6). In 2003, this upward price pressure is expected to ease as additional OPEC production capacity comes on-line over the next 2 years in Algeria, Kuwait, Libya, the United Arab Emirates, and Venezuela, increasing the potential for these countries to produce above quota levels.

Figure 2. U.S. Aggregate End-Use Energy Expenditures



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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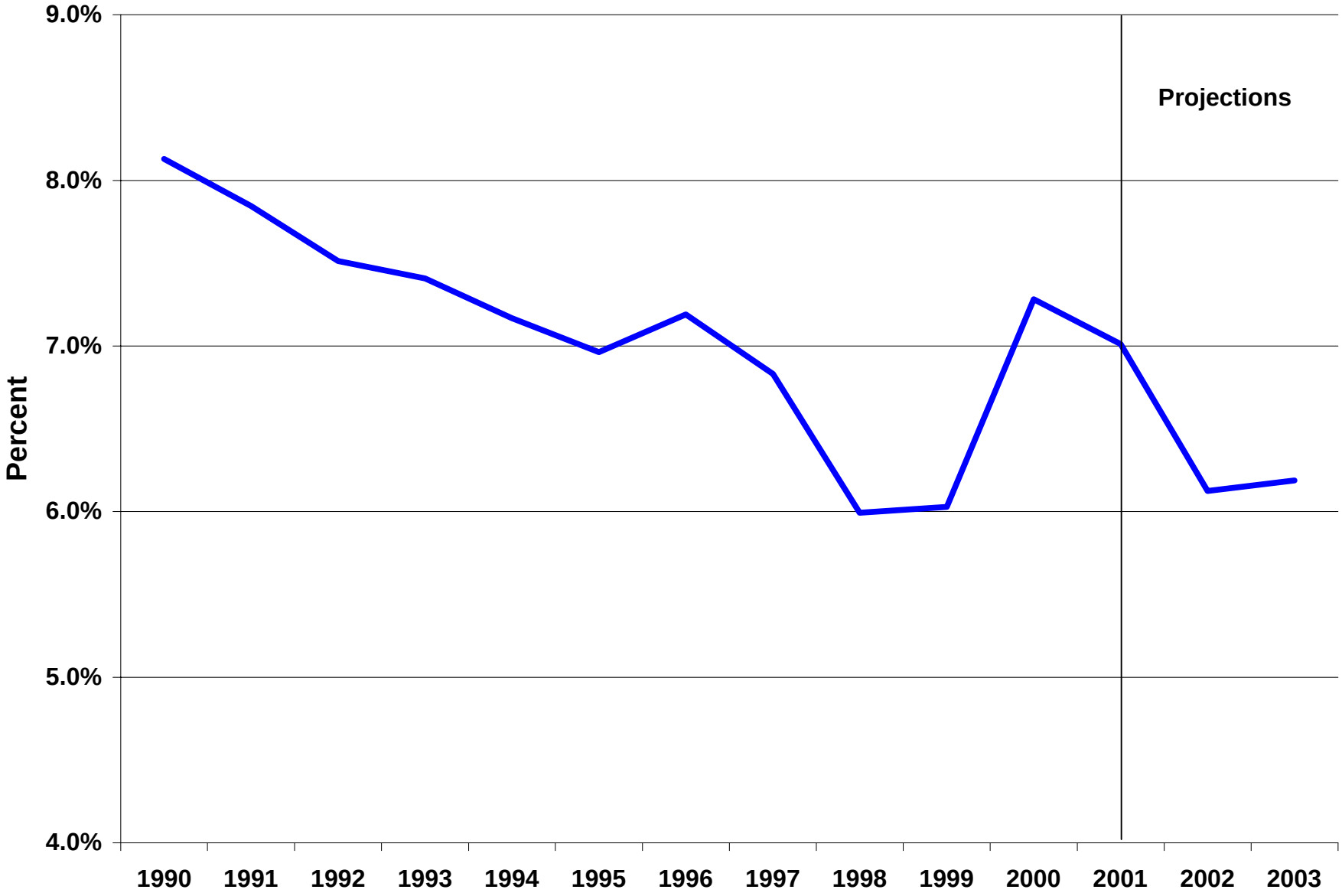
Figure 3. Energy Expenditures as a Share of GDP



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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Figure 4. Illustrated Household Expenditures for Heating Fuels

	1998-1999 Actual	1999-2000 Actual	2000-2001 Actual	2001-2002 Base Forecast
Natural Gas (Midwest)				
Consumption (mcf)	84.5	81.7	97.3	83.7
Avg. Price ($/mcf)	6.29	6.67	9.54	6.80
Expenditures ($)	532	545	928	569
Heating Oil (Northeast)				
Consumption (gals)	650	644	727	643
Avg. Price ($/gal)	0.80	1.18	1.37	1.11
Expenditures ($)	520	760	996	714
Propane (Midwest)				
Consumption (gals)	835	807	961	827
Avg. Price ($/gal)	0.85	1.02	1.36	1.07
Expenditures ($)	710	825	1,309	884

Notes: Consumption based on typical per household use for regions noted.
Prices shown are national average delivered-to-household prices.

Sources: History: EIA; Projections: Short-Term Energy Outlook January 2002.

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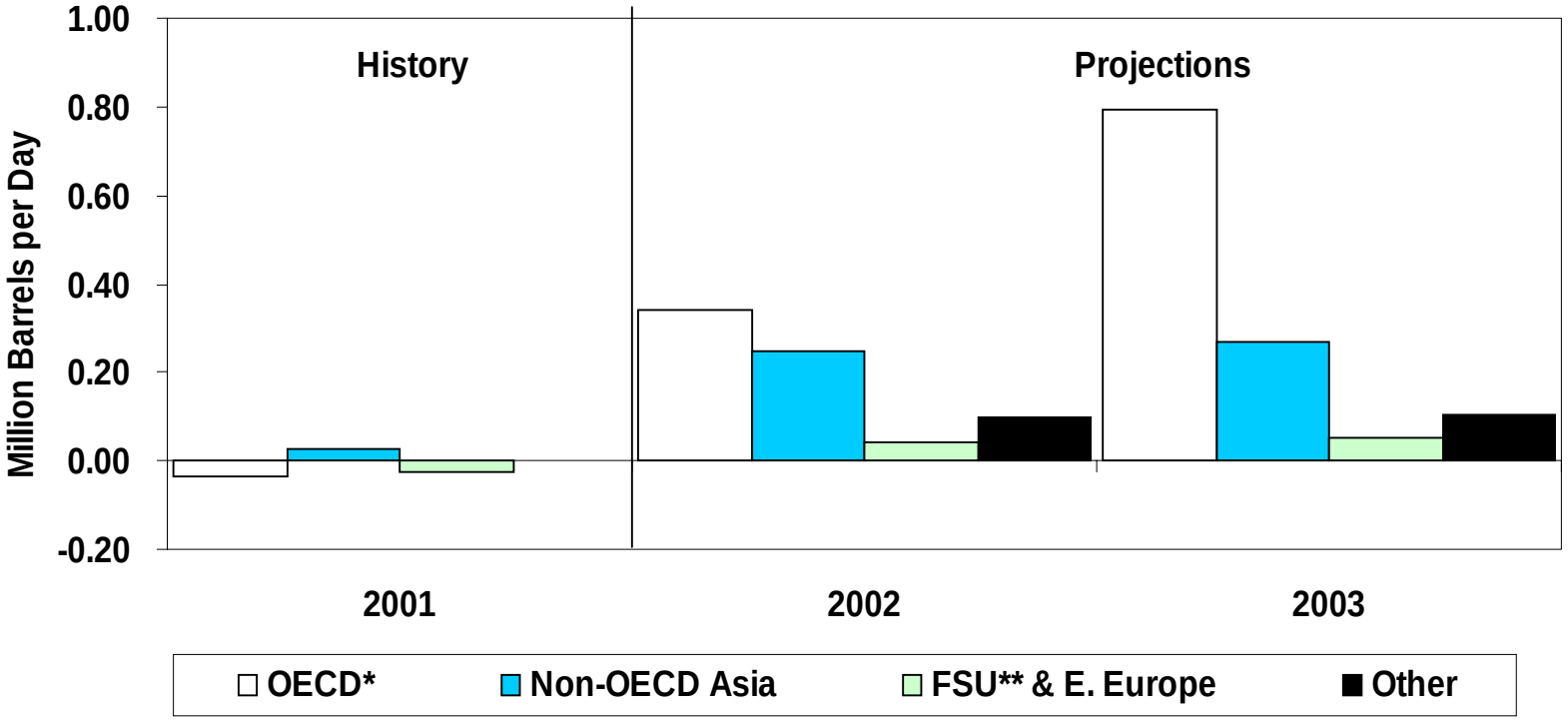
Figure 5. World Oil Demand Growth
(Change from Year Ago)



***** 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 2002.

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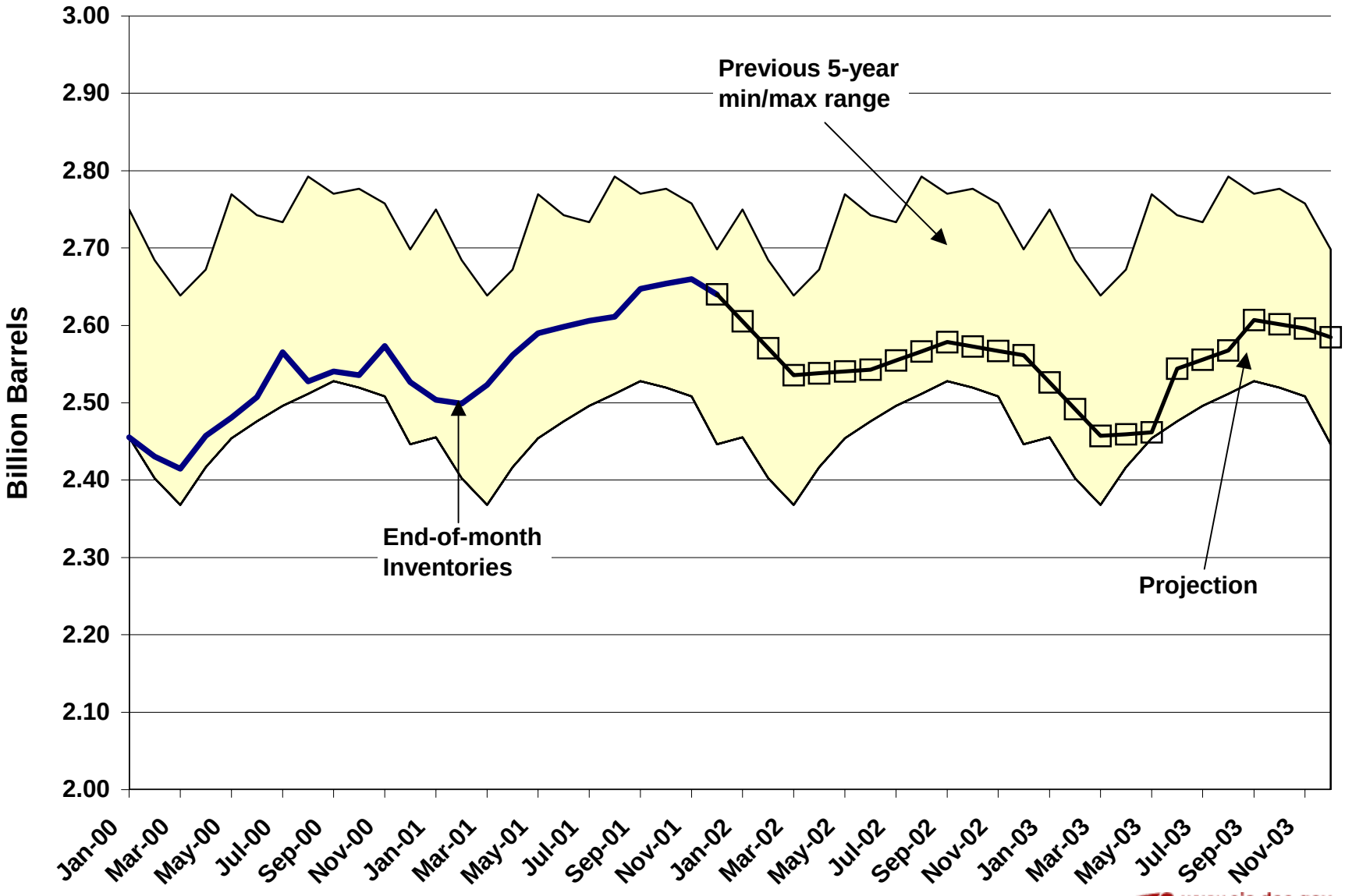
Figure 6. OECD Commercial Oil Stocks



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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U. S. Energy Prices

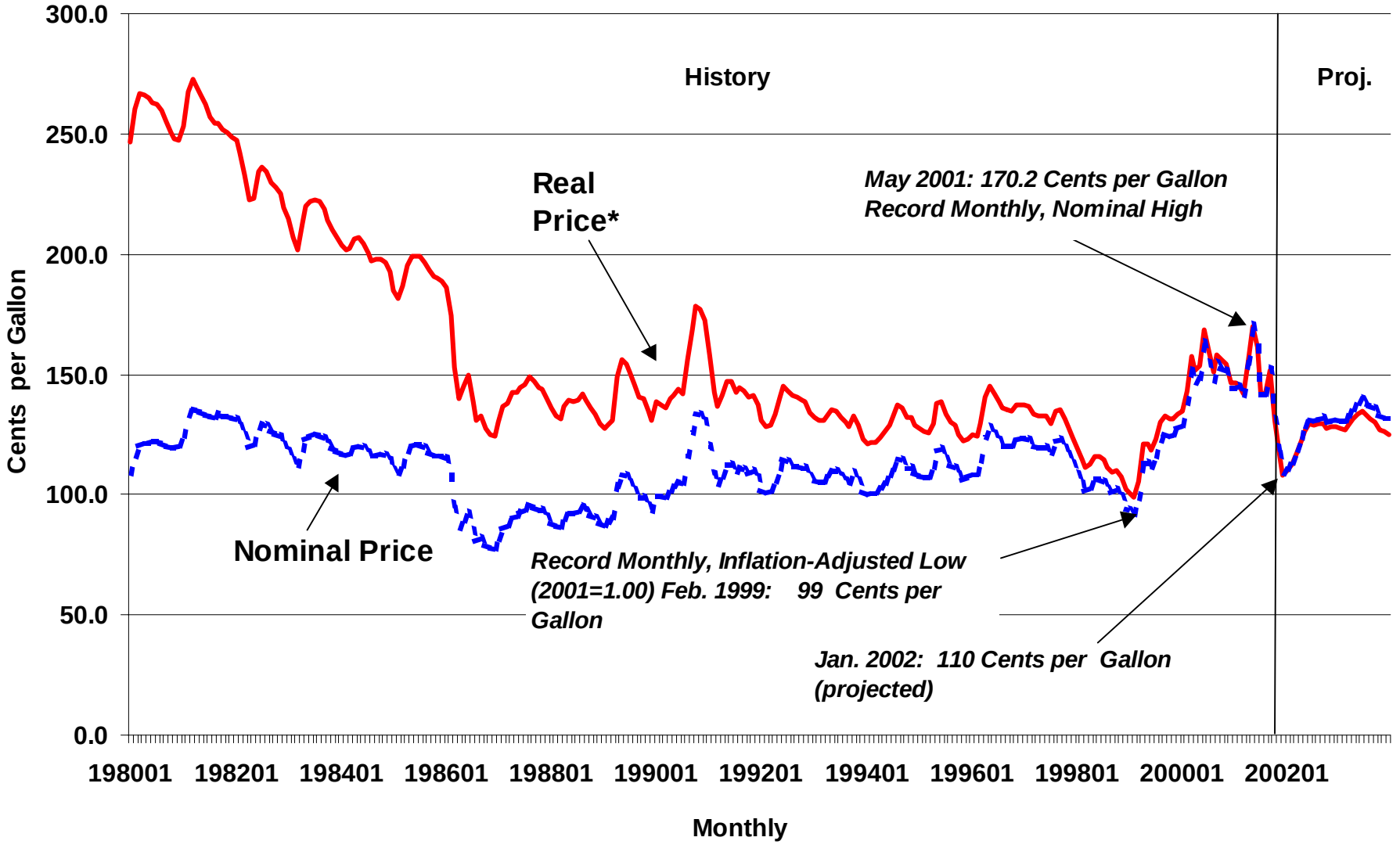
Gasoline Prices: Until just recently, pump prices had been collapsing across the U.S. Three weeks ago, motor gasoline prices (when adjusted for inflation) were only a few cents per gallon higher than the lowest pump prices seen in well over 20 years. Since then, motorists have seen their gasoline prices rebound by an average of 2 cents per gallon per week, due to a bump up in the cost of crude oil and spot motor gasoline prices. Until the last two weeks of December, retail motor gasoline prices had been on a steady downward slope since mid-September. The September monthly average price for regular retail gasoline was $1.52 per gallon. As of December 17, the retail price for regular gasoline averaged $1.06 per gallon, which was the lowest weekly survey price since March 22, 1999 (Figure 7)**.** In some parts of the country, motor gasoline was selling for less than $1.00 per gallon in early December.

Last spring's gasoline price of $1.70 per gallon was the highest price in real terms since the Gulf War and the highest price in nominal terms ever recorded. Several factors pushed this average down. First, crude oil prices have decreased by about $9 per barrel (22 cents per gallon) since last May. An even stronger impact has been the crash in refiner spreads (the difference between the refiner price and the price of crude oil). These spreads had plummeted by 40 cents per gallon during the same period (Figure 8). Admittedly, back in May, these refiner price spreads were at unusually high levels. Driving normally slows down at this time of year--in other words demand is currently down--but supply is up--inventories of gasoline are hovering near the high end of the "normal" range (Figure 9). As a consequence, refiner spreads have compressed. Unless the economy erodes faster than previously projected and/or world crude oil prices collapse, prices are expected to increase at the pump. If our base crude oil price path holds, and barring any major supply disruptions, we expect pump prices to gain about 20 cents per gallon by late spring from the $1.09 average observed in December 2001. The upsurge in gasoline demand and the seasonal transition to reformulated gasoline that typically occur during the driving season, coupled with rising crude oil prices, are projected to result in an average driving season retail price of $1.30 per gallon, which is about 25 cents per gallon lower than prior year levels. In 2003, motor gasoline prices should gain about 8 cents per gallon on an annual basis as crude oil prices are expected to rise slightly and the economy to grow.

Distillate Fuel Oil (Diesel and Heating Oil): Under normal circumstances, heating oil and diesel prices both would have gained during the fourth quarter of 2001, since demand for distillate fuel grows during the heating season. However, the retail prices for both of these fuels had been slipping over the early course of this heating season. Residential heating oil prices crept up over the last two weeks of 2001 as the weather turned colder and as crude oil prices inched up. Nevertheless, the same factors that have lowered gasoline prices, i.e., generally falling crude oil costs and a sluggish economy, have also kept the lid on the price of distillate fuels. Furthermore, unseasonably warm weather in the Northeast (where 75 percent of the nation's home heating oil is consumed) from October through mid-December greatly reduced demand, pushing inventories of distillate fuel to robust levels. In the fourth quarter of 2001, the weather in the Northeast was 26 percent warmer compared to the fourth quarter of 2000, or 19 percent warmer than "normal". Nevertheless, the retail price should see some modest gains over the next few weeks and months as we enter the coldest part of the winter (Figure 10). Prices could rise more rapidly than anticipated if the weather turns unusually cold or if world crude prices rebound quickly. Assuming normal weather and our base case world oil price path, heating oil and diesel prices are projected to be about 25-30 cents per gallon lower this winter compared to year-ago levels.

At the end of November, a time for close seasonal scrutiny of the distillate situation, distillate stocks were 18 million barrels above last year's levels (Figure 11). Almost all of this year-over-year inventory growth was on the East Coast, the region most sensitive to distillate stock changes. We estimate that total U.S. inventories finished 2001 at about 136 million barrels, leaving stocks within the "normal" range. This level is about 15 percent above last year's level. Another dynamic that may moderate distillate fuel prices this winter is the current and near-term natural gas price and supply situation. High inventory levels of natural

Figure 7. Real Gasoline Prices in the United States



*Real Price is the nominal price deflated by the Consumer Price Index (2001=1.00).

Sources: History: EIA and Bureau of Labor Statistics: Projections: Short-Term Energy Outlook January 2002.

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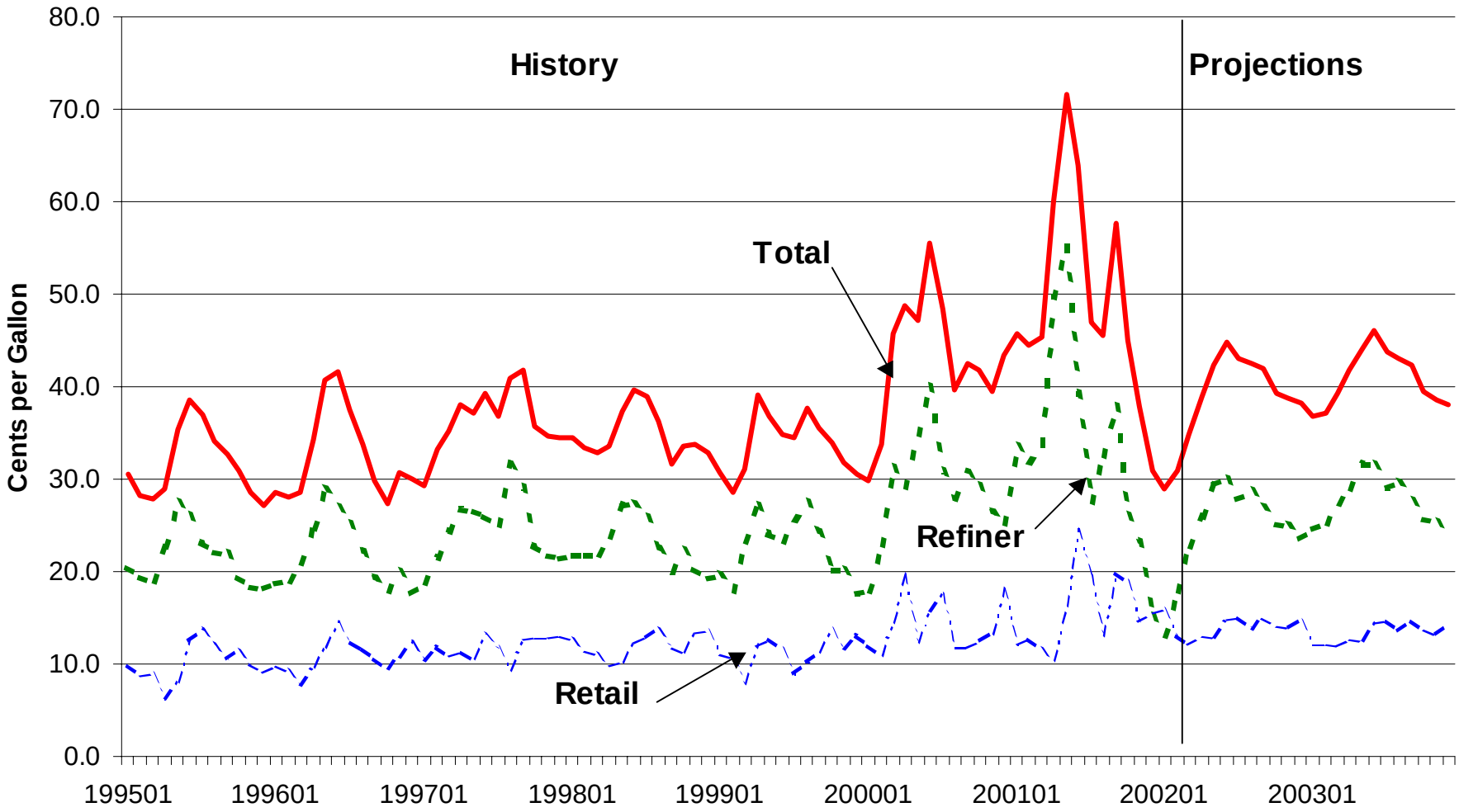
Figure 8. Motor Gasoline Spreads



Sources: History: EIA; Projections: Short-Term Energy Outlook January 2002.

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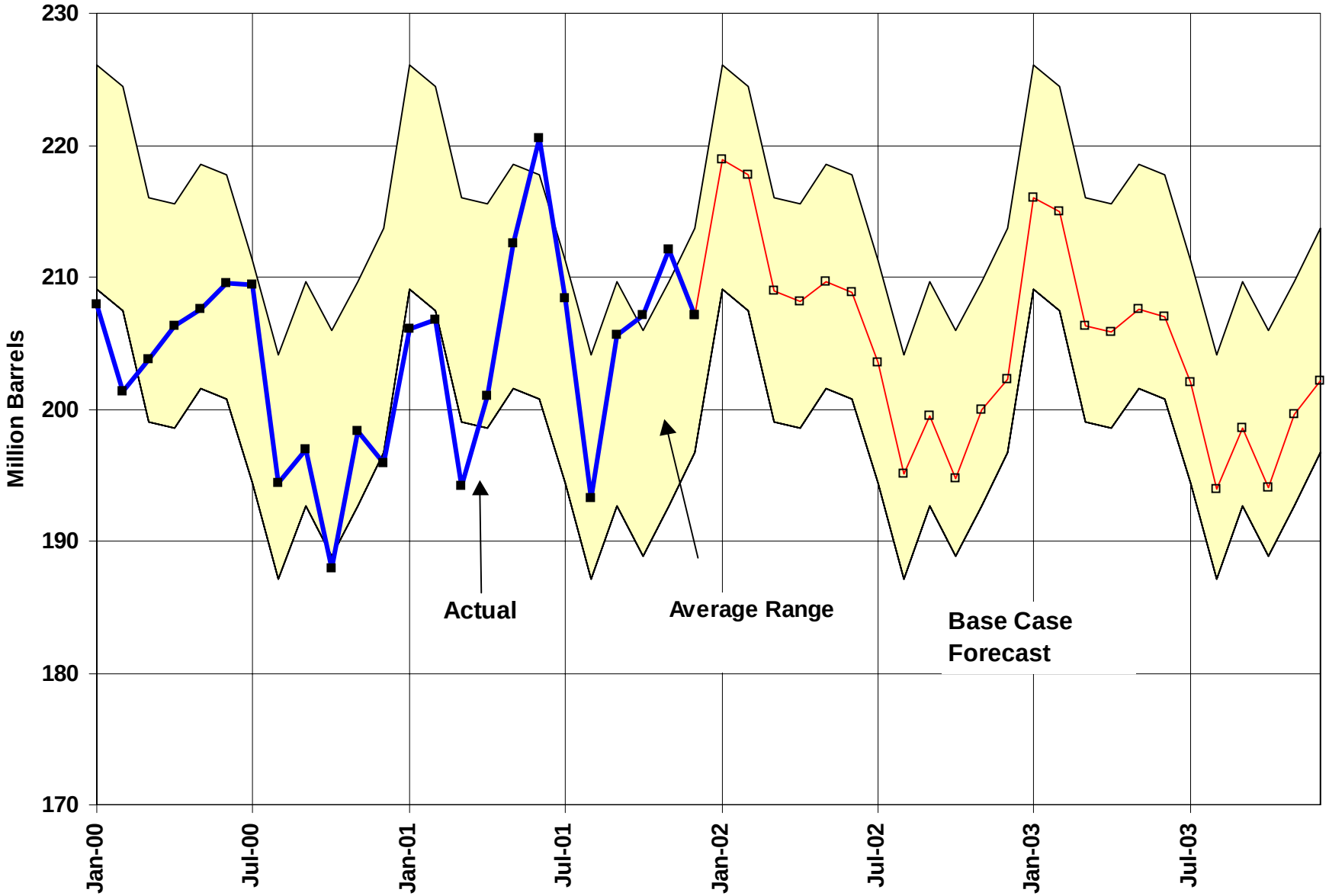
Figure 9. U.S. Gasoline Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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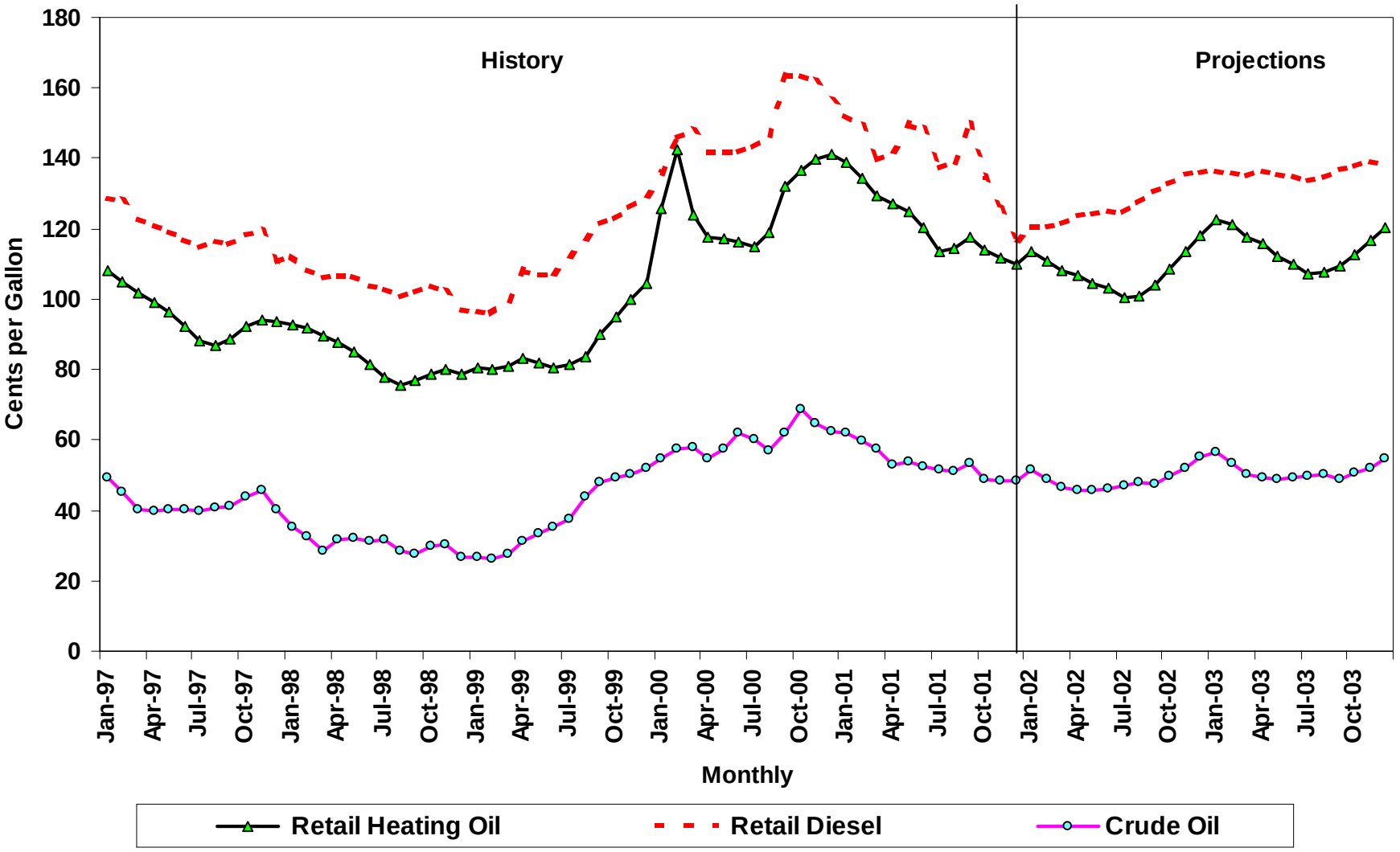
Figure 10. Distillate Fuel Prices



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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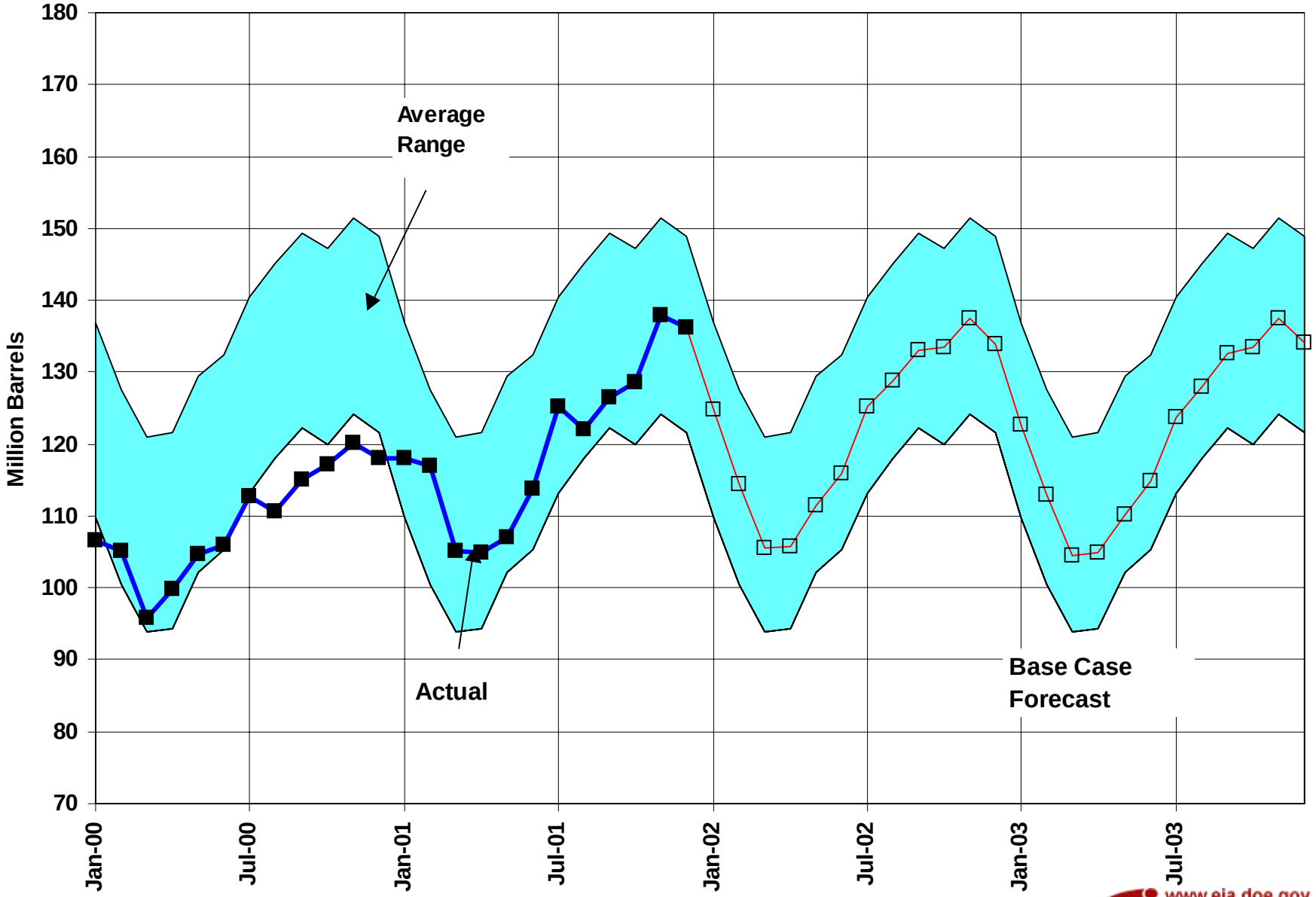
Figure 11. Distillate Fuel Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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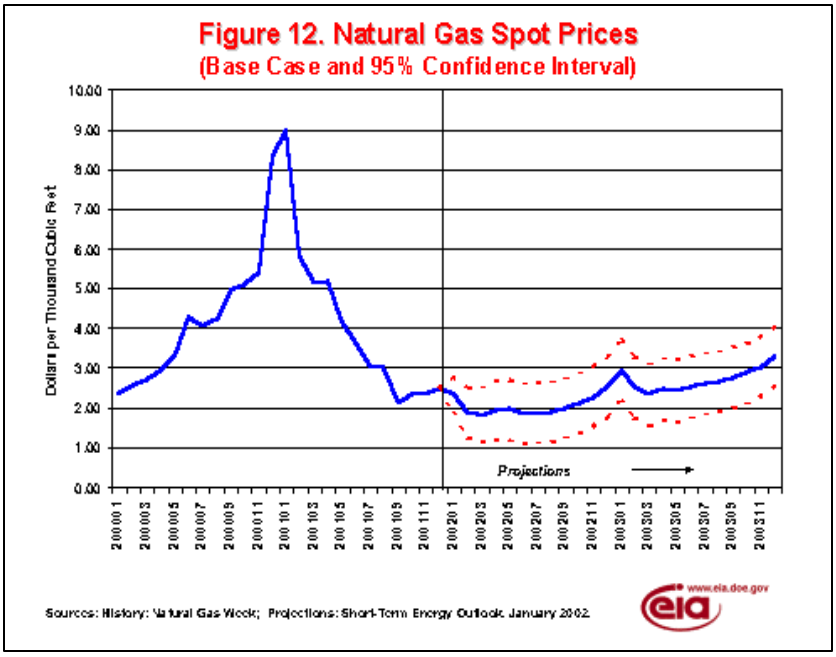
gas should help keep a lid on distillate fuel prices in markets where the potential for fuel-switching is high. During the previous winter, very high natural gas prices resulted in significant fuel switching, which caused upward pressure on all distillate product prices.



Natural Gas: Spot wellhead prices are currently averaging around $2.30-$2.50 per thousand cubic feet. One year ago, natural gas spot wellhead prices averaged well above $8.00 per thousand cubic feet in response to cold weather and critically low inventories. Since last February, these prices have been steadily eroding. A number of factors have caused the price to tumble. To begin with, this descent started from a very high point. Spot gas prices attained record levels back in December and January which boosted drilling and gas production at the same time that they stifled demand, particularly in the industrial sector. Within a few months, mild summer weather and a slowing economy reinforced reduction in gas consumption when compared to the previous year. Furthermore, the buildup to a currently strong state of petroleum inventories combined with tepid petroleum product prices have helped lower the ceiling for natural gas prices should the winter turn harsh, particularly in the electric power sector.

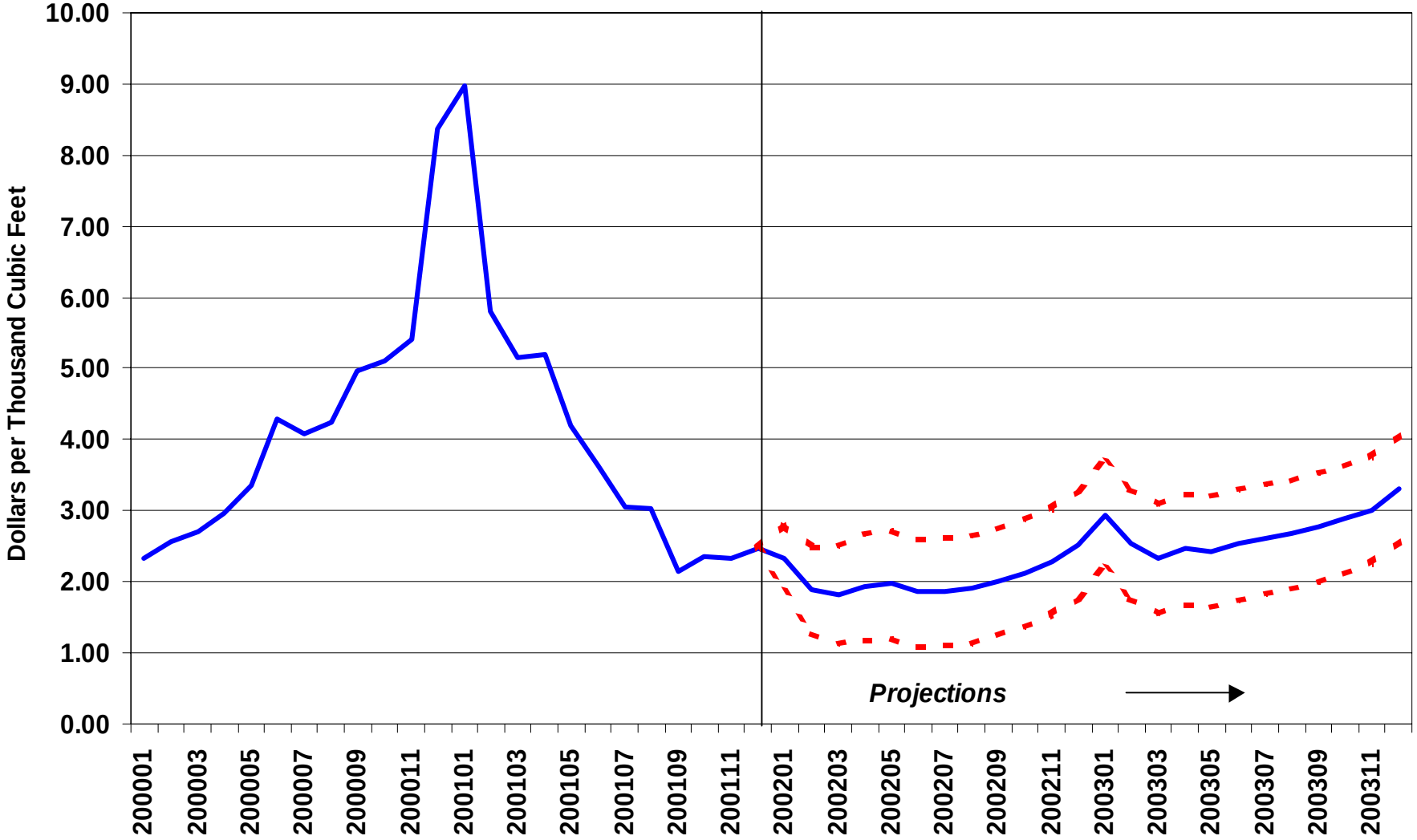
Although prices at the wellhead may increase as the weather gets colder, we believe that large price gains are unlikely this winter, given the high volume of gas presently in storage. Working gas in underground storage at the end of November was 30 percent above last year's level. Due to the warm weather, which lasted up to the middle of December, we estimate that working gas in storage was 66 percent above the previous year's end-of-year level at the end of 2001. In the base case, we project that natural gas wellhead prices will peak at about $2.50 per thousand cubic feet, then fall throughout the latter part of winter (Figure 12). For the year 2002, assuming normal weather and barring any major supply disruptions, the annual average natural gas price is projected to be about $2.00 per thousand cubic feet, or less than half of last years' price, as sluggish industrial demand and robust underground storage levels keep a lid on prices. For 2003, we project that, as the economy recovers, world oil prices rise, and as the negative effects on aggregate gas productive capacity of sharply reduced drilling become apparent, natural gas wellhead prices will respond to the upward pressure, increasing by about 60 cents per thousand cubic feet on average compared to 2002.

Electric Utility Fuels: For most of the forecast period, natural gas is expected to be the more price-competitive fuel compared to heavy oil (Figure 13). However, toward the end of 2003, this advantage may disappear if winter weather and the assumption of continued economic growth raises the price of gas above the price of heavy oil. Coal prices should continue to drift downward though 2003 as mining productivity keeps gaining.

U.S. Oil Demand

In 2001, total domestic petroleum products demand averaged an estimated 19.66 million barrels per day, representing a year-to-year decline of 40,000 barrels per day, or 0.2 percent (Figure 14). Although that

Figure 12. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval)



Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, January 2002.

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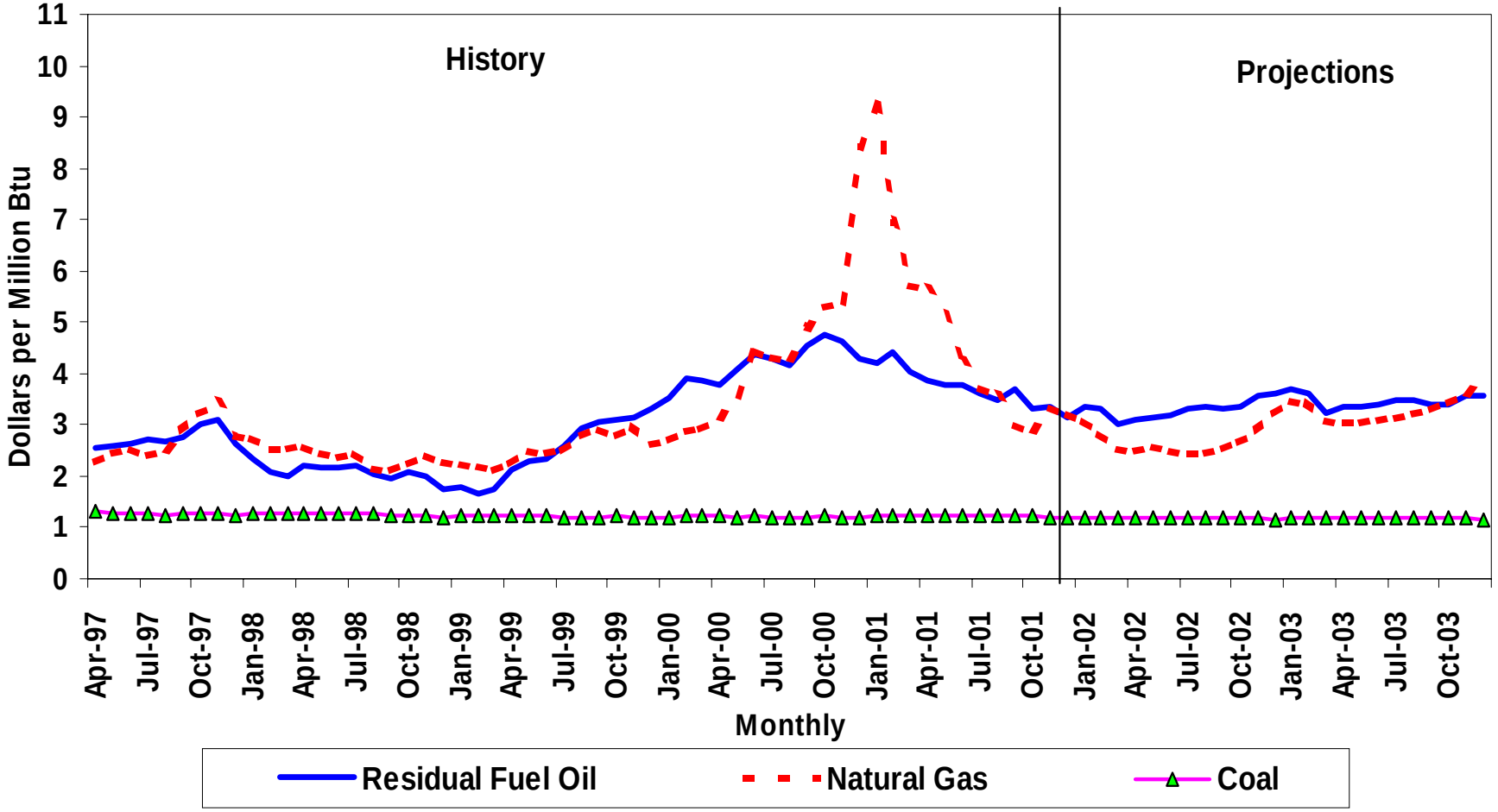
Figure 13. Fossil Fuel Prices to Electric Utilities



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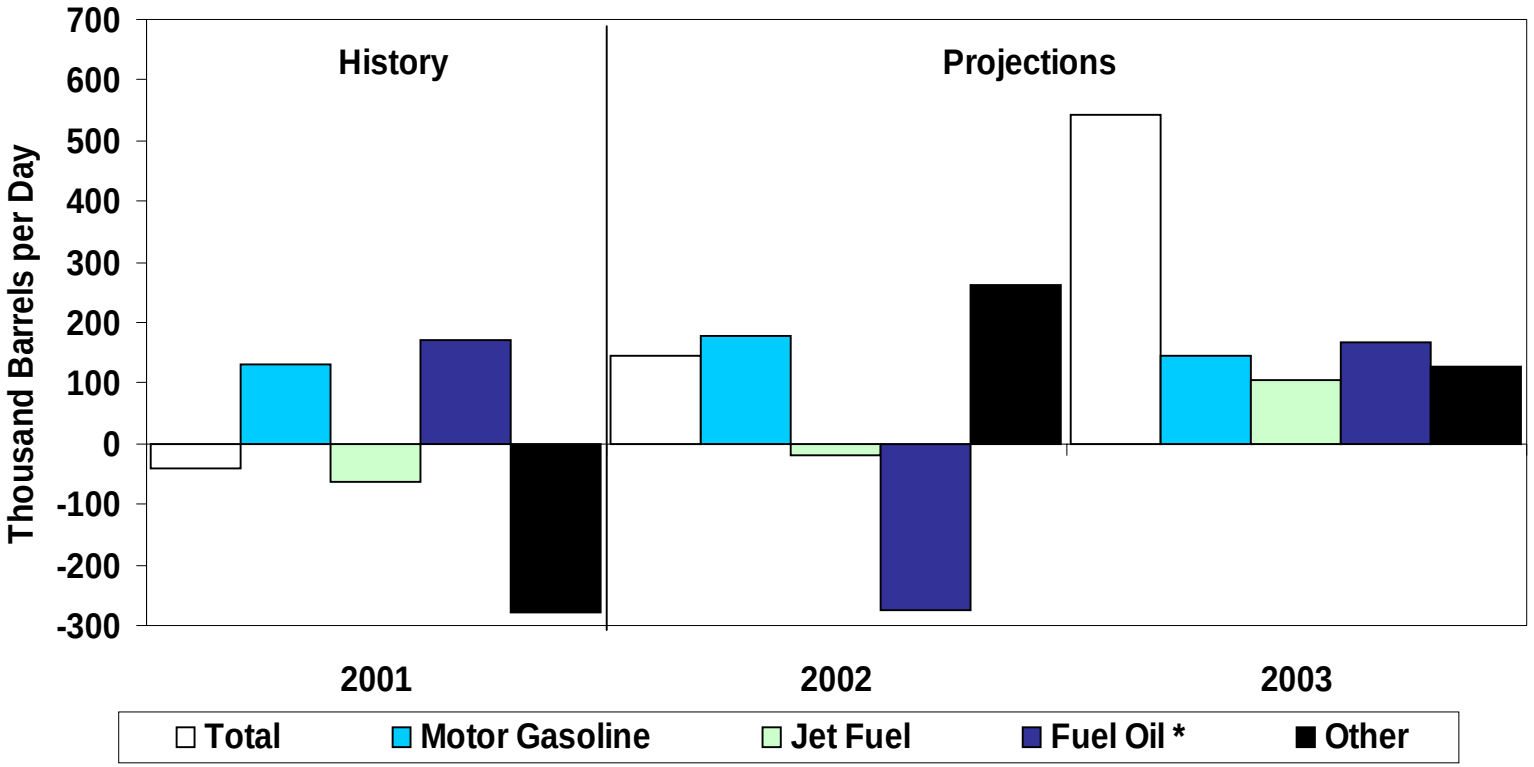
Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

Figure 14. Petroleum Products Demand Growth
(Change from Year Ago)



* Sum of distillate and residual fuel.

Sources: History: EIA; Projections: Short-Term Energy Outlook January 2002.

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estimate is subject to revisions culminating in final data to be published in the Petroleum Supply Annual in the spring, 2001 appears to be first year since 1991 in which total petroleum products demand has fallen.

Nonetheless, two major fuels -- motor gasoline and distillate fuel oil -- experienced continued growth in 2001, even after the terrorist attacks. Demand for motor gasoline increased 1.5 percent for the year as a whole and 1.8 percent for the (post-terrorist attack) fourth quarter. Available data, in fact, indicate a pick-up in demand growth to 2 - 3 percent in the two months following the attacks. The switch away from air travel appears to have temporarily bolstered demand for gasoline during that period, but available data for December indicate flat demand or even slightly negative year-over-year growth.

Jet fuel is the petroleum product most negatively affected by the events of last September 11. The immediate impact of those events was the precipitous decline in air activity, and, hence, jet-fuel demand. After a virtual shutdown of the airline system for several days, air carriers resumed operations in stages but implemented flight curtailments averaging 20 percent of pre-attack levels. As a result, commercial jet-fuel demand during the (post-attack) fourth quarter was down more than 18 percent, or 220,000 barrels per day, from the same period last year. Total air activity (i.e. passengers and freight) during that period was down almost 20 percent. That implies even lower load factors than those preceding the terrorist attacks, despite air carriers' efforts to trim capacity.

For the year as a whole, total jet fuel (commercial, military and diesel blendstock) declined almost 4 percent, reflecting a 6-percent contraction of commercial aviation demand. Even prior to the terrorist attacks, however, commercial jet fuel demand had been stagnant since the beginning of the year. Passenger-mile growth had virtually come to a halt; cost-saving efforts resulted in substantial decline in freight activity as customers switched to ground transportation; new fuel-efficient commercial aircraft was used to retire older equipment as well as for fleet expansion; and air-capacity growth slowed during the year.

Distillate fuel demand, in contrast, appears to have registered growth in 2001 of more than 3 percent. Inasmuch as the bulk of the 2001 growth in distillate fuel occurred early in the year, it is clear that the prime factor involved was high natural gas prices and fuel switching in the power generation and industrial sectors. The negative industrial output picture through most of 2002 and lower natural gas prices drive the expected decline of 3.7% in distillate demand this year.

Despite substantial declines in prices during the year, residual fuel oil demand staged only a slight increase in 2001. Sizable increases in winter power-generation purchases offset declines in purchases by the weakening industrial sector but power-generation purchases in the latter half of the year also exhibited a decline as natural gas, whose prices continued to fall from their earlier record highs, regained market share.

During the forecast interval (January 2002 to December 2003), total petroleum demand is expected to increase once again, with the recovery beginning in the second half of this year. In 2002, total petroleum demand growth is projected to average 145,000 barrels per day, or 0.7 percent. Following a first-half decline of about 100,000 barrels per day, second-half demand growth is projected to average 400,000 barrels per day. In 2003, petroleum demand is projected to increase to 540,000 barrels per day, or 2.7 percent, and annual average petroleum demand is expected to exceed 20 million barrels per day for the first time.

Motor gasoline demand is projected to continue to increase throughout the forecast interval, with growth averaging between 1.5-2.0 percent, similar to projected growth in highway activity. Nonetheless, that is still less than the projected average growth in real disposable income of 2.9 percent. During the course of the forecast period, commercial air activity is expected to recover, with progressive reversals of the late 2001 curtailments from 20 percent to 5 percent. As a result, total jet fuel demand during the first half of this year is still projected to decline by 6 percent, led by a 9-percent reduction in commercial aviation demand, but recover at a 5-percent rate starting in the second half of this year. Distillate fuel oil demand, however, is

projected to continue to decline throughout the current year before recovering in 2003. The temporary lift to diesel demand brought about by the previous year's events is expected to subside, and industrial recovery (on a year-over-year basis) is expected to start later in the year. Next year, demand for the fuel is expected to expand by more than 4 percent as the recovery in industrial activity accelerates. Residual fuel oil demand is projected to slide about 14 percent in 2002. Most of that decline stems from the reversal of last winter's fuel switching (during which natural gas prices were still near their record highs). In 2003, demand for residual fuel oil is expected to be close to the 2002 average. Oil prices are expected to recover somewhat, thwarting any meaningful recovery in residual fuel oil demand.

U.S. Oil Supply

Average domestic oil production is expected to decrease by 71,000 barrels per day or 1.2 percent in 2002, to a level of 5.78 million barrels of oil per day. For 2003, a 2.3 percent decrease is expected and results in a production rate of 5.64 million barrels of oil per day average for the year.

Lower-48 States oil production is expected to decrease by 49 thousand barrels per day to a rate of 4.83 million barrels per day in 2002, followed by a decrease of 158 thousand barrels per day in 2003 (Figure 15). Shell's Brutus Federal offshore platform is expected to peak in oil production at 100 thousand barrels per day in 2002. Oil production from the Mars, Troika, Ursa, Dianna-Hoover and Brutus Federal offshore fields is expected to account for 9.7 percent of the lower-48 oil production by the fourth quarter of 2003.

Alaska is expected to account for 17.2 percent of total U.S. oil production in 2003. Alaska oil production is expected to decrease by 2.4 percent in 2002 and increase by 2.0 percent in 2003. The increase in 2003 results from the addition of new Alaska north slope satellite fields, Colville River (Alpine), Prudhoe Bay (Aurora), Polaris, and Borealis. Initial rate from Alpine averaged 74,000 barrels per day during March 2000, and it exceeded 100,000 barrels per day in August 2001. Another satellite field, North Star, is expected to come on in early to mid-2002 and will peak at a rate of 65,000 barrels per day later in the year. Production from the Kuparuk River field, plus like production from West Sak, Tabasco, Tarn, and Meltwater fields, is expected to stay at an average of 220,000 barrels per day in the 2002 and 2003 forecast periods.

The Baker Hughes oil and gas rig count for 2000 averaged 917. EIA estimates that the rig count increased to an average of 1138 in 2001. It is expected to decrease to 732 in 2002 and increase to 850 in 2003.

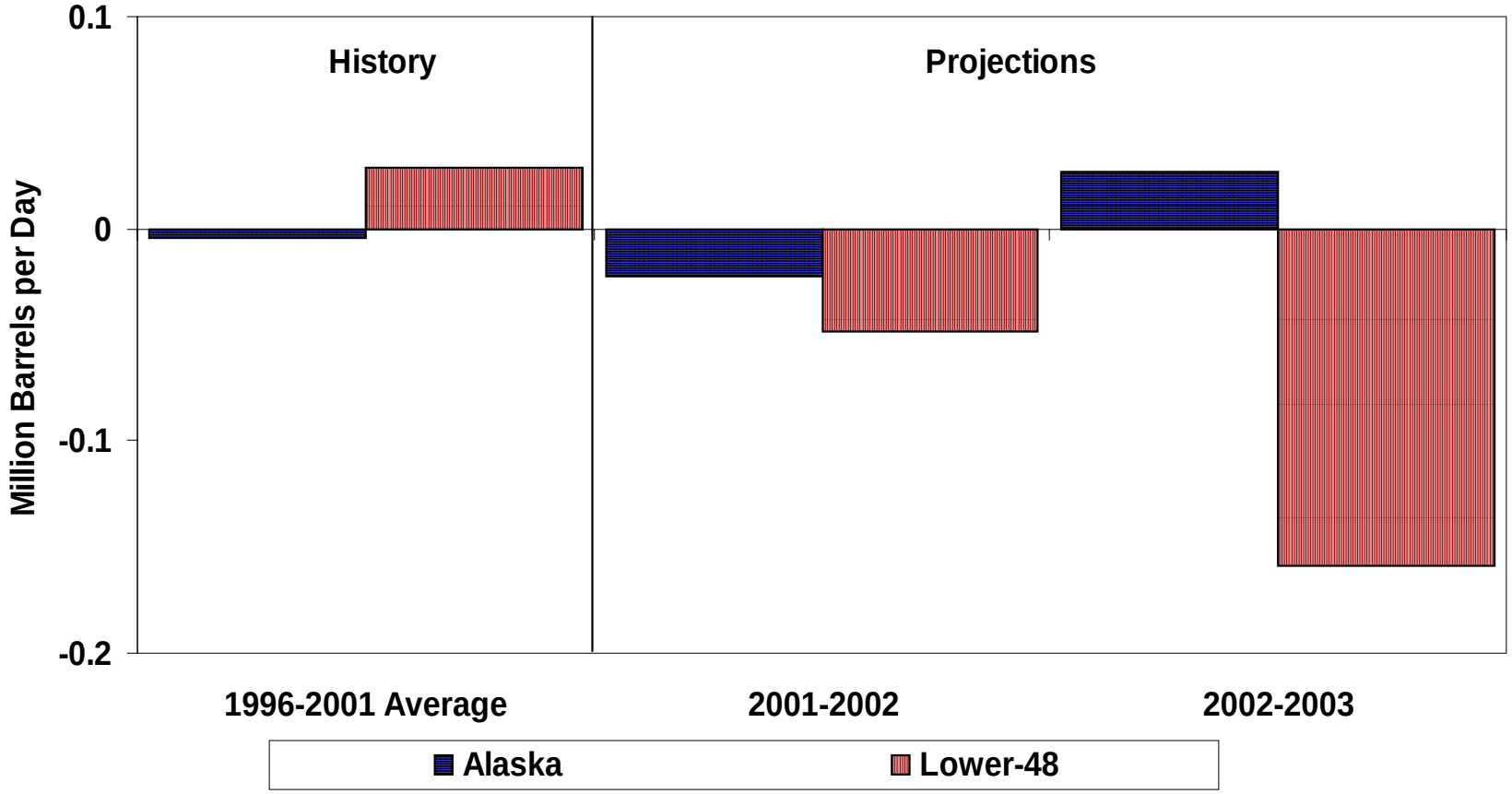
Natural Gas Demand and Supply

The sharp downturn in domestic gas-directed drilling rates since July (Figure 16) will probably not reduce natural gas productive capacity enough to prevent relatively low prices this winter and through most of 2002, but could have important implications for market prices by 2003. The quite robust amount of demand growth we are currently projecting for 2002 (an increase of 1.2 trillion cubic feet, or 5.5 percent) will probably return natural gas inventories to normal. Thus, pressure on domestic wellhead prices to remain near $2 per thousand cubic feet will be strong through much of 2002. In 2003, the expected rebound in economic growth should result in further demand growth of about 2.0 percent and somewhat higher spot gas prices, averaging about $2.70 per thousand cubic feet.

For all of 2001, natural gas demand is estimated to have declined by 5.3 percent. Although residential demand is estimated have declined for 2001 based on weak heating-related demand in the fourth quarter, the overall demand decline was mainly the result of the downturn in gas-intensive industrial production (Figure 17). Natural gas use for power generation, on the other hand, increased by an estimated 4.1 percent in 2001, entirely because of increased use by nonutility generators.

Based on EIA survey data and recent information from the American Gas Association on early-season storage additions, we estimate that, on an EIA survey basis, working gas in storage at the end of December

Figure 15. U.S. Crude Oil Production Growth
(Change from Year Ago)



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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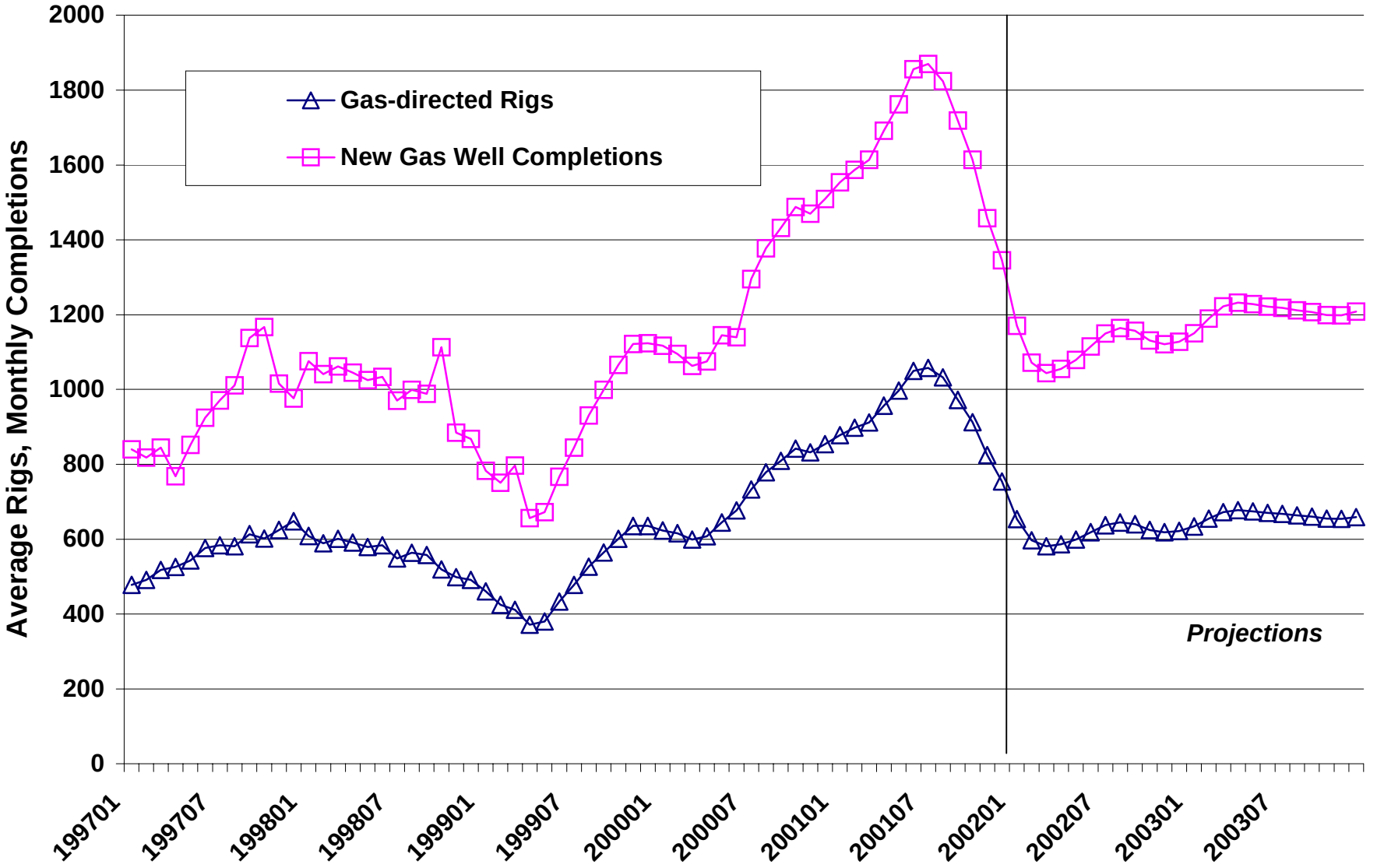
Figure 16. U.S. Gas-Directed Drilling Activity



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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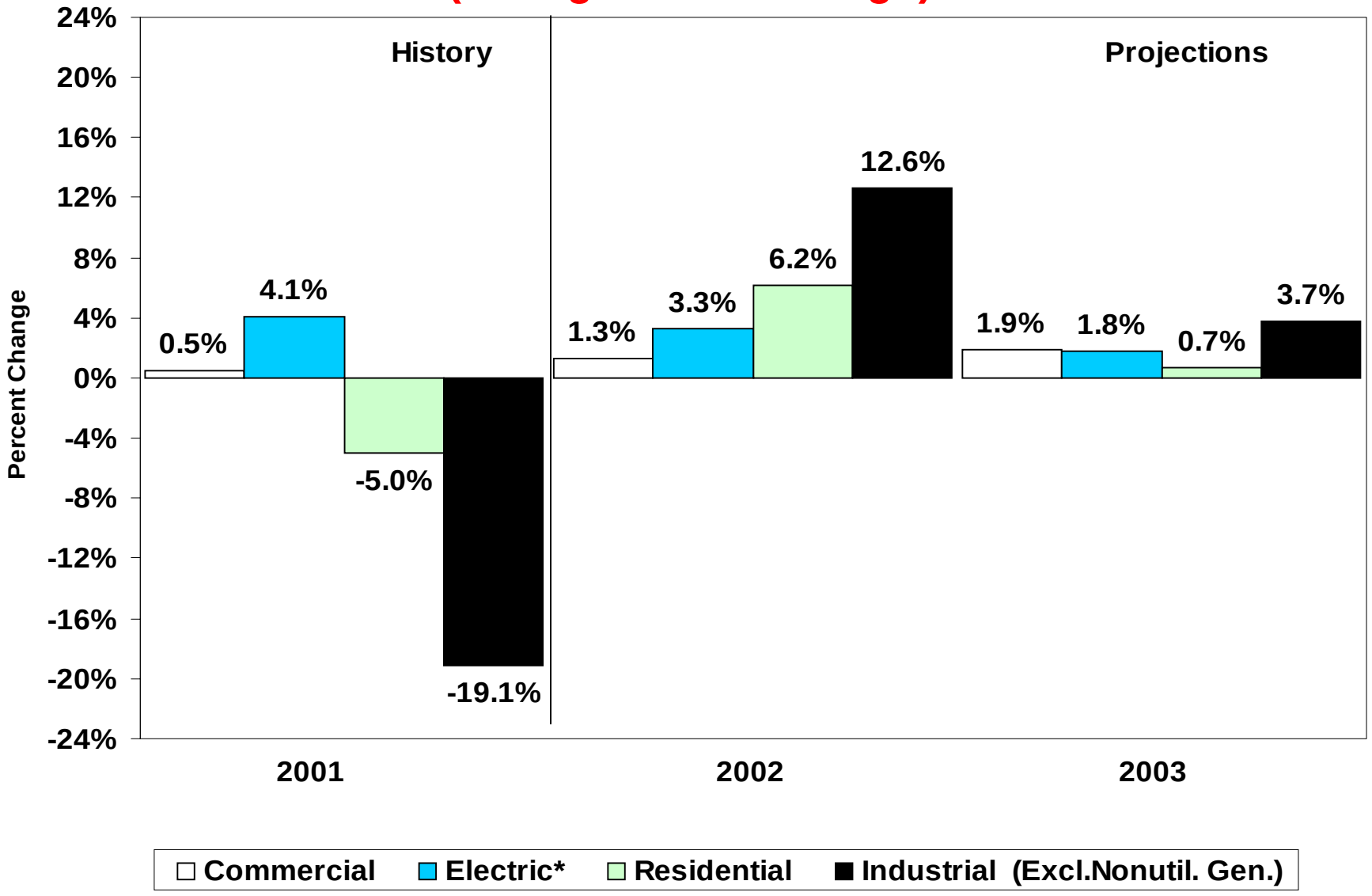
Figure 17. Natural Gas Demand Growth by Sector

(Change from Year Ago)



* Includes gas to electric utilities and nonutility generators.

Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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was 2,858 billion cubic feet. Storage is well above last year's level and also above the previous 5-year seasonal range (Figure 18). As storage levels have risen, spot natural gas prices have fallen. In December, spot natural gas prices averaged about $2.47 per thousand cubic feet (mcf) compared with an average of $8.36 in December of 2000.

Heating season temperatures for most of fourth quarter were above normal, causing withdrawals from storage to be delayed. If temperatures are assumed to be normal for the rest of this winter, then heating degree-days for the entire 2001-2002 winter season would be about 14 percent lower than last winter. As a consequence, winter demand for natural gas is projected to decline by 7.3 percent compared with growth of 6.4 percent last winter. Spot natural gas prices, which averaged $6.48 per thousand cubic feet last winter, are expected to be two-thirds lower this winter at about $2.20 per thousand cubic feet. Residential and commercial demands for natural gas are expected to be lower than last winter's levels by 14.3 and 7.9 percent, respectively. In the case of both the residential and commercial sectors, the fact that November/December heating degree-days (HDD) averaged more than 30 percent below those same months a year ago is a significant factor in the recent demand picture. In the commercial sector the flat economy is an additional factor. Industrial gas demand, which was under downward pressure all through 2001, is projected to begin to rise in the first quarter of 2002. This expectation is seen as the result of the reversal of significant fuel substitution away from natural gas that occurred last winter and, further into 2002, of the gradually reviving economy.

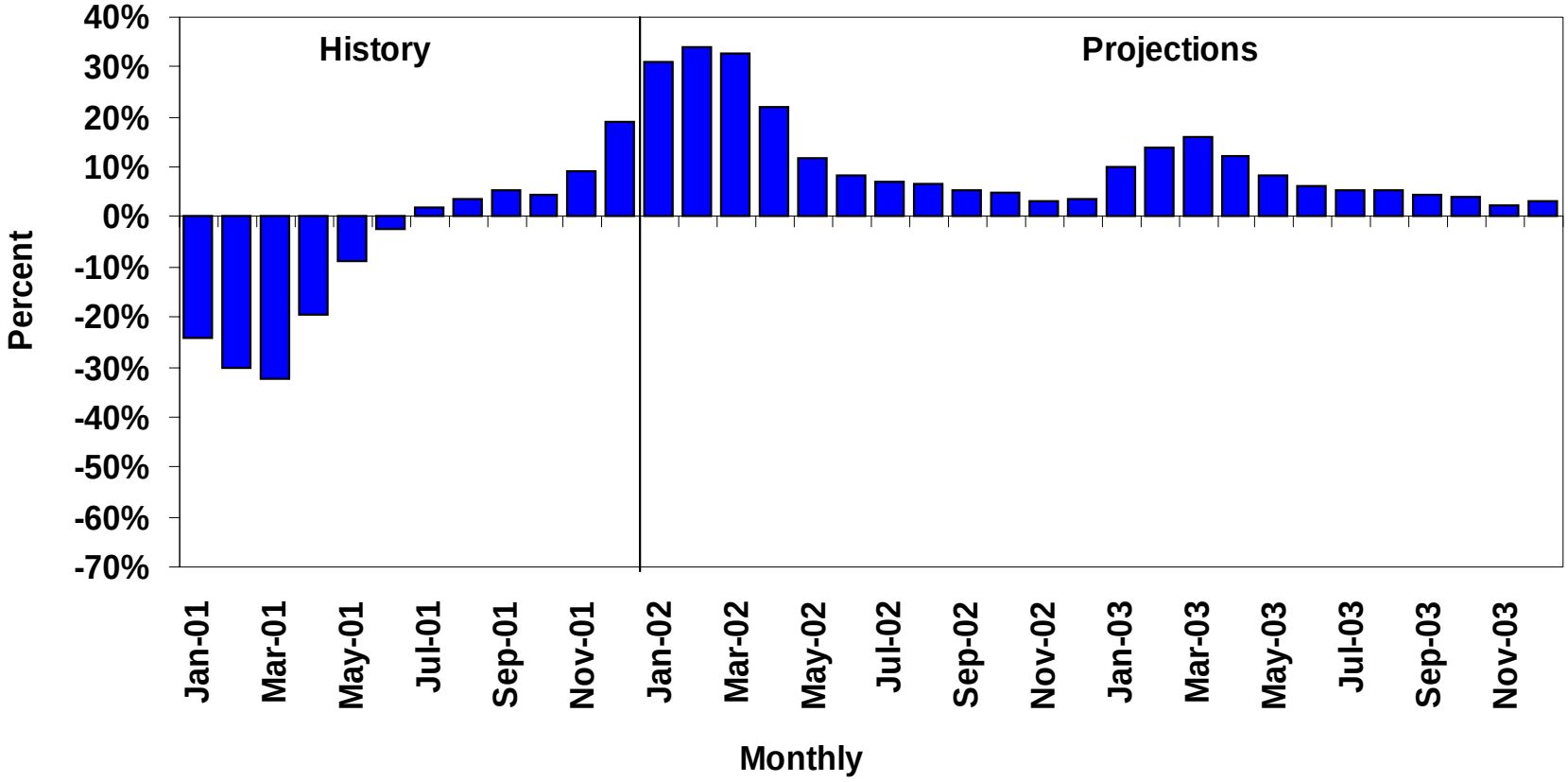
We now expect domestic natural gas production to fall by about 400 billion cubic feet in 2002 (2.1 percent) and to recover to about 2001 levels in 2003. Production increased approximately 1.7 percent in 2001. After reaching a high of 1,058 rigs drilling during the month of July, the rig count has been falling since then due to the drop in natural gas prices and declining industrial demand. Net imports of natural gas are projected to rise slightly in 2002 but should exhibit solid growth (about 10 percent) in 2003 as import capacity expands.

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 been flat in 2001, but to revive slightly to 0.8 percent in 2002, and by a further 2.4 percent in 2003. This is compared with estimated demand growth in 2000 of 2.8 percent over 1999's level. Electricity demand growth is expected to rise in the forecast years (Figure 19) mainly because the economy is assumed to gradually rebound.

Electricity demand in the industrial sector in 2001 was adversely affected by the overall economic slowdown, particularly as illustrated by falling industrial output. In 2002, growth in industrial demand for electricity (including estimated net industrial own-use generation) is expected to be about flat in contrast to the estimated 6.1 percent contraction seen in 2001. This category of demand growth is expected to exhibit (approximately normal) growth of 3.0 percent in 2003 as the economic recovery proceeds. In 2003, growth in residential and commercial demand for electricity is expected to be 2.6 percent and 1.4 percent, respectively, due mainly to assumptions of normal weather and fairly solid increases in commercial activity. This winter, total electricity demand growth is expected to be negative (down 3.1 percent) compared with last winter's demand growth of 4.7 percent due to a weaker industrial economy compared with last winter, the relatively warm fourth quarter of 2001 and the assumption of normal weather through the remainder of the winter.

Figure 18. Working Gas in Storage
(Difference from Previous 5-Year Average)



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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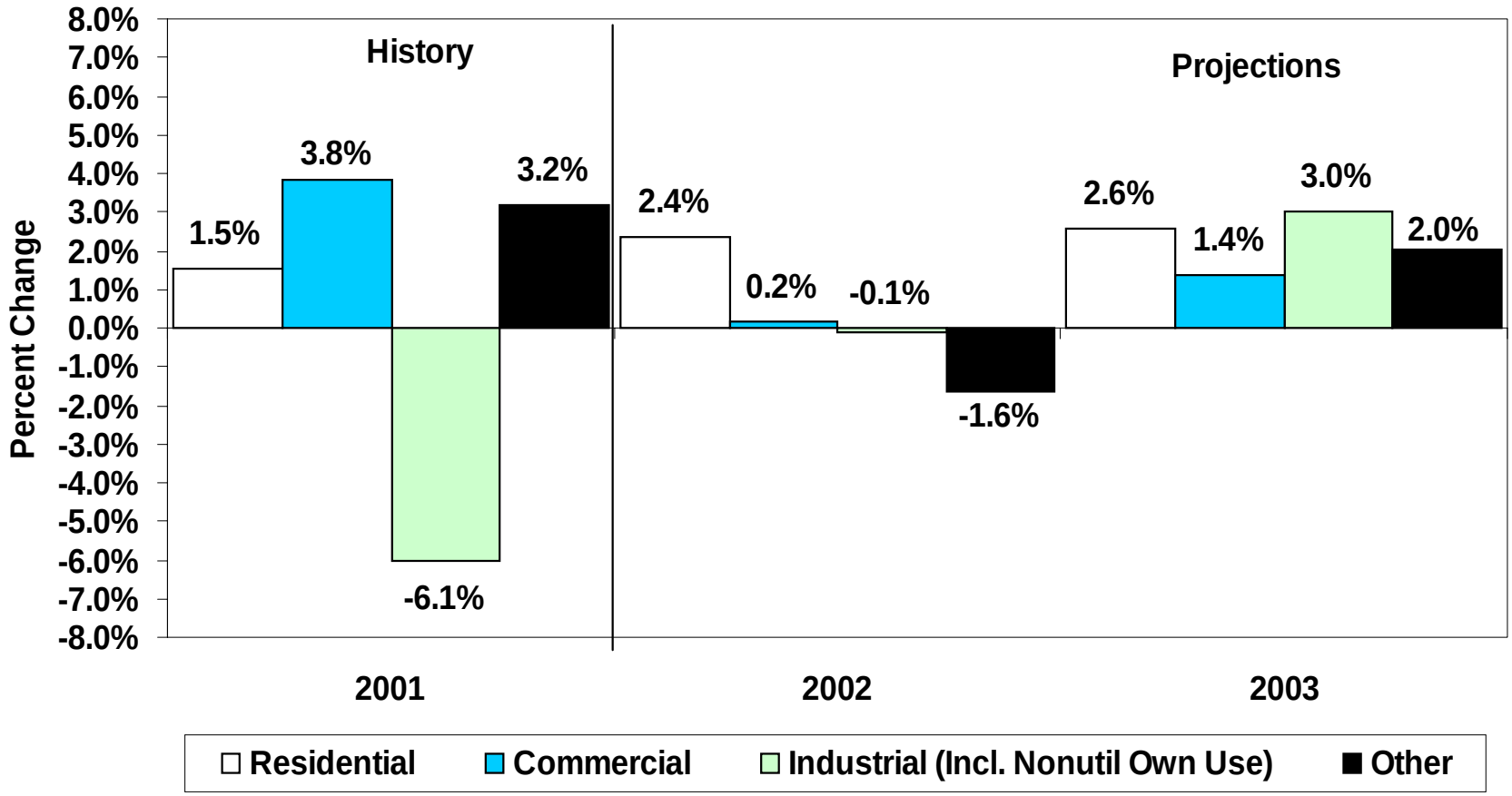
Figure 19. U.S. Electricity Demand Growth by Sector
(Change from Year Ago)



Sources: History: EIA; Projections: Short-Term Energy Outlook, January 2002.

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Table HL1. U. S. Energy Supply and Demand

	Year				Annual Percentage Change		
	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Real Gross Domestic Product (GDP)							
(billion chained 1996 dollars)	**9224**	*9319*	*9406*	*9780*	**1.0**	*0.9*	*4.0*
Imported Crude Oil Price [a]							
(nominal dollars per barrel)	**27.72**	*22.05*	*19.94*	*22.63*	**-20.5**	*-9.6*	*13.5*
Petroleum Supply (million barrels per day)							
Crude Oil Production [b]	**5.82**	*5.85*	*5.78*	*5.64*	**0.5**	*-1.2*	*-2.4*
Total Petroleum Net Imports							
(including SPR)	**10.42**	*10.69*	*10.62*	*11.17*	**2.6**	*-0.7*	*5.2*
Energy Demand							
World Petroleum							
(million barrels per day)	**75.7**	*75.8*	*76.5*	*77.8*	**0.1**	*0.9*	*1.7*
Petroleum							
(million barrels per day)	**19.70**	*19.66*	*19.81*	*20.35*	**-0.2**	*0.8*	*2.7*
Natural Gas							
(trillion cubic feet)	**22.54**	*21.34*	*22.52*	*22.98*	**-5.3**	*5.5*	*2.0*
Coal [c]							
(million short tons)	**1081**	*1082*	*1097*	*1118*	**0.1**	*1.4*	*1.9*
Electricity (billion kilowatthours)							
Retail Sales [d]	**3413**	*3403*	*3441*	*3514*	**-0.3**	*1.1*	*2.1*
Nonutility Use/Sales [e]	**187**	*185*	*178*	*190*	**-1.1**	*-3.8*	*6.7*
Total	**3599**	*3589*	*3619*	*3704*	**-0.3**	*0.8*	*2.3*
Total Energy Demand [f]							
(quadrillion Btu)	**99.6**	*97.8*	*100.1*	*102.4*	**-1.9**	*2.4*	*2.3*
Total Energy Demand per Dollar of GDP							
(thousand Btu per 1996 Dollar)	**10.80**	*10.49*	*10.64*	*10.47*	**-2.9**	*1.4*	*-1.6*
Renewable Energy as Percent of Total [g]	**7.0**	*6.8*	*7.3*	*7.5*			

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

[b] Includes lease condensate.

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

[d] Total 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 2000 are estimates.

[e] Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1201.

Table 1. U.S. Macroeconomic and Weather Assumptions

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Macroeconomic [a]															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR)	**9334**	**9342**	**9317**	*9284*	*9288*	*9353*	*9435*	*9547*	*9641*	*9742*	*9821*	*9915*	*9319*	*9406*	*9780*
Percentage Change from Prior Year	**2.5**	**1.2**	**0.6**	*-0.2*	*-0.5*	*0.1*	*1.3*	*2.8*	*3.8*	*4.2*	*4.1*	*3.9*	*1.0*	*0.9*	*4.0*
Annualized Percent Change from Prior Quarter	**1.3**	**0.3**	**-1.1**	*-1.4*	*0.2*	*2.8*	*3.5*	*4.8*	*3.9*	*4.2*	*3.2*	*3.8*			
GDP Implicit Price Deflator (Index, 1996=1.000)	**1.087**	**1.092**	**1.098**	*1.099*	*1.104*	*1.106*	*1.110*	*1.116*	*1.124*	*1.129*	*1.136*	*1.143*	*1.094*	*1.109*	*1.133*
Percentage Change from Prior Year	**2.3**	**2.2**	**2.3**	*1.9*	*1.6*	*1.3*	*1.1*	*1.5*	*1.8*	*2.1*	*2.3*	*2.4*	*2.2*	*1.4*	*2.2*
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	**6679**	**6719**	**6919**	*6788*	*6899*	*6888*	*6940*	*7001*	*7082*	*7168*	*7213*	*7255*	*6776*	*6932*	*7180*
Percentage Change from Prior Year	**3.8**	**3.0**	**5.4**	*2.3*	*3.3*	*2.5*	*0.3*	*3.1*	*2.7*	*4.1*	*3.9*	*3.6*	*3.6*	*2.3*	*3.6*
Manufacturing Production (Index, 1996=1.000)	**1.221**	**1.202**	**1.186**	*1.155*	*1.153*	*1.159*	*1.170*	*1.194*	*1.221*	*1.253*	*1.284*	*1.305*	*1.191*	*1.169*	*1.266*
Percentage Change from Prior Year	**-1.1**	**-4.2**	**-5.6**	*-7.1*	*-5.5*	*-3.6*	*-1.3*	*3.3*	*5.9*	*8.1*	*9.7*	*9.3*	*-4.5*	*-1.8*	*8.3*
OECD Economic Growth (percent) [b]													*0.9*	*1.2*	*2.9*
Weather [c]															
Heating Degree-Days															
U.S.	**2329**	**446**	**90**	*1369*	*2234*	*518*	*86*	*1622*	*2231*	*518*	*86*	*1622*	*4234*	*4459*	*4456*
New England	**3145**	**753**	**140**	*1918*	*3174*	*883*	*167*	*2237*	*3171*	*882*	*167*	*2237*	*5956*	*6462*	*6457*
Middle Atlantic	**2946**	**629**	**99**	*1589*	*2891*	*700*	*105*	*2002*	*2888*	*699*	*105*	*2001*	*5263*	*5698*	*5693*
U.S. Gas-Weighted	**2450**	**470**	**93**	*1441*	*2351*	*555*	*90*	*1714*	*2348*	*555*	*90*	*1713*	*4454*	*4710*	*4706*
Cooling Degree-Days (U.S.)	**26**	**373**	**779**	*80*	*33*	*347*	*782*	*76*	*33*	*347*	*783*	*76*	*1258*	*1237*	*1238*

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

[b] OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, 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.

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

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*. Projections of OECD growth are based on DRI-WEFA, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1201.

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

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Macroeconomic [a]															
Real Fixed Investment (billion chained 1996 dollars-SAAR)	**1740**	**1696**	**1669**	*1629*	*1608*	*1604*	*1618*	*1636*	*1659*	*1687*	*1712*	*1739*	*1684*	*1616*	*1699*
Real Exchange Rate (index)	**1.105**	**1.141**	**1.134**	*1.127*	*1.124*	*1.123*	*1.115*	*1.108*	*1.106*	*1.100*	*1.084*	*1.069*	*1.127*	*1.118*	*1.090*
Business Inventory Change (billion chained 1996 dollars-SAAR)	**-15.0**	**-35.6**	**-47.2**	*-26.4*	*-19.4*	*-12.2*	*-2.3*	*11.9*	*10.9*	*11.4*	*11.6*	*12.4*	*-31.0*	*-5.5*	*11.6*
Producer Price Index (index, 1982=1.000)	**1.385**	**1.363**	**1.331**	*1.302*	*1.293*	*1.289*	*1.288*	*1.294*	*1.305*	*1.308*	*1.317*	*1.326*	*1.345*	*1.291*	*1.314*
Consumer Price Index (index, 1982-1984=1.000)	**1.761**	**1.774**	**1.777**	*1.781*	*1.787*	*1.794*	*1.803*	*1.814*	*1.826*	*1.836*	*1.848*	*1.862*	*1.773*	*1.800*	*1.843*
Petroleum Product Price Index (index, 1982=1.000)	**0.892**	**0.971**	**0.888**	*0.697*	*0.667*	*0.712*	*0.725*	*0.767*	*0.816*	*0.803*	*0.778*	*0.786*	*0.862*	*0.718*	*0.796*
Non-Farm Employment (millions)	**132.6**	**132.5**	**132.4**	*131.5*	*131.5*	*131.8*	*132.3*	*132.7*	*133.0*	*133.4*	*133.7*	*134.2*	*132.2*	*132.1*	*133.6*
Commercial Employment (millions)	**93.2**	**93.3**	**93.3**	*92.8*	*93.1*	*93.5*	*94.1*	*94.5*	*94.7*	*94.9*	*95.0*	*95.4*	*93.1*	*93.8*	*95.0*
Total Industrial Production (index, 1996=1.000)	**1.199**	**1.181**	**1.166**	*1.139*	*1.136*	*1.140*	*1.151*	*1.174*	*1.200*	*1.229*	*1.256*	*1.274*	*1.171*	*1.150*	*1.240*
Housing Stock (millions)	**117.6**	**117.8**	**117.7**	*117.9*	*118.3*	*118.7*	*119.0*	*119.4*	*119.7*	*120.1*	*120.5*	*120.8*	*117.8*	*118.8*	*120.3*
Miscellaneous															
Gas Weighted Industrial Production (index, 1996=1.000)	**1.081**	**1.073**	**1.069**	*1.064*	*1.072*	*1.083*	*1.097*	*1.114*	*1.130*	*1.149*	*1.167*	*1.183*	*1.072*	*1.091*	*1.157*
Vehicle Miles Traveled [b] (million miles/day)	**6949**	**7727**	**7719**	*7215*	*7046*	*7837*	*7893*	*7424*	*7156*	*7887*	*8062*	*7597*	*7404*	*7552*	*7678*
Vehicle Fuel Efficiency (index, 1999=1.000)	**0.994**	**1.001**	**0.991**	*0.981*	*0.995*	*0.990*	*0.994*	*0.985*	*0.987*	*0.979*	*1.003*	*0.995*	*0.992*	*0.991*	*0.991*
Real Vehicle Fuel Cost (cents per mile)	**4.19**	**4.41**	**4.05**	*3.48*	*3.29*	*3.47*	*3.58*	*3.71*	*3.73*	*3.69*	*3.59*	*3.61*	*4.03*	*3.51*	*3.65*
Air Travel Capacity (mill. available ton-miles/day)	**475.5**	**495.2**	**464.1**	*386.3*	*412.7*	*430.2*	*447.3*	*438.8*	*449.6*	*469.0*	*505.6*	*495.0*	*455.0*	*432.4*	*480.0*
Aircraft Utilization (mill. revenue ton-miles/day)	**263.5**	**282.3**	**262.9**	*217.1*	*228.9*	*255.7*	*277.5*	*265.1*	*262.4*	*286.5*	*302.6*	*289.5*	*256.3*	*257.0*	*285.4*
Airline Ticket Price Index (index, 1982-1984=1.000)	**2.399**	**2.408**	**2.452**	*2.328*	*2.376*	*2.418*	*2.449*	*2.479*	*2.531*	*2.554*	*2.570*	*2.586*	*2.397*	*2.431*	*2.560*
Raw Steel Production (millions tons)	**25.53**	**26.07**	**25.14**	*24.67*	*25.36*	*25.96*	*25.62*	*25.81*	*26.51*	*27.11*	*26.55*	*26.48*	*101.41*	*102.74*	*106.65*

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

[b] Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

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

(Million Barrels per Day, Except OECD Commercial Stocks)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Demand [a]															
OECD															
U.S. (50 States)	**19.8**	**19.6**	**19.7**	*19.5*	*19.7*	*19.5*	*20.0*	*20.0*	*20.2*	*20.0*	*20.6*	*20.6*	*19.7*	*19.8*	*20.3*
U.S. Territories	**0.4**	**0.4**	**0.3**	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.5*	*0.4*	*0.4*	*0.5*	*0.4*	*0.4*	*0.4*
Canada	**2.0**	**1.9**	**2.1**	*2.2*	*2.1*	*2.0*	*2.2*	*2.2*	*2.1*	*2.1*	*2.2*	*2.2*	*2.1*	*2.1*	*2.2*
Europe	**15.2**	**14.8**	**15.3**	*15.4*	*15.5*	*14.6*	*15.1*	*15.8*	*15.6*	*14.7*	*15.3*	*15.9*	*15.2*	*15.3*	*15.4*
Japan	**6.1**	**5.0**	**5.3**	*5.6*	*6.1*	*5.0*	*5.2*	*5.7*	*6.1*	*5.0*	*5.2*	*5.7*	*5.5*	*5.5*	*5.5*
Other OECD	**5.3**	**4.9**	**5.0**	*5.2*	*5.1*	*5.0*	*5.3*	*5.3*	*5.1*	*5.0*	*5.3*	*5.3*	*5.1*	*5.1*	*5.2*
Total OECD	**48.9**	**46.6**	**47.7**	*48.4*	*48.9*	*46.5*	*48.2*	*49.4*	*49.6*	*47.2*	*49.0*	*50.2*	*47.9*	*48.2*	*49.0*
Non-OECD															
Former Soviet Union	**3.7**	**3.5**	**3.5**	*3.5*	*3.7*	*3.5*	*3.5*	*3.5*	*3.7*	*3.6*	*3.6*	*3.6*	*3.6*	*3.6*	*3.6*
Europe	**0.7**	**0.7**	**0.7**	*0.7*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.7*	*0.8*	*0.8*
China	**4.8**	**4.8**	**4.7**	*4.7*	*5.0*	*4.9*	*4.9*	*4.9*	*5.2*	*5.1*	*5.1*	*5.1*	*4.8*	*4.9*	*5.1*
Other Asia	**7.0**	**7.0**	**6.7**	*7.0*	*7.0*	*7.0*	*6.8*	*7.1*	*7.1*	*7.1*	*6.9*	*7.2*	*6.9*	*3.0*	*7.1*
Other Non-OECD	**11.8**	**12.0**	**12.1**	*11.9*	*11.9*	*12.1*	*12.2*	*12.1*	*12.0*	*12.2*	*12.3*	*12.2*	*12.0*	*16.0*	*12.2*
Total Non-OECD	**28.0**	**28.0**	**27.8**	*27.9*	*28.3*	*28.4*	*28.1*	*28.4*	*28.7*	*28.8*	*28.6*	*28.9*	*27.9*	*28.3*	*28.7*
Total World Demand	**76.9**	**74.6**	**75.5**	*76.3*	*77.2*	*74.8*	*76.3*	*77.8*	*78.3*	*76.0*	*77.6*	*79.1*	*75.8*	*76.5*	*77.8*
Supply [b]															
OECD															
U.S. (50 States)	**8.8**	**9.0**	**9.1**	*9.2*	*9.1*	*9.1*	*9.0*	*9.0*	*9.0*	*9.0*	*8.9*	*8.9*	*9.0*	*9.1*	*8.9*
Canada	**2.8**	**2.8**	**2.7**	*2.8*	*3.0*	*3.0*	*3.1*	*3.1*	*3.0*	*3.0*	*3.1*	*3.2*	*2.8*	*3.0*	*3.1*
Mexico	**3.6**	**3.5**	**3.6**	*3.5*	*3.6*	*3.6*	*3.6*	*3.6*	*3.8*	*3.8*	*3.9*	*3.8*	*3.6*	*3.6*	*3.8*
North Sea [c]	**5.9**	**5.6**	**5.7**	*6.4*	*6.2*	*5.8*	*5.9*	*6.2*	*6.1*	*5.8*	*5.9*	*6.2*	*5.9*	*6.0*	*6.0*
Other OECD	**2.1**	**2.1**	**2.0**	*2.1*	*2.1*	*2.1*	*2.1*	*2.1*	*2.2*	*2.2*	*2.2*	*2.2*	*2.1*	*2.1*	*2.2*
Total OECD	**23.2**	**23.0**	**23.2**	*24.0*	*23.9*	*23.6*	*23.8*	*24.1*	*24.1*	*23.8*	*23.9*	*24.2*	*23.4*	*23.8*	*24.0*
Non-OECD															
OPEC	**31.2**	**29.9**	**30.1**	*29.3*	*28.2*	*27.8*	*29.2*	*29.3*	*29.7*	*29.4*	*30.0*	*29.5*	*30.1*	*28.7*	*29.7*
Former Soviet Union	**8.6**	**8.7**	**8.9**	*9.0*	*8.9*	*9.0*	*9.2*	*9.2*	*9.2*	*9.4*	*9.5*	*9.6*	*8.8*	*9.1*	*9.4*
China	**3.3**	**3.3**	**3.3**	*3.3*	*3.3*	*3.4*	*3.4*	*3.4*	*3.3*	*3.4*	*3.4*	*3.4*	*3.3*	*3.4*	*3.4*
Other Non-OECD	**11.3**	**11.1**	**11.3**	*11.1*	*11.3*	*11.4*	*11.6*	*11.7*	*11.7*	*11.8*	*12.0*	*12.2*	*11.2*	*11.5*	*11.9*
Total Non-OECD	**54.4**	**53.1**	**53.7**	*52.8*	*51.7*	*51.6*	*53.4*	*53.7*	*54.0*	*54.0*	*55.0*	*54.7*	*53.5*	*52.6*	*54.4*
Total World Supply	**77.7**	**76.1**	**76.9**	*76.8*	*75.5*	*75.2*	*77.2*	*77.7*	*78.1*	*77.8*	*78.9*	*78.9*	*76.9*	*76.4*	*78.4*
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	**-0.1**	**-0.9**	**-0.2**	*0.2*	*0.2*	*-0.6*	*-0.2*	*0.3*	*0.2*	*-0.5*	*-0.1*	*0.5*	*-0.3*	*-0.1*	*0.0*
Other	**-0.7**	**-0.6**	**-1.2**	*-0.6*	*1.4*	*0.3*	*-0.6*	*-0.2*	*0.0*	*-1.2*	*-1.2*	*-0.3*	*-0.8*	*0.2*	*-0.7*
Total Stock Withdrawals	**-0.8**	**-1.5**	**-1.4**	*-0.5*	*1.6*	*-0.3*	*-0.8*	*0.1*	*0.2*	*-1.8*	*-1.3*	*0.2*	*-1.0*	*0.1*	*-0.7*
OECD Comm. Stocks, End (bill. bbls.)	**2.5**	**2.6**	**2.7**	*2.7*	*2.6*	*2.6*	*2.6*	*2.6*	*2.6*	*2.7*	*2.7*	*2.7*	*2.7*	*2.6*	*2.7*
Non-OPEC Supply	**46.5**	**46.2**	**46.7**	*47.5*	*47.3*	*47.3*	*47.9*	*48.4*	*48.4*	*48.3*	*48.9*	*49.4*	*46.7*	*47.8*	*48.7*
Net Exports from Former Soviet Union	**5.0**	**5.2**	**5.4**	*5.5*	*5.2*	*5.4*	*5.6*	*5.7*	*5.5*	*5.8*	*6.0*	*6.0*	*5.3*	*5.5*	*5.8*

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

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, 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

(Nominal Dollars)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Crude Oil Prices (dollars per barrel)															
Imported Average[a]	**24.12**	**23.85**	**23.05**	*17.01*	*17.90*	*19.21*	*20.58*	*21.97*	*22.64*	*22.64*	*22.66*	*22.58*	*22.05*	*19.94*	*22.63*
WTI[b] Spot Average	**28.82**	**27.92**	**26.66**	*20.40*	*21.73*	*22.86*	*24.17*	*25.54*	*26.19*	*26.19*	*26.21*	*26.13*	*25.95*	*23.57*	*26.18*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**6.37**	**4.56**	**3.06**	*2.52*	*2.14*	*1.93*	*1.92*	*2.22*	*2.60*	*2.43*	*2.62*	*2.95*	*4.14*	*2.05*	*2.65*
Petroleum Products															
Gasoline Retail[c] (dollars per gallon)															
All Grades	**1.47**	**1.66**	**1.49**	*1.23*	*1.18*	*1.31*	*1.35*	*1.34*	*1.35*	*1.41*	*1.40*	*1.36*	*1.47*	*1.30*	*1.38*
Regular Unleaded	**1.43**	**1.62**	**1.45**	*1.19*	*1.14*	*1.28*	*1.31*	*1.31*	*1.32*	*1.38*	*1.37*	*1.32*	*1.43*	*1.26*	*1.35*
No. 2 Diesel Oil, Retail (dollars per gallon)	**1.47**	**1.47**	**1.42**	*1.26*	*1.21*	*1.24*	*1.28*	*1.35*	*1.36*	*1.36*	*1.35*	*1.38*	*1.40*	*1.27*	*1.36*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.83**	**0.80**	**0.76**	*0.61*	*0.62*	*0.63*	*0.66*	*0.73*	*0.74*	*0.71*	*0.72*	*0.75*	*0.75*	*0.66*	*0.73*
No. 2 Heating Oil, Retail (dollars per gallon)	**1.35**	**1.25**	**1.15**	*1.11*	*1.11*	*1.05*	*1.02*	*1.14*	*1.21*	*1.13*	*1.08*	*1.17*	*1.24*	*1.08*	*1.15*
No. 6 Residual Fuel Oil, Retail[d] (dollars per barrel)	**25.13**	**22.29**	**21.77**	*20.39*	*20.70*	*19.30*	*19.95*	*22.02*	*22.52*	*20.67*	*20.84*	*22.10*	*22.51*	*20.49*	*21.55*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.23**	**1.24**	**1.23**	*1.20*	*1.20*	*1.20*	*1.18*	*1.17*	*1.18*	*1.19*	*1.17*	*1.17*	*1.23*	*1.19*	*1.18*
Heavy Fuel Oil[e] (dollars per million Btu)	**4.22**	**3.82**	**3.57**	*3.25*	*3.26*	*3.17*	*3.31*	*3.52*	*3.54*	*3.38*	*3.46*	*3.53*	*3.77*	*3.31*	*3.48*
Natural Gas (dollars per million Btu)	**7.26**	**4.96**	**3.48**	*3.13*	*2.81*	*2.53*	*2.49*	*2.92*	*3.34*	*3.07*	*3.23*	*3.67*	*4.48*	*2.64*	*3.29*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**10.08**	**10.63**	**10.63**	*7.42*	*6.50*	*6.99*	*8.28*	*6.58*	*6.62*	*7.59*	*9.06*	*7.43*	*9.57*	*6.74*	*7.19*
Electricity (cents per kilowatthour)	**7.96**	**8.62**	**8.85**	*8.28*	*7.85*	*8.41*	*8.63*	*8.17*	*7.87*	*8.49*	*8.74*	*8.30*	*8.44*	*8.28*	*8.36*

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

[b] West Texas Intermediate.

[c] Average self-service cash prices.

[d] Average for all sulfur contents.

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

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Crude Oil Supply															
Domestic Production [a]	**5.85**	**5.84**	**5.82**	*5.88*	*5.83*	*5.78*	*5.73*	*5.76*	*5.76*	*5.67*	*5.58*	*5.58*	*5.85*	*5.78*	*5.64*
Alaska	**0.99**	**0.96**	**0.94**	*0.98*	*0.96*	*0.92*	*0.91*	*0.99*	*1.03*	*0.96*	*0.93*	*0.97*	*0.97*	*0.94*	*0.97*
Lower 48	**4.86**	**4.88**	**4.88**	*4.90*	*4.87*	*4.86*	*4.82*	*4.77*	*4.73*	*4.71*	*4.65*	*4.60*	*4.88*	*4.83*	*4.67*
Net Imports (including SPR) [b]	**9.01**	**9.56**	**9.11**	*8.93*	*8.74*	*9.60*	*9.62*	*9.22*	*9.11*	*9.94*	*9.97*	*9.68*	*9.16*	*9.30*	*9.68*
Other SPR Supply	**0.02**	**0.01**	**0.01**	*0.01*	*0.03*	*0.13*	*0.13*	*0.16*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.12*	*0.00*
SPR Stock Withdrawn or Added (-)	**-0.02**	**-0.01**	**-0.02**	*-0.05*	*-0.03*	*-0.13*	*-0.13*	*-0.16*	*0.00*	*0.00*	*0.00*	*0.00*	*-0.02*	*-0.12*	*0.00*
Other Stock Withdrawn or Added (-)	**-0.24**	**0.00**	**-0.01**	*-0.02*	*-0.20*	*-0.01*	*0.16*	*0.03*	*-0.20*	*-0.01*	*0.17*	*0.03*	*-0.06*	*0.00*	*0.00*
Product Supplied and Losses	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Unaccounted-for Crude Oil	**0.13**	**0.26**	**0.32**	*0.14*	*0.20*	*0.22*	*0.22*	*0.21*	*0.21*	*0.22*	*0.22*	*0.22*	*0.21*	*0.21*	*0.22*
Total Crude Oil Supply	**14.75**	**15.65**	**15.23**	*14.88*	*14.54*	*15.46*	*15.60*	*15.07*	*14.88*	*15.82*	*15.94*	*15.50*	*15.13*	*15.17*	*15.54*
Other Supply															
NGL Production	**1.64**	**1.89**	**1.95**	*1.95*	*1.91*	*1.95*	*1.94*	*1.94*	*1.93*	*1.97*	*1.96*	*2.00*	*1.86*	*1.94*	*1.97*
Other Inputs	**0.39**	**0.39**	**0.40**	*0.40*	*0.40*	*0.41*	*0.43*	*0.43*	*0.41*	*0.41*	*0.42*	*0.43*	*0.39*	*0.42*	*0.42*
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	**0.91**	**0.90**	**0.89**	*0.93*	*0.92*	*0.94*	*0.93*	*0.91*	*0.90*	*0.94*	*0.93*	*0.91*	*0.91*	*0.92*	*0.92*
Net Product Imports [c]	**2.07**	**1.59**	**1.36**	*1.15*	*1.45*	*1.25*	*1.36*	*1.25*	*1.64*	*1.38*	*1.59*	*1.36*	*1.54*	*1.33*	*1.49*
Product Stock Withdrawn or Added (-)	**0.11**	**-0.86**	**-0.14**	*0.23*	*0.46*	*-0.50*	*-0.25*	*0.44*	*0.42*	*-0.51*	*-0.27*	*0.42*	*-0.17*	*0.03*	*0.02*
Total Supply	**19.86**	**19.56**	**19.70**	*19.54*	*19.69*	*19.50*	*20.00*	*20.03*	*20.18*	*20.01*	*20.57*	*20.63*	*19.66*	*19.81*	*20.35*
Demand															
Motor Gasoline	**8.26**	**8.67**	**8.83**	*8.64*	*8.37*	*8.88*	*9.00*	*8.86*	*8.57*	*9.04*	*9.11*	*8.97*	*8.60*	*8.78*	*8.92*
Jet Fuel	**1.73**	**1.72**	**1.67**	*1.54*	*1.62*	*1.60*	*1.66*	*1.69*	*1.72*	*1.69*	*1.78*	*1.80*	*1.66*	*1.64*	*1.75*
Distillate Fuel Oil	**4.21**	**3.72**	**3.64**	*3.84*	*3.98*	*3.56*	*3.52*	*3.79*	*4.09*	*3.72*	*3.71*	*3.98*	*3.85*	*3.71*	*3.87*
Residual Fuel Oil	**1.03**	**0.99**	**0.96**	*0.82*	*0.93*	*0.74*	*0.84*	*0.75*	*0.88*	*0.72*	*0.88*	*0.79*	*0.95*	*0.81*	*0.82*
Other Oils [d]	**4.62**	**4.47**	**4.60**	*4.70*	*4.79*	*4.72*	*4.98*	*4.94*	*4.92*	*4.84*	*5.09*	*5.08*	*4.60*	*4.86*	*4.98*
Total Demand	**19.85**	**19.56**	**19.70**	*19.54*	*19.69*	*19.50*	*20.00*	*20.03*	*20.18*	*20.01*	*20.57*	*20.63*	*19.66*	*19.81*	*20.35*
Total Petroleum Net Imports	**11.08**	**11.15**	**10.48**	*10.08*	*10.19*	*10.85*	*10.98*	*10.47*	*10.74*	*11.32*	*11.56*	*11.04*	*10.69*	*10.62*	*11.17*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**307**	**306**	**307**	*309*	*326*	*327*	*312*	*309*	*327*	*328*	*312*	*309*	*309*	*309*	*309*
Total Motor Gasoline	**194**	**220**	**206**	*207*	*209*	*209*	*200*	*202*	*206*	*207*	*199*	*202*	*207*	*202*	*202*
Finished Motor Gasoline	**146**	**169**	**158**	*158*	*157*	*162*	*155*	*158*	*157*	*162*	*155*	*158*	*158*	*158*	*158*
Blending Components	**49**	**51**	**48**	*49*	*52*	*47*	*44*	*44*	*49*	*45*	*44*	*44*	*49*	*44*	*44*
Jet Fuel	**40**	**43**	**43**	*40*	*37*	*39*	*40*	*41*	*38*	*40*	*41*	*42*	*40*	*41*	*42*
Distillate Fuel Oil	**105**	**114**	**127**	*136*	*105*	*116*	*133*	*134*	*104*	*115*	*133*	*134*	*136*	*134*	*134*
Residual Fuel Oil	**39**	**43**	**37**	*41*	*38*	*39*	*40*	*40*	*38*	*39*	*40*	*40*	*41*	*40*	*40*
Other Oils [e]	**253**	**290**	**311**	*279*	*272*	*305*	*318*	*273*	*266*	*299*	*312*	*266*	*279*	*273*	*266*
Total Stocks (excluding SPR)	**939**	**1017**	**1031**	*1011*	*988*	*1034*	*1042*	*999*	*979*	*1027*	*1036*	*994*	*1011*	*999*	*994*
Crude Oil in SPR	**542**	**543**	**545**	*549*	*552*	*564*	*576*	*592*	*592*	*592*	*592*	*592*	*549*	*592*	*592*
Heating Oil Reserve	**2**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Total Stocks (including SPR)	**1481**	**1560**	**1575**	*1561*	*1540*	*1598*	*1619*	*1591*	*1571*	*1618*	*1628*	*1586*	*1561*	*1591*	*1586*

[a] Includes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's *Petroleum Supply Monthly*, Table C1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Percent Deviation Base Case)

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

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

[b]Short-Term Integrated Forecasting System.

[c]Refiner acquisitions cost of imported crude oil.

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

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

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

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

(Million Barrels per Day)

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	*5.79*	*5.36*	*0.43*	*0.07*	*0.36*
Lower 48 States	*4.81*	*4.40*	*0.40*	*0.05*	*0.35*
Alaska	*0.98*	*0.96*	*0.03*	*0.01*	*0.01*

Note: Components provided are for the fourth quarter 2003. Totals may not add to sum of components due to independent rounding.
Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

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

(Trillion Cubic Feet)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Total Dry Gas Production	**4.86**	**4.85**	**4.85**	*4.75*	*4.66*	*4.69*	*4.72*	*4.83*	*4.76*	*4.80*	*4.84*	*4.95*	*19.31*	*18.90*	*19.36*
Net Imports	**0.97**	**0.90**	**0.94**	*0.83*	*0.89*	*0.90*	*0.92*	*0.98*	*1.02*	*0.99*	*1.02*	*1.03*	*3.64*	*3.69*	*4.06*
Supplemental Gaseous Fuels	**0.04**	**0.03**	**0.03**	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.12*	*0.12*	*0.12*
Total New Supply	**5.87**	**5.77**	**5.83**	*5.61*	*5.59*	*5.62*	*5.67*	*5.85*	*5.82*	*5.81*	*5.89*	*6.02*	*23.08*	*22.72*	*23.54*
Working Gas in Storage															
Opening	**1.72**	**0.74**	**1.88**	*2.94*	*2.86*	*1.46*	*2.09*	*2.95*	*2.49*	*1.28*	*2.04*	*2.92*	*1.72*	*2.86*	*2.49*
Closing	**0.74**	**1.88**	**2.94**	*2.86*	*1.46*	*2.09*	*2.95*	*2.49*	*1.28*	*2.04*	*2.92*	*2.48*	*2.86*	*2.49*	*2.48*
Net Withdrawals	**0.98**	**-1.14**	**-1.06**	*0.09*	*1.40*	*-0.63*	*-0.86*	*0.45*	*1.21*	*-0.77*	*-0.88*	*0.44*	*-1.14*	*0.37*	*0.01*
Total Supply	**6.84**	**4.63**	**4.76**	*5.70*	*6.98*	*4.99*	*4.81*	*6.30*	*7.03*	*5.05*	*5.01*	*6.46*	*21.94*	*23.08*	*23.55*
Balancing Item [a]	**0.28**	**-0.01**	**-0.30**	*-0.58*	*0.12*	*-0.08*	*-0.13*	*-0.47*	*0.25*	*-0.01*	*-0.21*	*-0.60*	*-0.60*	*-0.56*	*-0.57*
Total Primary Supply	**7.13**	**4.63**	**4.47**	*5.12*	*7.10*	*4.91*	*4.68*	*5.83*	*7.29*	*5.04*	*4.80*	*5.86*	*21.34*	*22.52*	*22.98*
Demand															
Lease and Plant Fuel	**0.29**	**0.29**	**0.29**	*0.29*	*0.28*	*0.28*	*0.28*	*0.29*	*0.29*	*0.28*	*0.29*	*0.30*	*1.16*	*1.14*	*1.16*
Pipeline Use	**0.20**	**0.13**	**0.13**	*0.16*	*0.20*	*0.13*	*0.12*	*0.16*	*0.20*	*0.13*	*0.13*	*0.16*	*0.62*	*0.62*	*0.62*
Residential	**2.46**	**0.77**	**0.37**	*1.14*	*2.36*	*0.84*	*0.38*	*1.45*	*2.42*	*0.86*	*0.39*	*1.40*	*4.74*	*5.04*	*5.07*
Commercial	**1.37**	**0.63**	**0.46**	*0.78*	*1.36*	*0.61*	*0.42*	*0.89*	*1.40*	*0.62*	*0.42*	*0.90*	*3.23*	*3.28*	*3.34*
Industrial (Incl. Nonutility Use)	**2.34**	**2.10**	**2.25**	*2.25*	*2.43*	*2.30*	*2.49*	*2.50*	*2.50*	*2.38*	*2.57*	*2.56*	*8.94*	*9.72*	*10.01*
Electric Utilities	***0.47***	***0.71***	***0.97***	*0.50*	*0.47*	*0.75*	*0.99*	*0.53*	*0.48*	*0.76*	*1.01*	*0.53*	*2.65*	*2.73*	*2.78*
Total Demand	**7.13**	**4.63**	**4.47**	*5.12*	*7.10*	*4.91*	*4.68*	*5.83*	*7.29*	*5.04*	*4.80*	*5.86*	*21.34*	*22.52*	*22.98*

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

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

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

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

(Million Short Tons)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Production	**283.6**	**278.3**	**278.1**	*291.9*	*280.5*	*259.4*	*283.2*	*294.5*	*270.7*	*269.3*	*290.4*	*298.8*	*1131.9*	*1117.5*	*1129.2*
Appalachia	**110.8**	**109.0**	**104.1**	*106.4*	*107.6*	*99.6*	*101.4*	*107.7*	*102.1*	*101.3*	*101.5*	*106.9*	*430.2*	*416.3*	*411.8*
Interior	**37.5**	**37.0**	**37.9**	*39.4*	*35.4*	*32.9*	*35.0*	*34.8*	*32.5*	*32.6*	*34.1*	*33.4*	*151.9*	*138.2*	*132.6*
Western	**135.3**	**132.3**	**136.1**	*146.0*	*137.4*	*126.9*	*146.7*	*152.0*	*136.1*	*135.4*	*154.8*	*158.5*	*549.7*	*563.0*	*584.8*
Primary Stock Levels [a]															
Opening	**31.9**	**39.2**	**38.3**	*37.0*	*33.9*	*40.7*	*35.0*	*33.1*	*32.5*	*32.8*	*31.6*	*33.0*	*31.9*	*33.9*	*32.5*
Closing	**39.2**	**38.3**	**37.0**	*33.9*	*40.7*	*35.0*	*33.1*	*32.5*	*32.8*	*31.6*	*33.0*	*32.7*	*33.9*	*32.5*	*32.7*
Net Withdrawals	**-7.3**	**0.9**	**1.2**	*3.1*	*-6.8*	*5.7*	*1.9*	*0.6*	*-0.2*	*1.1*	*-1.4*	*0.3*	*-2.0*	*1.4*	*-0.2*
Imports	**3.9**	**4.1**	**6.0**	*4.3*	*5.4*	*5.4*	*5.4*	*5.4*	*6.2*	*6.2*	*6.2*	*6.3*	*18.4*	*21.6*	*24.9*
Exports	**11.8**	**13.5**	**11.7**	*15.1*	*13.3*	*13.4*	*13.7*	*13.6*	*13.8*	*13.9*	*14.2*	*14.1*	*52.1*	*54.0*	*56.0*
Total Net Domestic Supply	**268.4**	**269.9**	**273.7**	*284.1*	*265.8*	*257.0*	*276.8*	*286.9*	*263.0*	*262.8*	*281.0*	*291.3*	*1096.1*	*1086.5*	*1098.1*
Secondary Stock Levels [b]															
Opening	**108.1**	**113.9**	**128.6**	*117.6*	*120.9*	*127.9*	*132.6*	*115.4*	*121.0*	*120.0*	*125.6*	*107.5*	*108.1*	*120.9*	*121.0*
Closing	**113.9**	**128.6**	**117.6**	*120.9*	*127.9*	*132.6*	*115.4*	*121.0*	*120.0*	*125.6*	*107.5*	*112.9*	*120.9*	*121.0*	*112.9*
Net Withdrawals	**-5.8**	**-14.7**	**11.0**	*-3.3*	*-7.0*	*-4.6*	*17.1*	*-5.6*	*1.1*	*-5.7*	*18.1*	*-5.4*	*-12.8*	*-0.1*	*8.1*
Waste Coal Supplied to IPPs [c]	**2.6**	**2.6**	**2.6**	*2.6*	*2.8*	*2.8*	*2.8*	*2.8*	*2.9*	*2.9*	*2.9*	*2.9*	*10.6*	*11.1*	*11.6*
Total Supply	**265.2**	**257.9**	**287.3**	*283.5*	*261.6*	*255.1*	*296.7*	*284.1*	*267.0*	*260.0*	*302.0*	*288.8*	*1093.9*	*1097.5*	*1117.8*
Demand															
Coke Plants	**6.8**	**7.0**	**6.8**	*6.3*	*6.6*	*6.4*	*6.6*	*6.3*	*6.5*	*6.3*	*6.5*	*6.1*	*26.8*	*26.0*	*25.5*
Electricity Production															
Electric Utilities	**203.9**	**196.1**	**223.7**	*212.6*	*199.4*	*197.5*	*233.1*	*220.3*	*204.2*	*201.8*	*237.7*	*224.5*	*836.4*	*850.2*	*868.2*
Nonutilities (Excl. Cogen.) [d]	**36.7**	**34.7**	**40.8**	*38.5*	*37.7*	*35.7*	*41.5*	*39.2*	*38.5*	*36.4*	*42.5*	*40.1*	*150.6*	*154.1*	*157.5*
Retail and General Industry	**17.8**	**16.2**	**16.0**	*18.4*	*17.9*	*15.6*	*15.5*	*18.3*	*17.8*	*15.4*	*15.3*	*18.1*	*68.4*	*67.3*	*66.6*
Total Demand [e]	**265.3**	**254.0**	**287.2**	*275.7*	*261.6*	*255.1*	*296.7*	*284.1*	*267.0*	*260.0*	*302.0*	*288.8*	*1082.3*	*1097.5*	*1117.8*
Discrepancy [f]	**0.0**	**3.9**	**0.1**	*7.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*11.6*	*0.0*	*0.0*

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

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

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

[d] Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2000 and projections for 2001 and 2002 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999 and 2000, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

[e] Total Demand includes estimated IPP consumption.

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

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

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

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

(Billion Kilowatt-hours)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Net Utility Generation															
Coal	**399.8**	**383.2**	**431.7**	*398.0*	*378.0*	*375.8*	*443.4*	*421.8*	*388.4*	*385.1*	*453.5*	*430.8*	*1612.6*	*1619.1*	*1657.7*
Petroleum	**24.2**	**21.8**	**21.6**	*13.7*	*16.6*	*10.8*	*21.6*	*11.4*	*17.3*	*11.9*	*24.1*	*13.9*	*81.3*	*60.4*	*67.2*
Natural Gas	**45.7**	**69.1**	**95.0**	*47.5*	*44.8*	*70.7*	*93.6*	*49.9*	*45.6*	*72.2*	*95.7*	*50.4*	*257.2*	*259.0*	*263.9*
Nuclear	**135.8**	**130.1**	**140.4**	*127.2*	*130.8*	*128.0*	*137.6*	*127.8*	*131.2*	*128.4*	*138.1*	*128.1*	*533.5*	*524.2*	*525.7*
Hydroelectric	**50.4**	**50.8**	**46.6**	*51.5*	*64.3*	*69.4*	*59.8*	*60.8*	*70.7*	*74.6*	*62.6*	*61.7*	*199.3*	*254.3*	*269.6*
Geothermal and Other [a]	**0.6**	**0.6**	**0.6**	*0.6*	*0.6*	*0.6*	*0.6*	*0.6*	*0.6*	*0.6*	*0.6*	*0.6*	*2.4*	*2.3*	*2.4*
Subtotal	**656.5**	**655.5**	**736.0**	*638.4*	*635.2*	*655.3*	*756.5*	*672.3*	*653.7*	*672.8*	*774.5*	*685.5*	*2686.4*	*2719.3*	*2786.5*
Nonutility Generation [b]															
Coal	**93.5**	**81.1**	**96.1**	*66.0*	*94.2*	*80.9*	*92.3*	*68.2*	*96.8*	*82.7*	*94.4*	*69.6*	*336.6*	*335.5*	*343.5*
Petroleum	**17.0**	**12.0**	**11.9**	*10.0*	*12.0*	*6.5*	*11.4*	*8.3*	*12.5*	*7.1*	*12.6*	*10.2*	*50.9*	*38.1*	*42.4*
Natural Gas	**78.4**	**83.9**	**109.1**	*85.2*	*82.7*	*87.6*	*108.0*	*89.8*	*84.2*	*89.5*	*110.4*	*90.7*	*356.5*	*368.1*	*374.7*
Other Gaseous Fuels [c]	**4.0**	**4.3**	**5.6**	*4.7*	*4.4*	*4.5*	*5.5*	*4.7*	*4.4*	*4.5*	*5.5*	*4.7*	*18.7*	*19.0*	*19.0*
Nuclear	**56.2**	**55.3**	**60.4**	*57.9*	*59.5*	*58.2*	*62.6*	*58.1*	*59.6*	*58.3*	*62.7*	*58.2*	*229.8*	*238.4*	*238.8*
Hydroelectric	**5.3**	**6.4**	**3.3**	*5.7*	*6.8*	*8.9*	*4.3*	*6.7*	*7.5*	*9.5*	*4.5*	*6.8*	*20.8*	*26.7*	*28.4*
Geothermal and Other [d]	**20.4**	**21.5**	**22.2**	*20.5*	*20.4*	*21.2*	*22.3*	*20.7*	*20.5*	*21.2*	*22.3*	*20.7*	*84.7*	*84.5*	*84.6*
Subtotal	**275.0**	**264.5**	**308.6**	*249.9*	*279.9*	*267.7*	*306.3*	*256.5*	*285.3*	*272.8*	*312.4*	*260.9*	*1098.0*	*1110.4*	*1131.5*
Total Generation	**931.4**	**920.0**	**1044.6**	*888.4*	*915.1*	*923.0*	*1062.8*	*928.8*	*939.1*	*945.6*	*1086.9*	*946.5*	*3784.4*	*3829.7*	*3918.1*
Net Imports [e]	**3.6**	**7.2**	**5.0**	*7.9*	*7.1*	*6.7*	*9.9*	*4.2*	*6.2*	*7.6*	*10.9*	*6.7*	*23.8*	*28.0*	*31.5*
Total Supply	**936.4**	**927.8**	**1049.6**	*896.3*	*922.2*	*929.7*	*1072.7*	*933.0*	*945.3*	*953.2*	*1097.9*	*953.2*	*3810.1*	*3857.7*	*3949.5*
Losses and Unaccounted for [f]	**38.7**	**76.4**	**48.7**	*57.5*	*41.1*	*69.0*	*65.9*	*63.0*	*42.5*	*71.0*	*67.6*	*64.4*	*221.3*	*239.1*	*245.5*
Demand															
Retail Sales [g]															
Residential	**322.0**	**264.1**	**359.6**	*266.1*	*314.0*	*278.0*	*364.3*	*284.4*	*323.2*	*285.5*	*373.7*	*290.6*	*1211.8*	*1240.7*	*1272.9*
Commercial	**253.1**	**264.6**	**305.4**	*254.4*	*255.4*	*260.7*	*301.6*	*261.8*	*260.4*	*264.8*	*304.6*	*264.3*	*1077.5*	*1079.5*	*1094.1*
Industrial	**248.5**	**248.9**	**253.9**	*248.5*	*241.1*	*251.9*	*262.6*	*252.6*	*245.7*	*258.1*	*269.6*	*259.2*	*999.8*	*1008.2*	*1032.6*
Other	**26.4**	**28.0**	**32.4**	*27.4*	*27.0*	*27.2*	*30.4*	*27.7*	*27.5*	*27.8*	*31.1*	*28.2*	*114.2*	*112.3*	*114.6*
Subtotal	**850.1**	**805.6**	**951.2**	*796.5*	*837.5*	*817.8*	*958.9*	*826.5*	*856.7*	*836.2*	*979.0*	*842.2*	*3403.3*	*3440.6*	*3514.1*
Nonutility Use/Sales [h]	**47.6**	**45.8**	**49.8**	*42.3*	*43.6*	*42.9*	*48.0*	*43.5*	*46.1*	*46.0*	*51.3*	*46.6*	*185.5*	*178.0*	*189.9*
Total Demand	**897.7**	**851.4**	**1001.0**	*838.8*	*881.1*	*860.7*	*1006.8*	*870.0*	*902.8*	*882.2*	*1030.3*	*888.8*	*3588.8*	*3618.6*	*3704.1*
Memo:															
Nonutility Sales to Electric Utilities [b]	**227.3**	**218.7**	**258.8**	*207.6*	*236.3*	*224.8*	*258.3*	*213.0*	*239.3*	*226.8*	*261.2*	*214.4*	*912.5*	*932.4*	*941.6*

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

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

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

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

[e] Data for 2000 are estimates.

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

[g] Total 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 2000 are estimated.

[h] Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the *Monthly Energy Review (MER*). Data for 2000 are estimates.

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

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

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

(Quadrillion Btu)

	Year				Annual Percentage Change		
	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Electric Utilities							
Hydroelectric Power [a]	**2.600**	*2.088*	*2.664*	*2.824*	**-19.7**	*27.6*	*6.0*
Geothermal, Solar and Wind Energy [b]	**0.004**	*0.004*	*0.004*	*0.005*	**0.0**	*0.0*	*25.0*
Biofuels [c]	**0.021**	*0.023*	*0.021*	*0.021*	**9.5**	*-8.7*	*0.0*
Total	**2.625**	*2.115*	*2.690*	*2.850*	**-19.4**	*27.2*	*5.9*
Nonutility Power Generators							
Hydroelectric Power [a]	**0.149**	*0.215*	*0.276*	*0.293*	**44.3**	*28.4*	*6.2*
Geothermal, Solar and Wind Energy [b]	**0.355**	*0.374*	*0.380*	*0.382*	**5.4**	*1.6*	*0.5*
Biofuels [c]	**0.523**	*0.651*	*0.648*	*0.648*	**24.5**	*-0.5*	*0.0*
Total	**1.027**	*1.241*	*1.304*	*1.323*	**20.8**	*5.1*	*1.5*
Total Power Generation	**3.652**	*3.355*	*3.993*	*4.174*	**-8.1**	*19.0*	*4.5*
Other Sectors [d]							
Residential and Commercial [e]	**0.570**	*0.560*	*0.560*	*0.590*	**-1.8**	*0.0*	*5.4*
Industrial [f]	**2.410**	*2.410*	*2.470*	*2.540*	**0.0**	*2.5*	*2.8*
Transportation [g]	**0.114**	*0.116*	*0.117*	*0.132*	**1.8**	*0.9*	*12.8*
Total	**3.094**	*3.086*	*3.147*	*3.262*	**-0.3**	*2.0*	*3.7*
Net Imported Electricity [h]	**0.244**	*0.171*	*0.201*	*0.225*	**-29.9**	*17.5*	*11.9*
Total Renewable Energy Demand	**6.990**	*6.613*	*7.341*	*7.662*	**-5.4**	*11.0*	*4.4*

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

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

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

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

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

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

[g] Ethanol blended into gasoline.

[h] Represents 69.3 percent of total electricity net imports, which is the proportion of total 1999 net imported electricity (0.300 quadrillion Btu) attributable to renewable sources (0.208 quadrillion Btu). See *EIA's Monthly Energy Review*, Table 1.5

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

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

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Real Gross Domestic Product (GDP)															
(billion chained 1996 dollars)	**6592**	**6708**	**6676**	**6880**	**7063**	**7348**	**7544**	**7813**	**8159**	**8509**	**8857**	**9224**	*9319*	*9406*	*9780*
Imported Crude Oil Price [a]															
(nominal dollars per barrel)	**18.08**	**21.75**	**18.70**	**18.20**	**16.14**	**15.52**	**17.14**	**20.61**	**18.50**	**12.08**	**17.22**	**27.72**	*22.05*	*19.94*	*22.63*
Petroleum Supply															
Crude Oil Production [b]															
(million barrels per day)	**7.61**	**7.36**	**7.42**	**7.17**	**6.85**	**6.66**	**6.56**	**6.46**	**6.45**	**6.25**	**5.88**	**5.82**	*5.85*	*5.78*	*5.64*
Total Petroleum Net Imports (including SPR)															
(million barrels per day)	**7.20**	**7.16**	**6.63**	**6.94**	**7.62**	**8.05**	**7.89**	**8.50**	**9.16**	**9.76**	**9.91**	**10.42**	*10.69*	*10.62*	*11.17*
Energy Demand															
World Petroleum															
(million barrels per day)	**65.9**	**66.0**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**72.9**	**73.6**	**75.0**	**75.7**	*75.7*	*75.8*	*76.6*
U.S. Petroleum															
(million barrels per day)	**17.37**	**17.04**	**16.77**	**17.10**	**17.24**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	**19.70**	*19.66*	*19.81*	*20.35*
Natural Gas															
(trillion cubic feet)	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.61**	**22.54**	*21.34*	*22.52*	*22.98*
Coal															
(million short tons)	**889**	**896**	**893**	**901**	**943**	**950**	**962**	**1006**	**1030**	**1038**	**1045**	**1081**	*1082*	*1097*	*1118*
Electricity (billion kilowatthours)															
Retail Sales [c]	**2647**	**2713**	**2762**	**2763**	**2861**	**2935**	**3013**	**3101**	**3146**	**3264**	**3312**	**3413**	*3403*	*3441*	*3514*
Nonutility Own Use [d]	**NA**	**104**	**111**	**122**	**127**	**141**	**149**	**149**	**149**	**160**	**189**	**187**	*185*	*178*	*190*
Total	**2747**	**2817**	**2873**	**2885**	**2988**	**3075**	**3162**	**3250**	**3295**	**3424**	**3501**	**3599**	*3589*	*3619*	*3704*
Total Energy Demand [e]															
(quadrillion Btu)	**84.2**	**84.2**	**84.5**	**85.6**	**87.4**	**89.2**	**90.9**	**93.9**	**94.2**	**95.2**	**97.1**	**99.6**	*97.8*	*100.1*	*102.4*
Total Energy Demand per Dollar of GDP															
(thousand Btu per 1996 Dollar)	**NA**	**12.55**	**12.66**	**12.44**	**12.37**	**12.14**	**12.05**	**12.04**	**11.54**	**11.19**	**10.96**	**10.80**	*10.49*	*10.64*	*10.47*

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

[b] Includes lease condensate.

[c] Total 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 2000 are estimates.

[d] Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the *Monthly Energy Review (MER*). Data for 2000 are estimates.

[e] "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1999, DOE/EIA-0384(97) (AER), Table 1.1. Prior to 1990, some components of renewable energy consumption, particularly relating to consumption at nonutility electric generating facilities, were not available. For those years, a less compehensive measure of total energy demand can be found in EIA's *AER*. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER*). Consequently, the historical data may not precisely match those published in the *MER* or the *AER*.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Monthly* DOE/EIA-520, and Weekly Petroleum *Status Report* DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1201.

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

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars)	**6592**	**6708**	**6676**	**6880**	**7063**	**7348**	**7544**	**7813**	**8159**	**8509**	**8857**	**9224**	*9319*	*9406*	*9780*
GDP Implicit Price Deflator (Index, 1996=1.000)	**0.833**	**0.865**	**0.897**	**0.919**	**0.941**	**0.960**	**0.981**	**1.000**	**1.019**	**1.032**	**1.047**	**1.070**	*1.094*	*1.109*	*1.133*
Real Disposable Personal Income (billion chained 1996 Dollars)	**4907**	**5014**	**5033**	**5189**	**5261**	**5397**	**5539**	**5678**	**5854**	**6169**	**6320**	**6539**	*6776*	*6932*	*7180*
Manufacturing Production (Index, 1996=1.000)	**0.816**	**0.812**	**0.792**	**0.824**	**0.854**	**0.906**	**0.953**	**1.000**	**1.076**	**1.134**	**1.191**	**1.247**	*1.191*	*1.169*	*1.266*
Real Fixed Investment (billion chained 1996 dollars)	**911**	**895**	**833**	**886**	**958**	**1046**	**1109**	**1213**	**1329**	**1480**	**1595**	**1716**	*1684*	*1616*	*1699*
Real Exchange Rate (Index, 1996=1.000)	**NA**	**0.913**	**0.915**	**0.923**	**0.958**	**0.938**	**0.875**	**0.920**	**0.990**	**1.040**	**1.039**	**1.076**	*1.127*	*1.118*	*1.090*
Business Inventory Change (billion chained 1996 dollars)	**14.2**	**8.9**	**-6.8**	**-4.7**	**3.6**	**12.1**	**14.1**	**10.1**	**14.8**	**27.2**	**13.3**	**13.1**	*-31.0*	*-5.5*	*11.6*
Producer Price Index (index, 1982=1.000)	**1.122**	**1.163**	**1.165**	**1.172**	**1.189**	**1.205**	**1.248**	**1.277**	**1.276**	**1.244**	**1.255**	**1.328**	*1.345*	*1.291*	*1.314*
Consumer Price Index (index, 1982-1984=1.000)	**1.240**	**1.308**	**1.363**	**1.404**	**1.446**	**1.483**	**1.525**	**1.570**	**1.606**	**1.631**	**1.667**	**1.723**	*1.773*	*1.800*	*1.843*
Petroleum Product Price Index (index, 1982=1.000)	**0.612**	**0.748**	**0.671**	**0.647**	**0.620**	**0.591**	**0.608**	**0.701**	**0.680**	**0.513**	**0.609**	**0.913**	*0.862*	*0.718*	*0.796*
Non-Farm Employment (millions)	**107.9**	**109.4**	**108.3**	**108.6**	**110.7**	**114.1**	**117.2**	**119.6**	**122.7**	**125.8**	**128.9**	**131.8**	*132.2*	*132.1*	*133.6*
Commercial Employment (millions)	**70.0**	**71.3**	**70.8**	**71.2**	**73.2**	**76.1**	**78.8**	**81.1**	**83.9**	**86.6**	**89.6**	**92.1**	*93.1*	*93.8*	*95.0*
Total Industrial Production (index, 1996=1.000)	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**	**0.9**	**1.0**	**1.0**	**1.1**	**1.1**	**1.2**	**1.2**	*1.2*	*1.2*	*1.2*
Housing Stock (millions)	**102.8**	**103.4**	**104.4**	**105.4**	**106.7**	**108.0**	**109.6**	**110.9**	**112.3**	**114.1**	**115.7**	**116.2**	*117.8*	*118.8*	*120.3*
Weather [a]															
Heating Degree-Days															
U.S.	**4726**	**4016**	**4200**	**4441**	**4700**	**4483**	**4531**	**4713**	**4542**	**3951**	**4169**	**4459**	*4234*	*4459*	*4456*
New England	**6887**	**5848**	**5960**	**6844**	**6728**	**6672**	**6559**	**6679**	**6662**	**5680**	**5952**	**6404**	*5956*	*6462*	*6457*
Middle Atlantic	**6134**	**4998**	**5177**	**5964**	**5948**	**5934**	**5831**	**5986**	**5809**	**4812**	**5351**	**5772**	*5263*	*5698*	*5693*
U.S. Gas-Weighted	**4856**	**4139**	**4337**	**4458**	**4754**	**4659**	**4707**	**4980**	**4802**	**4183**	**4399**	**4680**	*4454*	*4710*	*4706*
Cooling Degree-Days (U.S.)	**1156.0**	**1260.0**	**1331.0**	**1040.0**	**1218.0**	**1220.0**	**1293.0**	**1180.0**	**1156.0**	**1410.0**	**1297.0**	**1229.0**	*1258.0*	*1236.7*	*1238.3*

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1201.

Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Demand [a]															
OECD															
U.S. (50 States)	**17.3**	**17.0**	**16.7**	**17.0**	**17.2**	**17.7**	**17.7**	**18.3**	**18.6**	**18.9**	**19.5**	**19.7**	*19.7*	*19.8*	*20.3*
Europe [b]	**13.2**	**13.3**	**13.3**	**14.0**	**14.2**	**14.1**	**14.2**	**14.8**	**15.0**	**15.3**	**15.2**	**15.1**	*15.2*	*15.3*	*15.4*
Japan	**5.0**	**5.1**	**5.3**	**5.4**	**5.4**	**5.7**	**5.7**	**5.9**	**5.7**	**5.5**	**5.6**	**5.5**	*5.5*	*5.5*	*5.5*
Other OECD	**5.2**	**5.4**	**5.6**	**5.9**	**6.2**	**6.6**	**6.8**	**6.9**	**7.3**	**7.1**	**7.4**	**7.6**	*7.5*	*7.7*	*7.8*
Total OECD	**40.8**	**40.8**	**41.6**	**42.6**	**43.0**	**44.2**	**45.0**	**46.1**	**46.6**	**46.9**	**47.7**	**47.9**	*47.9*	*48.2*	*49.0*
Non-OECD															
Former Soviet Union	**8.7**	**8.4**	**8.4**	**6.8**	**5.6**	**4.8**	**4.6**	**4.0**	**3.9**	**3.8**	**3.7**	**3.6**	*3.6*	*3.6*	*3.6*
Europe	**1.3**	**1.0**	**0.8**	**0.7**	**0.7**	**0.6**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	*0.7*	*0.8*	*0.8*
China	**2.4**	**2.3**	**2.5**	**2.7**	**3.0**	**3.2**	**3.4**	**3.6**	**3.9**	**4.1**	**4.3**	**4.8**	*4.8*	*4.9*	*5.1*
Other Asia	**4.0**	**4.3**	**4.5**	**4.7**	**5.1**	**5.5**	**5.9**	**6.3**	**6.6**	**6.7**	**6.9**	**6.9**	*6.9*	*7.0*	*7.1*
Other Non-OECD	**8.6**	**8.9**	**8.9**	**9.3**	**9.7**	**10.0**	**10.4**	**10.7**	**11.1**	**11.4**	**11.6**	**11.8**	*12.0*	*12.0*	*12.2*
Total Non-OECD	**25.1**	**24.9**	**25.0**	**24.2**	**24.0**	**24.1**	**24.9**	**25.3**	**26.2**	**26.7**	**27.3**	**27.8**	*27.9*	*28.3*	*28.7*
Total World Demand	**65.9**	**65.7**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**72.9**	**73.6**	**75.0**	**75.7**	*75.8*	*76.5*	*77.8*
Supply [c]															
OECD															
U.S. (50 States)	**9.9**	**9.7**	**9.9**	**9.8**	**9.6**	**9.4**	**9.4**	**9.4**	**9.5**	**9.3**	**9.0**	**9.1**	*9.0*	*9.1*	*8.9*
Canada	**2.0**	**2.0**	**2.0**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**2.6**	**2.7**	**2.6**	**2.7**	*2.8*	*3.0*	*3.1*
Mexico	**2.9**	**3.0**	**3.2**	**3.2**	**3.2**	**3.2**	**3.1**	**3.3**	**3.4**	**3.5**	**3.4**	**3.5**	*3.6*	*3.6*	*3.8*
North Sea [d]	**3.7**	**3.9**	**4.1**	**4.5**	**4.8**	**5.5**	**5.9**	**6.3**	**5.9**	**5.8**	**6.0**	**6.0**	*5.9*	*6.0*	*6.0*
Other OECD	**1.4**	**1.5**	**1.5**	**1.5**	**1.4**	**1.5**	**1.5**	**1.5**	**1.8**	**2.1**	**1.9**	**2.1**	*2.1*	*2.1*	*2.2*
Total OECD	**20.0**	**20.2**	**20.8**	**21.1**	**21.2**	**21.9**	**22.4**	**22.7**	**23.1**	**23.6**	**22.9**	**23.4**	*23.4*	*23.8*	*24.0*
Non-OECD															
OPEC	**23.3**	**24.5**	**24.6**	**25.8**	**26.6**	**27.0**	**27.6**	**28.3**	**29.9**	**30.4**	**29.3**	**30.9**	*30.1*	*28.7*	*29.7*
Former Soviet Union	**12.1**	**11.4**	**10.4**	**8.9**	**8.0**	**7.3**	**7.1**	**7.1**	**7.1**	**7.2**	**7.6**	**8.1**	*8.8*	*9.1*	*9.4*
China	**2.8**	**2.8**	**2.8**	**2.8**	**2.9**	**2.9**	**3.0**	**3.1**	**3.2**	**3.2**	**3.2**	**3.2**	*3.3*	*3.4*	*3.4*
Other Non-OECD	**7.7**	**7.9**	**8.1**	**8.3**	**8.7**	**9.1**	**9.8**	**10.2**	**10.4**	**10.7**	**11.2**	**11.2**	*11.2*	*11.5*	*11.9*
Total Non-OECD	**45.9**	**46.6**	**45.9**	**45.9**	**46.2**	**46.3**	**47.5**	**48.7**	**50.6**	**51.6**	**51.3**	**53.4**	*53.5*	*52.6*	*54.4*
Total World Supply	**65.9**	**66.8**	**66.7**	**67.0**	**67.4**	**68.2**	**69.9**	**71.4**	**73.7**	**75.2**	**74.2**	**76.8**	*76.9*	*76.4*	*78.4*
Total Stock Withdrawals	**0.0**	**-0.8**	**-0.1**	**-0.3**	**-0.4**	**0.0**	**0.0**	**-0.4**	**-1.2**	**-1.3**	**0.8**	**-1.1**	*-1.0*	*0.1*	*-0.7*
OECD Comm. Stocks, End (bill. bbls.)	**2.6**	**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*	*2.7*
Net Exports from Former Soviet Union	**3.4**	**3.0**	**2.1**	**2.1**	**2.3**	**2.4**	**2.6**	**3.0**	**3.3**	**3.5**	**3.9**	**4.5**	*5.3*	*5.5*	*5.8*

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

[b] OECD Europe includes the former East Germany.

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, 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

(Nominal Dollars)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Crude Oil Prices (dollars per barrel)															
Imported Average[a]	**18.08**	**21.75**	**18.70**	**18.20**	**16.14**	**15.52**	**17.14**	**20.61**	**18.50**	**12.08**	**17.22**	**27.72**	*22.05*	*19.94*	*22.63*
WTI[b] Spot Average	**19.78**	**24.48**	**21.60**	**20.54**	**18.49**	**17.16**	**18.41**	**22.11**	**20.61**	**14.45**	**19.25**	**30.29**	*25.95*	*23.57*	*26.18*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**1.69**	**1.71**	**1.64**	**1.74**	**2.04**	**1.85**	**1.55**	**2.17**	**2.32**	**1.96**	**2.19**	**3.69**	*4.14*	*2.05*	*2.65*
Petroleum Products															
Gasoline Retail [b] (dollars per gallon)															
All Grades	**1.02**	**1.17**	**1.15**	**1.14**	**1.13**	**1.13**	**1.16**	**1.25**	**1.24**	**1.07**	**1.18**	**1.53**	*1.47*	*1.30*	*1.38*
Regular Unleaded	**0.99**	**1.13**	**1.10**	**1.09**	**1.07**	**1.08**	**1.11**	**1.20**	**1.20**	**1.03**	**1.14**	**1.49**	*1.43*	*1.26*	*1.35*
No. 2 Diesel Oil, Retail (dollars per gallon)	**0.99**	**1.16**	**1.13**	**1.11**	**1.11**	**1.11**	**1.11**	**1.24**	**1.20**	**1.04**	**1.12**	**1.49**	*1.40*	*1.27*	*1.36*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.56**	**0.70**	**0.62**	**0.58**	**0.54**	**0.51**	**0.51**	**0.64**	**0.59**	**0.42**	**0.51**	**0.89**	*0.75*	*0.66*	*0.73*
No. 2 Heating Oil, Retail (dollars per gallon)	**0.90**	**1.06**	**1.02**	**0.93**	**0.91**	**0.88**	**0.87**	**0.99**	**0.99**	**0.85**	**0.88**	**1.31**	*1.24*	*1.08*	*1.15*
No. 6 Residual Fuel Oil, Retail [c] (dollars per barrel)	**16.20**	**18.66**	**14.32**	**14.21**	**14.00**	**14.79**	**16.49**	**19.01**	**17.82**	**12.83**	**16.02**	**25.34**	*22.51*	*20.49*	*21.55*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.44**	**1.45**	**1.45**	**1.41**	**1.38**	**1.36**	**1.32**	**1.29**	**1.27**	**1.25**	**1.22**	**1.20**	*1.23*	*1.19*	*1.18*
Heavy Fuel Oil [d] (dollars per million Btu)	**2.85**	**3.22**	**2.49**	**2.46**	**2.36**	**2.40**	**2.60**	**3.01**	**2.79**	**2.07**	**2.38**	**4.26**	*3.77*	*3.31*	*3.48*
Natural Gas (dollars per million Btu)	**2.36**	**2.32**	**2.15**	**2.33**	**2.56**	**2.23**	**1.98**	**2.64**	**2.76**	**2.38**	**2.57**	**4.33**	*4.48*	*2.64*	*3.29*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**5.64**	**5.80**	**5.82**	**5.89**	**6.17**	**6.41**	**6.06**	**6.35**	**6.95**	**6.83**	**6.69**	**7.77**	*9.57*	*6.74*	*7.19*
Electricity (cents per kilowatthour)	**7.64**	**7.85**	**8.05**	**8.23**	**8.34**	**8.40**	**8.40**	**8.36**	**8.43**	**8.26**	**8.16**	**8.23**	*8.44*	*8.28*	*8.36*

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

[b]West Texas Intermediate.

[c]Average self-service cash prices.

[d]Average for all sulfur contents.

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

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Crude Oil Supply															
Domestic Production [a]	**7.61**	**7.36**	**7.42**	**7.17**	**6.85**	**6.66**	**6.56**	**6.46**	**6.45**	**6.25**	**5.88**	**5.82**	*5.85*	*5.78*	*5.64*
Alaska	**1.87**	**1.77**	**1.80**	**1.71**	**1.58**	**1.56**	**1.48**	**1.39**	**1.30**	**1.17**	**1.05**	**0.97**	*0.97*	*0.94*	*0.97*
Lower 48	**5.74**	**5.58**	**5.62**	**5.46**	**5.26**	**5.10**	**5.08**	**5.07**	**5.16**	**5.08**	**4.83**	**4.85**	*4.88*	*4.83*	*4.67*
Net Imports (including SPR) [b]	**5.70**	**5.79**	**5.67**	**5.99**	**6.69**	**6.96**	**7.14**	**7.40**	**8.12**	**8.60**	**8.61**	**9.02**	*9.16*	*9.30*	*9.68*
Other SPR Supply	**0.00**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.01**	**0.01**	*0.01*	*0.12*	*0.00*
Stock Draw (Including SPR)	**-0.09**	**0.02**	**-0.01**	**0.00**	**-0.08**	**-0.02**	**0.09**	**0.05**	**-0.06**	**-0.07**	**0.09**	**-0.01**	*-0.06*	*0.00*	*0.00*
Product Supplied and Losses	**-0.03**	**-0.02**	**-0.02**	**-0.01**	**-0.01**	**-0.01**	**-0.01**	**-0.01**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*
Unaccounted-for Crude Oil	**0.20**	**0.26**	**0.20**	**0.26**	**0.17**	**0.27**	**0.19**	**0.22**	**0.14**	**0.11**	**0.19**	**0.15**	*0.21*	*0.21*	*0.22*
Total Crude Oil Supply	**13.40**	**13.41**	**13.30**	**13.41**	**13.61**	**13.87**	**13.97**	**14.19**	**14.66**	**14.89**	**14.80**	**15.07**	*15.13*	*15.17*	*15.54*
Other Supply															
NGL Production	**1.55**	**1.56**	**1.66**	**1.70**	**1.74**	**1.73**	**1.76**	**1.83**	**1.82**	**1.76**	**1.85**	**1.91**	*1.86*	*1.94*	*1.97*
Other Inputs	**0.11**	**0.13**	**0.15**	**0.20**	**0.25**	**0.26**	**0.30**	**0.31**	**0.34**	**0.38**	**0.38**	**0.38**	*0.39*	*0.42*	*0.42*
Crude Oil Product Supplied	**0.03**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*
Processing Gain	**0.66**	**0.68**	**0.71**	**0.77**	**0.77**	**0.77**	**0.77**	**0.84**	**0.85**	**0.89**	**0.89**	**0.95**	*0.91*	*0.92*	*0.92*
Net Product Imports [c]	**1.50**	**1.38**	**0.96**	**0.94**	**0.93**	**1.09**	**0.75**	**1.10**	**1.04**	**1.17**	**1.30**	**1.40**	*1.54*	*1.33*	*1.49*
Product Stock Withdrawn	**0.13**	**-0.14**	**-0.04**	**0.06**	**-0.05**	**0.00**	**0.15**	**0.03**	**-0.09**	**-0.17**	**0.30**	**0.00**	*-0.17*	*0.03*	*0.02*
Total Supply	**17.37**	**17.04**	**16.76**	**17.10**	**17.26**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	**19.70**	*19.66*	*19.81*	*20.35*
Demand															
Motor Gasoline [d]	**7.40**	**7.31**	**7.23**	**7.38**	**7.48**	**7.60**	**7.79**	**7.89**	**8.02**	**8.25**	**8.43**	**8.47**	*8.60*	*8.78*	*8.92*
Jet Fuel	**1.49**	**1.52**	**1.47**	**1.45**	**1.47**	**1.53**	**1.51**	**1.58**	**1.60**	**1.62**	**1.67**	**1.73**	*1.66*	*1.64*	*1.75*
Distillate Fuel Oil	**3.16**	**3.02**	**2.92**	**2.98**	**3.04**	**3.16**	**3.21**	**3.37**	**3.44**	**3.46**	**3.57**	**3.72**	*3.85*	*3.71*	*3.87*
Residual Fuel Oil	**1.37**	**1.23**	**1.16**	**1.09**	**1.08**	**1.02**	**0.85**	**0.85**	**0.80**	**0.89**	**0.83**	**0.91**	*0.95*	*0.81*	*0.82*
Other Oils [e]	**3.95**	**3.95**	**3.99**	**4.20**	**4.17**	**4.41**	**4.36**	**4.63**	**4.77**	**4.69**	**5.01**	**4.87**	*4.60*	*4.86*	*4.98*
Total Demand	**17.37**	**17.04**	**16.77**	**17.10**	**17.24**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	**19.70**	*19.66*	*19.81*	*20.35*
Total Petroleum Net Imports	**7.20**	**7.16**	**6.63**	**6.94**	**7.62**	**8.05**	**7.89**	**8.50**	**9.16**	**9.76**	**9.91**	**10.42**	*10.69*	*10.62*	*11.17*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**341**	**323**	**325**	**318**	**335**	**337**	**303**	**284**	**305**	**324**	**284**	**286**	*309*	*309*	*309*
Total Motor Gasoline	**213**	**220**	**219**	**216**	**226**	**215**	**202**	**195**	**210**	**216**	**193**	**196**	*207*	*202*	*202*
Jet Fuel	**41**	**52**	**49**	**43**	**40**	**47**	**40**	**40**	**44**	**45**	**41**	**45**	*40*	*41*	*42*
Distillate Fuel Oil	**106**	**132**	**144**	**141**	**141**	**145**	**130**	**127**	**138**	**156**	**125**	**118**	*136*	*134*	*134*
Residual Fuel Oil	**44**	**49**	**50**	**43**	**44**	**42**	**37**	**46**	**40**	**45**	**36**	**36**	*41*	*40*	*40*
Other Oils [f]	**257**	**261**	**267**	**263**	**273**	**275**	**258**	**250**	**259**	**291**	**246**	**247**	*279*	*273*	*266*

[a] Includes lease condensate.

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

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

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

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

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

(Trillion Cubic Feet)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Total Dry Gas Production	**17.31**	**17.81**	**17.70**	**17.84**	**18.10**	**18.82**	**18.60**	**18.85**	**18.90**	**18.71**	**18.83**	**18.99**	*19.31*	*18.90*	*19.36*
Net Imports	**1.27**	**1.45**	**1.64**	**1.92**	**2.21**	**2.46**	**2.69**	**2.78**	**2.84**	**2.99**	**3.42**	**3.54**	*3.64*	*3.69*	*4.06*
Supplemental Gaseous Fuels	**0.11**	**0.12**	**0.11**	**0.12**	**0.12**	**0.11**	**0.11**	**0.11**	**0.10**	**0.10**	**0.10**	**0.09**	*0.12*	*0.12*	*0.12*
Total New Supply	**18.69**	**19.38**	**19.45**	**19.88**	**20.42**	**21.39**	**21.40**	**21.75**	**21.84**	**21.80**	**22.35**	**22.61**	*23.08*	*22.72*	*23.54*
Working Gas in Storage															
Opening	**2.85**	**2.51**	**3.07**	**2.82**	**2.60**	**2.32**	**2.61**	**2.15**	**2.17**	**2.17**	**2.73**	**2.51**	*1.72*	*2.86*	*2.49*
Closing	**2.51**	**3.07**	**2.82**	**2.60**	**2.32**	**2.61**	**2.15**	**2.17**	**2.17**	**2.73**	**2.51**	**1.72**	*2.86*	*2.49*	*2.48*
Net Withdrawals	**0.34**	**-0.56**	**0.24**	**0.23**	**0.28**	**-0.28**	**0.45**	**-0.02**	**0.00**	**-0.56**	**0.22**	**0.79**	*-1.14*	*0.37*	*0.01*
Total Supply	**19.03**	**18.82**	**19.70**	**20.11**	**20.70**	**21.11**	**21.85**	**21.73**	**21.84**	**21.25**	**22.57**	**23.40**	*21.94*	*23.08*	*23.55*
Balancing Item [a]	**-0.23**	**-0.11**	**-0.66**	**-0.56**	**-0.42**	**-0.40**	**-0.27**	**0.24**	**0.11**	**0.01**	**-0.96**	**-0.86**	*-0.60*	*-0.56*	*-0.57*
Total Primary Supply	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.61**	**22.54**	*21.34*	*22.52*	*22.98*
Demand															
Lease and Plant Fuel	**1.07**	**1.24**	**1.13**	**1.17**	**1.17**	**1.12**	**1.22**	**1.25**	**1.20**	**1.16**	**1.08**	**1.13**	*1.16*	*1.14*	*1.16*
Pipeline Use	**0.63**	**0.66**	**0.60**	**0.59**	**0.62**	**0.69**	**0.70**	**0.71**	**0.75**	**0.64**	**0.65**	**0.64**	*0.62*	*0.62*	*0.62*
Residential	**4.78**	**4.39**	**4.56**	**4.69**	**4.96**	**4.85**	**4.85**	**5.24**	**4.98**	**4.52**	**4.73**	**4.99**	*4.74*	*5.04*	*5.07*
Commercial	**2.72**	**2.62**	**2.73**	**2.80**	**2.86**	**2.90**	**3.03**	**3.16**	**3.21**	**3.00**	**3.04**	**3.22**	*3.23*	*3.28*	*3.34*
Industrial (Incl. Nonutilities)	**6.82**	**7.02**	**7.23**	**7.53**	**7.98**	**8.17**	**8.58**	**8.87**	**8.83**	**8.69**	**9.01**	**9.51**	*8.94*	*9.72*	*10.01*
Electric Utilities	**2.79**	**2.79**	**2.79**	**2.77**	**2.68**	**2.99**	**3.20**	**2.73**	**2.97**	**3.26**	**3.11**	**3.04**	*2.65*	*2.73*	*2.78*
Total Demand	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.26**	**21.61**	**22.54**	*21.34*	*22.52*	*22.98*

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

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

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

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

(Million Short Tons)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Production	**980.7**	**1029.**	**996.0**	**997.5**	**945.4**	**1033.5**	**1033.0**	**1063.9**	**1089.9**	**1117.5**	**1100.4**	**1073.6**	*1131.9*	*1117.5*	*1129.2*
Appalachia	**464.8**	**489.0**	**457.8**	**456.6**	**409.7**	**445.4**	**434.9**	**451.9**	**467.8**	**460.4**	**425.6**	**419.4**	*430.2*	*416.3*	*411.8*
Interior	**198.1**	**205.8**	**195.4**	**195.7**	**167.2**	**179.9**	**168.5**	**172.8**	**170.9**	**168.4**	**162.5**	**143.5**	*151.9*	*138.2*	*132.6*
Western	**317.9**	**334.3**	**342.8**	**345.3**	**368.5**	**408.3**	**429.6**	**439.1**	**451.3**	**488.8**	**512.3**	**510.7**	*549.7*	*563.0*	*584.8*
Primary Stock Levels [a]															
Opening	**30.4**	**29.0**	**33.4**	**33.0**	**34.0**	**25.3**	**33.2**	**34.4**	**28.6**	**34.0**	**36.5**	**39.5**	*31.9*	*33.9*	*32.5*
Closing	**29.0**	**33.4**	**33.0**	**34.0**	**25.3**	**33.2**	**34.4**	**28.6**	**34.0**	**36.5**	**39.5**	**31.9**	*33.9*	*32.5*	*32.7*
Net Withdrawals	**1.4**	**-4.4**	**0.4**	**-1.0**	**8.7**	**-7.9**	**-1.2**	**5.8**	**-5.3**	**-2.6**	**-2.9**	**7.6**	*-2.0*	*1.4*	*-0.2*
Imports	**2.9**	**2.7**	**3.4**	**3.8**	**7.3**	**7.6**	**7.2**	**7.1**	**7.5**	**8.7**	**9.1**	**12.5**	*18.4*	*21.6*	*24.9*
Exports	**100.8**	**105.8**	**109.0**	**102.5**	**74.5**	**71.4**	**88.5**	**90.5**	**83.5**	**78.0**	**58.5**	**58.5**	*52.1*	*54.0*	*56.0*
Total Net Domestic Supply	**884.2**	**921.6**	**890.9**	**897.8**	**886.9**	**961.8**	**950.4**	**986.3**	**1008.5**	**1045.7**	**1048.1**	**1035.2**	*1096.1*	*1086.5*	*1098.1*
Secondary Stock Levels [b]															
Opening	**158.4**	**146.1**	**168.2**	**167.7**	**163.7**	**120.5**	**136.1**	**134.6**	**123.0**	**106.4**	**129.4**	**144.0**	*108.1*	*120.9*	*121.0*
Closing	**146.1**	**168.2**	**167.7**	**163.7**	**120.5**	**136.1**	**134.6**	**123.0**	**106.4**	**129.4**	**144.0**	**108.1**	*120.9*	*121.0*	*112.9*
Net Withdrawals	**12.3**	**-22.1**	**0.5**	**4.0**	**43.2**	**-15.7**	**1.5**	**11.7**	**16.6**	**-23.0**	**-14.6**	**35.9**	*-12.8*	*-0.1*	*8.1*
Waste Coal Supplied to IPPs [c]	**0.0**	**0.0**	**0.0**	**6.0**	**6.4**	**7.9**	**8.5**	**8.8**	**8.1**	**9.0**	**9.6**	**10.1**	*10.6*	*11.1*	*11.6*
Total Supply	**896.5**	**899.4**	**891.4**	**907.8**	**936.5**	**954.0**	**960.4**	**1006.7**	**1033.2**	**1031.6**	**1043.1**	**1081.2**	*1093.9*	*1097.5*	*1117.8*
Demand															
Coke Plants	**40.5**	**38.9**	**33.9**	**32.4**	**31.3**	**31.7**	**33.0**	**31.7**	**30.2**	**28.2**	**28.1**	**28.9**	*26.8*	*26.0*	*25.5*
Electricity Production															
Electric Utilities	**766.9**	**773.5**	**772.3**	**779.9**	**813.5**	**817.3**	**829.0**	**874.7**	**900.4**	**910.9**	**894.1**	**859.3**	*836.4*	*850.2*	*868.2*
Nonutilities (Excl. Cogen.) [d]	**5.7**	**7.4**	**11.4**	**15.0**	**17.5**	**19.9**	**21.2**	**22.2**	**21.6**	**26.9**	**52.7**	**123.3**	*150.6*	*154.1*	*157.5*
Retail and General Industry	**76.1**	**76.3**	**75.4**	**74.1**	**81.1**	**81.2**	**78.9**	**77.7**	**78.0**	**72.3**	**69.6**	**69.3**	*68.4*	*67.3*	*66.6*
Total Demand [e]	**889.2**	**896.2**	**893.0**	**901.2**	**943.5**	**950.1**	**962.0**	**1006.3**	**1030.1**	**1038.3**	**1044.5**	**1080.9**	*1082.3*	*1097.5*	*1117.8*
Discrepancy [f]	**7.3**	**3.3**	**-1.6**	**6.6**	**-7.0**	**3.9**	**-1.6**	**0.4**	**3.1**	**-6.7**	**-1.5**	**0.4**	*11.6*	*0.0*	*0.0*

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

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

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

[d] Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2000 and projections for 2001 and 2002 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

[e] Total Demand includes estimated IPP consumption.

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

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

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

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

(Billion Kilowatt-hours)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Net Utility Generation															
Coal	**1553.7**	**1559.6**	**1551.2**	**1575.9**	**1639.2**	**1635.5**	**1652.9**	**1737.5**	**1787.8**	**1807.5**	**1767.7**	**1696.6**	*1612.6*	*1619.1*	*1657.7*
Petroleum	**158.3**	**117.0**	**111.5**	**88.9**	**99.5**	**91.0**	**60.8**	**67.3**	**77.8**	**110.2**	**86.9**	**72.2**	*81.3*	*60.4*	*67.2*
Natural Gas	**266.6**	**264.1**	**264.2**	**263.9**	**258.9**	**291.1**	**307.3**	**262.7**	**283.6**	**309.2**	**296.4**	**290.7**	*257.2*	*259.0*	*263.9*
Nuclear	**529.4**	**576.9**	**612.6**	**618.8**	**610.3**	**640.4**	**673.4**	**674.7**	**628.6**	**673.7**	**725.0**	**705.4**	*533.5*	*524.2*	*525.7*
Hydroelectric	**265.1**	**279.9**	**275.5**	**239.6**	**265.1**	**243.7**	**293.7**	**328.0**	**337.2**	**304.4**	**293.9**	**248.2**	*199.3*	*254.3*	*269.6*
Geothermal and Other [a]	**11.3**	**10.7**	**10.1**	**10.2**	**9.6**	**8.9**	**6.4**	**7.2**	**7.5**	**7.2**	**3.7**	**2.2**	*2.4*	*2.3*	*2.4*
Subtotal	**2784.3**	**2808.2**	**2825.0**	**2797.2**	**2882.5**	**2910.7**	**2994.5**	**3077.4**	**3122.5**	**3212.2**	**3173.7**	**3015.4**	*2686.4*	*2719.3*	*2786.5*
Nonutility Generation [b]	**NA**	**216.7**	**246.3**	**286.1**	**314.4**	**343.1**	**363.3**	**369.6**	**371.7**	**405.7**	**530.9**	**784.6**	*1098.0*	*1110.4*	*1131.5*
Total Generation	**2971.9**	**3024.9**	**3071.3**	**3083.4**	**3196.9**	**3253.8**	**3357.8**	**3447.0**	**3494.2**	**3617.9**	**3704.5**	**3799.9**	*3784.4*	*3829.7*	*3918.1*
Net Imports [c]	**11.0**	**2.3**	**19.6**	**25.4**	**27.8**	**44.8**	**39.2**	**38.0**	**36.6**	**27.6**	**30.6**	**34.0**	*23.8*	*28.0*	*31.5*
Total Supply	**2982.8**	**3027.2**	**3091.0**	**3108.8**	**3198.0**	**3298.6**	**3397.1**	**3485.0**	**3530.8**	**3645.5**	**3735.1**	**3835.5**	*3810.1*	*3857.7*	*3949.5*
Losses and Unaccounted for [d]	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	*NA*	*NA*	*NA*
Demand															
Retail Sales [e]															
Residential	**905.5**	**924.0**	**955.4**	**935.9**	**994.8**	**1008.5**	**1042.5**	**1082.5**	**1075.9**	**1130.1**	**1144.9**	**1193.4**	*1211.8*	*1240.7*	*1272.9*
Commercial	**725.9**	**751.0**	**765.7**	**761.3**	**794.6**	**820.3**	**862.7**	**887.4**	**928.6**	**979.4**	**1002.0**	**1037.9**	*1077.5*	*1079.5*	*1094.1*
Industrial	**925.7**	**945.5**	**946.6**	**972.7**	**977.2**	**1008.0**	**1012.7**	**1033.6**	**1038.2**	**1051.2**	**1058.2**	**1070.8**	*999.8*	*1008.2*	*1032.6*
Other	**89.8**	**92.0**	**94.3**	**93.4**	**94.9**	**97.8**	**95.4**	**97.5**	**102.9**	**103.5**	**107.0**	**110.6**	*114.2*	*112.3*	*114.6*
Subtotal	**2646.8**	**2712.6**	**2762.0**	**2763.4**	**2861.5**	**2934.6**	**3013.3**	**3101.1**	**3145.6**	**3264.2**	**3312.1**	**3412.8**	*3403.3*	*3440.6*	*3514.1*
Nonutility Use/Sales [f]	**NA**	**104.2**	**111.0**	**121.8**	**126.9**	**140.9**	**149.2**	**148.9**	**149.0**	**159.8**	**188.8**	**186.6**	*185.5*	*178.0*	*189.9*
Total Demand	**2747.2**	**2816.7**	**2873.0**	**2885.1**	**2988.4**	**3075.5**	**3162.4**	**3250.1**	**3294.6**	**3424.0**	**3500.9**	**3599.4**	*3588.8*	*3618.6*	*3704.1*
Memo:															
Nonutility Sales to Electric Utilities	**NA**	**112.5**	**135.3**	**164.4**	**187.5**	**202.2**	**214.2**	**220.6**	**222.7**	**245.9**	**342.0**	**597.9**	*912.5*	*932.4*	*941.6*

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

[b]Net generation.

[c]Data for 2000 are estimates.

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

[e]Total 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 2000 are estimates.

[f]Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the *Monthly Energy Review (MER*). Data for 2000 are estimates.

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

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