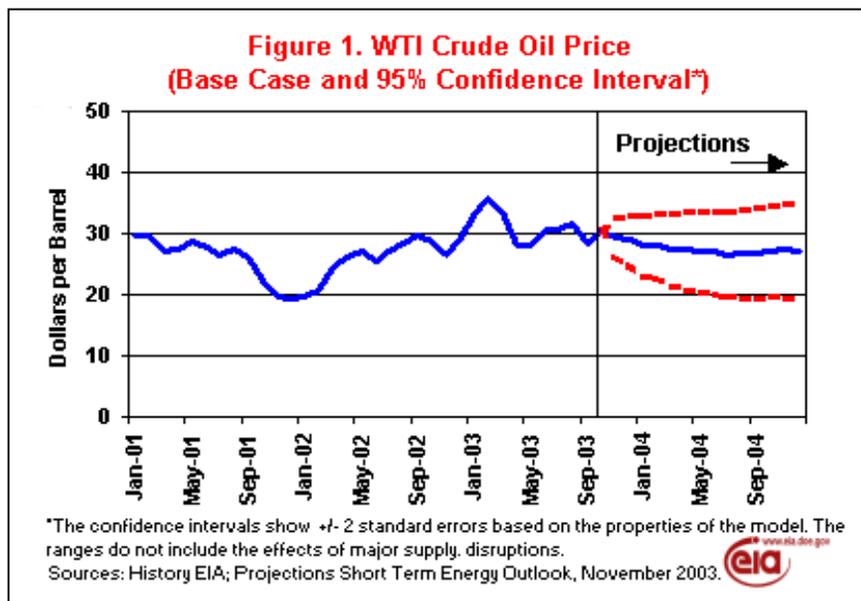


Short-Term Energy Outlook

November 2003



Overview

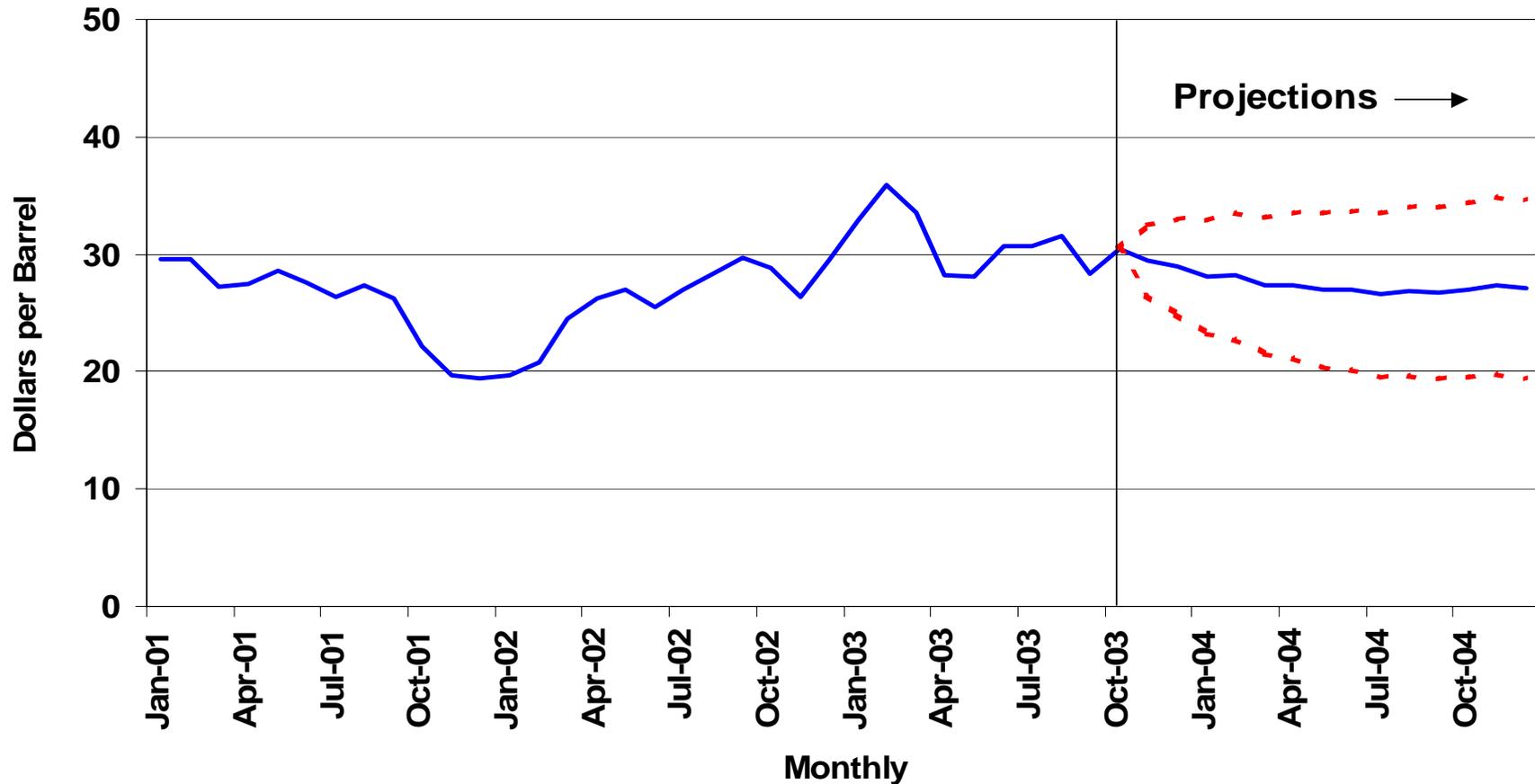
World Oil Markets. While West Texas Intermediate crude oil prices have remained slightly below our previous baseline projection for October, current prices are close to \$29 per barrel, with prices for the 5 trading days ending November 5 averaging \$29.20 per barrel (Figure 1). Our projected gradual decline toward \$27 per barrel reflects a slow but steady return toward more normal levels of petroleum stock in industrialized countries compared to previous months. It is assumed in this *Outlook* that overall OPEC oil production (including natural gas liquids) in 2004 will decline from the 2003 average by about 0.7 million barrels

per day as the effect of quota reductions offset increased output from Iraq. Two other factors will also impact world oil markets: Russia may not limit its oil production and overall non-OPEC production is likely to rise by some 1.3 million barrels per day in 2004 from 2003.

Degree-Day Forecasts. Starting with this issue of the *Outlook*, degree-day projections by Census Division from the National Oceanographic and Atmospheric Administration (NOAA) Climate Prediction Center (CPC) will be used in the *Short-Term Energy Outlook (Outlook)* in place of the history-based "normal" values previously used. While degree-day outlooks are subject to considerable uncertainty at both the national and regional level, EIA feels that the CPC projections contain information that can help to improve the quality of EIA's baseline energy projections. The CPC projection used in this month's *Outlook* is roughly 1.4 percent colder than the previously-used norm in 2004.

Winter Fuels Update. A warm start to the heating season has kept early heating demand levels at a minimum in the United States, contributing to continued builds in underground natural gas storage to above-average levels. Heating degree-days were approximately 11 percent below normal in October (on a population-weighted basis) and the first week in November brought unseasonably warm weather to key heating areas in the Midwest and Northeast. Consequently, working gas in storage is projected to reach nearly 3,200 billion cubic feet at the end of the injection season and the natural gas spot price at the Henry Hub dipped below \$4.00 per million Btu (mmBtu) on October 31 for the first time in 2003. However, mid-winter futures for natural gas remain near \$5.00 per mmBtu, and at \$28-\$30 per barrel, West Texas Intermediate crude oil prices, while weaker than previously projected, remain above the average of \$26.90 per barrel seen during the fourth quarter over the last 3 years. Continued above-average temperatures would yield new downward pressure on heating fuel prices during the fourth quarter, but consumer prices for fuels still seem poised to exceed year-ago levels during the October to December period. Given NOAA's degree-day forecasts, the outlook for household heating bills remains mixed relative to 2002-2003: natural

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



**The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.*

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

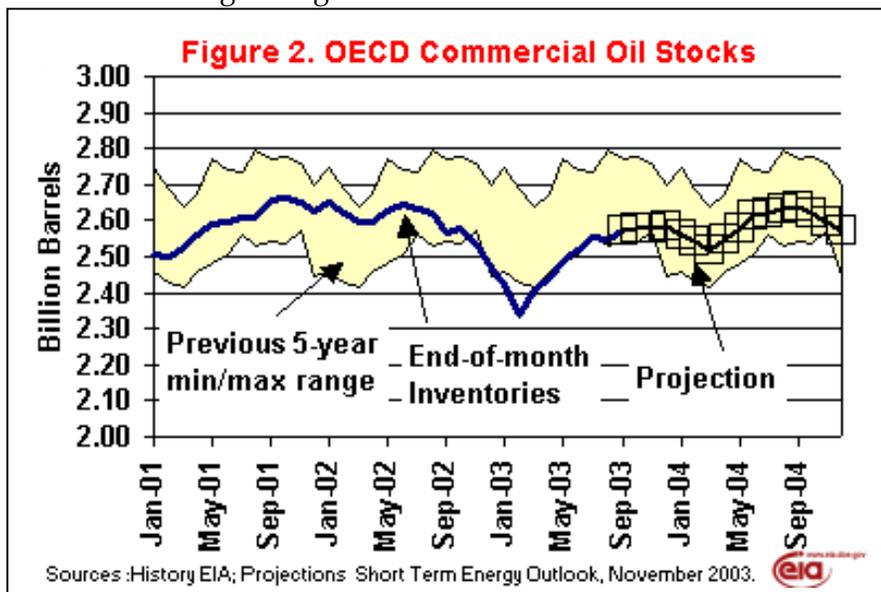


gas-heated homes: up 6 percent; heating oil users: down 6 percent; propane-heated households: about flat; and homes with electric heat: up about 4 percent.

Details

World Oil Markets

Crude Oil Prices. Average monthly prices for the major marker crude oils rose by \$2-\$3 per barrel in October, offsetting declines of a similar amount in September. Prices for these marker crude oils were \$1-\$2 per barrel higher than year-ago (October 2002) (Figure 1). The OPEC basket price continued to be within or above its target range for the nineteenth consecutive month and has not fallen below this range since March 2002. However, oil prices softened towards the end of the month. EIA projects that the industrialized countries' oil inventories, which were about even with year-ago levels at the end of October, will show noticeable year-over-year increases compared to the extraordinarily low levels seen at the end of 2002.



However, OECD commercial inventories are tight relative to normal levels for this time of year and are expected to remain so until the middle of 2004 (Figure 2). Until these inventories are rebuilt to well above

observed 5-year lows, WTI crude oil prices should remain firm, then gradually slide to roughly \$27 per barrel as Iraqi oil exports in 2004 begin returning to near pre-war levels.

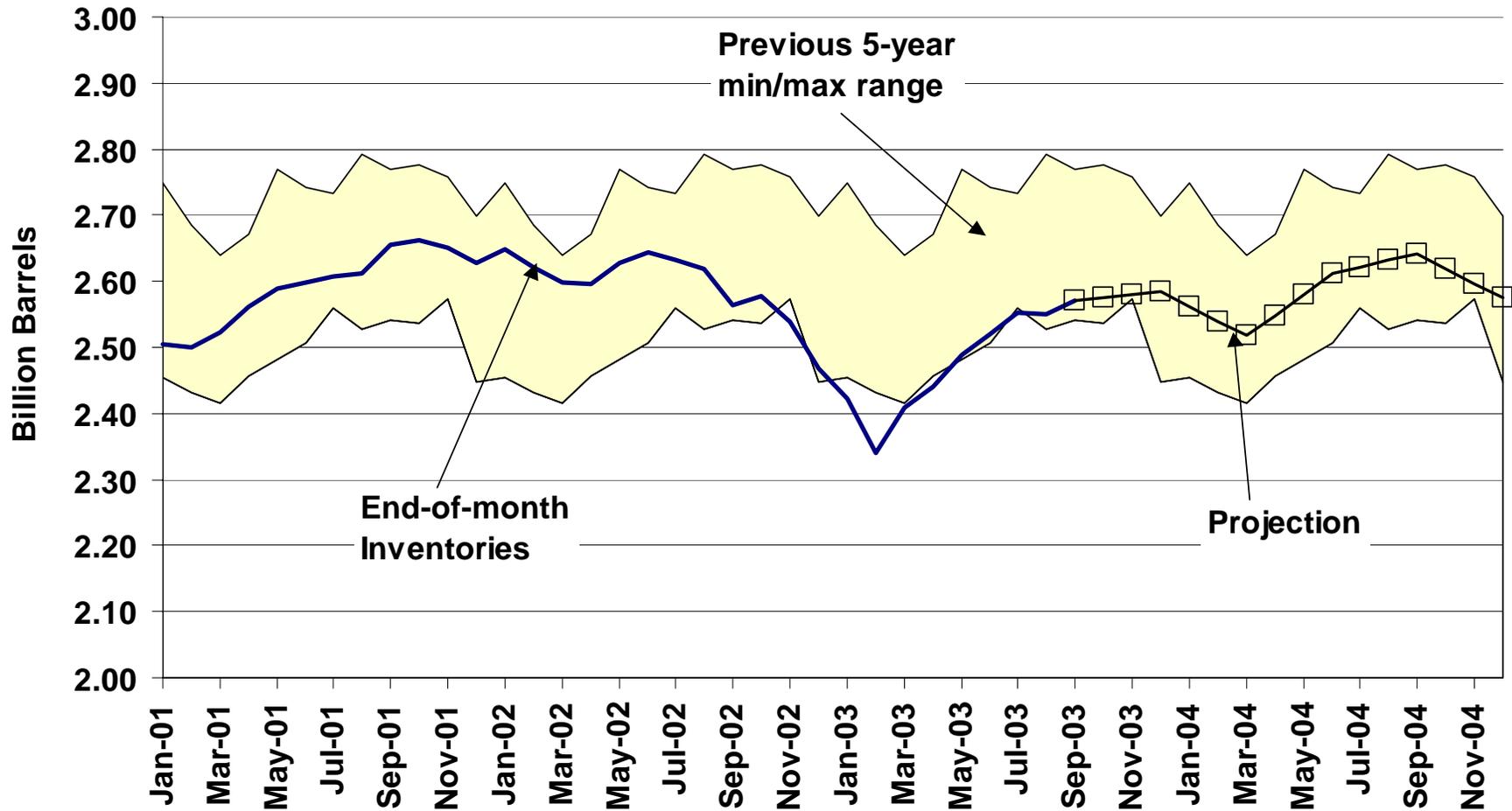
OPEC Oil Supply. In October, OPEC 10 oil production (excluding Iraq) was stable at an estimated 25.5 million barrels per day, about the same as their estimated September production level and only slightly above the OPEC 10 production targets that took effect on June 1 (Figure 3). The return of Iraqi oil exports to pre-war levels is not expected to lead to a sharp price decline in 2004 because it is assumed that, based on the surprise decision in September to cut quotas beginning November 1 and the possibility of further adjustments, overall OPEC production (including natural gas liquids) will not increase next year and may fall by 2-3 percent from the 2003 average.

International Oil Demand and Supply. World oil demand is projected to grow by about 1 million barrels per day in 2003 and in 2004, slightly less than the projected growth in non-OPEC oil production of 1.3 million barrels per day in 2004 (Figure 4). About 1/3 of the growth in world oil demand in 2003 is projected to come from the U.S., with China and other non-OECD countries projected to provide a total of another 0.5 million barrels per day of demand growth.

U. S. Energy Prices

Motor Gasoline: The October average motor gasoline price (regular unleaded gasoline) dropped to \$1.56 per gallon compared to \$1.68 in September. Motor gasoline prices have been drifting downward, as expected, following the late summer price surge (Figure 5). Pump prices should continue to decrease through the winter, as crude oil prices and margins continue to ease. However, the relatively tight levels of

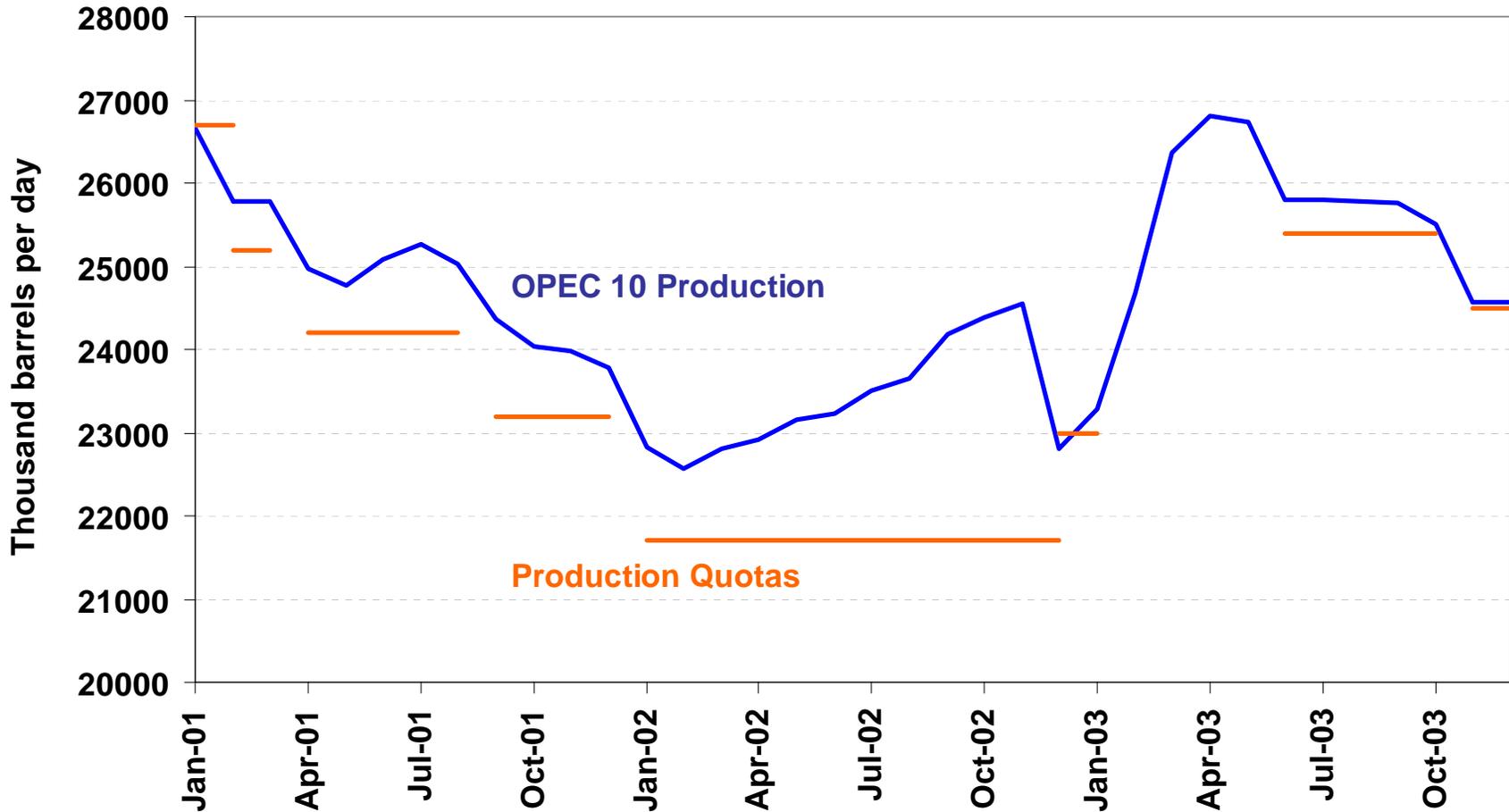
Figure 2. OECD Commercial Oil Stocks



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



Figure 3. OPEC 10 Crude Oil Production vs. Quotas, January 2001-December 2003

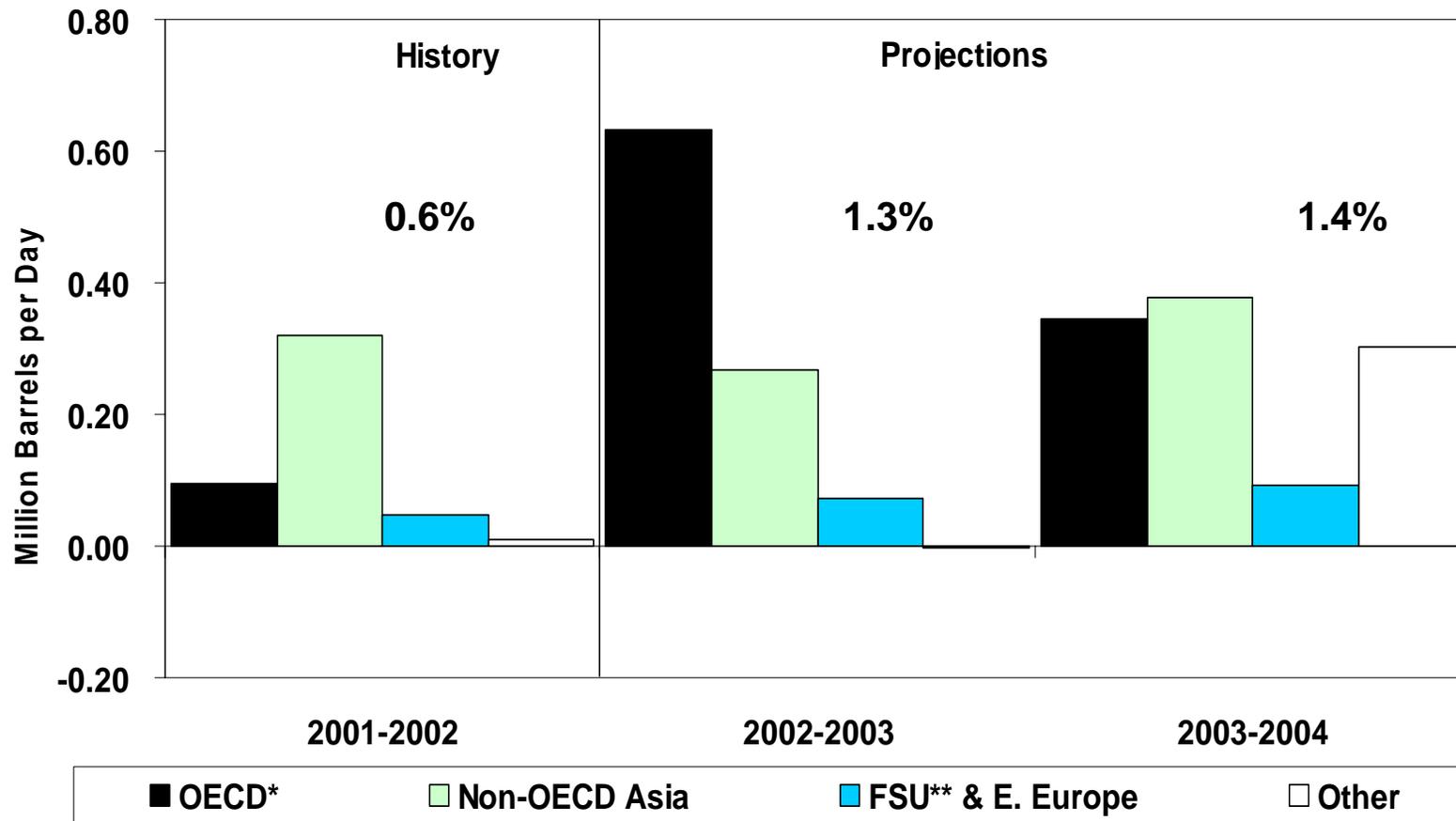


OPEC 10 Production for November-December 2003 is a Projection. The quota shown for November-December 2003 is the most recent quota. Source: EIA

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



Figure 4. World Oil Demand Growth (Change from Year Ago)



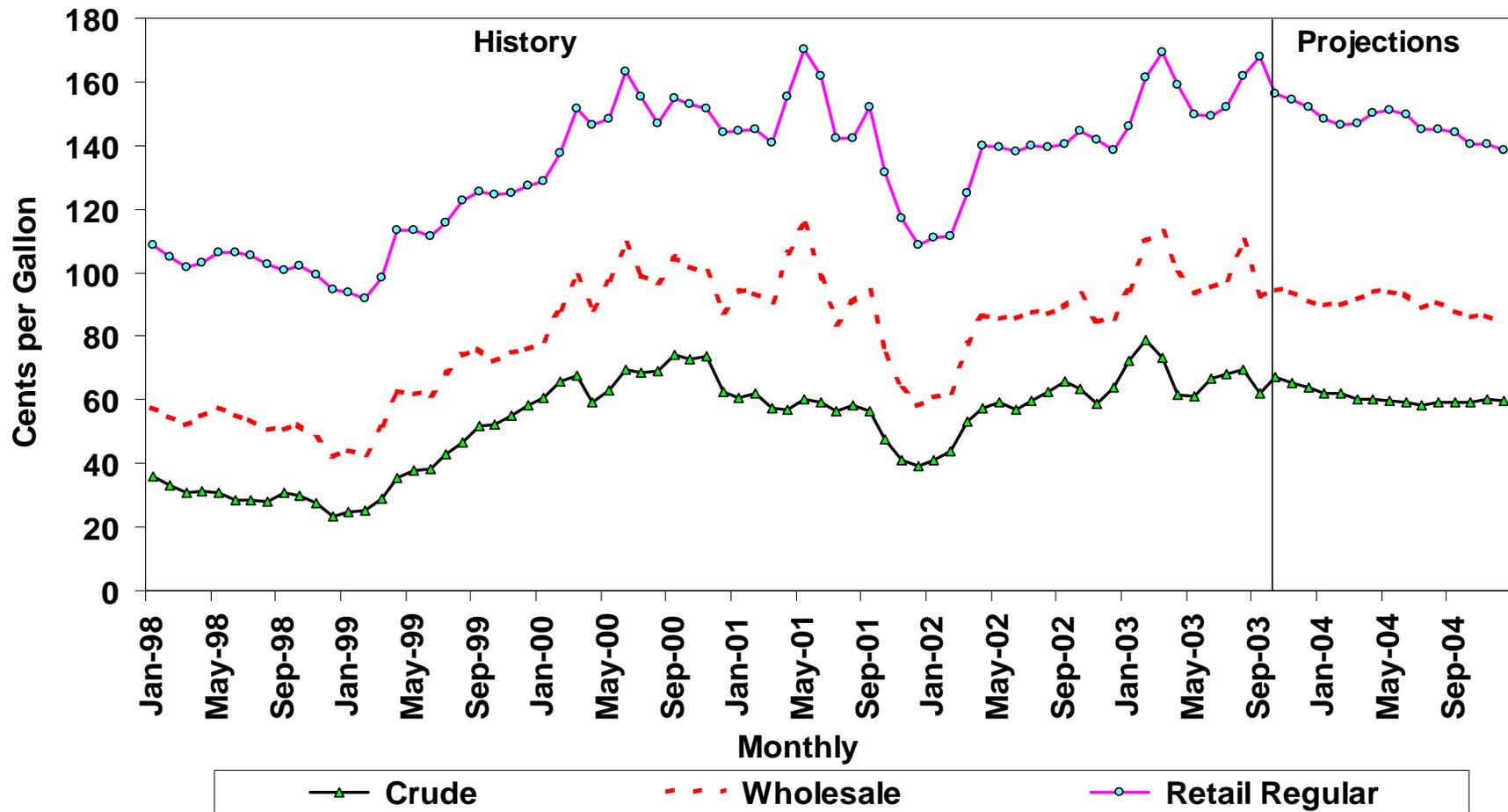
* Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.

** FSU = Former Soviet Union

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



Figure 5. Gasoline Prices and Crude Oil Costs



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



gasoline inventories should act as a brake on a more accelerated price drop. By the end of October, gasoline inventories remained just above the 5-year min/max range ([Figure 6](#)). In 2004, the annual pump price is projected to average \$1.46 per gallon (down roughly 11 cents per gallon from the projected 2003 average), as crude oil prices and average annual refiner margins recede. (Here, "refiner margin" refers to the difference between the average refiner price for gasoline and the average per-gallon crude oil input cost.) This year, refiner margins soared in March and again in August and September as supplies of gasoline fell to low levels. Next year, the assumption of higher (but still tight) stock levels for gasoline should reduce slightly the average refiner margin.

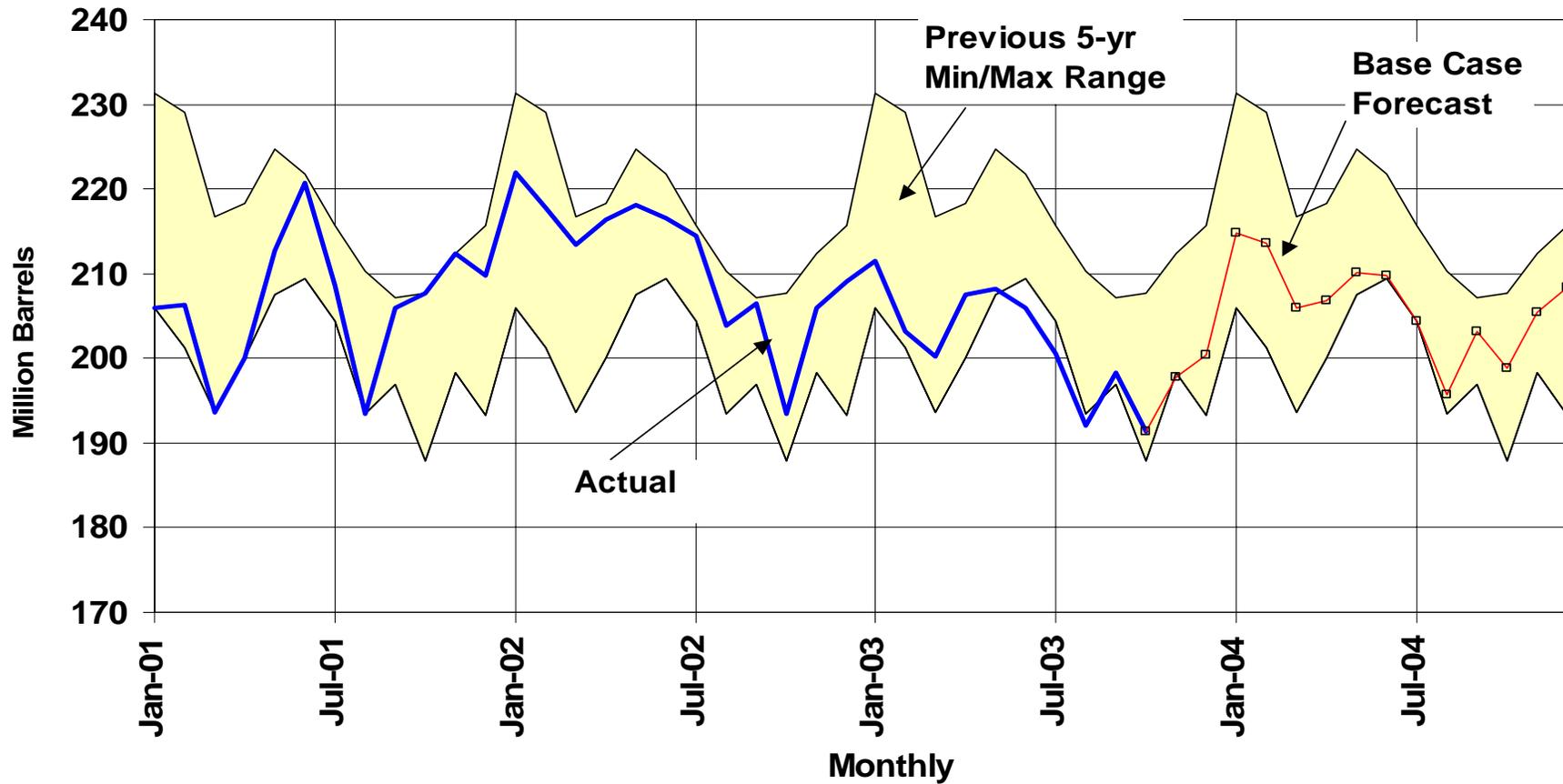
Some uncertainties remain in our projections about the gasoline market during the next several months, particularly in the Mid-Atlantic and New England regions, because several large states have mandated changes in fuel additives. New York and Connecticut use Federal reformulated gasoline (RFG) that contains methyl tertiary butyl ether (MTBE). MTBE is used in RFG to meet the minimum 2.0 percent oxygen weight requirement, to reduce gasoline's air emissions, and to improve engine performance. However, detection of MTBE in some ground water supplies has led these two states to ban its use in gasoline by the end of 2003. MTBE, which makes up about 11 percent of a gallon of RFG, will be replaced by fuel ethanol. The MTBE bans introduce significant uncertainties to Northeast gasoline markets. It is more difficult and costly to produce RFG with ethanol and the MTBE ban introduces an additional constraint to the supply system. While supply is expected to be adequate, developments during the phaseout of MTBE from gasoline in California earlier this year and the Midwest's past experience with ethanol-based RFG over the past few years suggest a greater potential for temporary price spikes. For a comprehensive analysis of the Connecticut and New York gasoline markets and MTBE bans refer to the EIA report, "[Preparations for Meeting New York and Connecticut MTBE Bans](#)," October 2003.

Recently, California's weekly price for regular motor gasoline was \$1.71 per gallon, or about 17 cents per gallon higher than the national average price of \$1.54 per gallon. The price difference has narrowed over the last month.

Distillate Fuel Oil (Diesel Fuel and Heating Oil): As expected, residential heating oil prices have risen as the first month of the heating season has passed. Diesel fuel oil prices, on the other hand, have eased over this same time period. Diesel prices are normally expected to increase this time of year, pushed by the seasonal demand patterns of heating oil. Currently, a weakening in crude oil prices and a healthy level of distillate inventories has mitigated steeper upward price movements for this fuel. Heating oil prices this winter season (October-March), are likely to average about \$1.32 per gallon, or about the same as last winter's average price ([Figure 7](#)). Nevertheless, this winter may see price spikes, especially if winter weather on the East Coast turns abnormally cold for prolonged periods or if world oil prices increase substantially. Cold weather alone could add an additional 10-15 cents per gallon to the base case projections and perhaps even more at the local level. At the end of October, distillate fuel oil inventories were almost 133 million barrels, a level in the middle of the 5-year min/max range ([Figure 8](#)).

Natural Gas: Mild weather during the last 4-5 months (a relatively cool summer followed by a warm early autumn) reduced industrial demand, and a modest production response to increased drilling contributed to historically high volumes of gas injections into underground storage, which has resulted in robust levels of natural gas stocks. Inventories of working gas are now comfortably above the middle of the 5-year average range. Nearly 3.2 trillion cubic feet of working gas were in storage by November 1. Historically, the gas industry regards any level over 3.0 million cubic feet of gas working gas in storage by November 1 as a sufficient amount to meet the heating season demand unless very severe winter weather conditions prevail. On October 31, the cash price at the Henry Hub dipped below \$4.00 per mmBtu (\$3.98 per mmBtu), reaching the lowest price of the year. Assuming our base case weather forecast, spot prices in the \$4.50-\$5.00 per mmBtu range (or \$4.64-\$5.15 per mcf) can be expected for the winter of 2003-2004 ([Figure 9](#)).

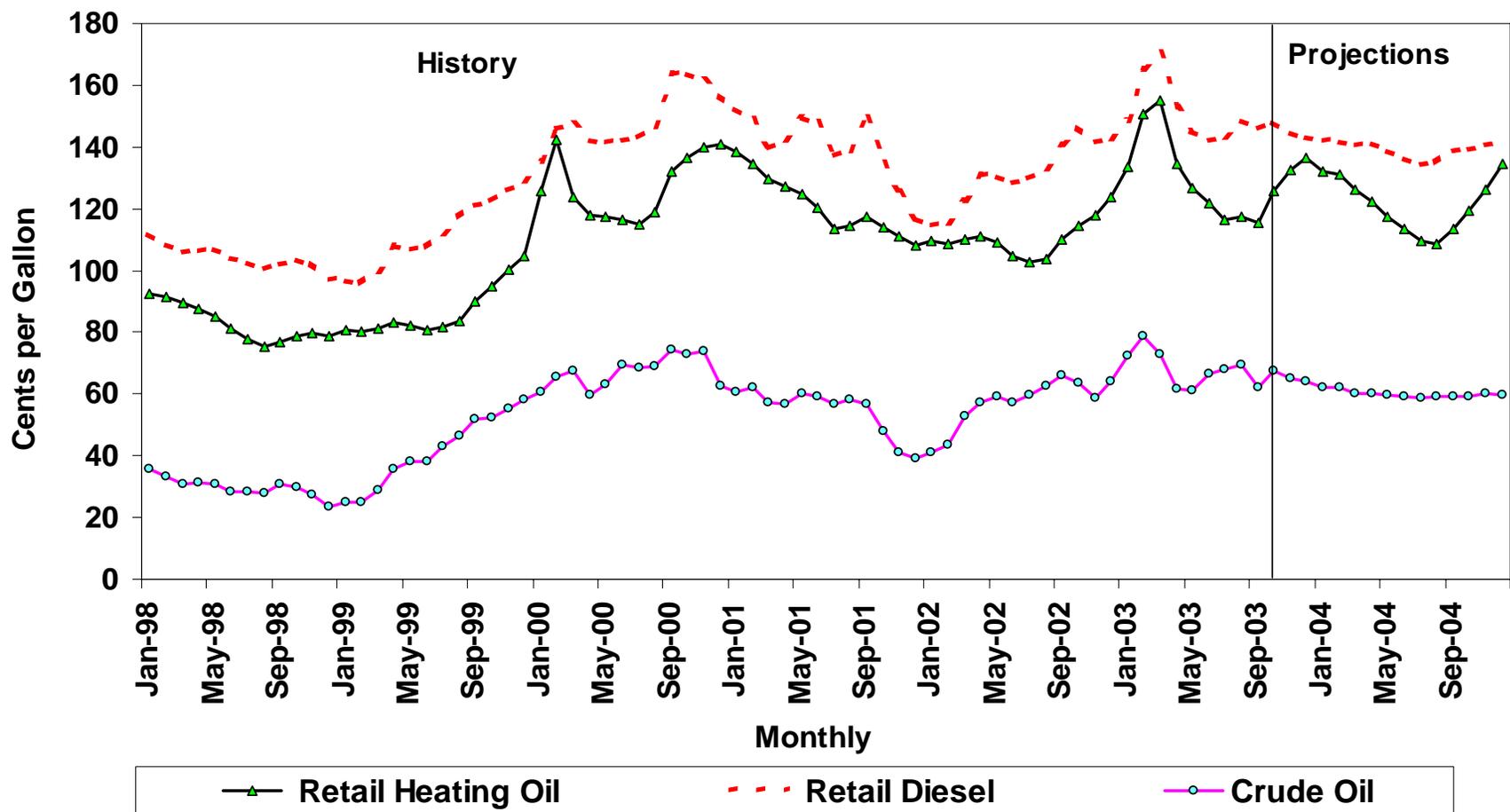
Figure 6. U.S. Gasoline Inventories



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



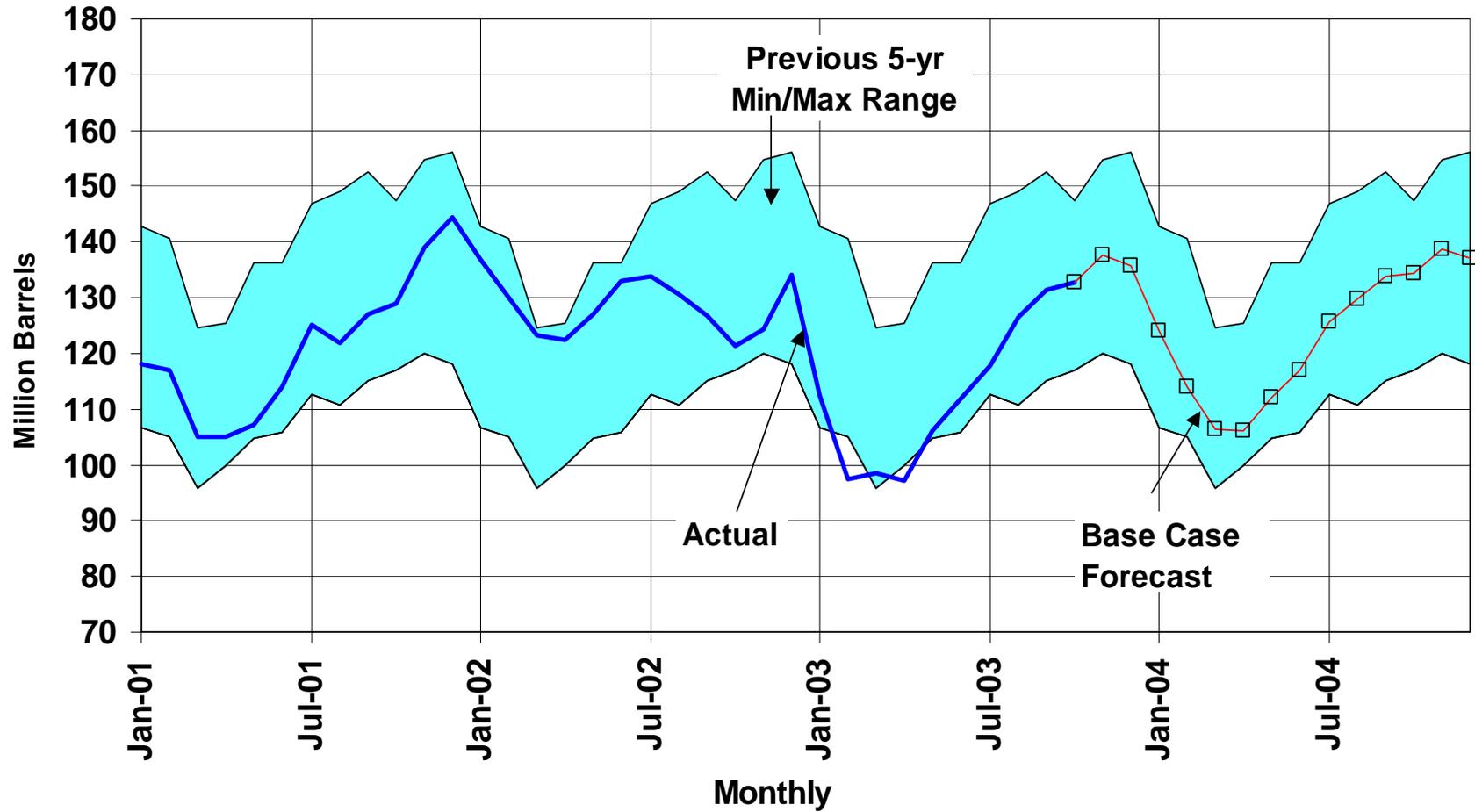
Figure 7. Distillate Fuel Prices



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



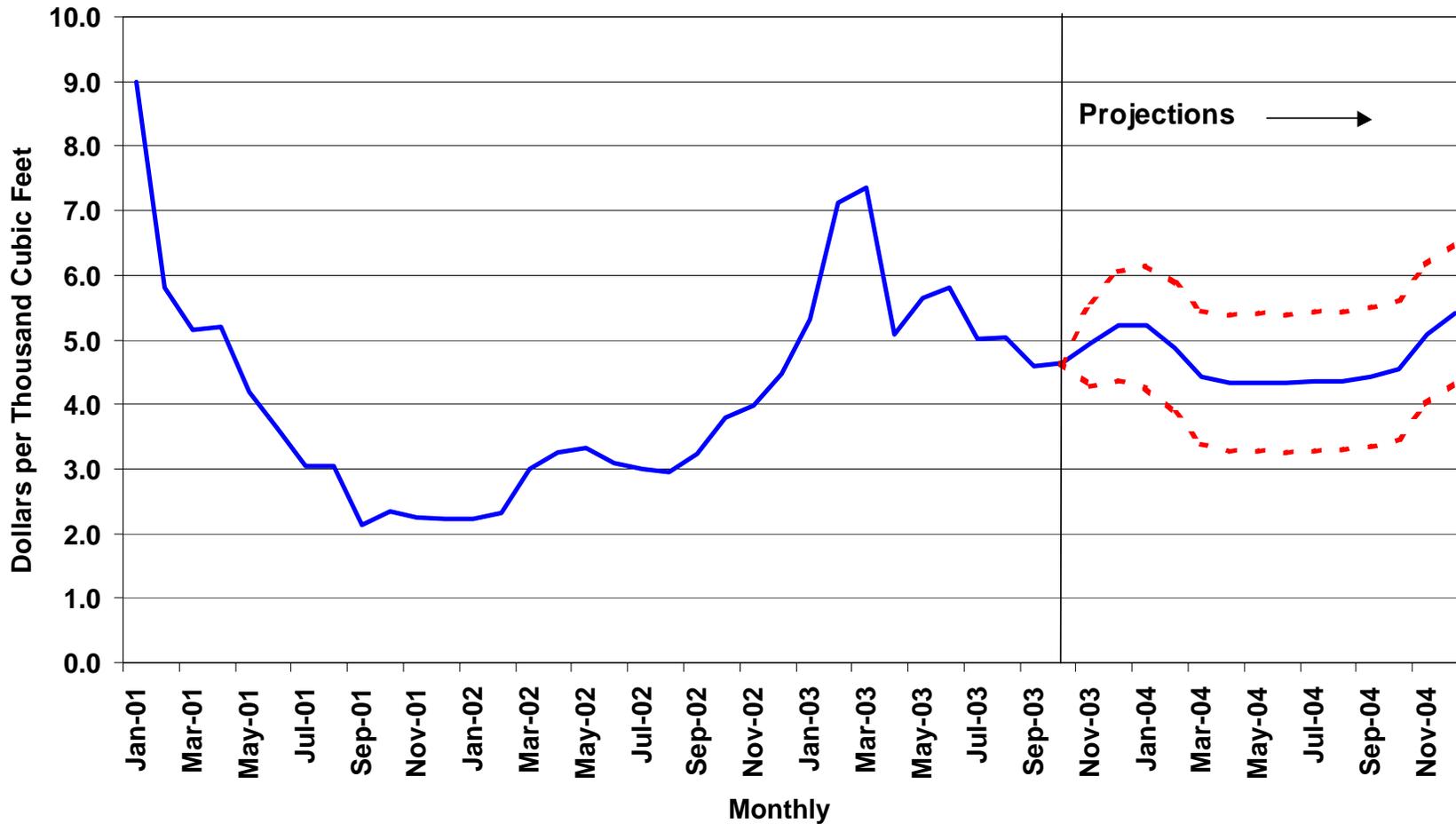
Figure 8. Distillate Fuel Inventories



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



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



*The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

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



For 2003, wellhead prices are projected to show an increase of almost \$2.00 per thousand cubic feet (mcf) (still the largest U.S. annual wellhead price increase on record) over the 2002 annual average, pushing the annual average for the year to about \$4.90 per mcf. However, average annual wellhead prices in 2004 are projected to drop by \$0.90 per mcf (about 18 percent), pushed down by significant gains in net imports of natural gas (5 percent over 2003 levels compared to a net decrease from the previous year's level), a more robust storage situation throughout the entire year, slow gas demand growth, and a projected decline in crude oil prices.

U. S. Oil Demand

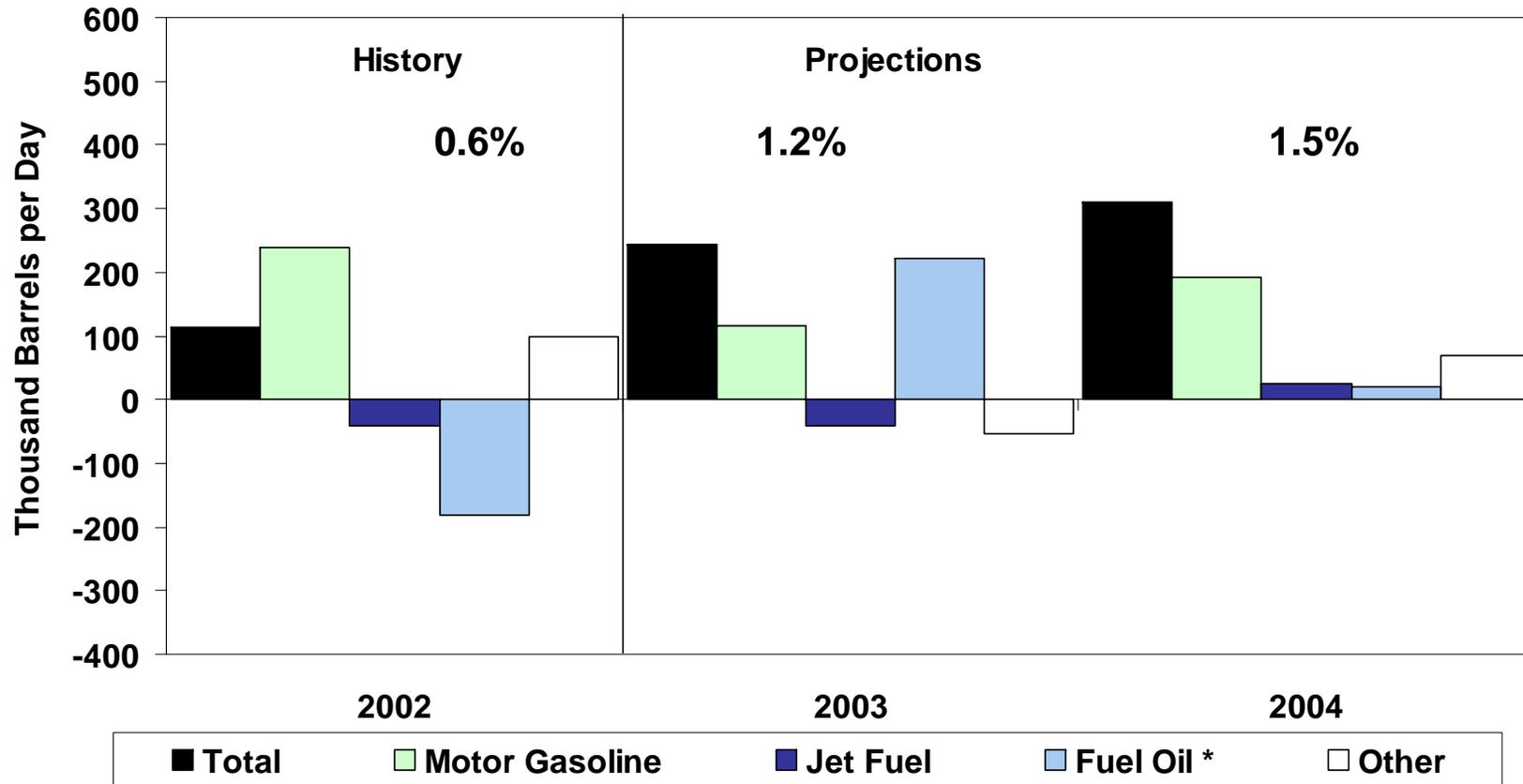
This year, total petroleum demand is projected to increase by 243,000 barrels per day from last year's average, or 1.2 percent, to 20.00 million barrels per day (Figure 10). Demand for motor gasoline, the largest oil-based product, is also projected to increase 1.3 percent for the year. While motor gasoline demand growth was nearly flat during the first half of the year as a result of lack of growth in highway travel (due in part to harsh weather conditions during the first quarter), a 2.4-percent increase in motor gasoline demand over the second half of the year is anticipated due to the resumption of growth in highway travel brought about by the general improvement in the economy.

Jet fuel markets, having been adversely affected by several outbreaks of the SARS epidemic as well the Iraqi military campaign earlier in the year, are expected to remain sluggish for the rest of the year as well. For the first half of 2003, revenue ton-miles showed little growth, but capacity continued to expand. Moreover, recently published FAA data show continued year-to-year declines in jet fuel purchases. Airlines, seeking to increase load factors, have announced plans to trim capacity further during the rest of this year. As a result, commercial jet fuel demand is projected to contract by about 1 percent in 2003. Moreover, domestic military demand will likely show a decline as a result of an increase in overseas activity (particularly in the first half of the year), contributing to the projected year-over-year decline of 2.6 percent in total jet fuel demand.

Distillate fuel oil use is projected to increase 3.9 percent in 2003. Demand during the first half of the year increased 7 percent as a result of harsh weather during the first quarter and high sales to the power generation sector during the spring and summer in the wake of spikes in natural gas prices. Transportation demand, the largest distillate component, is projected to increase 3.0 percent for the year as a whole, reflecting continued growth in overall economic activity. Residual fuel oil demand, bolstered by high space-heating demand during the first quarter and firm natural gas prices throughout the year, is projected to register an increase of 10.7 percent this year. The same weather- and price-related factors that boosted distillate demand during the first half of the year also brought about an 11.3-percent increase in demand for residual fuel oil during that period. Moreover, recent data point to a 27-percent increase in third quarter demand. However, a decline in the relative price of natural gas and the assumption of normal weather patterns are expected to bring about a 4.1-percent decline in residual demand in the current quarter. Despite the colder-than-average weather in first quarter, liquefied petroleum gas demand is projected to decline 5.5 percent for the year as a whole, largely as a result of weakness in petrochemical activity as well as high natural gas prices and higher production costs for much of the year.

Petroleum demand growth in 2004 is projected to average 310,000 barrels per day, or 1.5 percent, to 20.31 million barrels per day. All the major products, except residual fuel oil, are expected to contribute to that growth. Motor gasoline demand is projected to increase 2.2 percent, reflecting a continued acceleration of economic growth and an almost 9-percent decline in retail pump prices. Jet fuel demand, having declined for two consecutive years, is projected to post a growth rate of 1.6 percent to average 1.60 million barrels per day, still below the 2001 average. Distillate demand growth is projected to moderate to 1.7 percent, as demand reductions resulting from the assumption of more normal weather partly counteracts the projected 3.1-percent growth in transportation diesel demand. Residual fuel oil deliveries, having experienced

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



* Sum of distillate and residual fuel.

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



growth in 2003, are projected to decline by 6 percent in 2004. That reversal reflects the assumptions of more or less normal weather and greater availability of natural gas, prices of which are projected to decline to levels that more effectively compete with other fossil fuels. Demand for liquefied petroleum gas is expected to recover smartly from the weaknesses of the previous year, with growth averaging 4 percent. Growth in petrochemical activity and declines in natural gas feedstock prices are both expected to offset the decline in space-heating demand under baseline assumptions of normal weather during the 2003-2004 winter season.

Oil Supply

Average domestic oil production is expected to decrease in 2003 by 11 thousand barrels per day, or 0.2 percent, to a level of 5.74 million barrels of oil per day. For 2004, a 1.7 percent decline is expected, resulting in an average annual production rate of 5.64 million barrels of oil per day ([Figure 11](#)).

Lower-48 States oil production is expected to decrease by 5,000 barrels per day to a rate of 4.76 million barrels per day in 2003, followed by a decline of 67,000 barrels per day in 2004. Oil production from the Mars, Mad Dog, Ursa, Thunder Horse and Nakika Federal Offshore fields is expected to account for about 12 percent of the lower-48 oil production by the 4th quarter of 2005.

Alaska is expected to account for 16.8 percent of total U.S. oil production in 2004. Alaskan oil production is expected to decrease by 0.6 percent in 2003 and decrease by 3.2 percent in 2004. The combined production rate from the two significant fields, Alpine and North Star, averaged nearly 173 thousand barrels per day during June 2003. Production from the Kuparuk River field plus the production from West Sak, Tobasco, Tarn and Meltwater fields is expected to stay at an average of 210 thousand barrels per day over the forecast period.

Natural Gas Supply and Demand

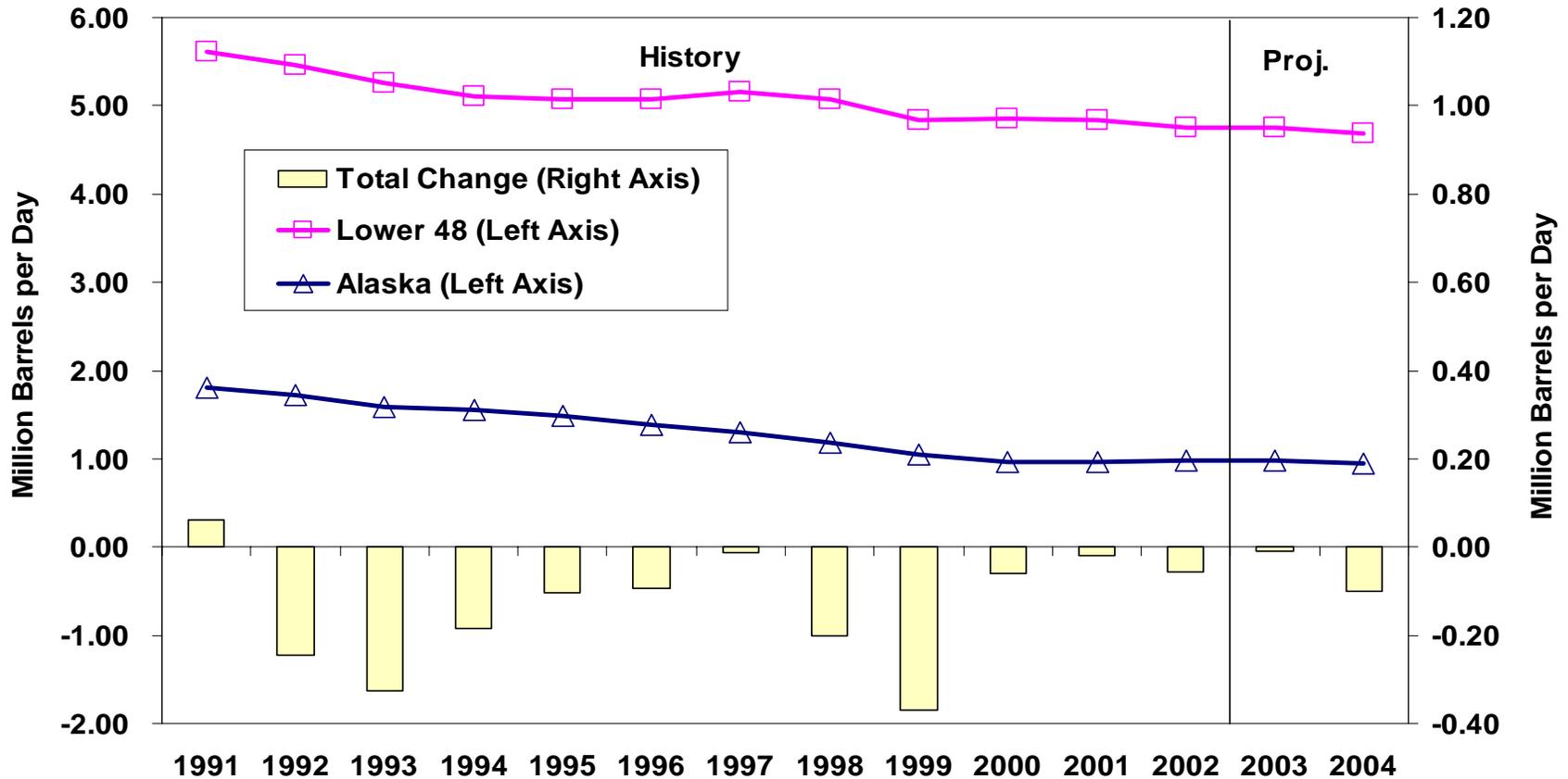
Natural gas demand is expected to fall by 2 percent in 2003 as high prices discourage demand, particularly in the industrial and electric power sectors ([Figure 12](#)). A modest increase of nearly 1 percent in consumption is projected for 2004 driven by strong economic growth and projected lower prices.

This winter, demand for natural gas is expected to be about 2 percent lower than last winter's level, due largely to the effect of weaker heating-related demand. Gas-weighted heating degree-days for the season (Q4 2003 and Q1 2004), under our baseline weather projections, would be about 2.5 percent below year-ago levels. Winter natural gas prices are projected to be about 10.5 percent higher than last winter in the residential sector as cumulated natural gas utility costs through 2003 are recovered in higher household delivered charges. In the event of colder-than-expected weather this winter, natural gas prices could go higher.

Working natural gas in storage is estimated to be near 3.2 billion cubic feet (Bcf) at the end of October, over 3 percent above the 5-year average level ([Figure 13](#)). This is the result of the higher-than-normal storage injections that have characterized the 2003 stockbuild period.

Natural gas production is expected to show increases of about 3 percent this year. High natural gas prices and sharply higher oil and natural gas field revenues have resulted in strong natural gas-directed drilling activity this year following the downturn in 2002 ([Figure 14](#)). Monthly oil and natural gas field revenues are expected to continue to average over \$400 million this year ([Figure 15](#)). The prospects for significant reductions in natural gas wellhead prices over the forecast period hinge significantly on the productivity of the increased drilling in terms of expected output. An average natural gas wellhead price of about \$3.99 per thousand cubic feet (mcf) is projected for 2004, about \$0.90 per mcf lower than the expected 2003 average,

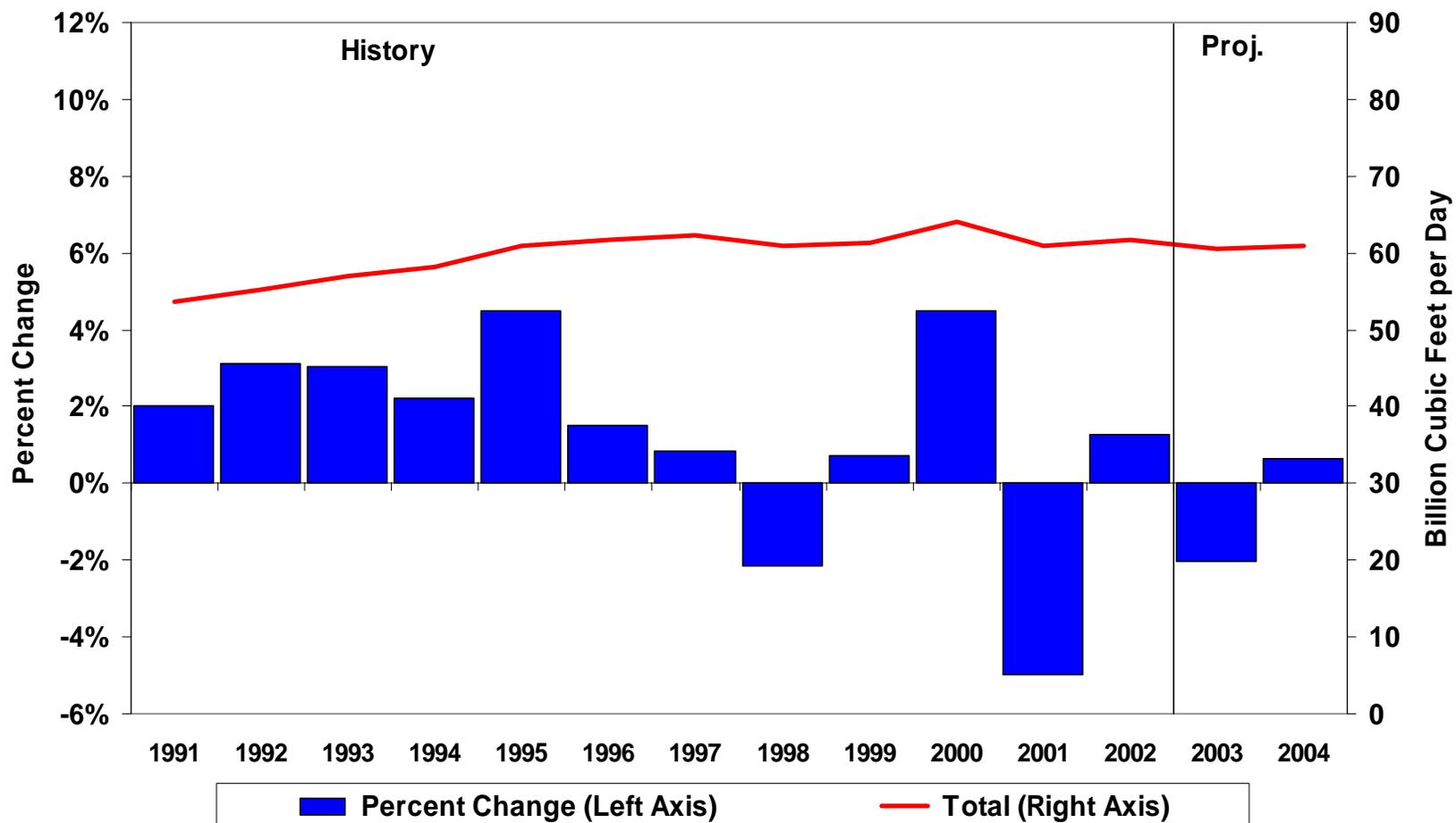
Figure 11. U.S. Crude Oil Production Trends



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



Figure 12. Total Natural Gas Demand Growth Patterns

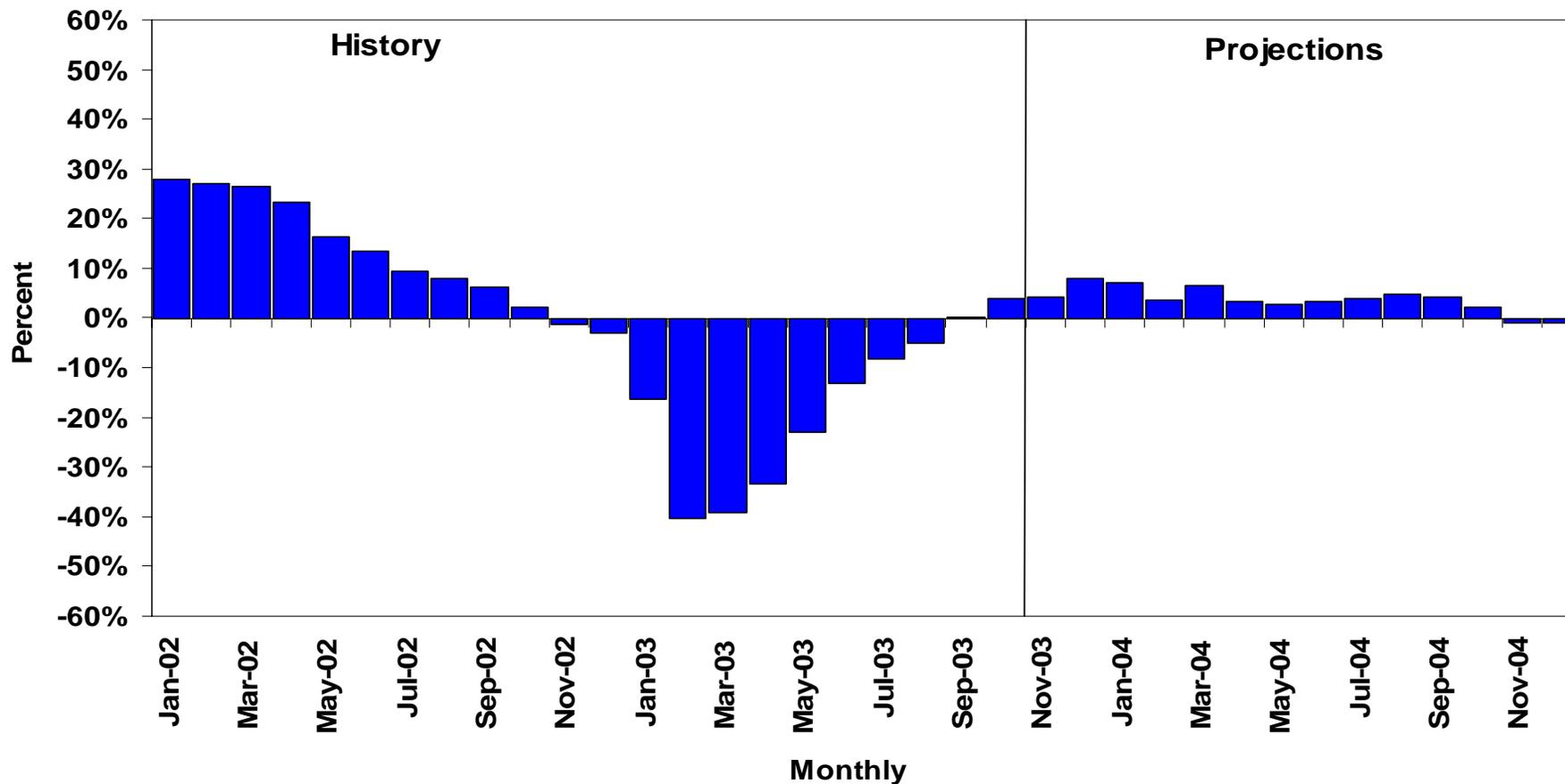


Note: This chart replaces a previous Figure 12 because of revised data for November 2003.

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



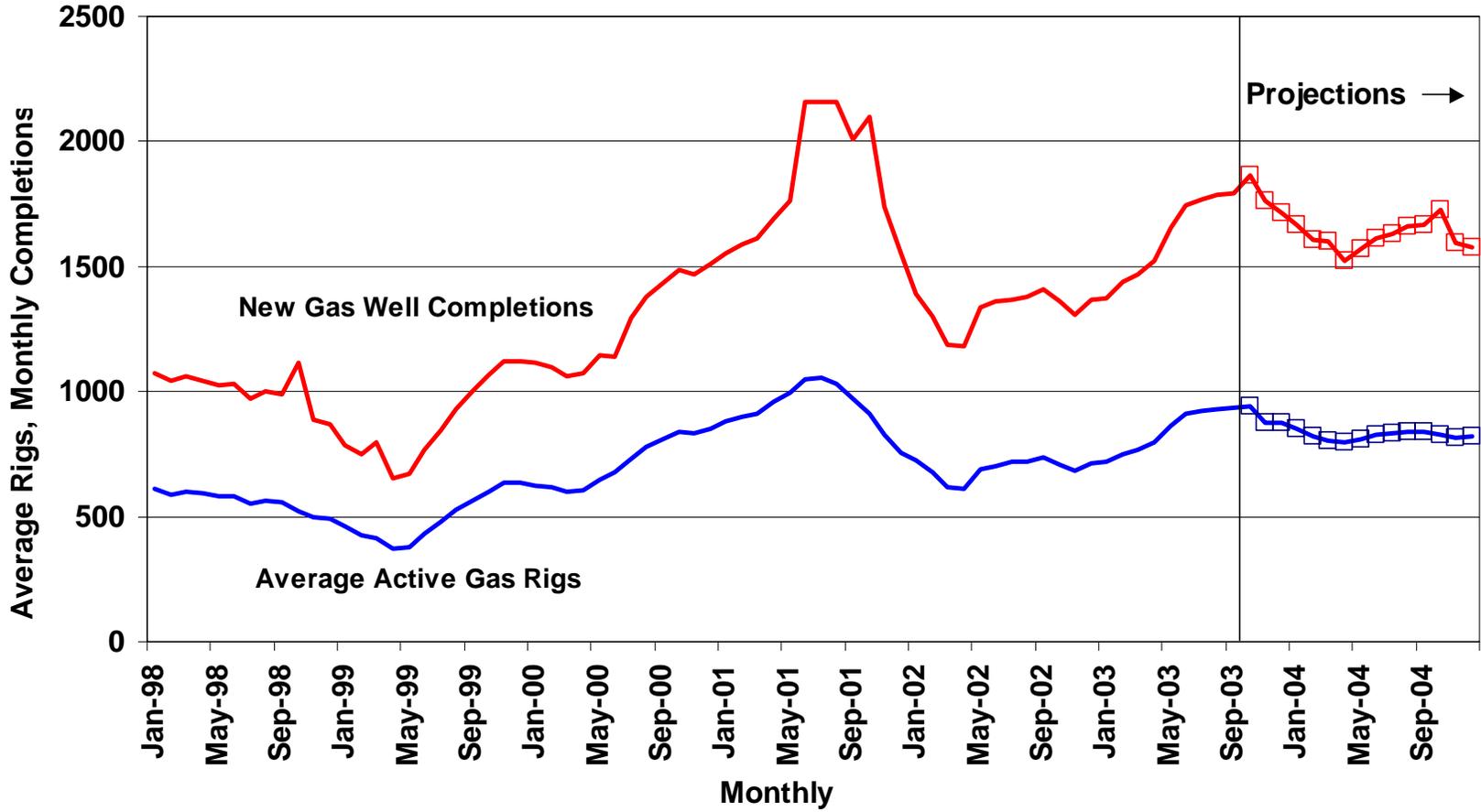
Figure 13. Working Gas in Storage (Difference from Previous 5-Year Average)



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



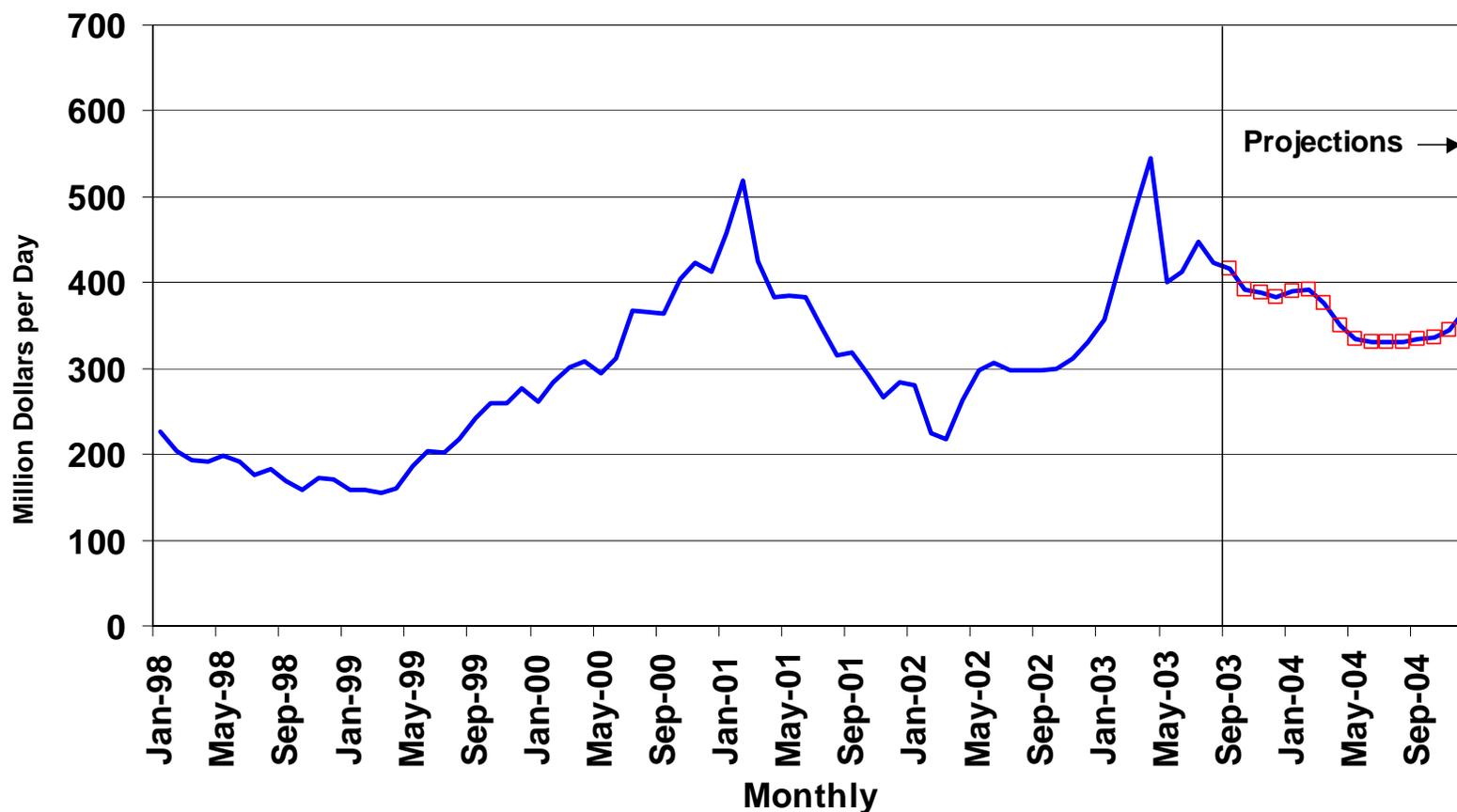
Figure 14. U.S. Natural Gas-Directed Drilling Activity



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



Figure 15. U.S. Oil and Gas Production Revenues



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



based on the assumption that, barring severe weather this winter, pressure on natural gas markets related to storage refill will be considerably less in 2004 than in 2003.

Electricity Demand and Supply

Electricity demand in 2003 is expected to remain at close to last year's levels ([Figure 16](#)). Following the relative increase in demand in the first quarter due to cold weather, declines in demand occurred during the second and third quarters, also driven largely by weather factors, i.e., lower cooling demand this summer than last summer. In 2004, annual electricity demand is projected to rebound, growing along with the economy at a rate of about 2.4 percent.

Natural gas-fired electricity production is expected to decrease by about 4 percent in 2003 due to fuel substitution in response to high natural gas prices, as indicated by increasing oil-fired plant utilization beyond what otherwise might have been projected. Also in 2003, petroleum-generated electricity production is expected to increase by about 21 percent. In 2004, petroleum-generated electricity production is projected to decline about 5.8 percent as natural gas availability improves. Hydroelectric generation in 2003 is expected to increase by 4.8 percent overall due to improved water levels in the Eastern half of the country. Nuclear generation in 2003 is expected to be lower than last year by 1.8 percent. Part (at least) of the reason for the lower nuclear generation is that two nuclear plants have been in extended shutdown mode. However, nuclear and hydropower for electricity generation are expected to be more abundant this winter than last winter. Nuclear plants that experienced extended outages are expected to be back on line in 2004, when nuclear generation increases 2.4 percent over 2003 levels. Hydroelectric generation is also expected to increase in 2004 due to the somewhat recovered levels of precipitation this year.

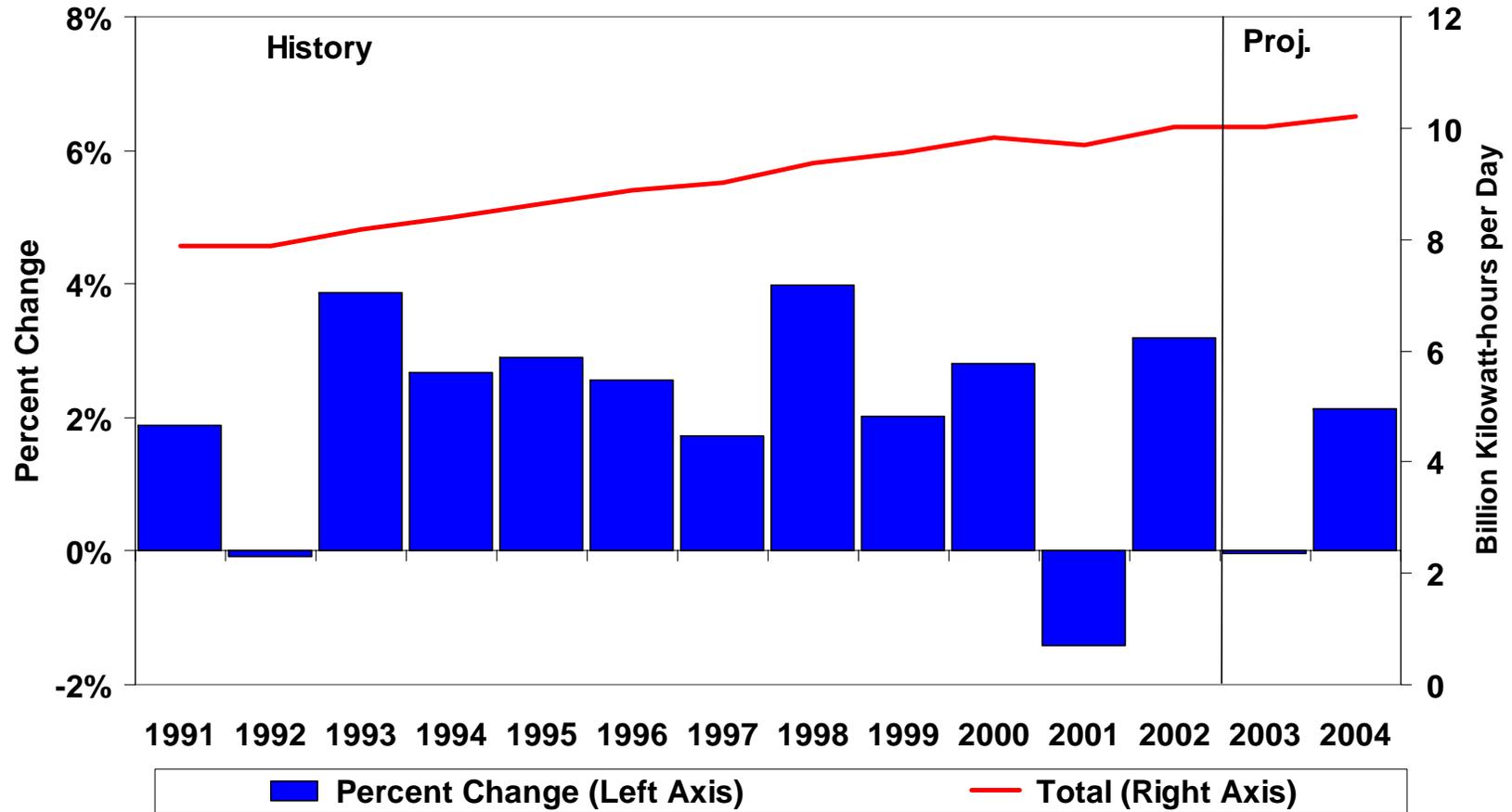
Coal Demand and Supply

Coal consumed to generate electricity climbed 3.3 percent during the first seven months of 2003, compared to the same period in 2002. Coal, nuclear and gas-fired generation are typically used to meet baseload demand, although natural gas is also the primary peaking demand fuel. Year-to-date nuclear generation is down 2.4 percent and natural gas-fired generation is down 9.5 percent. Coal-fired generation, up 2.5 percent, has taken up the slack in baseload demand. Despite flatness in total electricity demand and total electric sector generation, coal-fired electricity generation is expected to grow by 0.4 percent and electric sector coal consumption to grow by 1.0 percent in 2003 ([Figure 17](#)). Coal-fired generation and associated coal consumption is expected to continue growing in 2004, as generation grows at 0.8 percent while consumption rises by 1.2 percent.

Demand in other coal-consuming sectors is expected to grow moderately in 2003. Expected increases in the coke plant sector (1.9 million short tons (mmst) or 8.2 percent) are nearly offset by a projected decline in consumption in the retail and general industry sectors (1.5 mmst or 2.3 percent). Total non-electric sector coal demand growth for 2003 is projected to be 0.3 percent. Non-electric sector growth is expected to decline in 2004, (0.8 percent) as demand for coal as a boiler fuel continues to decline and coke plant demand falls.

Total U.S. coal production is expected to decline by 0.6 percent in 2003 ([Figure 18](#)). Year-to-date U.S. coal production (January through September) is roughly 802.5 mmst, or 2.2 percent lower than the same period of 2002. Western region coal production is likely to grow 1.5 percent, while Appalachian and Interior production falls 3.4 percent and 1.1 percent respectively. In 2004, growth in electric sector coal demand is expected to lead to an increase in total coal production (0.8 percent), but Western region coal production is projected to continue its strong growth at a rate of 4.5 percent.

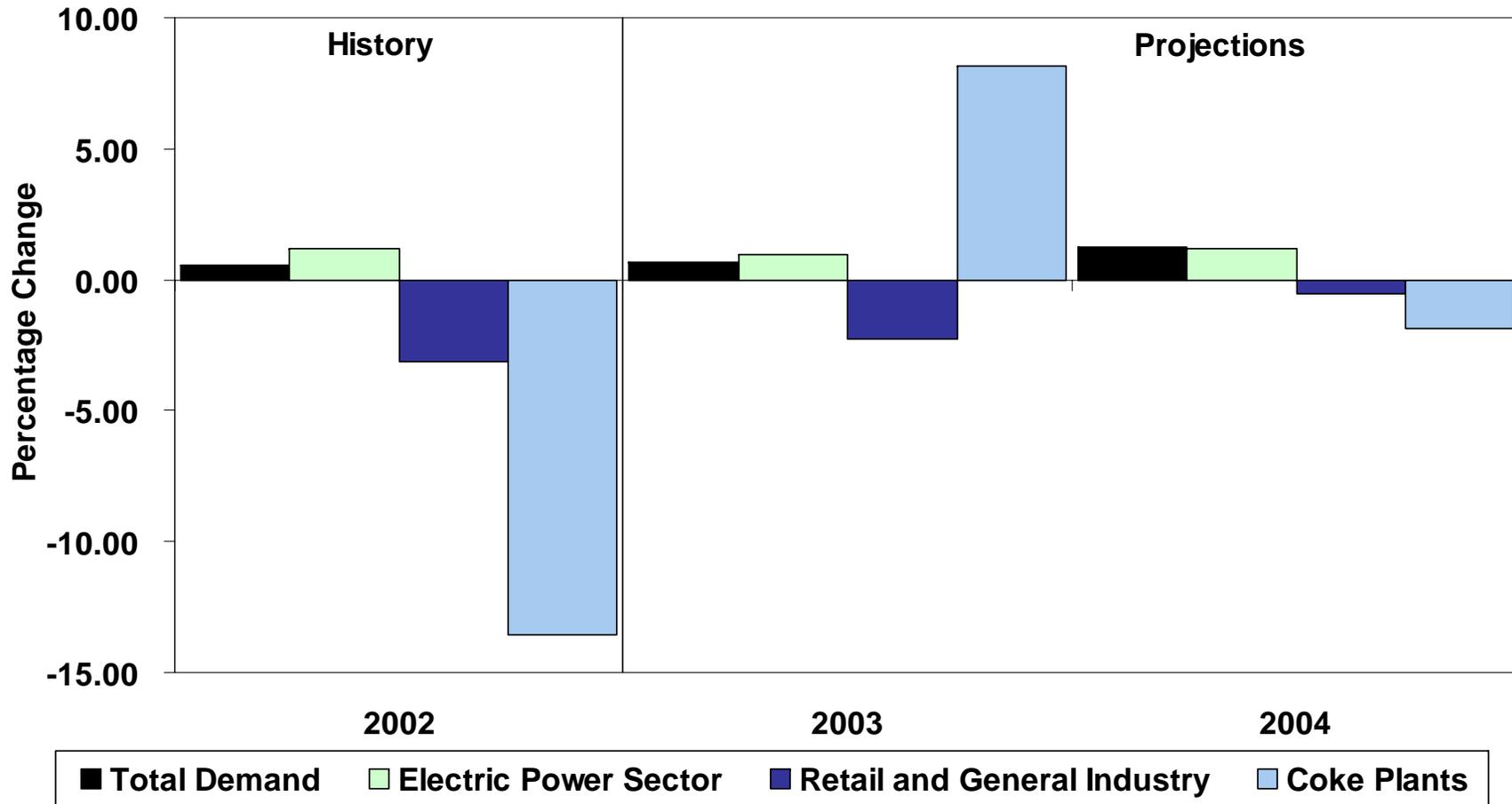
Figure 16. Total Electricity Demand Growth Patterns



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



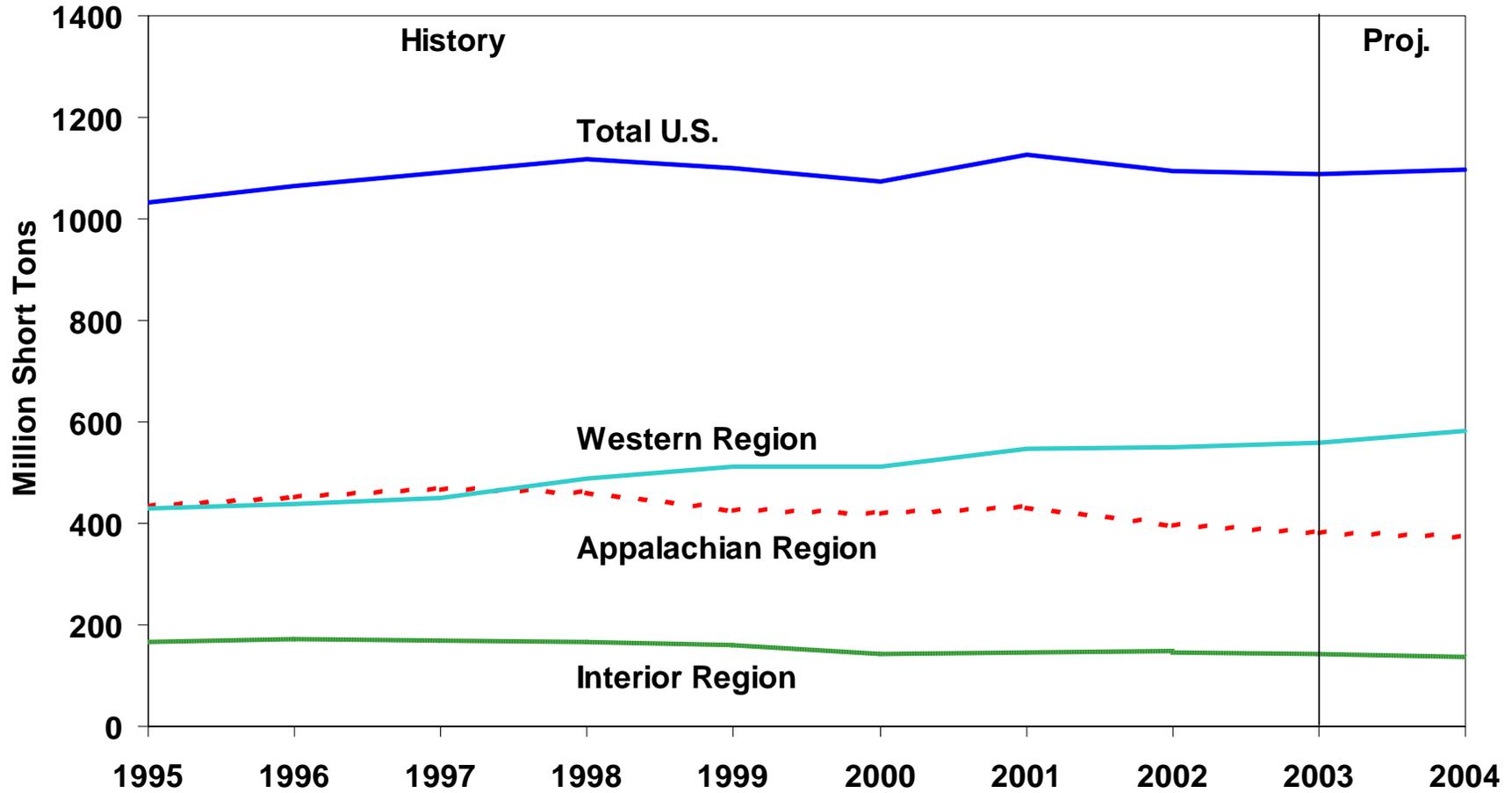
Figure 17. U.S. Coal Demand



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



Figure 18. U.S. Coal Production



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



Representation of Uncertainty in STEO Using the STIFS Model

The EIA uses its Short-Term Integrated Forecasting System (STIFS) model to analyze monthly trends in U.S. energy demands and prices, both nationally and by sector, and to generate its monthly *Short-Term Energy Outlook (STEO)*. This model consists of approximately 920 endogenous variables, 216 of which are stochastic (i.e., have error distributions associated with them).

Confidence intervals presented in the *STEO* for a selected STIFS variable, such as the crude oil price, gasoline price and natural gas spot price, are analytically calculated using information about the error distribution of the modeled variable and the error distributions of any endogenous variables that may affect the variable of interest. These confidence intervals, based on +/- 2 standard errors within the STIFS model, do not include the impact of major supply disruptions and other phenomena not represented in the model. To the extent that supply disruptions in world oil markets and/or other phenomena not included in the STIFS model do significantly affect future market developments, confidence intervals presented in the *STEO* likely will be less than the usual 95 percent, all other factors being equal.

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

	Year				Annual Percentage Change		
	2001	2002	2003	2004	2001-2002	2002-2003	2003-2004
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	9215	9440	<i>9702</i>	<i>10101</i>	2.4	2.8	4.1
Imported Crude Oil Price ^a (nominal dollars per barrel)	22.00	23.69	<i>27.54</i>	<i>24.68</i>	7.7	16.3	-10.4
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.80	5.75	<i>5.74</i>	<i>5.64</i>	-1.0	-0.2	-1.7
Total Petroleum Net Imports (including SPR).....	10.90	10.54	<i>11.26</i>	<i>11.46</i>	-3.3	6.8	1.8
Energy Demand							
World Petroleum (million barrels per day).....	77.1	77.6	<i>78.6</i>	<i>79.7</i>	0.6	1.3	1.4
Petroleum (million barrels per day).....	19.65	19.76	<i>20.00</i>	<i>20.31</i>	0.6	1.2	1.5
Natural Gas (trillion cubic feet)	22.23	22.52	<i>22.06</i>	<i>22.26</i>	1.3	-2.0	0.9
Coal ^c (million short tons)	1060	1066	<i>1076</i>	<i>1087</i>	0.5	0.9	1.0
Electricity (billion kilowatthours)							
Retail Sales ^d	3370	3475	<i>3478</i>	<i>3560</i>	3.1	0.1	2.4
Other Use/Sales ^e	173	180	<i>176</i>	<i>182</i>	4.2	-2.3	3.5
Total	3543	3655	<i>3654</i>	<i>3742</i>	3.2	0.0	2.4
Total Energy Demand ^f (quadrillion Btu)	96.3	97.6	<i>97.6</i>	<i>99.6</i>	1.3	0.0	2.1
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.45	10.34	<i>10.06</i>	<i>9.86</i>	-1.1	-2.7	-1.9
Renewable Energy as Percent of Total ^g	5.6%	6.2%	<i>6.4%</i>	<i>6.6%</i>			

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

^bIncludes lease condensate.

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

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

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

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL1003.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR)...	9363	9392	9486	9518	9552	9629	<i>9760</i>	<i>9866</i>	<i>9953</i>	<i>10045</i>	<i>10155</i>	<i>10252</i>	9440	<i>9702</i>	<i>10101</i>
Percentage Change from Prior Year	1.4	2.2	3.3	2.9	2.0	2.5	<i>2.9</i>	<i>3.7</i>	<i>4.2</i>	<i>4.3</i>	<i>4.0</i>	<i>3.9</i>	2.4	<i>2.8</i>	<i>4.1</i>
Annualized Percent Change from Prior Quarter	5.0	1.2	4.0	1.4	1.4	3.2	<i>5.4</i>	<i>4.3</i>	<i>3.5</i>	<i>3.7</i>	<i>4.4</i>	<i>3.8</i>			
GDP Implicit Price Deflator (Index, 1996=1.000)	1.101	1.105	1.108	1.112	1.119	1.122	<i>1.126</i>	<i>1.129</i>	<i>1.134</i>	<i>1.137</i>	<i>1.142</i>	<i>1.148</i>	1.107	<i>1.124</i>	<i>1.140</i>
Percentage Change from Prior Year	1.4	1.1	0.8	1.3	1.6	1.5	<i>1.7</i>	<i>1.5</i>	<i>1.3</i>	<i>1.4</i>	<i>1.4</i>	<i>1.7</i>	1.1	<i>1.6</i>	<i>1.5</i>
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR) ..	6961	7027	7058	7082	7110	7155	<i>7280</i>	<i>7319</i>	<i>7451</i>	<i>7480</i>	<i>7551</i>	<i>7613</i>	7032	<i>7216</i>	<i>7524</i>
Percentage Change from Prior Year	3.8	5.0	2.8	5.2	2.1	1.8	<i>3.1</i>	<i>3.3</i>	<i>4.8</i>	<i>4.5</i>	<i>3.7</i>	<i>4.0</i>	4.2	<i>2.6</i>	<i>4.3</i>
Manufacturing Production (Index, 1997=100.0)	110.8	111.8	112.6	111.5	111.3	110.4	<i>111.2</i>	<i>112.4</i>	<i>114.0</i>	<i>115.6</i>	<i>117.6</i>	<i>119.9</i>	111.7	<i>111.3</i>	<i>116.8</i>
Percentage Change from Prior Year	-4.0	-1.5	0.5	1.2	0.4	-1.3	<i>-1.3</i>	<i>0.8</i>	<i>2.5</i>	<i>4.8</i>	<i>5.8</i>	<i>6.6</i>	-1.0	<i>-0.3</i>	<i>4.9</i>
OECD Economic Growth (percent) ^b ...													1.8	<i>2.4</i>	<i>3.0</i>
Weather ^c															
Heating Degree-Days															
U.S.....	2072	490	49	1673	2297	607	<i>63</i>	<i>1591</i>	<i>2281</i>	<i>541</i>	<i>109</i>	<i>1635</i>	4284	<i>4558</i>	<i>4566</i>
New England	2791	865	71	2372	3504	1144	<i>100</i>	<i>2197</i>	<i>3271</i>	<i>930</i>	<i>195</i>	<i>2278</i>	6099	<i>6945</i>	<i>6674</i>
Middle Atlantic	2505	664	45	2158	3207	896	<i>43</i>	<i>2121</i>	<i>3007</i>	<i>743</i>	<i>125</i>	<i>2048</i>	5372	<i>6267</i>	<i>5923</i>
U.S. Gas-Weighted	2181	558	48	1773	2464	598	<i>75</i>	<i>1719</i>	<i>2413</i>	<i>590</i>	<i>110</i>	<i>1758</i>	4560	<i>4856</i>	<i>4871</i>
Cooling Degree-Days (U.S.).....	31	387	902	73	28	335	<i>821</i>	<i>88</i>	<i>32</i>	<i>351</i>	<i>779</i>	<i>77</i>	1393	<i>1272</i>	<i>1239</i>

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

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

^cPopulation-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 population.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17 (419). Projections of OECD growth are based on Global Insight, "World Economic Outlook," Volume 1. Macroeconomic projections are based on Global Insight Forecast CONTROL1003.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic^a															
Real Fixed Investment (billion chained 1996 dollars-SAAR) ...	1576	1573	1572	1588	1588	1615	<i>1651</i>	<i>1674</i>	<i>1686</i>	<i>1698</i>	<i>1715</i>	<i>1740</i>	1577	<i>1632</i>	<i>1710</i>
Real Exchange Rate (index)	1.193	1.152	1.105	1.102	1.049	0.999	<i>0.998</i>	<i>0.963</i>	<i>0.962</i>	<i>0.961</i>	<i>0.959</i>	<i>0.956</i>	1.138	<i>1.002</i>	<i>0.960</i>
Business Inventory Change (billion chained 1996 dollars-SAAR) ...	-31.9	-14.1	-2.6	2.8	-6.1	-14.3	<i>-10.9</i>	<i>-5.2</i>	<i>1.2</i>	<i>6.9</i>	<i>13.4</i>	<i>18.4</i>	-11.5	<i>-9.1</i>	<i>10.0</i>
Producer Price Index (index, 1982=1.000)	1.291	1.306	1.313	1.335	1.383	1.369	<i>1.366</i>	<i>1.369</i>	<i>1.365</i>	<i>1.360</i>	<i>1.371</i>	<i>1.373</i>	1.311	<i>1.372</i>	<i>1.367</i>
Consumer Price Index (index, 1982-1984=1.000)	1.780	1.795	1.805	1.814	1.831	1.834	<i>1.845</i>	<i>1.852</i>	<i>1.857</i>	<i>1.861</i>	<i>1.869</i>	<i>1.879</i>	1.799	<i>1.840</i>	<i>1.867</i>
Petroleum Product Price Index (index, 1982=1.000)	0.656	0.810	0.839	0.875	1.074	0.918	<i>0.901</i>	<i>0.874</i>	<i>0.868</i>	<i>0.864</i>	<i>0.835</i>	<i>0.842</i>	0.795	<i>0.942</i>	<i>0.852</i>
Non-Farm Employment (millions)	130.5	130.4	130.2	130.3	130.2	130.0	<i>129.8</i>	<i>130.0</i>	<i>130.3</i>	<i>131.0</i>	<i>131.8</i>	<i>132.7</i>	130.4	<i>130.0</i>	<i>131.5</i>
Commercial Employment (millions)	91.3	91.3	91.3	91.5	91.5	91.5	<i>91.6</i>	<i>91.9</i>	<i>92.3</i>	<i>92.9</i>	<i>93.7</i>	<i>94.5</i>	91.4	<i>91.6</i>	<i>93.4</i>
Total Industrial Production (index, 1997=100.0)	109.3	110.5	111.4	110.4	110.5	109.4	<i>110.4</i>	<i>111.2</i>	<i>112.6</i>	<i>114.0</i>	<i>115.7</i>	<i>117.5</i>	110.4	<i>110.4</i>	<i>114.9</i>
Housing Stock (millions)	115.3	115.6	115.8	116.2	116.7	117.0	<i>117.3</i>	<i>117.6</i>	<i>117.9</i>	<i>118.2</i>	<i>118.5</i>	<i>118.8</i>	115.7	<i>117.2</i>	<i>118.4</i>
Miscellaneous															
Gas Weighted Industrial Production (index, 1997=100.0)	100.4	101.0	101.6	100.8	100.6	99.9	<i>99.9</i>	<i>100.3</i>	<i>100.9</i>	<i>101.6</i>	<i>102.5</i>	<i>103.8</i>	100.9	<i>100.2</i>	<i>102.2</i>
Vehicle Miles Traveled ^b (million miles/day)	7268	8030	8053	7643	7221	8078	<i>8206</i>	<i>7762</i>	<i>7409</i>	<i>8192</i>	<i>8336</i>	<i>7972</i>	7750	<i>7819</i>	<i>7978</i>
Vehicle Fuel Efficiency (index, 1999=1.000)	0.997	1.040	1.036	1.006	0.990	1.042	<i>1.039</i>	<i>0.991</i>	<i>0.984</i>	<i>1.036</i>	<i>1.038</i>	<i>0.999</i>	1.020	<i>1.016</i>	<i>1.015</i>
Real Vehicle Fuel Cost (cents per mile)	3.31	3.75	3.76	3.91	4.39	4.01	<i>3.99</i>	<i>4.11</i>	<i>3.99</i>	<i>3.86</i>	<i>3.72</i>	<i>3.72</i>	3.69	<i>4.12</i>	<i>3.82</i>
Air Travel Capacity (mill. available ton-miles/day)	435.8	467.6	488.2	491.4	454.8	474.5	<i>471.6</i>	<i>465.6</i>	<i>445.4</i>	<i>466.1</i>	<i>483.6</i>	<i>485.2</i>	470.9	<i>466.7</i>	<i>470.2</i>
Aircraft Utilization (mill. revenue ton-miles/day)	238.2	265.3	274.3	272.0	244.1	263.6	<i>270.9</i>	<i>257.5</i>	<i>242.2</i>	<i>264.8</i>	<i>279.9</i>	<i>270.4</i>	262.6	<i>259.1</i>	<i>264.4</i>
Airline Ticket Price Index (index, 1982-1984=1.000)	2.317	2.377	2.334	2.235	2.252	2.341	<i>2.378</i>	<i>2.326</i>	<i>2.295</i>	<i>2.255</i>	<i>2.243</i>	<i>2.241</i>	2.316	<i>2.324</i>	<i>2.258</i>
Raw Steel Production (million tons)	23.92	25.03	26.34	25.68	25.61	25.52	<i>25.06</i>	<i>23.72</i>	<i>25.52</i>	<i>26.71</i>	<i>26.23</i>	<i>24.32</i>	100.98	<i>99.91</i>	<i>102.79</i>

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

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Table 3. International Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except OECD Commercial Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Demand^a															
OECD															
U.S. (50 States)	19.5	19.7	19.9	19.9	20.0	19.6	<i>20.2</i>	<i>20.2</i>	<i>20.1</i>	<i>20.0</i>	<i>20.4</i>	<i>20.7</i>	19.8	<i>20.0</i>	<i>20.3</i>
U.S. Territories.....	0.3	0.3	0.3	0.3	0.4	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	0.3	<i>0.3</i>	<i>0.3</i>
Canada	2.1	2.0	2.1	2.2	2.2	2.1	<i>2.2</i>	<i>2.2</i>	<i>2.1</i>	<i>2.1</i>	<i>2.2</i>	<i>2.2</i>	2.1	<i>2.1</i>	<i>2.1</i>
Europe	15.1	14.6	15.2	15.3	15.2	15.0	<i>15.0</i>	<i>15.5</i>	<i>15.6</i>	<i>14.6</i>	<i>15.2</i>	<i>15.8</i>	15.1	<i>15.2</i>	<i>15.3</i>
Japan	5.7	4.6	5.0	5.9	6.2	5.0	<i>4.9</i>	<i>5.7</i>	<i>5.9</i>	<i>4.8</i>	<i>5.0</i>	<i>5.5</i>	5.3	<i>5.4</i>	<i>5.3</i>
Other OECD.....	5.4	5.0	5.0	5.4	5.4	5.1	<i>5.1</i>	<i>5.5</i>	<i>5.3</i>	<i>5.0</i>	<i>5.3</i>	<i>5.6</i>	5.2	<i>5.3</i>	<i>5.3</i>
Total OECD.....	48.1	46.3	47.5	48.9	49.4	47.1	<i>47.7</i>	<i>49.4</i>	<i>49.4</i>	<i>46.8</i>	<i>48.5</i>	<i>50.2</i>	47.7	<i>48.4</i>	<i>48.7</i>
Non-OECD															
Former Soviet Union.....	4.1	3.9	3.9	3.9	4.2	3.9	<i>3.9</i>	<i>4.0</i>	<i>4.3</i>	<i>4.0</i>	<i>3.9</i>	<i>4.0</i>	3.9	<i>4.0</i>	<i>4.1</i>
Europe	0.7	0.7	0.7	0.7	0.8	0.8	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	0.7	<i>0.8</i>	<i>0.8</i>
China.....	5.3	5.3	5.2	5.3	5.5	5.4	<i>5.2</i>	<i>5.6</i>	<i>5.7</i>	<i>5.6</i>	<i>5.4</i>	<i>5.8</i>	5.3	<i>5.4</i>	<i>5.6</i>
Other Asia.....	7.7	7.7	7.5	7.8	7.9	7.9	<i>7.6</i>	<i>7.9</i>	<i>8.0</i>	<i>8.0</i>	<i>7.7</i>	<i>8.0</i>	7.7	<i>7.8</i>	<i>8.0</i>
Other Non-OECD.....	12.1	12.3	12.4	12.3	12.1	12.3	<i>12.4</i>	<i>12.3</i>	<i>12.4</i>	<i>12.7</i>	<i>12.7</i>	<i>12.5</i>	12.3	<i>12.3</i>	<i>12.6</i>
Total Non-OECD.....	29.9	29.9	29.7	30.0	30.4	30.2	<i>29.8</i>	<i>30.4</i>	<i>31.2</i>	<i>31.1</i>	<i>30.5</i>	<i>31.1</i>	29.9	<i>30.2</i>	<i>31.0</i>
Total World Demand.....	78.0	76.2	77.2	79.0	79.8	77.3	<i>77.5</i>	<i>79.8</i>	<i>80.6</i>	<i>77.8</i>	<i>79.0</i>	<i>81.3</i>	77.6	<i>78.6</i>	<i>79.7</i>
Supply^b															
OECD															
U.S. (50 States)	9.1	9.2	8.9	8.8	9.0	8.7	<i>8.7</i>	<i>8.8</i>	<i>8.9</i>	<i>8.8</i>	<i>8.7</i>	<i>8.8</i>	9.0	<i>8.8</i>	<i>8.8</i>
Canada	2.9	2.9	2.9	3.0	3.0	3.0	<i>3.2</i>	<i>3.2</i>	<i>3.1</i>	<i>3.1</i>	<i>3.2</i>	<i>3.2</i>	2.9	<i>3.1</i>	<i>3.1</i>
Mexico.....	3.6	3.6	3.6	3.6	3.8	3.8	<i>3.9</i>	<i>3.8</i>	<i>3.9</i>	<i>4.0</i>	<i>4.0</i>	<i>3.9</i>	3.6	<i>3.8</i>	<i>3.9</i>
North Sea ^c	6.3	6.3	5.8	6.4	6.3	5.8	<i>5.8</i>	<i>6.2</i>	<i>6.3</i>	<i>5.9</i>	<i>6.0</i>	<i>6.3</i>	6.2	<i>6.0</i>	<i>6.1</i>
Other OECD.....	1.7	1.6	1.7	1.6	1.6	1.6	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.7</i>	<i>1.6</i>	1.7	<i>1.6</i>	<i>1.6</i>
Total OECD.....	23.6	23.7	23.0	23.4	23.6	22.9	<i>23.1</i>	<i>23.6</i>	<i>23.7</i>	<i>23.4</i>	<i>23.5</i>	<i>23.9</i>	23.4	<i>23.3</i>	<i>23.6</i>
Non-OECD															
OPEC.....	28.5	27.9	28.8	29.5	30.1	30.1	<i>30.2</i>	<i>30.1</i>	<i>29.5</i>	<i>29.7</i>	<i>29.1</i>	<i>29.1</i>	28.7	<i>30.1</i>	<i>29.4</i>
Crude Oil Portion	25.2	24.6	25.5	26.3	26.9	26.7	<i>26.8</i>	<i>26.7</i>	<i>26.1</i>	<i>26.4</i>	<i>25.8</i>	<i>25.7</i>	25.4	<i>26.8</i>	<i>26.0</i>
Former Soviet Union.....	9.0	9.2	9.6	9.8	9.9	10.1	<i>10.4</i>	<i>10.6</i>	<i>10.7</i>	<i>10.9</i>	<i>11.1</i>	<i>11.2</i>	9.4	<i>10.3</i>	<i>11.0</i>
China.....	3.3	3.4	3.4	3.4	3.4	3.4	<i>3.4</i>	<i>3.4</i>	<i>3.3</i>	<i>3.4</i>	<i>3.4</i>	<i>3.4</i>	3.4	<i>3.4</i>	<i>3.4</i>
Other Non-OECD.....	11.5	11.5	11.4	11.4	11.4	11.5	<i>11.6</i>	<i>11.8</i>	<i>11.7</i>	<i>11.8</i>	<i>12.0</i>	<i>12.2</i>	11.4	<i>11.6</i>	<i>11.9</i>
Total Non-OECD.....	52.3	52.0	53.3	54.1	54.7	55.1	<i>55.6</i>	<i>56.0</i>	<i>55.2</i>	<i>55.8</i>	<i>55.6</i>	<i>55.8</i>	52.9	<i>55.4</i>	<i>55.6</i>
Total World Supply.....	75.9	75.6	76.2	77.5	78.4	78.0	<i>78.8</i>	<i>79.5</i>	<i>79.0</i>	<i>79.2</i>	<i>79.2</i>	<i>79.8</i>	76.3	<i>78.7</i>	<i>79.3</i>
Additional unaccounted for supply	0.3	0.3	0.3	0.3	0.3	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	0.3	<i>0.3</i>	<i>0.3</i>
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	0.2	-0.5	0.5	0.3	0.8	-0.9	<i>-0.4</i>	<i>0.1</i>	<i>0.0</i>	<i>-0.7</i>	<i>-0.1</i>	<i>0.3</i>	0.1	<i>-0.1</i>	<i>-0.1</i>
Other	1.7	0.8	0.2	0.8	0.3	0.0	<i>-1.2</i>	<i>-0.1</i>	<i>1.3</i>	<i>-0.9</i>	<i>-0.3</i>	<i>0.9</i>	0.9	<i>-0.3</i>	<i>0.2</i>
Total Stock Withdrawals	1.8	0.3	0.7	1.1	1.1	-0.9	<i>-1.6</i>	<i>0.0</i>	<i>1.3</i>	<i>-1.6</i>	<i>-0.5</i>	<i>1.3</i>	1.0	<i>-0.4</i>	<i>0.1</i>
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.6	2.6	2.5	2.4	2.5	<i>2.6</i>	<i>2.6</i>	<i>2.5</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	2.5	<i>2.6</i>	<i>2.6</i>
Non-OPEC Supply	47.4	47.7	47.4	48.0	48.3	47.9	<i>48.6</i>	<i>49.5</i>	<i>49.5</i>	<i>49.4</i>	<i>50.0</i>	<i>50.7</i>	47.6	<i>48.6</i>	<i>49.9</i>

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	19.34	23.84	25.88	25.39	30.59	25.58	27.37	27.00	25.33	24.58	24.24	24.62	23.69	27.54	24.68
WTI ^b Spot Average	21.66	26.25	28.34	28.22	34.10	28.98	30.21	29.63	27.86	27.09	26.74	27.12	26.12	30.73	27.21
Natural Gas Wellhead (dollars per thousand cubic feet).....															
	2.34	2.99	2.88	3.60	5.54	5.01	4.74	4.27	4.19	3.64	3.79	4.34	2.96	4.89	3.99
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.20	1.43	1.44	1.46	1.63	1.57	1.64	1.57	1.49	1.52	1.48	1.43	1.39	1.60	1.48
Regular Unleaded	1.16	1.39	1.40	1.42	1.59	1.52	1.60	1.54	1.47	1.50	1.45	1.40	1.34	1.56	1.45
No. 2 Diesel Oil, Retail (dollars per gallon)															
	1.18	1.30	1.35	1.44	1.62	1.47	1.46	1.46	1.42	1.39	1.36	1.41	1.32	1.50	1.39
No. 2 Heating Oil, Wholesale (dollars per gallon)															
	0.60	0.68	0.73	0.79	1.00	0.79	0.81	0.80	0.79	0.74	0.73	0.80	0.69	0.87	0.77
No. 2 Heating Oil, Retail (dollars per gallon)															
	1.09	1.09	1.06	1.19	1.45	1.31	1.16	1.33	1.30	1.19	1.11	1.29	1.11	1.37	1.26
No. 6 Residual Fuel Oil, Retail ^d (dollars per barrel).....															
	19.34	24.11	25.73	26.22	33.71	26.66	28.80	25.98	24.74	22.57	22.20	23.56	23.81	28.98	23.33
Electric Utility Fuels ^e															
Coal (dollars per million Btu)															
	1.27	1.26	1.26	1.23	1.27	1.29	1.25	1.24	1.25	1.26	1.23	1.22	1.25	1.26	1.24
Heavy Fuel Oil ^f (dollars per million Btu)															
	2.91	3.61	3.81	4.24	5.05	4.25	4.11	4.28	4.16	3.66	3.39	3.89	3.68	4.47	3.77
Natural Gas (dollars per million Btu)															
	2.99	3.58	3.41	4.26	6.13	5.34	4.62	4.76	4.83	4.35	4.39	4.95	3.54	5.12	4.58
Other Residential															
Natural Gas (dollars per thousand cubic feet).....															
	7.21	8.30	10.24	7.98	8.63	10.52	12.14	9.37	9.03	9.59	10.97	9.09	7.86	9.40	9.29
Electricity (cents per kilowatthour).....															
	8.14	8.58	8.74	8.30	8.08	9.02	9.01	8.61	8.39	8.96	9.09	8.63	8.45	8.68	8.77

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

^eIncludes independent power producers after January 2002.

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

Notes: Data are estimated for the first quarter of 2003. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

Table 5. U.S. Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except Closing Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	5.87	5.90	5.67	5.55	5.88	5.78	5.62	5.66	5.72	5.66	5.56	5.60	5.75	5.74	5.64
Alaska	1.03	1.01	0.93	0.97	1.01	0.98	0.94	0.99	1.00	0.95	0.91	0.93	0.98	0.98	0.95
Lower 48	4.83	4.89	4.74	4.59	4.87	4.80	4.69	4.67	4.71	4.72	4.65	4.68	4.76	4.76	4.69
Net Commercial Imports ^b	8.72	9.30	9.16	9.28	8.76	9.96	10.08	9.61	9.30	9.92	9.96	9.69	9.12	9.61	9.72
Net SPR Withdrawals	-0.10	-0.15	-0.12	-0.11	-0.13	-0.16	-0.16	-0.17	-0.11	-0.07	0.00	0.00	-0.12	-0.16	-0.05
Net Commercial Withdrawals.....	-0.24	0.18	0.51	-0.08	-0.04	-0.02	-0.02	-0.02	-0.20	-0.01	0.17	0.00	0.09	-0.03	-0.01
Product Supplied and Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.19	0.12	-0.01	0.13	0.08	0.15	0.01	0.09	0.17	0.19	0.17	0.12	0.11	0.08	0.16
Total Crude Oil Supply.....	14.44	15.34	15.21	14.78	14.56	15.71	15.54	15.17	14.87	15.68	15.86	15.41	14.95	15.24	15.46
Other Supply															
NGL Production	1.88	1.91	1.89	1.84	1.76	1.60	1.71	1.83	1.90	1.87	1.84	1.92	1.88	1.73	1.88
Other Hydrocarbon and Alcohol	0.37	0.44	0.43	0.43	0.44	0.42	0.41	0.38	0.34	0.34	0.36	0.37	0.42	0.41	0.35
Inputs															
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processing Gain.....	0.96	0.96	0.95	0.97	0.89	0.94	0.96	0.94	0.93	0.93	0.93	0.96	0.96	0.93	0.94
Net Product Imports ^c	1.37	1.56	1.37	1.36	1.50	1.76	1.81	1.54	1.75	1.76	1.75	1.74	1.42	1.65	1.75
Product Stock Withdrawn or Added (-)	0.51	-0.49	0.06	0.49	0.87	-0.81	-0.21	0.30	0.35	-0.61	-0.31	0.35	0.15	0.04	-0.06
Total Supply	19.53	19.72	19.92	19.87	20.02	19.61	20.22	20.16	20.13	19.98	20.41	20.74	19.76	20.00	20.32
Demand															
Motor Gasoline.....	8.49	9.00	9.05	8.85	8.49	9.03	9.20	9.13	8.77	9.21	9.35	9.30	8.85	8.96	9.16
Jet Fuel	1.57	1.61	1.63	1.65	1.54	1.51	1.60	1.63	1.53	1.56	1.63	1.67	1.61	1.57	1.60
Distillate Fuel Oil	3.80	3.70	3.71	3.89	4.22	3.81	3.73	3.94	4.21	3.82	3.83	4.10	3.78	3.92	3.99
Residual Fuel Oil.....	0.73	0.69	0.62	0.76	0.86	0.73	0.79	0.72	0.79	0.65	0.69	0.78	0.70	0.77	0.73
Other Oils ^d	4.93	4.72	4.91	4.73	4.91	4.54	4.91	4.73	4.83	4.73	4.91	4.89	4.82	4.77	4.84
Total Demand	19.53	19.72	19.92	19.87	20.02	19.61	20.22	20.16	20.13	19.97	20.41	20.73	19.76	20.00	20.31
Total Petroleum Net Imports.....	10.11	10.87	10.54	10.64	10.26	11.72	11.88	11.15	11.05	11.68	11.70	11.43	10.54	11.26	11.46
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	334	318	271	278	281	283	285	287	305	306	291	291	278	287	291
Total Motor Gasoline.....	213	217	206	209	200	206	198	200	206	210	203	208	209	200	208
Finished Motor Gasoline.....	160	168	157	162	145	153	147	150	150	157	152	157	162	150	157
Blending Components.....	54	49	49	47	55	53	52	50	56	53	52	52	47	50	52
Jet Fuel	42	39	41	39	37	38	41	40	38	40	42	41	39	40	41
Distillate Fuel Oil	123	133	127	134	99	112	131	136	106	117	134	137	134	136	137
Residual Fuel Oil.....	34	33	33	31	32	36	33	35	32	34	36	37	31	35	37
Other Oils ^e	265	301	309	258	225	275	283	248	244	281	296	255	258	248	255
Total Stocks (excluding SPR)	1011	1040	987	949	874	950	971	945	931	988	1002	970	949	945	970
Crude Oil in SPR.....	561	576	587	599	599	609	623	639	650	656	656	656	599	639	656
Heating Oil Reserve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (incl SPR and HOR).....	1575	1618	1576	1550	1475	1560	1596	1586	1583	1646	1660	1628	1550	1586	1628

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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

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

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

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

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

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

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	5.976	5.229	0.748	0.064	0.684
Lower 48 States.....	5.021	4.355	0.666	0.044	0.622
Alaska.....	0.955	0.873	0.081	0.020	0.061

Note: Components provided are for the fourth quarter 2004. Totals may not add to sum of components due to independent rounding.
Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

Table 8. U.S. Natural Gas Supply and Demand: Base Case
(Trillion Cubic Feet)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Total Dry Gas Production.....	4.69	4.77	4.78	4.81	4.87	4.84	4.92	4.99	4.88	4.74	4.76	4.81	19.05	19.62	19.18
Gross Imports	0.98	0.95	1.03	1.04	0.96	0.88	1.03	1.07	1.05	1.01	1.09	1.06	4.01	3.93	4.22
Pipeline	0.95	0.88	0.97	0.97	0.88	0.76	0.85	0.86	0.91	0.82	0.91	0.90	3.78	3.35	3.54
LNG.....	0.03	0.07	0.06	0.07	0.08	0.13	0.18	0.20	0.15	0.19	0.18	0.16	0.23	0.59	0.67
Gross Exports	0.10	0.12	0.14	0.15	0.16	0.15	0.17	0.17	0.18	0.18	0.20	0.22	0.52	0.65	0.78
Net Imports	0.88	0.83	0.90	0.89	0.79	0.74	0.86	0.89	0.87	0.83	0.89	0.84	3.49	3.28	3.44
Supplemental Gaseous Fuels.....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.08	0.08	0.08
Total New Supply.....	5.59	5.62	5.69	5.72	5.68	5.60	5.80	5.90	5.77	5.59	5.67	5.67	22.62	22.98	22.70
Working Gas in Storage															
Opening	2.90	1.52	2.31	3.04	2.38	0.73	1.77	2.87	2.64	1.28	2.10	2.99	2.90	2.38	2.64
Closing	1.52	2.31	3.04	2.38	0.73	1.77	2.87	2.64	1.28	2.10	2.99	2.43	2.38	2.64	2.43
Net Withdrawals.....	1.39	-0.79	-0.73	0.67	1.65	-1.04	-1.10	0.23	1.36	-0.82	-0.89	0.56	0.53	-0.27	0.21
Total Supply	6.98	4.83	4.96	6.38	7.33	4.56	4.70	6.13	7.14	4.77	4.78	6.23	23.15	22.72	22.91
Balancing Item ^a	-0.12	0.16	-0.06	-0.61	-0.08	-0.07	-0.03	-0.48	-0.02	0.07	-0.12	-0.58	-0.63	-0.65	-0.65
Total Primary Supply.....	6.86	4.98	4.90	5.78	7.25	4.50	4.67	5.64	7.12	4.83	4.66	5.65	22.52	22.06	22.26
Demand															
Residential	2.20	0.84	0.37	1.51	2.52	0.83	0.38	1.41	2.41	0.83	0.38	1.45	4.92	5.13	5.07
Commercial.....	1.19	0.61	0.42	0.90	1.35	0.57	0.38	0.85	1.33	0.62	0.43	0.92	3.12	3.15	3.29
Industrial	2.16	2.04	2.00	2.09	2.13	1.84	1.93	2.06	2.15	1.93	1.91	2.06	8.30	7.97	8.04
Lease and Plant Fuel.....	0.26	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.26	0.26	0.26	0.27	1.05	1.09	1.05
Other Industrial	1.90	1.78	1.74	1.83	1.87	1.58	1.65	1.78	1.89	1.67	1.64	1.79	7.24	6.87	6.99
CHP ^b	0.32	0.31	0.35	0.29	0.30	0.26	0.30	0.28	0.30	0.29	0.31	0.29	1.28	1.14	1.20
Non-CHP	1.58	1.47	1.39	1.54	1.57	1.31	1.35	1.50	1.58	1.38	1.33	1.50	5.97	5.73	5.79
Transportation ^c	0.19	0.14	0.14	0.16	0.20	0.13	0.13	0.17	0.21	0.14	0.13	0.16	0.63	0.63	0.64
Electric Power ^d	1.12	1.35	1.97	1.11	1.05	1.13	1.83	1.15	1.02	1.32	1.81	1.07	5.55	5.16	5.22
Total Demand	6.86	4.98	4.90	5.78	7.25	4.50	4.67	5.64	7.12	4.83	4.66	5.65	22.52	22.06	22.26

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

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

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

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

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

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

Table 9. U.S. Coal Supply and Demand: Base Case
(Million Short Tons)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Production.....	282.6	266.7	270.9	274.1	264.1	267.2	271.2	285.1	273.7	262.8	274.9	284.8	1094.3	1087.5	1096.2
Appalachia.....	108.1	98.5	95.2	95.2	95.4	95.5	96.3	96.4	96.9	91.7	91.3	93.9	397.0	383.6	373.8
Interior.....	36.9	37.3	36.7	35.9	36.1	37.0	36.5	35.6	35.8	35.0	34.0	33.8	146.9	145.2	138.6
Western.....	137.6	130.8	138.9	143.1	132.5	134.7	138.4	153.1	141.0	136.1	149.5	157.1	550.4	558.7	583.7
Primary Stock Levels ^a															
Opening.....	35.9	40.3	41.3	35.7	43.3	39.0	37.7	35.0	36.8	35.4	35.0	33.4	35.9	43.3	36.8
Closing.....	40.3	41.3	35.7	43.3	39.0	37.7	35.0	36.8	35.4	35.0	33.4	34.7	43.3	36.8	34.7
Net Withdrawals.....	-4.4	-1.0	5.6	-7.6	4.3	1.3	2.7	-1.8	1.4	0.3	1.7	-1.4	-7.4	6.5	2.1
Imports.....	4.0	3.9	4.7	4.4	5.0	6.4	6.4	4.7	5.9	6.2	5.7	5.3	16.9	22.5	23.1
Exports.....	9.3	11.0	9.3	10.0	8.5	11.4	11.6	10.8	10.6	11.2	11.0	10.8	39.6	42.4	43.7
Total Net Domestic Supply.....	272.9	258.5	271.9	260.9	264.8	263.5	268.7	277.2	270.4	258.1	271.2	278.0	1064.2	1074.1	1077.8
Secondary Stock Levels ^b															
Opening.....	146.0	153.5	158.0	142.8	149.0	136.8	148.8	138.7	155.8	156.4	166.3	152.7	146.0	149.0	155.8
Closing.....	153.5	158.0	142.8	149.0	136.8	148.8	138.7	155.8	156.4	166.3	152.7	158.6	149.0	155.8	158.6
Net Withdrawals.....	-7.5	-4.6	15.3	-6.2	12.1	-11.9	10.0	-17.0	-0.7	-9.9	13.7	-5.9	-3.0	-6.8	-2.9
Waste Coal Supplied to IPPs ^c	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	11.1	11.6	11.6
Total Supply.....	268.2	256.7	290.0	257.4	279.8	254.4	281.6	263.1	272.7	251.1	287.8	274.9	1072.3	1079.0	1086.5
Demand															
Coke Plants.....	5.4	5.6	5.6	5.9	6.0	6.1	6.1	6.2	6.3	6.1	6.1	5.4	22.5	24.4	23.9
Electric Power Sector ^d	231.6	231.3	267.3	245.7	248.7	231.4	265.7	239.6	249.0	230.1	266.1	251.8	975.9	985.4	997.0
Retail and General Industry.....	17.6	16.0	16.1	17.7	17.5	16.1	15.1	17.3	17.4	15.0	15.5	17.6	67.4	65.9	65.6
Total Demand ^e	254.6	253.0	289.0	269.3	272.2	253.6	286.9	263.1	272.7	251.1	287.8	274.9	1065.8	1075.7	1086.5
Discrepancy ^f	13.6	3.7	1.0	-11.8	7.6	0.9	-5.3	0.0	0.0	0.0	0.0	0.0	6.5	3.2	0.0

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

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

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

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

^eTotal Demand includes estimated IPP consumption.

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

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

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Quarterly Coal Report, DOE/EIA-0121, and Electric Power Monthly, DOE/EIA-0226. Projections: Energy 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 10a. U.S. Electricity Supply and Demand: Base Case
(Billion Kilowatt-hours)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal	454.2	452.0	519.5	479.0	485.6	446.7	515.3	464.8	482.1	444.7	514.7	486.6	1904.7	1912.4	1928.1
Petroleum	18.0	21.6	24.9	20.2	31.5	25.8	25.9	19.2	25.9	18.5	26.7	25.4	84.6	102.4	96.5
Natural Gas	121.9	143.8	211.3	123.5	116.9	124.6	202.2	132.5	119.8	148.2	201.3	125.8	600.5	576.1	595.1
Nuclear	195.6	187.8	205.7	190.9	190.1	183.2	202.0	190.4	195.1	191.4	206.3	191.5	780.1	765.6	784.3
Hydroelectric.....	59.9	76.8	59.4	54.7	60.0	80.0	62.0	60.9	74.2	81.9	66.9	68.2	250.8	262.9	291.1
Geothermal and Other ^b	13.3	14.1	14.2	13.1	13.0	13.8	14.4	14.2	15.2	15.0	15.6	15.1	54.7	55.4	60.9
Subtotal	863.0	896.1	1035.0	881.3	897.1	874.0	1021.8	882.0	912.1	899.7	1031.4	912.6	3675.4	3674.9	3756.0
Other Sectors ^c	40.5	39.8	44.1	38.6	40.2	37.3	35.3	39.9	40.5	40.1	43.2	41.1	163.1	152.8	164.9
Total Generation.....	903.5	935.9	1079.2	920.0	937.3	911.3	1057.1	921.9	952.6	939.8	1074.7	953.7	3838.6	3827.7	3920.8
Net Imports ^d	6.3	4.7	8.6	3.2	2.4	1.5	5.4	3.3	2.6	2.5	5.1	2.2	22.9	12.6	12.3
Total Supply.....	909.8	940.6	1087.8	923.2	939.8	912.8	1062.5	925.2	955.2	942.3	1079.7	955.9	3861.4	3840.3	3933.1
Losses and Unaccounted for ^e	38.6	67.6	50.8	49.2	30.3	57.3	49.3	49.6	30.6	59.1	50.2	51.2	206.1	186.5	191.1
Demand															
Retail Sales ^f															
Residential.....	311.3	281.7	382.7	292.5	337.5	273.4	374.5	293.9	343.7	288.7	376.1	304.7	1268.2	1279.2	1313.2
Commercial	255.1	273.0	313.4	266.7	265.1	267.8	306.8	264.6	265.7	269.9	311.0	271.5	1108.1	1104.3	1118.1
Industrial.....	236.3	249.0	262.3	246.2	237.2	247.4	257.1	248.1	244.7	254.3	265.4	256.3	993.8	989.7	1020.8
Other.....	23.9	25.3	30.0	26.0	25.3	25.9	28.5	25.0	25.8	26.0	29.4	26.8	105.2	104.7	107.9
Subtotal	826.5	829.1	988.2	831.4	865.1	814.3	966.9	831.6	879.9	839.0	981.8	859.4	3475.2	3477.9	3560.1
Other Use/Sales ^g	44.7	44.0	48.7	42.7	44.4	41.2	46.2	44.1	44.7	44.3	47.7	45.3	180.1	175.9	182.0
Total Demand.....	871.3	873.0	1037.0	874.1	909.5	855.5	1013.2	875.6	924.6	883.3	1029.5	904.7	3655.3	3653.8	3742.1

^aElectric Utilities and independent power producers.

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

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

^dData for 2002 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2002 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2002 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 10b. U.S. Electricity Generation by Sector: Base Case
(Billion Kilowatt-hours)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Electricity Generation by Sector															
Electric Power ^a															
Coal	454.2	452.0	519.5	479.0	485.6	446.7	515.3	464.8	482.1	444.7	514.7	486.6	1904.7	1912.4	1928.1
Petroleum	18.0	21.6	24.9	20.2	31.5	25.8	25.9	19.2	25.9	18.5	26.7	25.4	84.6	102.4	96.5
Natural Gas	121.9	143.8	211.3	123.5	116.9	124.6	202.2	132.5	119.8	148.2	201.3	125.8	600.5	576.1	595.1
Other ^b	268.8	278.7	279.3	258.7	263.1	276.9	278.3	265.6	284.4	288.3	288.7	274.8	1085.5	1083.9	1136.3
Subtotal	863.0	896.1	1035.0	881.3	897.1	874.0	1021.8	882.0	912.1	899.7	1031.4	912.6	3675.4	3674.9	3756.0
Commercial															
Coal	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.3	1.0	1.2	1.2
Petroleum	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.4	0.6	0.6
Natural Gas	1.1	1.0	2.4	1.0	1.0	1.2	2.1	1.5	1.5	1.5	2.4	1.3	5.4	5.8	6.6
Other ^b	0.4	0.5	0.5	0.5	0.4	0.5	1.0	0.8	0.6	0.7	0.5	0.7	1.9	2.8	2.4
Subtotal	1.8	1.8	3.3	1.8	1.9	2.1	3.5	2.8	2.7	2.5	3.2	2.4	8.7	10.3	10.9
Industrial															
Coal	4.9	5.0	5.4	5.3	5.5	5.0	5.2	5.2	5.3	5.2	5.4	5.5	20.7	21.0	21.4
Petroleum	1.2	1.1	1.2	1.3	1.5	1.2	1.2	1.2	1.2	0.9	1.2	1.6	4.9	5.1	5.0
Natural Gas	21.0	19.5	21.4	17.9	19.9	17.3	19.7	18.1	19.9	19.1	20.5	18.6	79.9	75.1	78.1
Other ^b	11.6	12.3	12.8	12.3	11.3	11.7	12.2	12.6	11.3	12.4	12.8	12.9	49.0	47.8	49.4
Subtotal	38.7	38.0	40.9	36.8	38.3	35.2	38.3	37.1	37.8	37.6	40.0	38.7	154.4	149.0	154.0
Total	903.5	935.9	1079.2	920.0	937.3	911.3	1057.1	921.9	952.6	939.8	1074.7	953.7	3838.6	3827.7	3920.8

^aElectric Utilities and independent power producers.

^b"Other" includes nuclear, hydroelectric, geothermal, wood, waste, wind and solar power sources.

Note: Commercial and industrial categories include electricity output from CHP facilities and some electric-only plants.

Table 10c. U.S. Fuel Consumption for Electricity Generation by Sector: Base Case

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Fuel Consumption for Electricity Generation by Sector															
(Quadrillion Btu)															
Electric Power^a															
Coal	4.752	4.747	5.485	5.042	5.103	4.748	5.453	4.917	5.109	4.721	5.461	5.168	20.0	20.2	20.5
Petroleum	0.194	0.226	0.267	0.218	0.340	0.277	0.279	0.210	0.284	0.202	0.291	0.278	0.9	1.1	1.1
Natural Gas.....	1.087	1.326	1.957	1.084	1.008	1.098	1.793	1.123	0.992	1.291	1.769	1.046	5.5	5.0	5.1
Other ^b	2.873	2.951	3.015	2.932	2.887	3.009	2.920	2.830	3.033	3.063	3.074	2.927	11.8	11.6	12.1
Subtotal	8.906	9.250	10.724	9.277	9.339	9.132	10.446	9.080	9.418	9.276	10.595	9.419	38.2	38.0	38.7
Commercial															
Coal	0.003	0.003	0.004	0.003	0.003	0.003	0.004	0.005	0.004	0.003	0.004	0.004	0.013	0.015	0.015
Petroleum	0.001	0.001	0.001	0.001	0.003	0.001	0.002	0.002	0.003	0.001	0.002	0.002	0.005	0.008	0.008
Natural Gas.....	0.009	0.009	0.019	0.009	0.009	0.010	0.017	0.012	0.012	0.013	0.020	0.011	0.047	0.048	0.055
Other ^b	0.006	0.007	0.009	0.007	0.007	0.008	0.012	0.012	0.010	0.011	0.008	0.011	0.029	0.040	0.040
Subtotal	0.019	0.020	0.034	0.020	0.021	0.022	0.035	0.031	0.030	0.028	0.033	0.027	0.093	0.110	0.118
Industrial															
Coal	0.062	0.064	0.067	0.068	0.070	0.065	0.066	0.066	0.068	0.067	0.069	0.070	0.261	0.268	0.274
Petroleum	0.015	0.014	0.015	0.016	0.018	0.017	0.014	0.016	0.015	0.012	0.016	0.021	0.059	0.066	0.064
Natural Gas.....	0.183	0.179	0.197	0.157	0.176	0.157	0.175	0.161	0.178	0.170	0.182	0.166	0.717	0.668	0.696
Other ^b	0.145	0.146	0.155	0.163	0.138	0.151	0.160	0.160	0.144	0.159	0.164	0.162	0.610	0.609	0.629
Subtotal	0.406	0.402	0.434	0.404	0.403	0.391	0.415	0.403	0.406	0.408	0.431	0.419	1.646	1.612	1.663
Total	9.330	9.672	11.192	9.701	9.763	9.544	10.897	9.514	9.854	9.712	11.058	9.865	39.895	39.718	40.490
(Physical Units)															
Electric Power^a															
Coal (Million Short Tons).....	231.0	230.8	266.7	245.1	248.1	230.8	265.2	239.1	248.4	229.5	265.5	251.3	973.7	983.2	994.8
Petroleum (Million Barrels per Day)	0.348	0.402	0.470	0.383	0.614	0.494	0.490	0.371	0.505	0.359	0.509	0.489	0.401	0.492	0.466
Natural Gas (Trillion Cubic Feet).....	1.060	1.294	1.909	1.058	0.983	1.071	1.750	1.096	0.968	1.259	1.726	1.021	5.321	4.900	4.974
Commercial															
Coal (Million Short Tons).....	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.5	0.6	0.6
Petroleum (Million Barrels per Day)	0.002	0.002	0.003	0.002	0.006	0.002	0.003	0.004	0.006	0.002	0.003	0.004	0.002	0.003	0.004
Natural Gas (Trillion Cubic Feet).....	0.009	0.009	0.019	0.008	0.008	0.010	0.017	0.012	0.012	0.012	0.019	0.010	0.045	0.047	0.054
Industrial															
Coal (Million Short Tons).....	2.7	2.7	2.9	2.9	3.0	2.8	2.8	2.8	2.9	2.9	3.0	3.0	11.2	11.5	11.7
Petroleum (Million Barrels per Day)	0.027	0.025	0.026	0.028	0.034	0.032	0.026	0.029	0.029	0.022	0.028	0.038	0.026	0.030	0.029
Natural Gas (Trillion Cubic Feet).....	0.179	0.174	0.192	0.153	0.172	0.153	0.170	0.157	0.173	0.166	0.178	0.162	0.699	0.652	0.679

^aElectric Utilities and independent power producers.

^b"Other" includes nuclear, hydroelectric, geothermal, wood, waste, wind and solar power sources.

Note: Commercial and industrial categories include electricity output from CHP facilities and some electric-only plants.

Table 11. U.S. Renewable Energy Use by Sector: Base Case
(Quadrillion Btu)

	Year				Annual Percentage Change		
	2001	2002	2003	2004	2001-2002	2002-2003	2003-2004
Electricity Sector							
Hydroelectric Power ^a	2.165	2.623	<i>2.749</i>	<i>3.045</i>	21.2	4.8	10.8
Geothermal, Solar and Wind Energy ^b	0.363	0.392	<i>0.394</i>	<i>0.459</i>	8.0	0.5	16.5
Biofuels ^c	0.450	0.466	<i>0.495</i>	<i>0.509</i>	3.6	6.2	2.8
Total	2.978	3.481	<i>3.639</i>	<i>4.014</i>	16.9	4.5	10.3
Other Sectors ^d							
Residential and Commercial ^e	0.567	0.513	<i>0.544</i>	<i>0.567</i>	-9.5	6.0	4.2
Residential	0.475	0.418	<i>0.436</i>	<i>0.455</i>	-12.0	4.3	4.4
Commercial	0.091	0.095	<i>0.108</i>	<i>0.113</i>	4.4	13.7	4.6
Industrial ^f	1.641	1.734	<i>1.721</i>	<i>1.729</i>	5.7	-0.7	0.5
Transportation ^g	0.147	0.175	<i>0.234</i>	<i>0.264</i>	19.0	33.7	12.8
Total	2.354	2.422	<i>2.499</i>	<i>2.561</i>	2.9	3.2	2.5
Total Renewable Energy Demand	5.331	5.903	<i>6.137</i>	<i>6.574</i>	10.7	4.0	7.1

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

^bAlso 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.

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

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

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

^fconsists primarily of biofuels for use other than in electricity cogeneration.

^gEthanol blended into gasoline.

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: Base Case

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	9440	<i>9702</i>	<i>10101</i>
Imported Crude Oil Price ^a (nominal dollars per barrel)	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.69	<i>27.54</i>	<i>24.68</i>
Petroleum Supply															
Crude Oil Production ^b (million barrels per day)	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	<i>5.74</i>	<i>5.64</i>
Total Petroleum Net Imports (including SPR) (million barrels per day)	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	<i>11.26</i>	<i>11.46</i>
Energy Demand															
U.S. Petroleum (million barrels per day)	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	<i>20.00</i>	<i>20.31</i>
Natural Gas (trillion cubic feet)	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.52	<i>22.06</i>	<i>22.26</i>
Coal (million short tons).....	904	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1066	<i>1076</i>	<i>1087</i>
Electricity (billion kilowatthours)															
Retail Sales ^c	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3370	3475	<i>3478</i>	<i>3560</i>
Other Use/Sales ^d	115	118	122	128	134	144	146	148	161	183	181	173	180	<i>176</i>	<i>182</i>
Total	2827	2880	2886	2989	3069	3157	3247	3294	3425	3495	3603	3543	3655	<i>3654</i>	<i>3742</i>
Total Energy Demand ^e (quadrillion Btu)	84.6	84.5	85.9	87.6	89.2	91.2	94.2	94.7	95.1	96.8	99.0	96.3	97.6	<i>97.6</i>	<i>99.6</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).....	12.62	12.66	12.48	12.40	12.15	12.09	12.06	11.63	11.18	10.92	10.78	10.45	10.34	<i>10.06</i>	<i>9.86</i>

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

^bIncludes lease condensate.

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

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

^e"Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, Annual Energy Review, 2001, DOE/EIA-0384(01) (AER), Table 1.1. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, Monthly Energy Review (MER). Consequently, the historical data may not precisely match those published in the MER or the AER.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL1003.

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars).....	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	9440	<i>9702</i>	<i>10101</i>
GDP Implicit Price Deflator (Index, 1996=1.000).....	0.865	0.897	0.918	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.069	1.094	1.107	<i>1.124</i>	<i>1.140</i>
Real Disposable Personal Income (billion chained 1996 Dollars).....	5014	5033	5189	5261	5397	5539	5678	5854	6169	6328	6630	6748	7032	<i>7216</i>	<i>7524</i>
Manufacturing Production (Index, 1996=1.000).....	74.156	72.721	75.516	78.113	83.133	87.783	92.119	100.000	106.518	111.872	117.672	112.800	111.691	<i>111.308</i>	<i>116.787</i>
Real Fixed Investment (billion chained 1996 dollars).....	895	833	886	958	1046	1109	1213	1329	1480	1595	1692	1627	1577	<i>1632</i>	<i>1710</i>
Real Exchange Rate (Index, 1996=1.000).....	0.918	0.920	0.926	0.956	0.933	0.869	0.918	0.992	1.044	1.047	1.083	1.141	1.138	<i>1.002</i>	<i>0.960</i>
Business Inventory Change (billion chained 1996 dollars).....	8.7	-6.6	-4.7	3.6	11.9	13.8	9.9	14.8	27.1	14.4	17.5	-36.2	-11.5	<i>-9.1</i>	<i>10.0</i>
Producer Price Index (index, 1982=1.000).....	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.255	1.328	1.342	1.311	<i>1.372</i>	<i>1.367</i>
Consumer Price Index (index, 1982-1984=1.000).....	1.307	1.362	1.403	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	1.771	1.799	<i>1.840</i>	<i>1.867</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	0.853	0.795	<i>0.942</i>	<i>0.852</i>
Non-Farm Employment (millions).....	109.5	108.4	108.7	110.8	114.3	117.3	119.7	122.8	125.9	129.0	131.8	131.8	130.4	<i>130.0</i>	<i>131.5</i>
Commercial Employment (millions).....	71.0	70.5	70.9	72.9	75.7	78.4	80.7	83.4	86.1	89.1	91.4	92.0	91.4	<i>91.6</i>	<i>93.4</i>
Total Industrial Production (index, 1997=100.0).....	77.6	76.3	78.3	80.8	85.1	89.2	93.1	100.0	105.6	110.1	115.3	111.2	110.4	<i>110.4</i>	<i>114.9</i>
Housing Stock (millions).....	101.1	101.8	102.6	103.8	105.1	106.7	108.0	109.4	111.1	112.7	113.3	114.7	115.7	<i>117.2</i>	<i>118.4</i>
Weather ^a															
Heating Degree-Days															
U.S.	4024	4200	4431	4672	4472	4516	4690	4523	3946	4153	4447	4191	4284	<i>4558</i>	<i>4566</i>
New England	5924	6042	6018	5904	6748	6631	5850	6725	5742	6014	6585	6110	6099	<i>6945</i>	<i>6674</i>
Middle Atlantic	5136	5317	6108	6040	6083	5966	6118	5940	4923	5493	5944	5424	5372	<i>6267</i>	<i>5923</i>
U.S. Gas-Weighted.....	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4680	4451	4560	<i>4856</i>	<i>4871</i>
Cooling Degree-Days (U.S.).....	1262	1331	1051	1222	1228	1293	1186	1167	1414	1301	1240	1256	1393	<i>1272</i>	<i>1239</i>

^aPopulation-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 population.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on Global Insight Forecast CONTROL1003.

Table A3. U.S. Energy Supply and Demand: Base Case
(Quadrillion Btu except where noted)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production															
Coal	22.46	21.59	21.63	20.25	22.11	22.03	22.68	23.21	23.94	23.19	22.62	23.05	22.56	22.43	22.60
Natural Gas.....	18.33	18.23	18.38	18.58	19.35	19.08	19.27	19.32	19.61	19.34	19.66	20.23	19.58	20.17	19.72
Crude Oil.....	15.57	15.70	15.22	14.49	14.10	13.89	13.72	13.66	13.24	12.45	12.36	12.28	12.16	12.14	11.96
Natural Gas Liquids	2.17	2.31	2.36	2.41	2.39	2.44	2.53	2.50	2.42	2.53	2.61	2.55	2.56	2.35	2.57
Nuclear	6.10	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.99	8.19
Hydroelectric.....	3.04	2.99	2.60	2.87	2.67	3.20	3.58	3.62	3.27	3.23	2.78	2.12	2.59	2.73	3.03
Other Renewables.....	3.08	3.14	3.29	3.27	3.38	3.46	3.55	3.43	3.26	3.33	3.35	3.12	3.22	3.31	3.45
Total.....	70.75	70.38	69.96	68.29	70.70	71.17	72.42	72.34	72.80	71.67	71.24	71.38	70.83	71.13	71.52
Net Imports															
Coal	-2.70	-2.77	-2.59	-1.78	-1.69	-2.14	-2.19	-2.01	-1.87	-1.30	-1.21	-0.77	-0.61	-0.54	-0.56
Natural Gas.....	1.46	1.67	1.94	2.25	2.52	2.74	2.85	2.90	3.06	3.50	3.62	3.69	3.58	3.36	3.53
Crude Oil.....	12.50	12.22	13.00	14.43	15.07	15.36	16.20	17.88	18.96	19.06	19.94	20.58	20.17	21.23	21.54
Petroleum Products	2.79	2.00	1.96	1.97	2.19	1.53	2.02	1.76	1.98	2.12	2.44	2.72	2.49	2.87	3.10
Electricity	0.01	0.07	0.09	0.09	0.15	0.13	0.14	0.12	0.09	0.10	0.12	0.08	0.08	0.04	0.04
Coal Coke.....	0.00	0.01	0.03	0.03	0.06	0.06	0.02	0.05	0.07	0.06	0.07	0.03	0.06	0.05	0.05
Total.....	14.06	13.19	14.44	16.99	18.30	17.69	19.04	20.70	22.28	23.54	24.97	26.32	25.77	27.02	27.70
Adjustments ^a	-0.25	1.06	1.65	2.50	0.58	2.63	3.06	1.93	0.25	1.76	3.11	-1.61	0.77	-0.76	0.22
Consumption															
Coal	19.19	18.99	19.12	19.84	19.91	20.09	21.00	21.45	21.66	21.62	22.58	21.66	21.99	22.14	22.41
Natural Gas.....	19.72	20.15	20.83	21.35	21.84	22.78	23.20	23.33	22.93	23.01	24.04	22.85	23.14	22.68	22.88
Petroleum	33.55	32.85	33.53	33.84	34.67	34.55	35.76	36.27	36.93	37.96	38.40	38.33	38.30	38.61	39.54
Nuclear	6.10	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.99	8.19
Other.....	6.00	6.23	6.09	6.34	6.46	7.00	7.48	7.33	6.75	6.77	6.43	5.22	5.80	5.97	6.43
Total.....	84.57	84.64	86.05	87.78	89.57	91.50	94.52	94.97	95.34	96.97	99.32	96.09	97.38	97.40	99.45

^aBalancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted-for supply.

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.69	27.54	24.68
WTI ^b Spot Average	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.12	30.73	27.21
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.70	4.02	2.96	4.89	3.99
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.39	1.60	1.48
Regular Unleaded	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.34	1.56	1.45
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.17	1.13	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.40	1.32	1.50	1.39
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.69	0.87	0.77
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.04	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.23	1.11	1.37	1.26
No. 6 Residual Fuel Oil, Retail ^d															
(dollars per barrel).....	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.24	23.81	28.98	23.33
Electric Utility Fuels ^e															
Coal															
(dollars per million Btu)	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.25	1.26	1.24
Heavy Fuel Oil ^f															
(dollars per million Btu)	3.22	2.48	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.73	3.68	4.47	3.77
Natural Gas															
(dollars per million Btu)	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.34	4.44	3.54	5.12	4.58
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.63	7.86	9.40	9.29
Electricity															
(cents per kilowatthour).....	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.62	8.45	8.68	8.77

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

^eIncludes independent power producers after January 2002.

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

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

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

Table A5. Annual U.S. Petroleum Supply and Demand: Base Case
(Million Barrels per Day, Except Closing Stocks)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	5.74	5.64
Alaska.....	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	0.98	0.98	0.95
Lower 48	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	4.76	4.76	4.69
Net Commercial Imports ^b	5.76	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	9.12	9.61	9.72
Net SPR Withdrawals.....	0.06	0.05	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	-0.12	-0.16	-0.05
Net Commercial Withdrawals.....	0.00	-0.01	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	0.09	-0.03	-0.01
Product Supplied and Losses	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	0.11	0.08	0.16
Total Crude Oil Supply	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	14.95	15.24	15.46
Other Supply															
NGL Production.....	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.87	1.88	1.73	1.88
Other Hydrocarbon and Alcohol Inputs.....	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	0.42	0.41	0.35
Crude Oil Product Supplied.....	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processing Gain.....	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	0.96	0.93	0.94
Net Product Imports ^c	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	1.42	1.65	1.75
Product Stock Withdrawn.....	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.23	0.15	0.04	-0.06
Total Supply	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.00	20.32
Demand															
Motor Gasoline ^d	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	8.85	8.96	9.16
Jet Fuel.....	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	1.61	1.57	1.60
Distillate Fuel Oil	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	3.78	3.92	3.99
Residual Fuel Oil.....	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	0.70	0.77	0.73
Other Oils ^e	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	4.82	4.77	4.84
Total Demand.....	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.00	20.31
Total Petroleum Net Imports	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	11.26	11.46
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	323	325	318	335	337	303	284	305	324	284	286	312	278	287	291
Total Motor Gasoline.....	220	219	216	226	215	202	195	210	216	193	196	210	209	200	208
Jet Fuel.....	52	49	43	40	47	40	40	44	45	41	45	42	39	40	41
Distillate Fuel Oil	132	144	141	141	145	130	127	138	156	125	118	145	134	136	137
Residual Fuel Oil.....	49	50	43	44	42	37	46	40	45	36	36	41	31	35	37
Other Oils ^f	261	267	263	273	275	258	250	259	291	246	247	287	258	248	255

^aIncludes lease condensate.

^bNet imports equals gross imports plus SPR imports minus exports.

^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

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

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Total Dry Gas Production	17.81	17.70	17.84	18.10	18.82	18.60	18.78	18.83	19.02	18.83	19.18	19.68	19.05	<i>19.62</i>	<i>19.18</i>
Gross Imports	1.53	1.77	2.14	2.35	2.62	2.84	2.94	2.99	3.15	3.59	3.78	3.98	4.01	<i>3.93</i>	<i>4.22</i>
Gross Exports	0.09	0.13	0.22	0.14	0.16	0.15	0.15	0.16	0.16	0.16	0.24	0.37	0.52	<i>0.65</i>	<i>0.78</i>
Net Imports	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.60	3.49	<i>3.28</i>	<i>3.44</i>
Supplemental Gaseous Fuels.....	0.12	0.11	0.12	0.12	0.11	0.11	0.09	0.08	0.08	0.08	0.09	0.09	0.08	<i>0.08</i>	<i>0.08</i>
Total New Supply.....	19.38	19.45	19.88	20.42	21.39	21.40	21.66	21.74	22.10	22.34	22.81	23.37	22.62	<i>22.98</i>	<i>22.70</i>
Working Gas in Storage															
Opening	2.85	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	<i>2.38</i>	<i>2.64</i>
Closing.....	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.38	<i>2.64</i>	<i>2.43</i>
Net Withdrawals.....	-0.22	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.18	0.53	<i>-0.27</i>	<i>0.21</i>
Total Supply.....	19.16	19.70	20.11	20.70	21.11	21.85	21.64	21.74	21.54	22.54	23.61	22.18	23.15	<i>22.72</i>	<i>22.91</i>
Balancing Item ^a	0.01	-0.14	0.12	0.09	0.13	0.35	0.96	0.98	0.70	-0.15	-0.15	0.05	-0.63	<i>-0.65</i>	<i>-0.65</i>
Total Primary Supply	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.52	<i>22.06</i>	<i>22.26</i>
Demand															
Residential	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.78	4.92	<i>5.13</i>	<i>5.07</i>
Commercial.....	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.04	3.12	<i>3.15</i>	<i>3.29</i>
Industrial	8.25	8.36	8.70	8.87	8.91	9.38	9.68	9.71	9.49	9.16	9.40	8.45	8.30	<i>7.97</i>	<i>8.04</i>
Lease and Plant Fuel.....	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.15	1.09	1.05	<i>1.09</i>	<i>1.05</i>
Other Industrial	7.02	7.23	7.53	7.70	7.79	8.16	8.44	8.51	8.32	8.08	8.25	7.36	7.24	<i>6.87</i>	<i>6.99</i>
CHP ^b	1.06	1.06	1.11	1.12	1.18	1.26	1.29	1.28	1.35	1.40	1.39	1.31	1.28	<i>1.14</i>	<i>1.20</i>
Non-CHP	5.96	6.17	6.42	6.58	6.61	6.90	7.15	7.23	6.97	6.68	6.87	6.05	5.97	<i>5.73</i>	<i>5.79</i>
Transportation ^c	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	0.62	0.63	<i>0.63</i>	<i>0.64</i>
Electric Power ^d	3.24	3.32	3.45	3.47	3.90	4.24	3.81	4.06	4.59	4.82	5.21	5.34	5.55	<i>5.16</i>	<i>5.22</i>
Total Demand	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.52	<i>22.06</i>	<i>22.26</i>

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

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

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

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

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

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

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Production.....	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1127.7	1094.3	1087.5	1096.2
Appalachia.....	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	432.8	397.0	383.6	373.8
Interior.....	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.0	146.9	145.2	138.6
Western.....	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	547.9	550.4	558.7	583.7
Primary Stock Levels ^a															
Opening.....	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	36.8
Closing.....	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	36.8	34.7
Net Withdrawals.....	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-4.0	-7.4	6.5	2.1
Imports.....	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	19.8	16.9	22.5	23.1
Exports.....	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	39.6	42.4	43.7
Total Net Domestic Supply.....	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1035.2	1094.8	1064.2	1074.1	1077.8
Secondary Stock Levels ^b															
Opening.....	147.1	170.1	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	149.0	155.8
Closing.....	170.1	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	149.0	155.8	158.6
Net Withdrawals.....	-23.0	-0.1	3.3	43.8	-16.5	1.5	12.0	17.2	-22.8	-17.5	40.7	-37.6	-3.0	-6.8	-2.9
Waste Coal Supplied to IPPs ^c	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	10.6	11.1	11.6	11.6
Total Supply.....	898.5	890.8	907.2	937.1	953.2	960.4	1007.1	1033.9	1031.8	1040.2	1086.0	1067.9	1072.3	1079.0	1086.5
Demand															
Coke Plants.....	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	22.5	24.4	23.9
Electric Power Sector ^d	782.6	783.9	795.1	831.6	838.4	850.2	896.9	921.4	936.6	940.9	985.8	964.4	975.9	985.4	997.0
Retail and General Industry.....	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	69.6	67.4	65.9	65.6
Residential and Commercial.....	6.7	6.1	6.2	6.2	6.0	5.8	6.0	6.5	4.9	4.9	4.1	4.4	4.4	4.5	4.4
Industrial.....	76.3	75.4	74.0	74.9	75.2	73.1	71.7	71.5	67.4	64.7	65.2	65.3	63.1	61.4	61.2
CHP ^e	27.8	27.0	28.2	28.9	29.7	29.4	29.4	29.9	28.6	27.8	28.0	25.8	26.1	26.1	26.6
Non-CHP.....	48.5	48.4	45.8	46.0	45.5	43.7	42.3	41.7	38.9	37.0	37.2	39.5	37.0	35.3	34.5
Total Demand ^f	904.5	899.2	907.7	944.1	951.3	962.1	1006.3	1029.5	1037.1	1038.6	1084.1	1060.1	1065.8	1075.7	1086.5
Discrepancy ^g	-6.0	-8.5	-0.5	-7.0	1.9	-1.7	0.8	4.3	-5.3	1.6	1.9	7.7	6.5	3.2	0.0

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

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

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

^dEstimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2001 and projections for 2002 and 2003 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

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

^fTotal Demand includes estimated IPP consumption.

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

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

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

Table A8. Annual U.S. Electricity Supply and Demand: Base Case
(Billion Kilowatt-hours)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal.....	1572.1	1568.8	1597.7	1665.5	1666.3	1686.1	1772.0	1820.8	1850.2	1858.6	1943.1	1882.8	1904.7	<i>1912.4</i>	<i>1928.1</i>
Petroleum.....	118.9	112.8	92.2	105.4	98.7	68.1	74.8	86.5	122.2	111.5	105.2	119.1	84.6	<i>102.4</i>	<i>96.5</i>
Natural Gas.....	309.5	317.8	334.3	342.2	385.7	419.2	378.8	399.6	449.3	473.0	518.0	554.9	600.5	<i>576.1</i>	<i>595.1</i>
Nuclear.....	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	728.3	753.9	768.8	780.1	<i>765.6</i>	<i>784.3</i>
Hydroelectric.....	286.2	281.5	245.8	273.5	250.6	302.7	338.1	346.6	313.4	308.6	265.8	204.9	250.8	<i>262.9</i>	<i>291.1</i>
Geothermal and Other ^b	36.5	40.8	44.3	45.9	45.8	43.7	44.7	46.0	47.3	48.7	50.2	49.4	54.7	<i>55.4</i>	<i>60.9</i>
Subtotal.....	2900.1	2934.2	2933.1	3042.8	3087.5	3193.2	3283.0	3328.1	3456.1	3528.7	3636.2	3580.1	3675.4	<i>3674.9</i>	<i>3756.0</i>
Other Sectors ^c	136.7	138.2	149.5	153.3	158.8	159.3	160.0	162.8	162.9	164.8	164.6	156.6	163.1	<i>152.8</i>	<i>164.9</i>
Total.....	3036.7	3072.5	3082.6	3196.1	3246.3	3352.5	3443.0	3490.9	3619.0	3693.5	3800.8	3736.6	3838.6	<i>3827.7</i>	<i>3920.8</i>
Net Imports ^d	2.3	19.6	25.4	27.8	44.8	39.2	40.2	34.1	25.8	29.0	34.0	22.0	22.9	<i>12.6</i>	<i>12.3</i>
Total Supply.....	3039.0	3092.1	3108.0	3223.9	3291.1	3391.7	3483.2	3525.0	3644.8	3722.5	3834.8	3758.7	3861.4	<i>3840.3</i>	<i>3933.1</i>
Losses and Unaccounted for ^e	211.9	212.0	222.4	234.9	222.4	234.4	236.2	230.9	219.7	227.9	231.9	216.1	206.1	<i>186.5</i>	<i>191.1</i>
Demand															
Retail Sales ^f															
Residential.....	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1202.6	1268.2	<i>1279.2</i>	<i>1313.2</i>
Commercial.....	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1089.2	1108.1	<i>1104.3</i>	<i>1118.1</i>
Industrial.....	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	964.2	993.8	<i>989.7</i>	<i>1020.8</i>
Other.....	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	113.8	105.2	<i>104.7</i>	<i>107.9</i>
Subtotal.....	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3369.8	3475.2	<i>3477.9</i>	<i>3560.1</i>
Other Use/Sales ^g	114.6	118.1	122.3	127.5	134.1	144.1	145.9	148.4	160.9	182.5	181.5	172.8	180.1	<i>175.9</i>	<i>182.0</i>
Total Demand.....	2827.1	2880.1	2885.6	2989.0	3068.7	3157.3	3247.0	3294.0	3425.1	3494.6	3602.9	3542.6	3655.3	<i>3653.8</i>	<i>3742.1</i>

^aElectric Utilities and independent power producers.

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

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

^dData for 2002 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2002 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2002 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.