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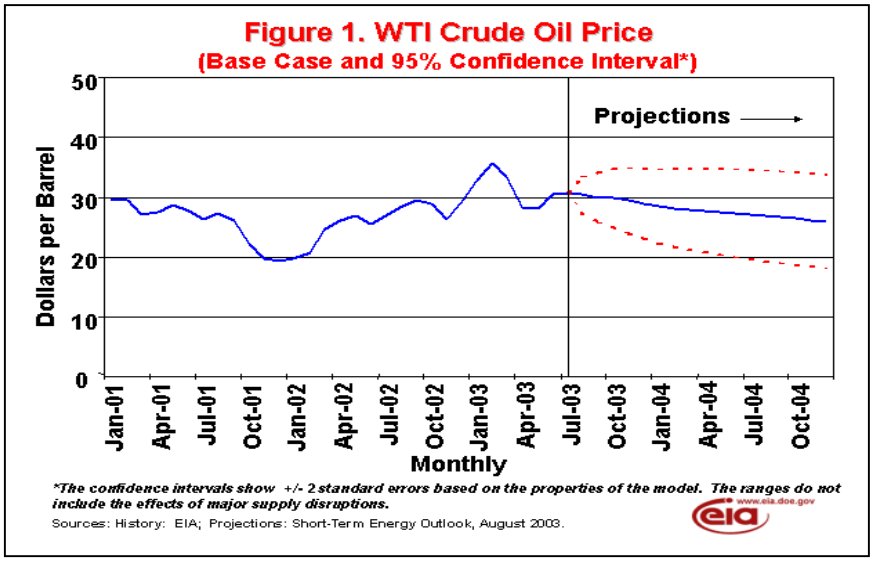
Energy Information Administration

# Short-Term Energy Outlook

**August 2003**




## Overview

**World Oil Markets.** Average crude oil prices for July were little changed from June. The West Texas Intermediate (WTI) spot average for July was $30.75 per barrel compared to $30.66 in June. EIA's *Outlook* is for prices to remain firm through the rest of 2003, or at least until autumn, when OECD oil inventories may rebuild above observed 5-year lows. Once inventories have been rebuilt, WTI oil prices may slide gradually to $26 per barrel during 2004, as Iraqi oil exports return to near pre-war levels (Figure 1).

**U.S. Natural Gas Markets.** At the end of July, working gas in storage is estimated (based on data through July 25) to have been about 17 percent below end-of-July 2002 levels and about 9 percent below the previous 5-year average. This would be a solid gain in storage levels and bolsters the chance that natural gas inventories may return to normal by the start of the heating season. The average wellhead price of natural gas for the third quarter is now projected to be $4.63 per thousand cubic feet, about 10 cents below the average expected for the July to September period in last month's report. A good chance exists for spot prices for natural gas at the Henry Hub to remain below $5.00 per million Btu for the remainder of the summer.

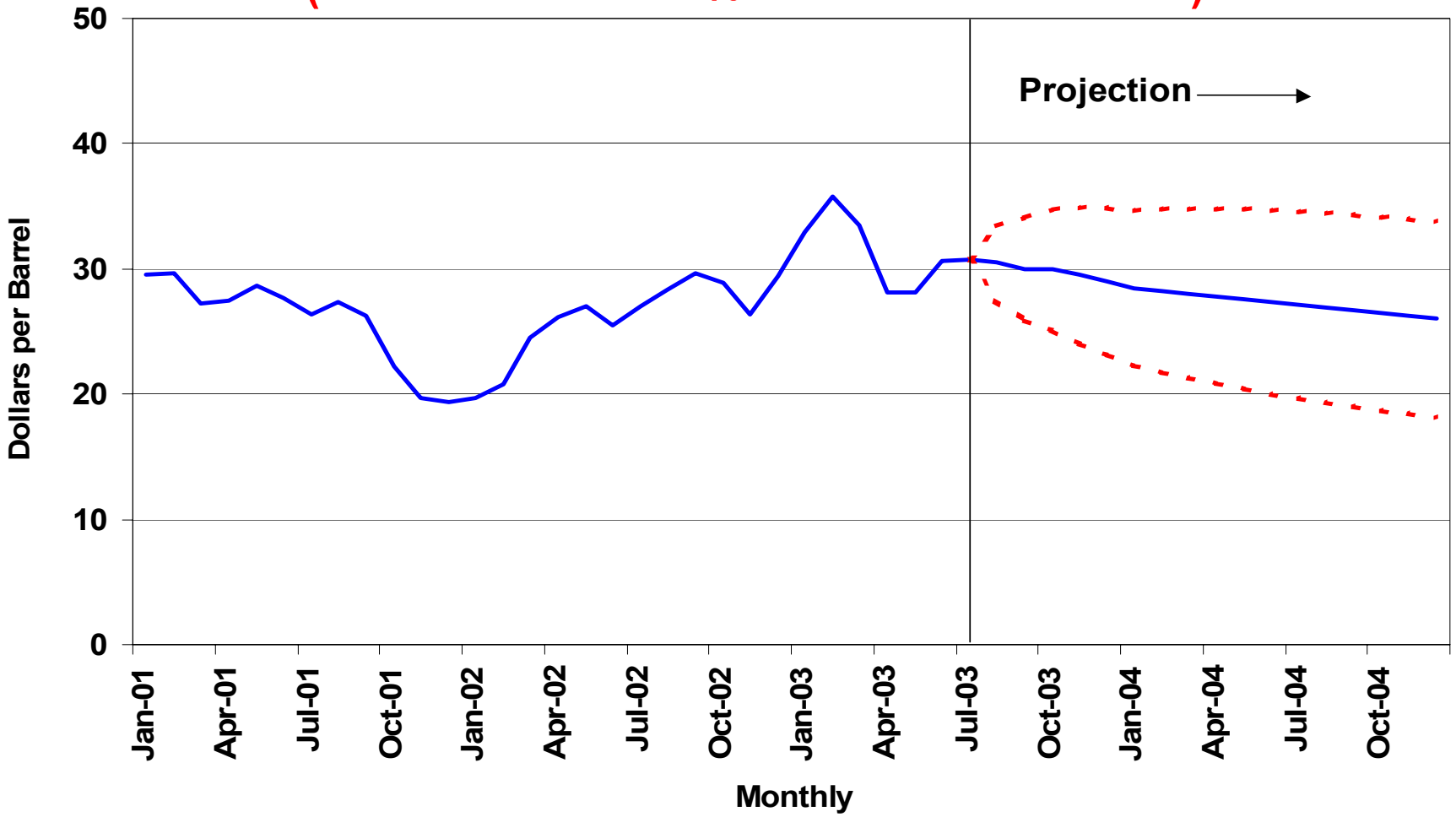
**Summer Motor Gasoline Outlook.** Motor gasoline prices have been fairly stable this past month, moving up or down by just a few cents per gallon from week to week. This pattern sharply contrasts with the price behavior exhibited earlier in the driving season, when pump prices fell for 10 out of 11 weeks following the March 17 record price (for regular gasoline) of nearly $1.73 per gallon. By the end of July, gasoline inventories remained just below the 5-year min/max range. Pump prices, which have moved up some lately, are expected to remain near $1.54 over the next two months, then begin to decline as the driving season ends.

## Details

### World Oil Markets

**International Oil Supply**. In July, OPEC 10 oil production (excluding Iraq) stabilized at an estimated 25.6 million barrels per day, 0.1 million barrels per day below June levels and only 0.2 million barrels per day

# 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, August 2003.

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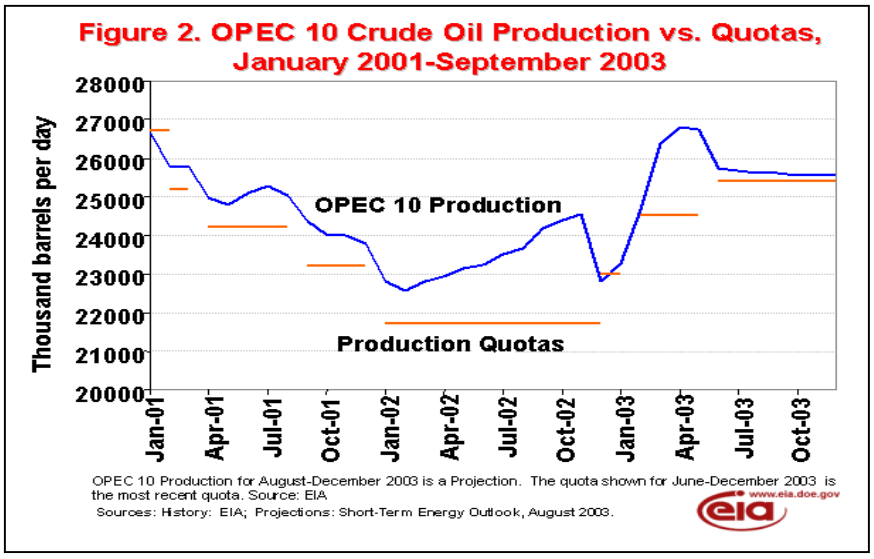
above the OPEC production targets that took effect June 1 (Figure 2). OPEC kept its production targets unchanged at its July 31 meeting, noting that oil prices were within OPEC's target range and that the market was stable and well supplied.

Non-OPEC production is expected to grow by 1-1.3 million barrels per day in 2003 and 2004, exceeding the 0.9 million barrels per day growth seen in 2002. Most of this growth is expected to come from Russia and the Caspian Sea region, with supplies from these countries expected to increase by over 700,000 barrels per day in 2003.

**International Oil Demand**. World oil demand is projected to grow more than 1 million barrels per day in 2003 (Figure 3). About one-eighth of this growth is projected to come from the U.S., with China and other non-OECD countries projected to provide an additional 0.5 million barrels per day of total demand growth.

**Crude Oil Prices**. Average crude oil prices for July were little changed from June averages. In July, the West Texas Intermediate (WTI) spot average price was $30.75 per barrel compared to $30.66 in June. EIA's *Outlook* projects that prices will remain firm throughout the rest of 2003, even with the expected large increases in non-OPEC oil supplies, largely because of the tight OECD commercial inventory situation (Figure 4). Until these inventories are rebuilt above observed 5-year lows, which is not expected to occur until autumn, WTI oil futures prices should remain near current levels, then gradually slide to $26 per barrel during 2004, as Iraqi oil exports return to near pre-war levels next year.

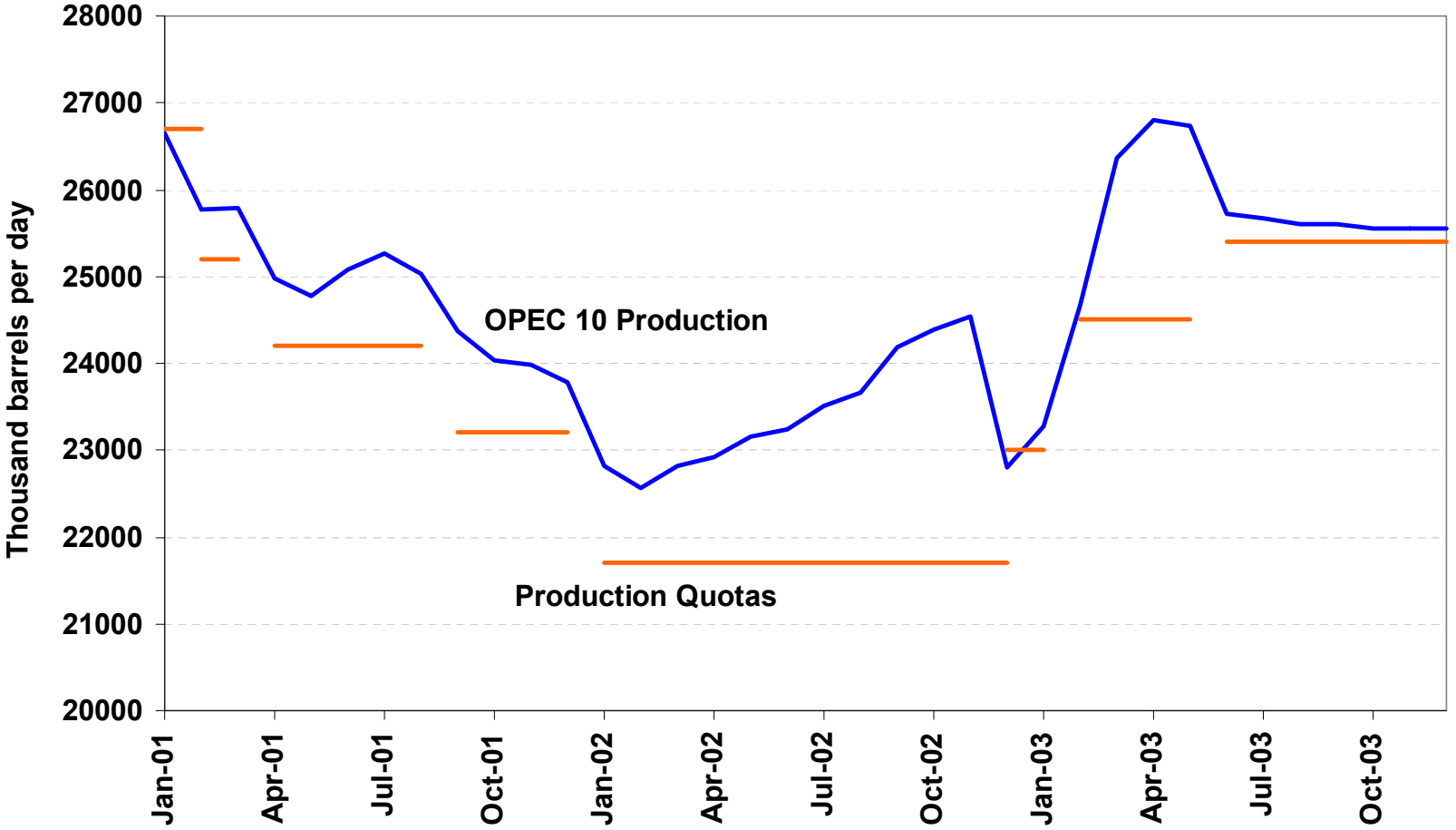



If Iraqi exports do increase at the target rates set by the Iraqi Ministry of Oil, there would be downward pressure on prices. However, OPEC continues to monitor the situation in Iraq and could reduce its own production at its September 24th meeting. In short, prices are expected to fall only if OPEC fails to cut back its production to accommodate any Iraqi increases, which may not happen unless OPEC members become more interested in obtaining higher quota allocations than in maintaining high crude oil prices. EIA's low price case, where WTI prices fall to between $15-$20 per barrel in 2004, also depends on continued high OPEC production through next year.

**U. S. Energy Prices**

**Motor Gasoline:** Motor gasoline prices (U.S average regular, self service) have been fairly stable over the past month, moving up or down by just a few cents per gallon from week to week. This pattern contrasts sharply with the price behavior exhibited earlier in the driving season, when pump prices fell for 10 out of 11 weeks after hitting a record price of nearly $1.73 per gallon on March 17. By the end of July, gasoline inventories were just below the 5-year min/max range (Figure 5). The latest weekly survey by EIA puts the average regular price at $1.54 per gallon. Pump prices, which have moved up some lately, are expected to remain close to current levels over the next two months, then begin to decline as the driving seasons ends

# Figure 2. OPEC 10 Crude Oil Production vs. Quotas, January 2001-September 2003




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

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

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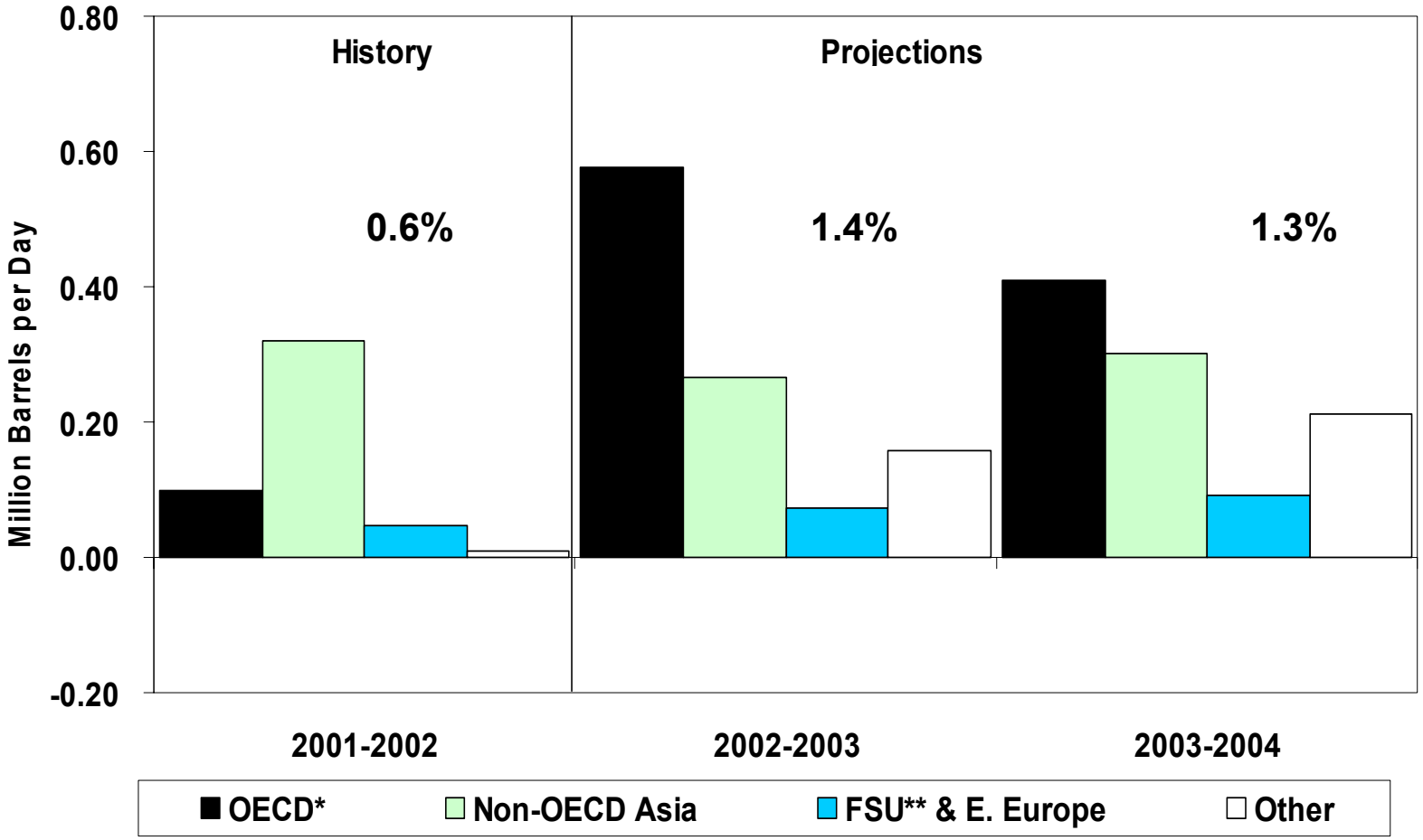
# Figure 3. World Oil Demand Growth
## (Change from Year Ago)




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

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

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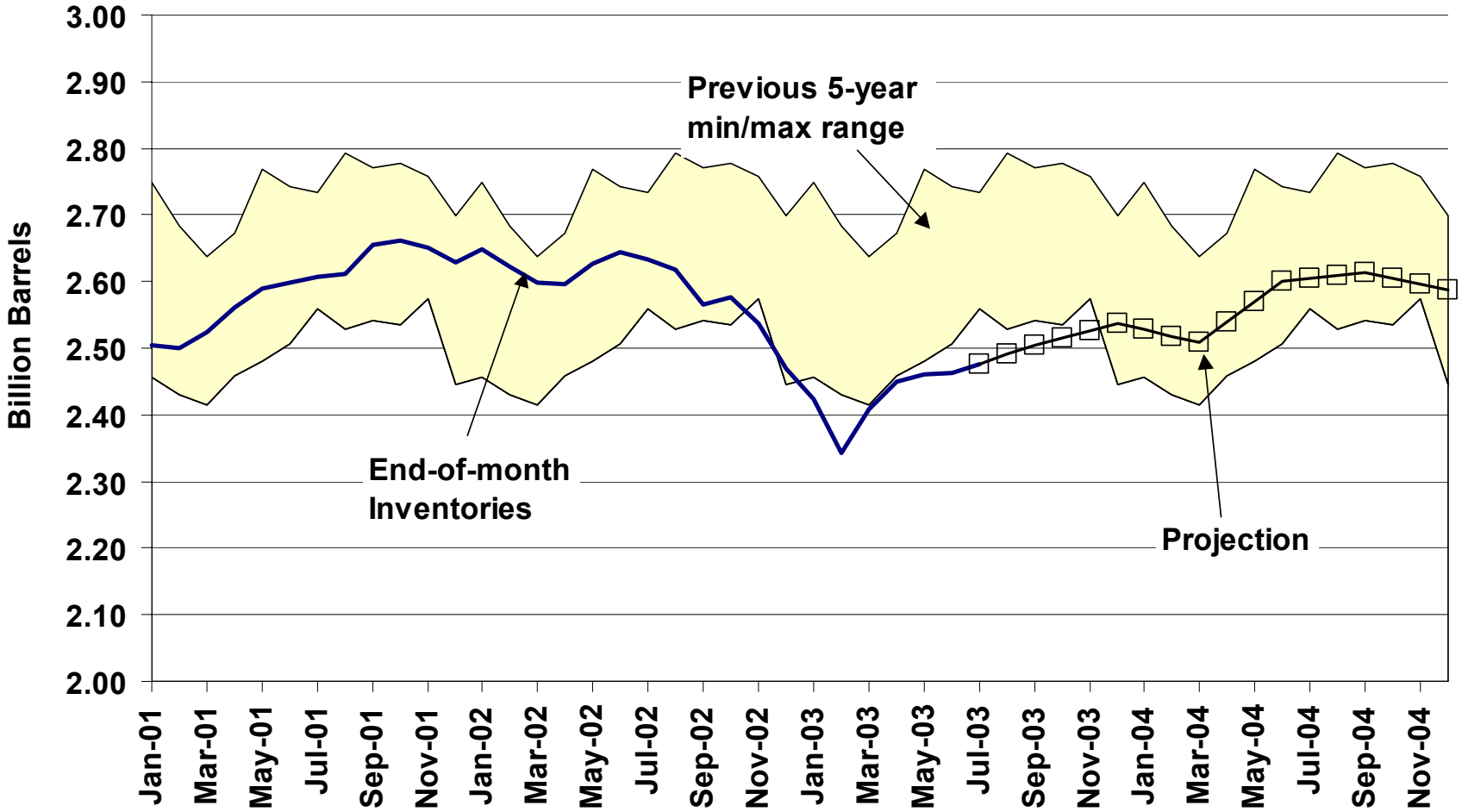
# Figure 4. OECD Commercial Oil Stocks




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

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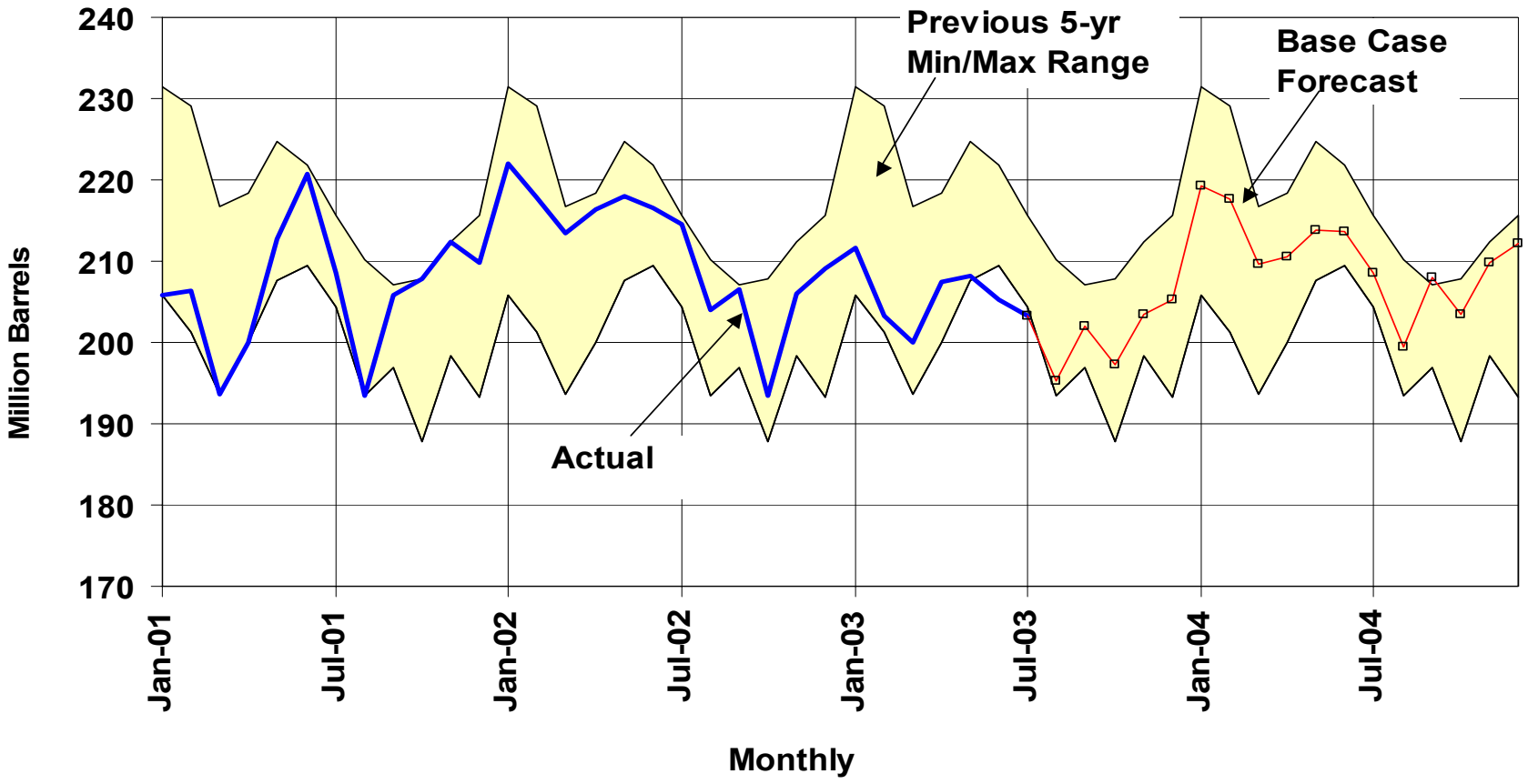
# Figure 5. U.S. Gasoline Inventories




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

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(Figure 6). In 2004, the annual pump price is projected to average $1.43 per gallon (down nearly 10 cents per gallon from the projected 2003 average), as crude oil prices decline and refiner and retail margins ease slightly.

The current price of regular motor gasoline in California of $1.71 per gallon is about 20 cents per gallon higher than the national average price of $1.52 per gallon. The price difference between California and the nation as a whole has narrowed considerably since April, when the disparity reached 45-50 cents per gallon. In the beginning of the driving season, unexpected refinery shutdowns and the phase-out of MTBE, which is being replaced by ethanol in California gasoline, created supply problems and raised prices state-wide. The transition from MTBE to ethanol created two essentially incompatible distribution systems, which exacerbate the tight gasoline market. However, recent market supply adjustments and improved economies of scale in the refining and blending process have narrowed the price differences.

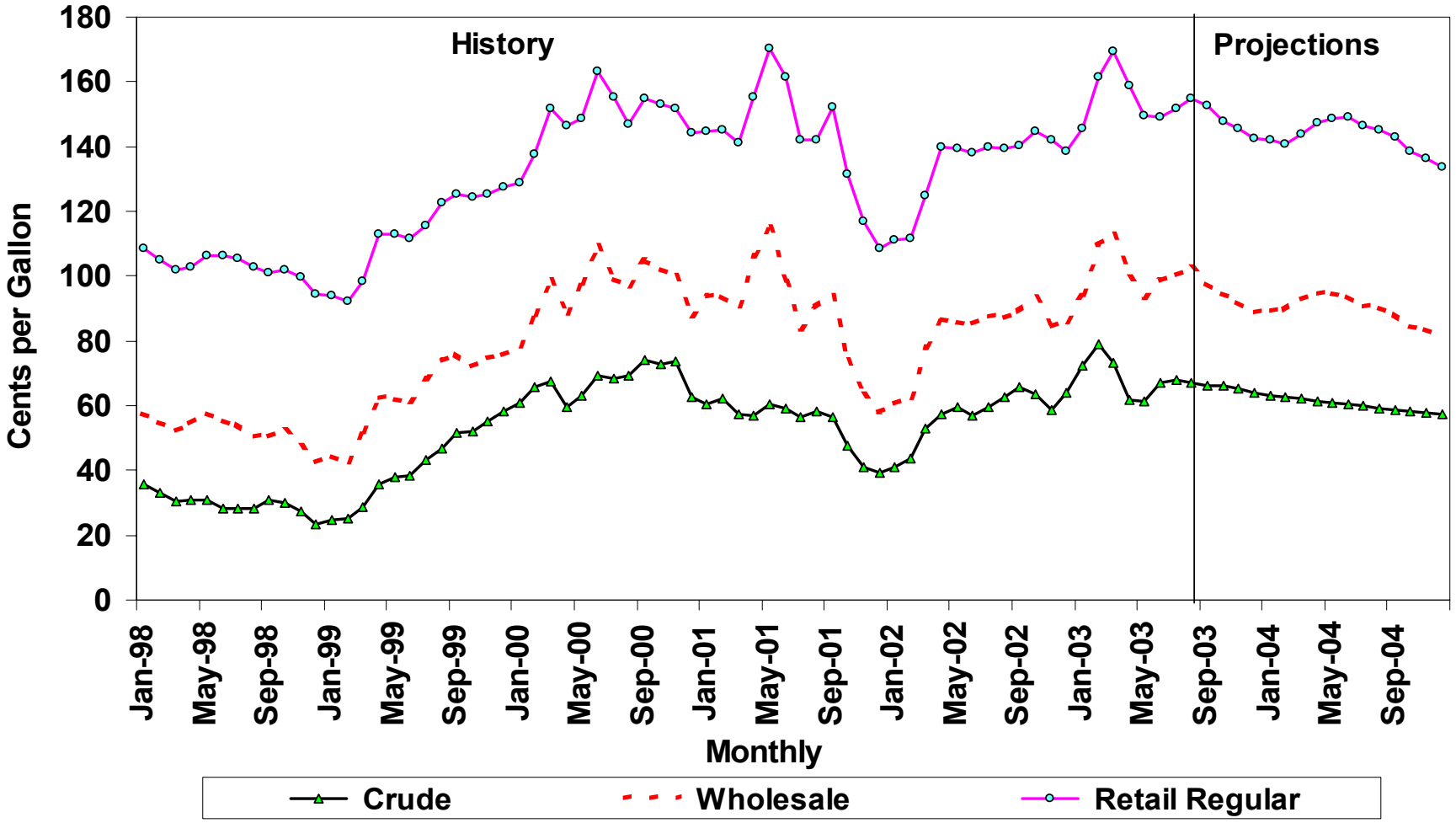
**Distillate Fuel Oil (Diesel Fuel and Heating Oil):** Diesel fuel oil prices, like motor gasoline prices, have also stabilized over the past month. Prices will likely increase as the heating season approaches, but only by a modest amount. Residential heating oil prices, on the other hand, will be affected by seasonal demand for heating oil. Prices for this fuel should rise at the end of the summer, averaging about $1.29 per gallon during the 2003/2004 winter, comparable to the $1.31 price seen last winter (Figure 7). At the end of July, distillate fuel oil inventories reached 119 million barrels, a level slightly over the lower band (117 million barrels) of the 5-year min/max range (Figure 8).

**Natural Gas:** Two months of relatively mild weather across much of the country has depressed natural gas spot prices. As cooling demand declined, thus reducing the need for natural gas for electricity generation, historically high levels of natural gas were injected into underground storage facilities. Cash prices at the Henry Hub, which had hovered considerably above $5 per million Btu on a monthly basis since the beginning of the year, fell below $4.70 per million Btu during the last week in July (Figure 9). Only two months ago that price topped $6 per million Btu.

For the end of July, working gas in storage is estimated (based on data through July 25) to have been about 17 percent below end-of-July 2002 levels and about 9 percent below the previous 5-year average. The chance of reaching a normal level by the beginning of the heating season now looks good. One factor that could slow down progress toward reaching that goal would be a hot remainder of the summer, particularly in the Western and South Central regions, where natural gas is heavily used in the electric utility sector to meet cooling demand. In this case, additional pressure on marginal gas prices could be expected. In fact, occasional sharp price increases might occur as the difficulty of building adequate storage increases. However, assuming normal weather and taking into account the recent accelerated buildup in storage, spot prices in the $5.00-$5.60 per million Btu range are not expected until December or January.

For all of 2003, wellhead prices are projected to average about $2.00 per thousand cubic feet above the 2002 annual average, or just under $5.00 per thousand cubic feet. For 2004, average annual wellhead prices are projected to ease by about 16 percent, as supplies are expected to remain sufficiently strong to return storage levels to within normal bounds, assuming normal weather. Although we have revised our wellhead price forecast downward from the previous *Outlook* due to the recent high volumes of injections, it should be noted that a prolonged period of colder-than-normal weather in October and especially November could tighten the market enough to send prices above $6.00 per thousand cubic feet.

# Figure 6. Gasoline Prices and Crude Oil Costs




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

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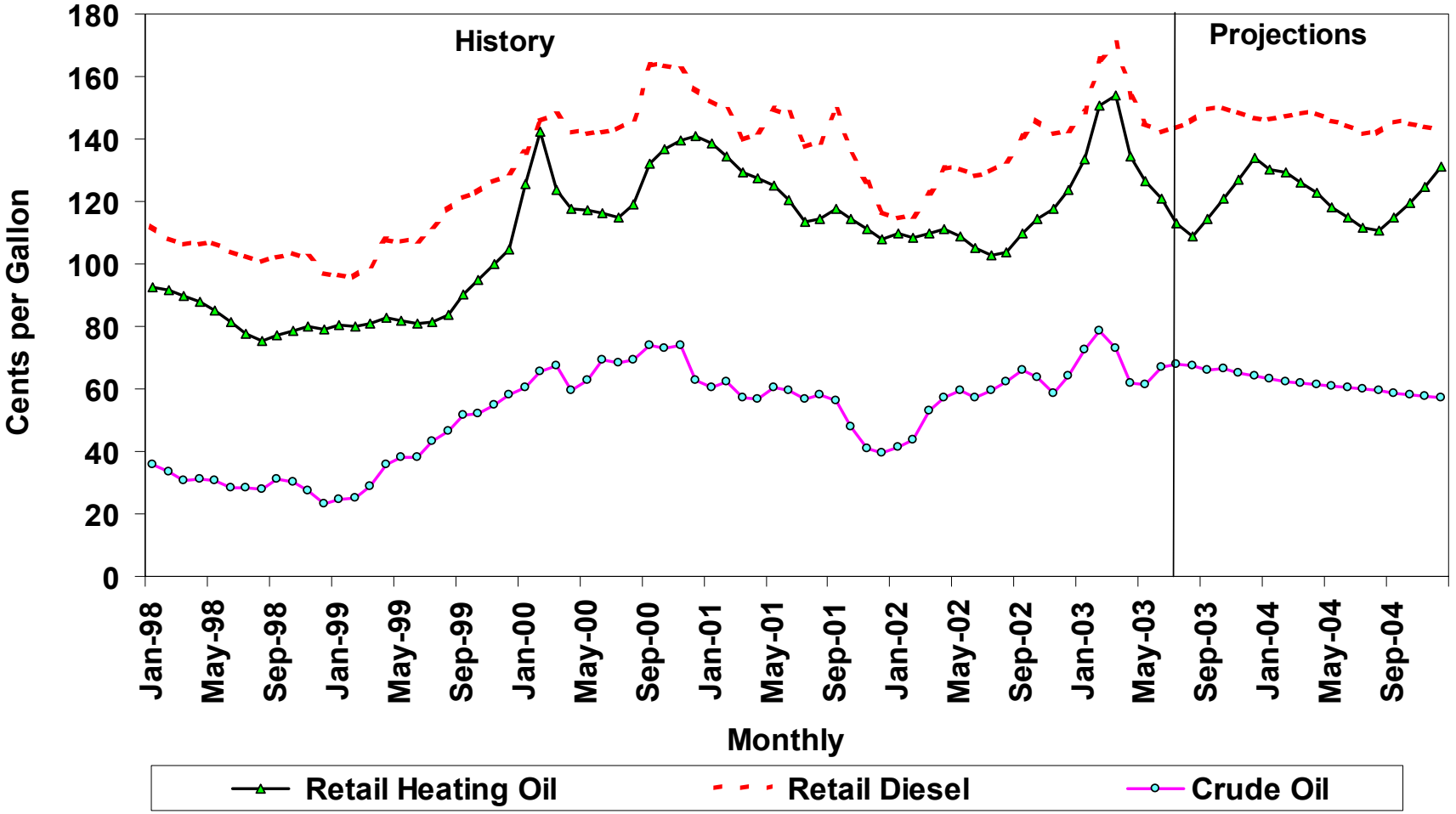
# Figure 7. Distillate Fuel Prices




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

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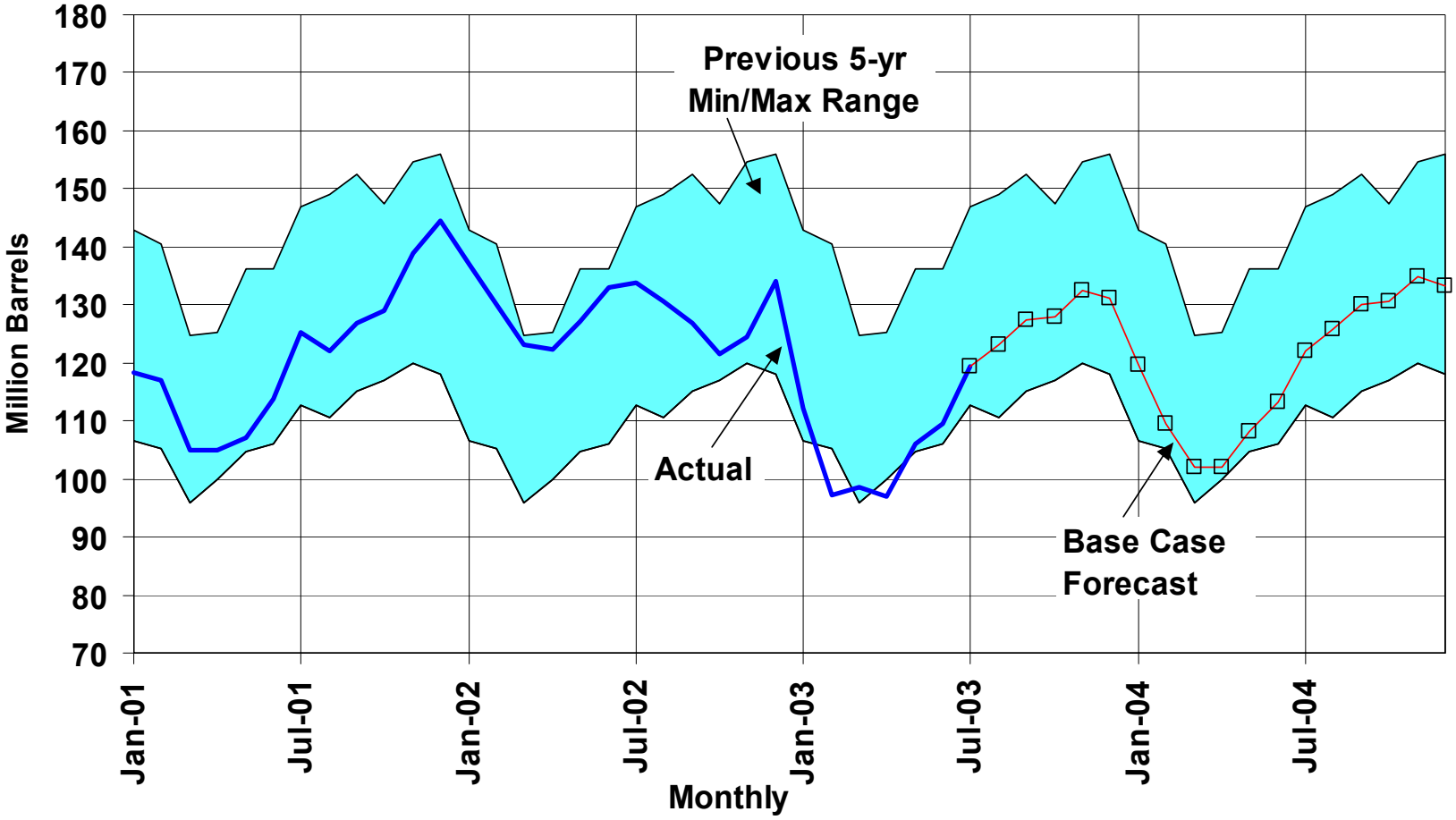
# Figure 8. Distillate Fuel Inventories




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

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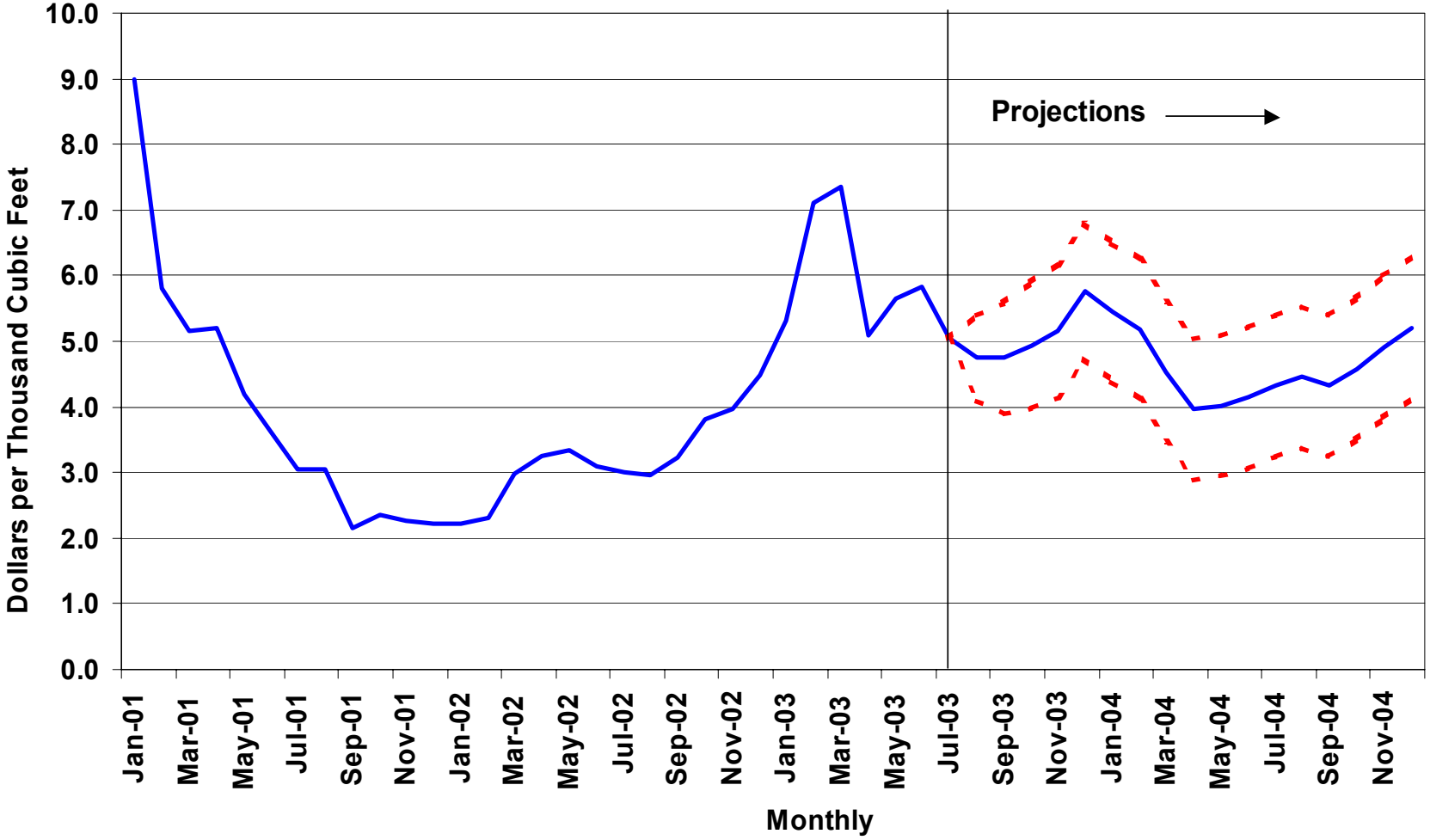
# Figure 9. Natural Gas Spot Prices
## (Base Case and 95% Confidence Interval*)




*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, August 2003.**

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**U. S. Oil Demand**

Total 2003 petroleum demand is projected to increase by close to 150,000 barrels per day, or 0.7 percent, to 19.91 million barrels per day (Figure 10). Individual product patterns, however, are expected to vary widely. Demand for motor gasoline, the largest oil-based product, is projected to increase by 0.7 percent for the year as a whole. Year-over-year increases in the second half are projected following the year-over–year declines in the first six months. This year-over-year increase in demand in the second half of the year is in response to the economic recovery.

Jet fuel markets, which were negatively affected by both the SARS epidemic and the Iraqi campaign, are likely to remain sluggish for the rest of the year. Available travel and capacity data show no growth thus far, a trend that is expected to continue throughout the rest of the year. On the other hand, distillate fuel oil is projected to increase 3.9 percent this year, buoyed by the harsh weather during the first quarter. Transportation demand, the largest distillate component, is projected to increase 2.9 percent this year. Residual fuel oil demand, bolstered by high space-heating demand during the first quarter and relatively high natural gas prices throughout the year, is projected to register an increase of 7.4 percent. Despite the colder-than-average winter, liquefied petroleum gas demand is projected to decline substantially for the year as a whole, largely as a result of weakness in petrochemical activity and high natural gas prices.

In 2004, growth in total petroleum demand is projected to reach 440,000 barrels per day, or 2.2 percent growth, to average 20.35 million barrels per day. All the major products (except residual fuel oil) are expected to contribute to that growth. The acceleration reflects not only a general improvement in economic conditions but also a belated recovery in jet fuel and liquefied petroleum gas demand from the low levels of 2003. Jet fuel demand, having declined two years in a row, will likely grow at a rate of 1.6 percent to an average 1.58 million barrels per day, which is still below the 2001 average. Distillate demand growth is projected to moderate to 1.9 percent as year-to-year shifts in weather patterns partly counteract the acceleration of demand growth in the transportation sector. Residual fuel oil deliveries, which grew last year, are projected to retrench by more than 12 percent, reflecting the assumptions of normal weather and greater competition from natural gas, whose prices are projected to decline throughout the forecast interval. Liquefied petroleum gas is expected to recover smartly from the weaknesses of the previous year, exhibiting growth of 7.8 percent. Growth in both petrochemical activity and declines in natural gas feedstock prices are both expected to offset the year-to-year decline in weather-related space-heating demand.

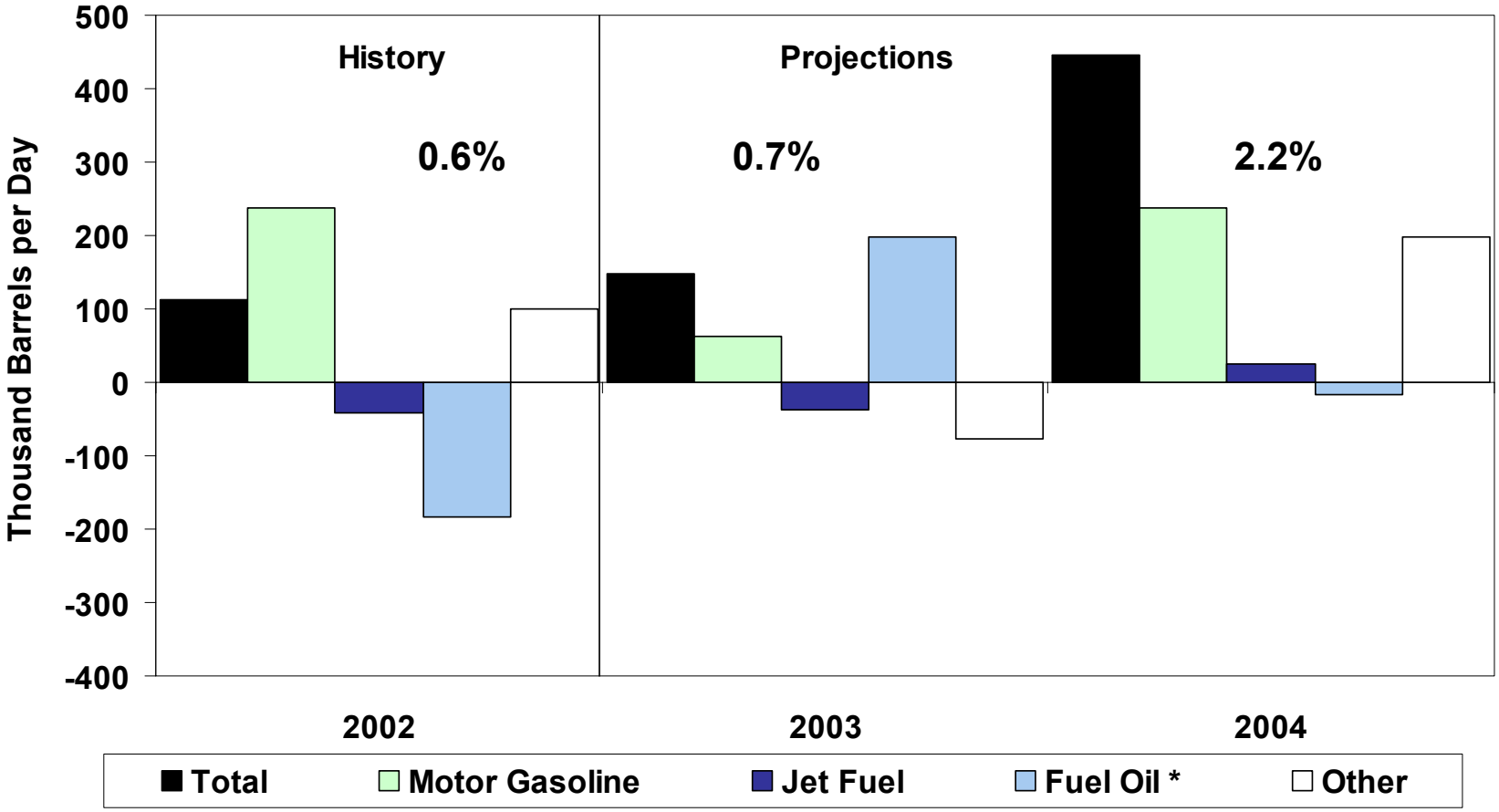
**Oil Supply**

Average domestic oil production in 2003 is expected to increase by about 62 thousand barrels per day, or 0.9 percent, to a level of 5.80 million barrels of oil per day. For 2004, a 0.4 percent decrease is expected, resulting in an average production rate of 5.77 million barrels of oil per day for the year (Figure 11).

Lower-48 States oil production will likely increase by 62 thousand barrels per day to a rate of 4.82 million barrels per day in 2003, followed by a slight increase of about 10 thousand barrels per day in 2004. Oil production from the Mars, Mad Dog, Na Kika, Ursa and Dianna-Hoover Federal Offshore fields is expected to account for about 7.9 percent of the lower-48 oil production by the fourth quarter of 2004.

Alaska is expected to account for 16.4 percent of total U.S. oil production in 2004. Alaskan oil production is expected to decrease by 1.0 percent in 2003 and decrease by 2.8 percent in 2004. The combined production

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




* Sum of distillate and residual fuel.

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

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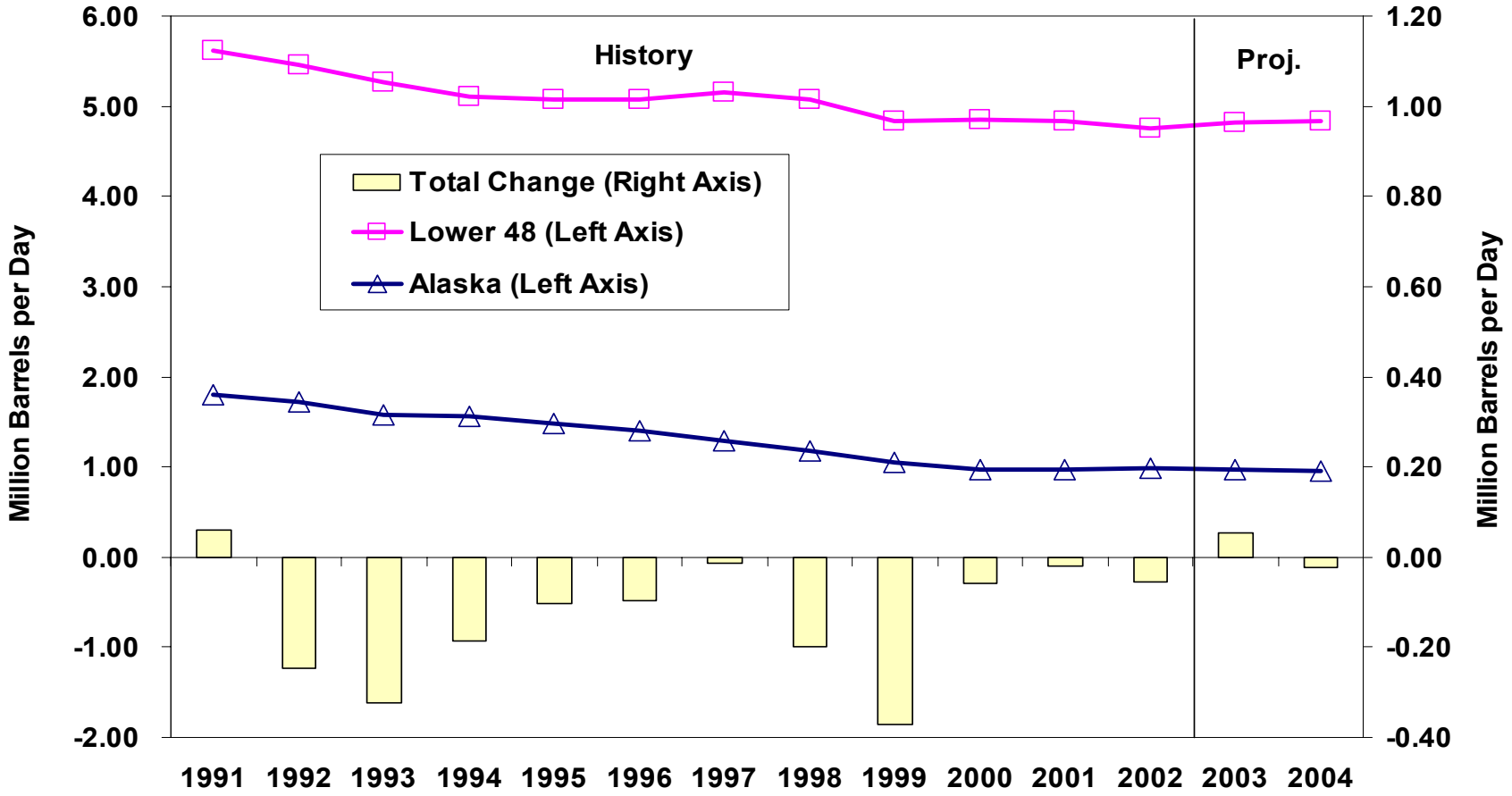
# Figure 11. U.S. Crude Oil Production Trends




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

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rate from the two significant satellite fields, Alpine and North Star, averaged nearly 170 thousand barrels per day during May 2003. Production from the Kuparuk River field plus like production from West Sak, Tabasco, Tarn and Meltwater fields is expected to stay at an average of 210 thousand barrels per day in 2003 and 2004.

**Natural Gas Supply and Demand**

Natural gas demand is expected to rise by 0.6 percent in 2003 due in part to the sharply higher weather-related demand during the first quarter of 2003 (Figure 12). The decrease in consumption projected for 2004 due to the reversal of weather effects (under the assumption of normal weather) is offset by a slight increase in industrial consumption in response to the somewhat lower prices and higher industrial output in 2004.

Demand for natural gas this summer is expected to be 1.7 percent lower than last summer's level, due largely to the effect of higher prices on the industrial and electricity-generating sectors. Also, cooling degree-days for the season (Q2 2003 and Q3 2003) under our assumption of normal weather would be about 15 percent below year-ago levels, resulting in slight year-over-year declines in electric power sector demand. Summer natural gas wellhead prices are projected to be 40 percent higher than last summer. In the event of a hotter-than-normal weather for the remainder of the summer, natural gas prices could go higher, as expanded natural gas-fired electric generation to meet cooling demand would compete with the need to build storage inventories.

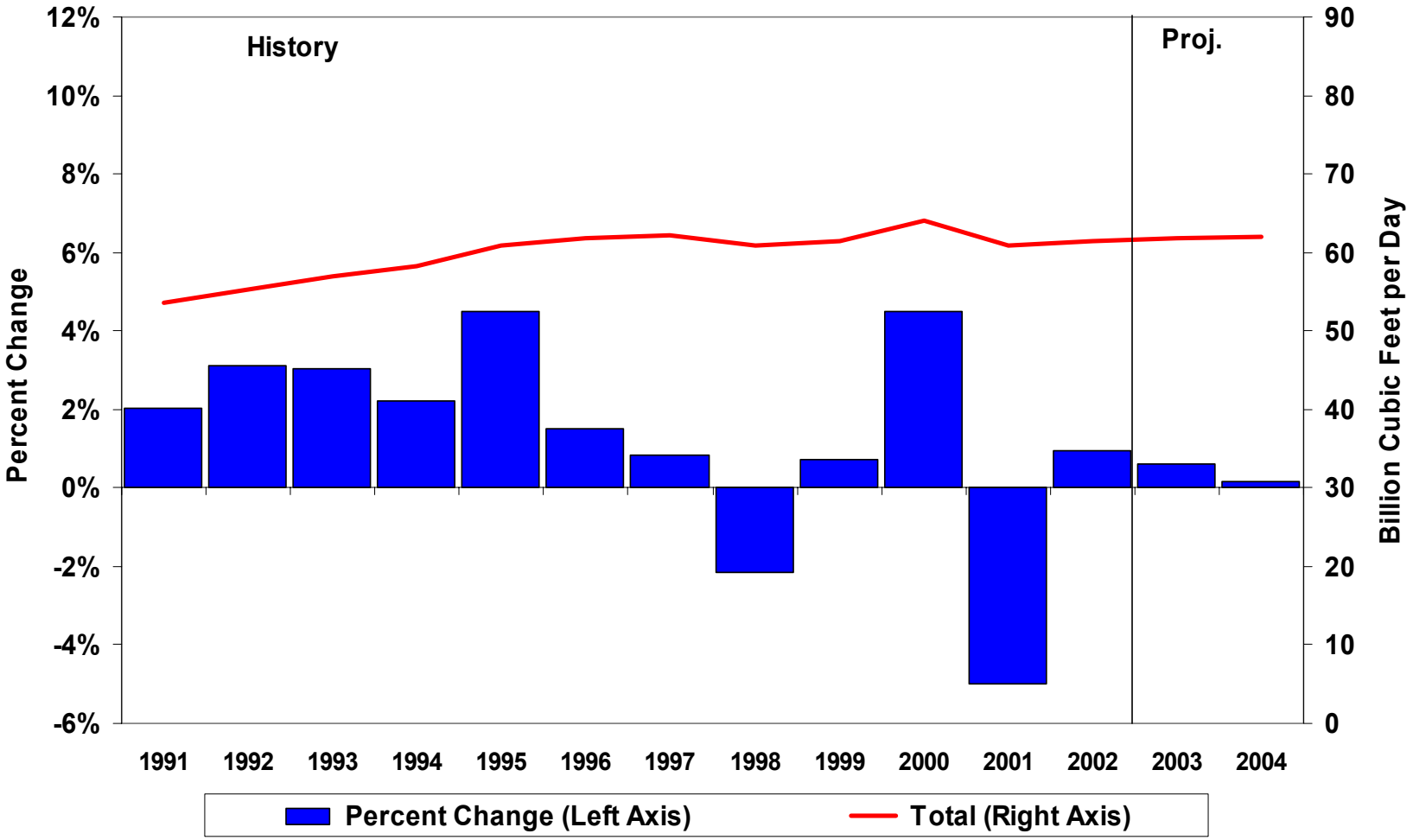
Working natural gas in storage stood at about 2.1 billion cubic feet (Bcf) at the end of July, 17 percent below the year-ago level (Figure 13). This marks a strong improvement in the storage situation from 2 months ago. Still, the need for relatively large volumes of natural gas to refill working gas storage in 2003 remains, and this means that relatively high price volatility can be expected to continue. Nevertheless, a definite improvement in the supply situation has occurred and the probability of reaching adequate storage levels by November has risen.

Natural gas production is expected to increase by about 3 percent this year. High natural gas prices and sharply higher oil and natural gas field revenues are driving the resurgence in 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 from the current high levels could hinge on the productivity of the expected upsurge in drilling in terms of expected output. An average natural gas wellhead price of about $4.07 is projected for 2004, partly based on our belief that natural gas production will rise modestly in 2003 and remain close to improved levels in 2004.

**Electricity Demand and Supply**

Electricity demand is expected to increase by 1 percent this year (Figure 16). Most of the 2003 increase occurred in the first quarter, driven largely by weather factors (heating demand) which, with corrections to the degree-day data from the National Oceanographic and Atmospheric Administration (NOAA), were noticeably more important than previously thought. If normal temperatures prevail for the remainder of the year, little or no additional net weather-related demand growth is expected. This situation contrasts sharply with the hot weather conditions that prevailed in 2002. In 2004, annual electricity demand is projected to continue to grow by about 0.6 percent, a slower rate than might be indicated by economic

# Figure 12. Total Natural Gas Demand Growth Patterns




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

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

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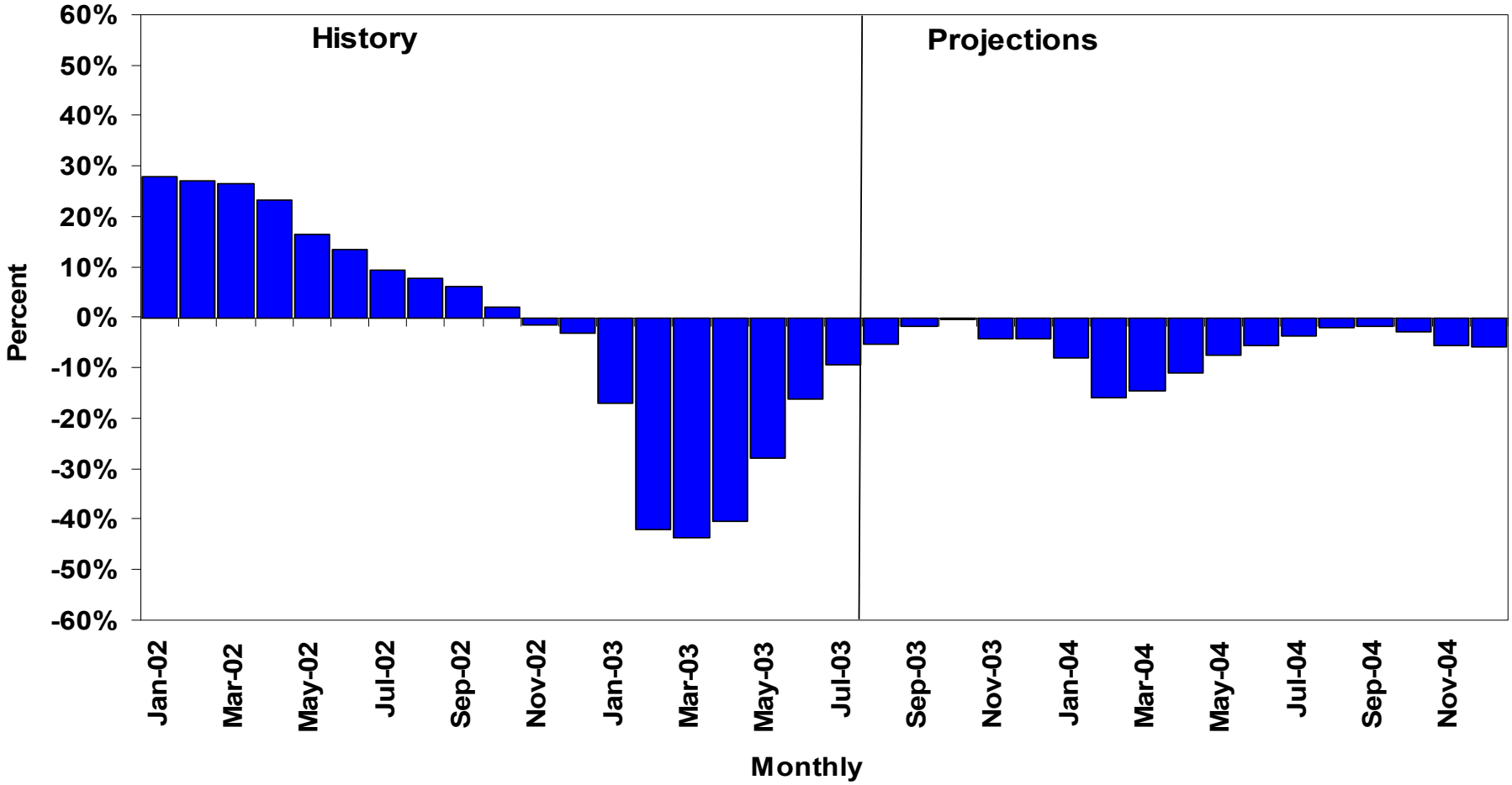
# Figure 13. Working Gas in Storage
## (Difference from Previous 5-Year Average)




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

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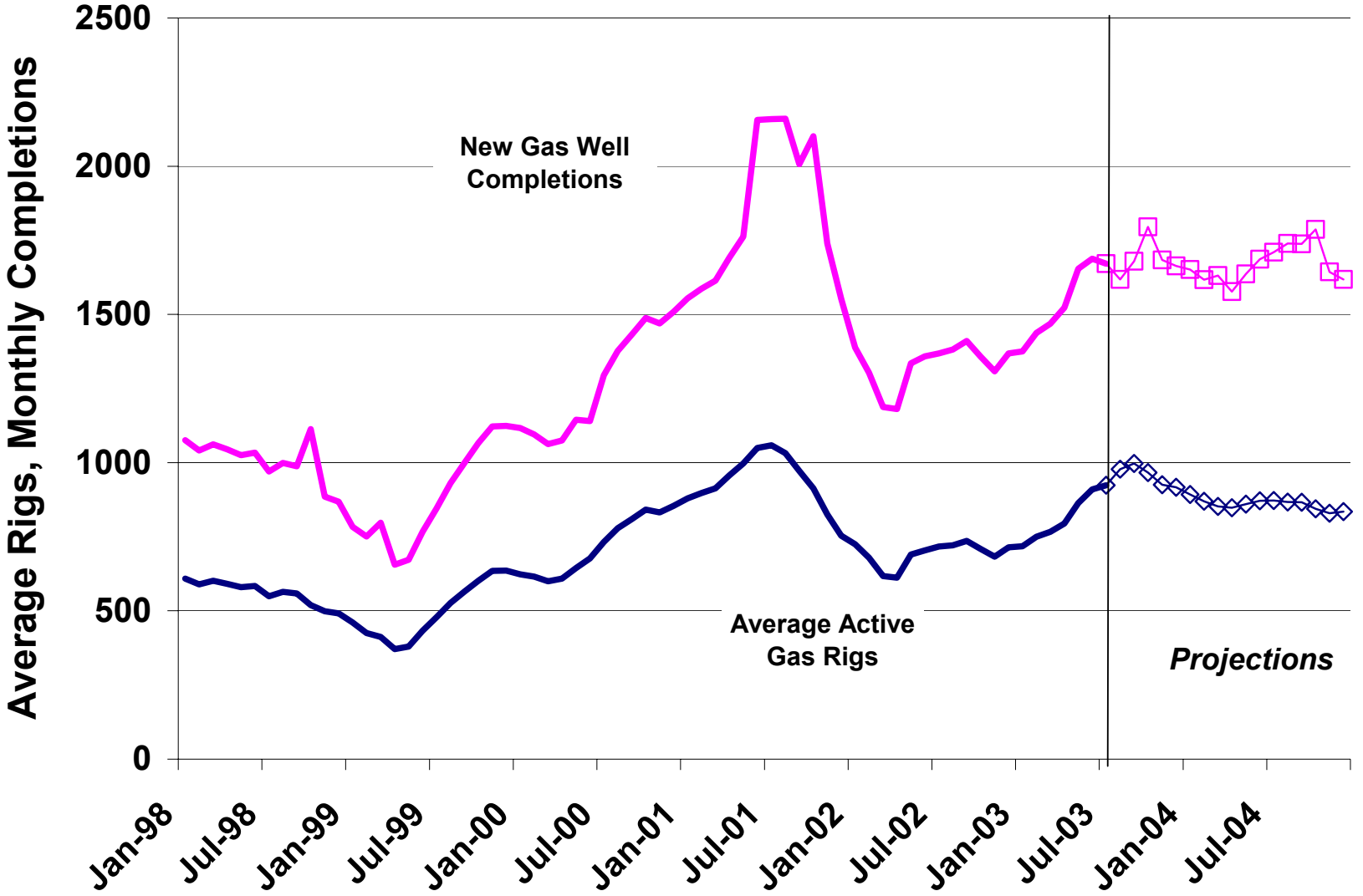
# Figure 14. U.S. Natural Gas-Directed Drilling Activity




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

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


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

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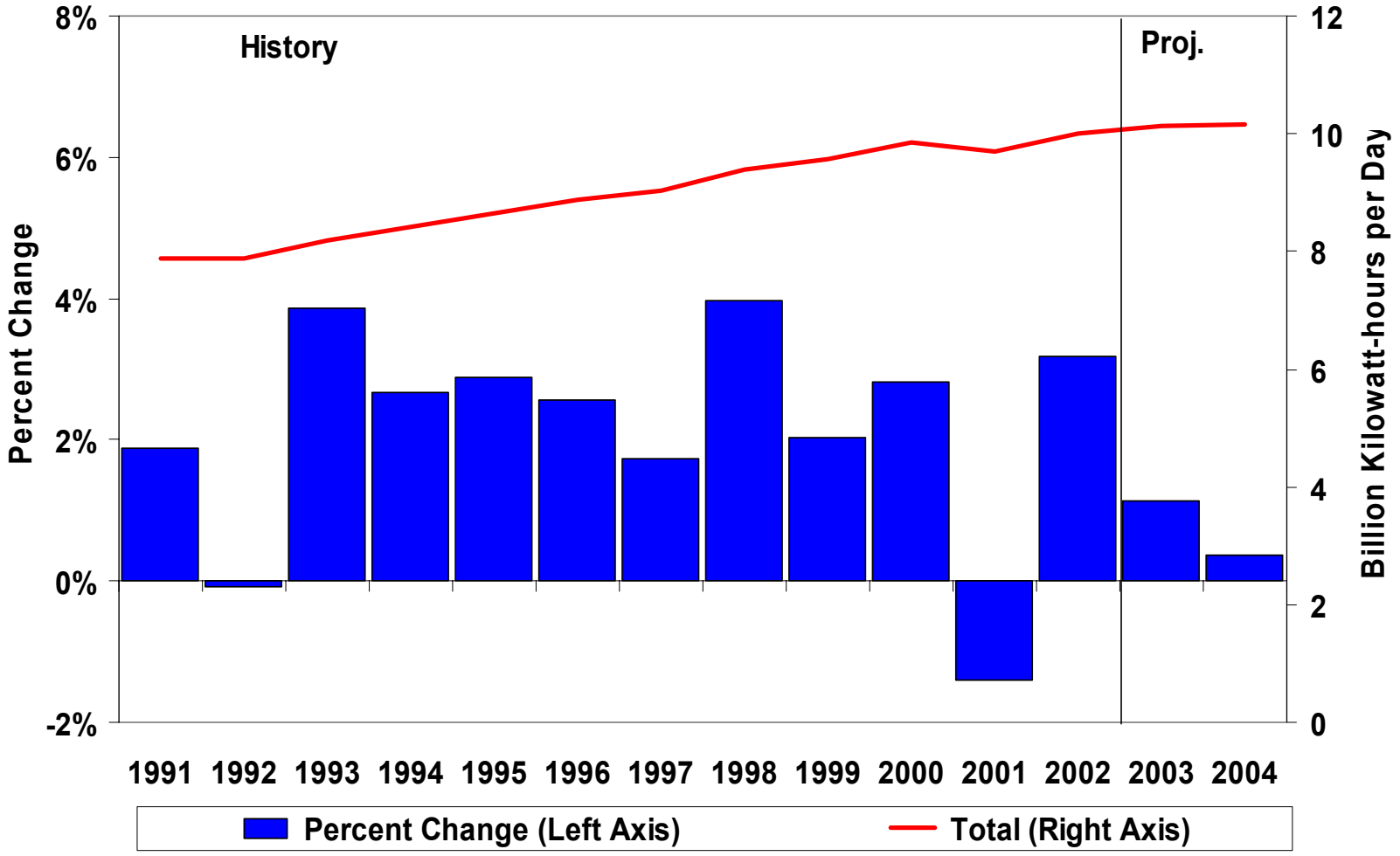
# Figure 16. Total Electricity Demand Growth Patterns




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

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growth, due to relatively weak heating market increases in the first and second quarters compared with those quarters in 2003.

Natural gas-generated electricity production is expected to increase slightly in 2003. A higher growth rate would be expected except for fuel substitution related to high natural gas prices, increasing oil-fired plant utilization (where possible) beyond what otherwise might have been projected. For all of 2003, petroleum-generated electricity production is expected to increase by about 40 percent. In 2004, petroleum-generated electricity production is projected to fall back to close to 2002 levels. Hydroelectric generation in 2003, while down in the Pacific Northwest, is up in other parts of the country due to high water levels and is expected to increase by 5 percent overall. Nuclear generation is expected to be somewhat lower than last year, as first-half statistics from EIA and the Nuclear Regulatory Commission indicate a decline of about 3 percent from the first half of 2002. Part (at least) of the reason for the lower nuclear generation is that two nuclear plants have been in extended shutdown state. One of the South Texas units has been shut down for several months (NRC has recently allowed it to resume operations) and the Davis-Besse plant has been shut down for many months. With the nuclear industry electrical generating capacity factors now exceeding 90%, these extended shutdowns (which are longer than, and in addition to, normal refueling shutdowns) have a direct impact on generation.

**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** | *9629* | *9987* | **2.4** | *2.0* | *3.7* |
| Imported Crude Oil Price [a] | | | | | | | |
| (nominal dollars per barrel) | **22.00** | **23.69** | *27.64* | *24.74* | **7.7** | *16.7* | *-10.5* |
| **Petroleum Supply** (million barrels per day) | | | | | | | |
| Crude Oil Production [b] | **5.80** | **5.75** | *5.80* | *5.77* | **-1.0** | *0.9* | *-0.4* |
| Total Petroleum Net Imports | | | | | | | |
| (including SPR) | **10.90** | **10.54** | *10.95* | *11.31* | **-3.3** | *3.8* | *3.3* |
| **Energy Demand** | | | | | | | |
| World Petroleum | | | | | | | |
| (million barrels per day) | **77.1** | **77.6** | *78.7* | *79.7* | **0.6** | *1.4* | *1.3* |
| Petroleum | | | | | | | |
| (million barrels per day) | **19.65** | **19.76** | *19.91* | *20.35* | **0.6** | *0.7* | *2.2* |
| Natural Gas | | | | | | | |
| (trillion cubic feet) | **22.23** | **22.44** | *22.57* | *22.68* | **0.9** | *0.6* | *0.5* |
| Coal [c] | | | | | | | |
| (million short tons) | **1060** | **1065** | *1072* | *1073* | **0.5** | *0.6* | *0.1* |
| Electricity (billion kilowatthours) | | | | | | | |
| Retail Sales [d] | **3370** | **3475** | *3523* | *3541* | **3.1** | *1.4* | *0.5* |
| Other Use/Sales [e] | **173** | **180** | *174* | *179* | **4.2** | *-3.3* | *2.9* |
| Total | **3543** | **3655** | *3697* | *3721* | **3.2** | *1.1* | *0.6* |
| Total Energy Demand [f] | | | | | | | |
| (quadrillion Btu) | **96.3** | **97.6** | *98.4* | *99.8* | **1.3** | *0.8* | *1.5* |
| Total Energy Demand per Dollar of GDP | | | | | | | |
| (thousand Btu per 1996 Dollar) | **10.45** | **10.34** | *10.22* | *10.00* | **-1.1** | *-1.2* | *-2.1* |
| Renewable Energy as Percent of Total [g] | **5.6%** | **6.2%** | *6.2%* | *6.5%* | | | |

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

[b]Includes lease condensate.

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

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

[e]Defined 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.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL0703.

## 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* | *9571* | *9647* | *9745* | *9855* | *9937* | *10037* | *10117* | **9440** | *9629* | *9987* |
| Percentage Change from Prior Year | **1.4** | **2.2** | **3.3** | **2.9** | *2.0* | *1.9* | *1.7* | *2.4* | *3.2* | *3.8* | *4.0* | *3.8* | **2.4** | *2.0* | *3.7* |
| Annualized Percent Change from Prior Quarter | **5.0** | **1.2** | **4.0** | **1.4** | *1.4* | *0.8* | *3.2* | *4.1* | *4.5* | *3.4* | *4.0* | *3.2* | | | |
| GDP Implicit Price Deflator (Index, 1996=1.000) | **1.101** | **1.105** | **1.108** | **1.112** | *1.119* | *1.121* | *1.126* | *1.130* | *1.135* | *1.140* | *1.146* | *1.152* | **1.107** | *1.124* | *1.143* |
| Percentage Change from Prior Year | **1.4** | **1.1** | **0.8** | **1.3** | *1.6* | *1.5* | *1.6* | *1.6* | *1.4* | *1.7* | *1.8* | *2.0* | **1.1** | *1.6* | *1.7* |
| Real Disposable Personal Income (billion chained 1996 Dollars - SAAR) | **6961** | **7027** | **7058** | **7082** | *7119* | *7169* | *7296* | *7317* | *7430* | *7462* | *7499* | *7542* | **7032** | *7225* | *7483* |
| Percentage Change from Prior Year | **3.8** | **5.0** | **2.8** | **5.2** | *2.3* | *2.0* | *3.4* | *3.3* | *4.4* | *4.1* | *2.8* | *3.1* | **4.2** | *2.8* | *3.6* |
| Manufacturing Production (Index, 1997=100.0) | **110.8** | **111.8** | **112.6** | **111.5** | *111.3* | *109.8* | *110.9* | *112.4* | *114.3* | *116.7* | *119.2* | *121.4* | **111.7** | *111.1* | *117.9* |
| Percentage Change from Prior Year | **-4.0** | **-1.5** | **0.5** | **1.2** | *0.4* | *-1.8* | *-1.5* | *0.8* | *2.7* | *6.3* | *7.4* | *8.0* | **-1.0** | *-0.5* | *6.1* |
| OECD Economic Growth (percent) [b] | | | | | | | | | | | | | **1.8** | *2.2* | *2.8* |
| **Weather** [c] | | | | | | | | | | | | | | | |
| Heating Degree-Days | | | | | | | | | | | | | | | |
| U.S. | **2072** | **490** | **49** | **1673** | *2297* | *607* | *82* | *1622* | *2254* | *517* | *85* | *1621* | **4284** | *4607* | *4477* |
| New England | **2791** | **865** | **71** | **2372** | *3504* | *1144* | *167* | *2236* | *3205* | *880* | *167* | *2235* | **6099** | *7050* | *6488* |
| Middle Atlantic | **2505** | **664** | **45** | **2158** | *3207* | *896* | *101* | *2001* | *2919* | *697* | *106* | *2001* | **5372** | *6206* | *5723* |
| U.S. Gas-Weighted | **2181** | **558** | **48** | **1773** | *2464* | *598* | *87* | *1713* | *2373* | *554* | *90* | *1713* | **4560** | *4862* | *4730* |
| Cooling Degree-Days (U.S.) | **31** | **387** | **902** | **73** | *28* | *335* | *789* | *76* | *33* | 348 | *784* | *76* | **1393** | *1228* | *1240* |

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

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

[c]Population-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 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 CONTROL0703.

## 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* | *1588* | *1595* | *1609* | *1627* | *1638* | *1660* | *1684* | **1577** | *1595* | *1652* |
| Real Exchange Rate | | | | | | | | | | | | | | | |
| (index) ..... | **1.193** | **1.152** | **1.105** | **1.102** | *1.049* | *1.000* | *1.013* | *1.014* | *1.013* | *1.006* | *0.997* | *0.988* | **1.138** | *1.019* | *1.001* |
| Business Inventory Change | | | | | | | | | | | | | | | |
| (billion chained 1996 dollars-SAAR) ... | **-31.9** | **-14.1** | **-2.6** | **2.8** | *-6.1* | *-7.1* | *-10.8* | *-7.2* | *1.0* | *10.5* | *19.3* | *25.0* | **-11.5** | *-7.8* | *14.0* |
| Producer Price Index | | | | | | | | | | | | | | | |
| (index, 1982=1.000) ..... | **1.291** | **1.306** | **1.313** | **1.335** | *1.384* | *1.393* | *1.395* | *1.389* | *1.386* | *1.386* | *1.399* | *1.405* | **1.311** | *1.390* | *1.394* |
| Consumer Price Index | | | | | | | | | | | | | | | |
| (index, 1982-1984=1.000) ..... | **1.780** | **1.795** | **1.805** | **1.814** | *1.831* | *1.829* | *1.840* | *1.849* | *1.856* | *1.864* | *1.873* | *1.884* | **1.799** | *1.837* | *1.869* |
| Petroleum Product Price Index | | | | | | | | | | | | | | | |
| (index, 1982=1.000) ..... | **0.656** | **0.810** | **0.839** | **0.875** | *1.074* | *0.918* | *0.901* | *0.938* | *0.879* | *0.832* | *0.844* | *0.879* | **0.795** | *0.958* | *0.859* |
| Non-Farm Employment | | | | | | | | | | | | | | | |
| (millions) ..... | **130.5** | **130.4** | **130.2** | **130.3** | *130.2* | *130.1* | *130.2* | *130.4* | *131.0* | *131.4* | *132.0* | *132.5* | **130.4** | *130.2* | *131.7* |
| Commercial Employment | | | | | | | | | | | | | | | |
| (millions) ..... | **91.3** | **91.3** | **91.3** | **91.5** | *91.5* | *91.7* | *91.8* | *92.1* | *92.7* | *93.2* | *93.7* | *94.2* | **91.4** | *91.8* | *93.4* |
| Total Industrial Production | | | | | | | | | | | | | | | |
| (index, 1997=100.0) ..... | **109.3** | **110.5** | **111.4** | **110.4** | *110.5* | *109.2* | *110.2* | *111.4* | *113.1* | *115.1* | *117.2* | *119.0* | **110.4** | *110.3* | *116.1* |
| Housing Stock | | | | | | | | | | | | | | | |
| (millions) ..... | **115.3** | **115.6** | **115.8** | **116.3** | *116.8* | *117.2* | *117.5* | *117.7* | *118.0* | *118.3* | *118.6* | *118.9* | **115.8** | *117.3* | *118.5* |
| **Miscellaneous** | | | | | | | | | | | | | | | |
| Gas Weighted Industrial Production | | | | | | | | | | | | | | | |
| (index, 1997=100.0) ..... | **100.4** | **101.0** | **101.6** | **100.8** | *100.6* | *100.0* | *100.3* | *101.2* | *102.2* | *103.5* | *104.9* | *106.2* | **100.9** | *100.5* | *104.2* |
| Vehicle Miles Traveled [b] | | | | | | | | | | | | | | | |
| (million miles/day) ..... | **7268** | **8033** | **8060** | **7641** | *7220* | *8024* | *8133* | *7736* | *7419* | *8207* | *8326* | *7943* | **7752** | *7781* | *7975* |
| Vehicle Fuel Efficiency | | | | | | | | | | | | | | | |
| (index, 1999=1.000) ..... | **0.997** | **1.040** | **1.037** | **1.006** | *0.984* | *1.042* | *1.039* | *1.000* | *0.986* | *1.037* | *1.038* | *0.999* | **1.020** | *1.017* | *1.015* |
| Real Vehicle Fuel Cost | | | | | | | | | | | | | | | |
| (cents per mile) ..... | **3.31** | **3.75** | **3.76** | **3.91** | *4.42* | *4.01* | *4.01* | *3.96* | *3.94* | *3.87* | *3.76* | *3.65* | **3.69** | *4.09* | *3.80* |
| Air Travel Capacity | | | | | | | | | | | | | | | |
| (mill. available ton-miles/day) ..... | **435.8** | **467.6** | **488.2** | **491.4** | *454.8* | *473.9* | *470.5* | *464.5* | *444.8* | *469.2* | *489.2* | *491.5* | **470.9** | *466.0* | *473.8* |
| Aircraft Utilization | | | | | | | | | | | | | | | |
| (mill. revenue ton-miles/day) ..... | **238.2** | **265.3** | **274.3** | **272.0** | *244.1* | *263.3* | *270.7* | *258.1* | *242.9* | *267.1* | *283.1* | *273.7* | **262.6** | *259.1* | *266.8* |
| Airline Ticket Price Index | | | | | | | | | | | | | | | |
| (index, 1982-1984=1.000) ..... | **2.317** | **2.377** | **2.334** | **2.235** | *2.252* | *2.341* | *2.457* | *2.429* | *2.344* | *2.276* | *2.252* | *2.245* | **2.316** | *2.370* | *2.279* |
| Raw Steel Production | | | | | | | | | | | | | | | |
| (million tons) ..... | **23.92** | **25.03** | **26.34** | **25.68** | *25.61* | *24.80* | *22.72* | *22.25* | *24.65* | *25.68* | *26.22* | *25.29* | **100.98** | *95.37* | *101.83* |

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

[b]Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

# Table 3. International Petroleum Supply and Demand: 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* | *20.0* | *20.0* | *20.2* | *20.1* | *20.5* | *20.7* | **19.8** | *19.9* | *20.4* |
| U.S. Territories | **0.3** | **0.3** | **0.3** | **0.3** | *0.3* | *0.3* | *0.3* | *0.3* | *0.4* | *0.3* | *0.3* | *0.4* | **0.3** | *0.3* | *0.3* |
| Canada | **2.1** | **2.0** | **2.1** | **2.2** | *2.2* | *2.1* | *2.2* | *2.2* | *2.1* | *2.1* | *2.2* | *2.2* | **2.1** | *2.2* | *2.2* |
| Europe | **15.1** | **14.6** | **15.2** | **15.3** | *15.2* | *14.7* | *14.9* | *15.6* | *15.5* | *14.5* | *15.1* | *15.7* | **15.1** | *15.1* | *15.2* |
| Japan | **5.7** | **4.6** | **5.0** | **5.9** | *6.2* | *5.0* | *5.2* | *5.7* | *5.9* | *4.8* | *5.0* | *5.5* | **5.3** | *5.5* | *5.3* |
| Other OECD | **5.4** | **5.0** | **5.0** | **5.4** | *5.4* | *5.1* | *5.3* | *5.4* | *5.2* | *5.2* | *5.4* | *5.4* | **5.2** | *5.3* | *5.3* |
| Total OECD | **48.1** | **46.3** | **47.5** | **49.0** | *49.3* | *46.7* | *48.0* | *49.2* | *49.2* | *47.0* | *48.7* | *49.9* | **47.7** | *48.3* | *48.7* |
| Non-OECD | | | | | | | | | | | | | | | |
| Former Soviet Union | **4.1** | **3.9** | **3.9** | **3.9** | *4.1* | *3.9* | *3.9* | *4.0* | *4.2* | *4.0* | *4.0* | *4.0* | **3.9** | *4.0* | *4.1* |
| Europe | **0.7** | **0.7** | **0.7** | **0.7** | *0.8* | *0.8* | *0.8* | *0.8* | *0.8* | *0.8* | *0.8* | *0.8* | **0.7** | *0.8* | *0.8* |
| China | **5.3** | **5.3** | **5.2** | **5.3** | *5.5* | *5.4* | *5.4* | *5.4* | *5.7* | *5.6* | *5.5* | *5.6* | **5.3** | *5.4* | *5.6* |
| Other Asia | **7.7** | **7.7** | **7.5** | **7.8** | *7.8* | *7.8* | *7.6* | *8.0* | *8.0* | *8.0* | *7.7* | *8.1* | **7.7** | *7.8* | *7.9* |
| Other Non-OECD | **12.1** | **12.3** | **12.4** | **12.3** | *12.2* | *12.4* | *12.5* | *12.5* | *12.4* | *12.7* | *12.8* | *12.6* | **12.3** | *12.4* | *12.6* |
| Total Non-OECD | **29.9** | **29.9** | **29.7** | **30.0** | *30.4* | *30.3* | *30.2* | *30.6* | *31.0* | *31.0* | *30.8* | *31.1* | **29.9** | *30.4* | *31.0* |
| Total World Demand | **78.0** | **76.2** | **77.2** | **79.0** | *79.7* | *77.1* | *78.1* | *79.8* | *80.2* | *78.0* | *79.5* | *81.0* | **77.6** | *78.7* | *79.7* |
| **Supply** [b] | | | | | | | | | | | | | | | |
| OECD | | | | | | | | | | | | | | | |
| U.S. (50 States) | **9.1** | **9.2** | **8.9** | **8.8** | *9.0* | *8.8* | *8.8* | *9.0* | *9.1* | *9.0* | *9.0* | *9.1* | **9.0** | *8.9* | *9.0* |
| Canada | **2.9** | **2.9** | **2.9** | **3.0** | *3.0* | *3.0* | *3.1* | *3.2* | *3.1* | *3.1* | *3.2* | *3.3* | **2.9** | *3.1* | *3.2* |
| Mexico | **3.6** | **3.6** | **3.6** | **3.6** | *3.8* | *3.8* | *3.8* | *3.7* | *3.9* | *3.9* | *4.0* | *3.9* | **3.6** | *3.8* | *3.9* |
| North Sea [c] | **6.3** | **6.3** | **5.8** | **6.4** | *6.3* | *5.9* | *6.1* | *6.4* | *6.3* | *6.0* | *6.1* | *6.4* | **6.2** | *6.2* | *6.2* |
| Other OECD | **1.7** | **1.6** | **1.7** | **1.6** | *1.6* | *1.6* | *1.6* | *1.6* | *1.5* | *1.6* | *1.6* | *1.6* | **1.7** | *1.6* | *1.6* |
| Total OECD | **23.6** | **23.7** | **23.0** | **23.4** | *23.7* | *23.0* | *23.5* | *23.9* | *23.9* | *23.6* | *23.8* | *24.3* | **23.4** | *23.5* | *23.9* |
| Non-OECD | | | | | | | | | | | | | | | |
| OPEC | **28.5** | **27.9** | **28.8** | **29.5** | *30.1* | *30.0* | *29.9* | *30.7* | *30.0* | *30.0* | *29.3* | *29.5* | **28.7** | *30.2* | *29.7* |
| Crude Oil Portion | **25.2** | **24.6** | **25.5** | **26.3** | *26.9* | *26.7* | *26.6* | *27.3* | *26.6* | *26.6* | *26.0* | *26.2* | **25.4** | *26.9* | *26.3* |
| Former Soviet Union | **9.0** | **9.2** | **9.6** | **9.8** | *9.9* | *10.1* | *10.3* | *10.3* | *10.4* | *10.5* | *10.7* | *10.8* | **9.4** | *10.2* | *10.6* |
| China | **3.3** | **3.4** | **3.4** | **3.4** | *3.4* | *3.4* | *3.4* | *3.4* | *3.3* | *3.4* | *3.4* | *3.4* | **3.4** | *3.4* | *3.4* |
| Other Non-OECD | **11.5** | **11.5** | **11.4** | **11.4** | *11.4* | *11.4* | *11.5* | *11.7* | *11.8* | *11.9* | *12.1* | *12.3* | **11.4** | *11.5* | *12.0* |
| Total Non-OECD | **52.3** | **52.0** | **53.3** | **54.1** | *54.7* | *55.0* | *55.2* | *56.1* | *55.5* | *55.8* | *55.6* | *56.0* | **52.9** | *55.3* | *55.7* |
| Total World Supply | **75.9** | **75.6** | **76.2** | **77.5** | *78.4* | *78.0* | *78.6* | *80.0* | *79.4* | *79.4* | *79.4* | *80.2* | **76.3** | *78.8* | *79.6* |
| Additional unaccounted for supply | **0.3** | **0.3** | **0.3** | **0.3** | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | **0.3** | *0.3* | *0.3* |
| Stock Changes | | | | | | | | | | | | | | | |
| Net Stock Withdrawals or Additions (-) | | | | | | | | | | | | | | | |
| U.S. (50 States including SPR) | **0.2** | **-0.5** | **0.5** | **0.3** | *0.8* | *-0.8* | *-0.3* | *0.2* | *0.0* | *-0.7* | *-0.2* | *0.3* | **0.1** | *0.0* | *-0.2* |
| Other | **1.6** | **0.7** | **0.2** | **0.8** | *0.2* | *-0.5* | *-0.4* | *-0.7* | *0.6* | *-1.0* | *0.0* | *0.2* | **0.9** | *-0.4* | *-0.1* |
| Total Stock Withdrawals | **1.8** | **0.3** | **0.7** | **1.1** | *1.0* | *-1.3* | *-0.8* | *-0.6* | *0.5* | *-1.7* | *-0.2* | *0.5* | **1.0** | *-0.4* | *-0.2* |
| OECD Comm. Stocks, End (bill. bbls.) | **2.6** | **2.6** | **2.6** | **2.5** | *2.4* | *2.5* | *2.5* | *2.6* | *2.5* | *2.6* | *2.6* | *2.6* | **2.5** | *2.6* | *2.6* |
| Non-OPEC Supply | **47.4** | **47.7** | **47.4** | **48.0** | *48.3* | *48.0* | *48.7* | *49.4* | *49.4* | *49.4* | *50.1* | *50.7* | **47.6** | *48.6* | *49.9* |

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

## Table 4. U.S. Energy Prices: 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** | *30.58* | *25.73* | *27.69* | *26.91* | *25.77* | *25.09* | *24.41* | *23.73* | **23.69** | *27.64* | *24.74* |
| WTI [b] Spot Average | **21.66** | **26.25** | **28.34** | **28.22** | *34.10* | *28.98* | *30.42* | *29.50* | *28.27* | *27.59* | *26.91* | *26.23* | **26.12** | *30.75* | *27.25* |
| **Natural Gas Wellhead** | | | | | | | | | | | | | | | |
| (dollars per thousand cubic feet) | **2.34** | **2.99** | **2.88** | **3.60** | *5.54* | *5.01* | *4.63* | *4.59* | *4.53* | *3.66* | *3.86* | *4.21* | **2.96** | *4.94* | *4.07* |
| **Petroleum Products** | | | | | | | | | | | | | | | |
| Gasoline Retail [c] (dollars per gallon) | | | | | | | | | | | | | | | |
| All Grades | **1.20** | **1.43** | **1.44** | **1.46** | *1.63* | *1.57* | *1.57* | *1.50* | *1.47* | *1.53* | *1.49* | *1.40* | **1.39** | *1.56* | *1.47* |
| Regular Unleaded | **1.16** | **1.39** | **1.40** | **1.42** | *1.59* | *1.53* | *1.53* | *1.45* | *1.42* | *1.48* | *1.45* | *1.36* | **1.34** | *1.52* | *1.43* |
| No. 2 Diesel Oil, Retail (dollars per gallon) | **1.18** | **1.30** | **1.35** | **1.44** | *1.62* | *1.47* | *1.46* | *1.49* | *1.48* | *1.46* | *1.43* | *1.44* | **1.32** | *1.51* | *1.45* |
| No. 2 Heating Oil, Wholesale (dollars per gallon) | **0.60** | **0.68** | **0.73** | **0.79** | *1.00* | *0.77* | *0.71* | *0.80* | *0.81* | *0.77* | *0.77* | *0.80* | **0.69** | *0.84* | *0.79* |
| No. 2 Heating Oil, Retail (dollars per gallon) | **1.09** | **1.09** | **1.06** | **1.19** | *1.45* | *1.31* | *1.12* | *1.29* | *1.29* | *1.20* | *1.13* | *1.27* | **1.11** | *1.35* | *1.25* |
| No. 6 Residual Fuel Oil, Retail [d] (dollars per barrel) | **19.34** | **24.11** | **25.73** | **26.22** | *33.76* | *26.79* | *27.75* | *27.62* | *26.90* | *24.35* | *23.92* | *23.90* | **23.81** | *29.11* | *24.82* |
| **Electric Utility Fuels** [e] | | | | | | | | | | | | | | | |
| Coal (dollars per million Btu) | **1.27** | **1.26** | **1.26** | **1.23** | *1.26* | *1.26* | *1.24* | *1.23* | *1.24* | *1.25* | *1.23* | *1.22* | **1.25** | *1.25* | *1.23* |
| Heavy Fuel Oil [f] (dollars per million Btu) | **2.91** | **3.61** | **3.81** | **4.24** | *4.98* | *4.36* | *4.72* | *4.52* | *4.08* | *3.94* | *4.06* | *3.90* | **3.68** | *4.67* | *4.02* |
| Natural Gas (dollars per million Btu) | **2.99** | **3.58** | **3.41** | **4.26** | *6.23* | *5.52* | *4.77* | *5.20* | *5.10* | *4.18* | *4.43* | *4.90* | **3.54** | *5.33* | *4.59* |
| **Other Residential** | | | | | | | | | | | | | | | |
| Natural Gas (dollars per thousand cubic feet) | **7.21** | **8.29** | **10.25** | **7.97** | *8.52* | *10.44* | *12.04* | *9.49* | *9.39* | *9.88* | *10.85* | *8.96* | **7.85** | *9.32* | *9.46* |
| Electricity (cents per kilowatthour) | **8.14** | **8.58** | **8.74** | **8.30** | *8.05* | *8.68* | *8.91* | *8.46* | *8.15* | *8.71* | *8.89* | *8.44* | **8.45** | *8.54* | *8.56* |

[a] Refiner acquisition cost (RAC) of imported crude oil.
[b] West Texas Intermediate.
[c] Average self-service cash prices.
[d] Average for all sulfur contents.
[e] Includes independent power producers after January 2002.
[f] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first quarter of 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* | *5.79* | *5.71* | *5.81* | *5.82* | *5.76* | *5.73* | *5.78* | **5.75** | *5.80* | *5.77* |
| Alaska | **1.03** | **1.01** | **0.93** | **0.97** | *1.01* | *0.98* | *0.91* | *1.00* | *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* | *4.81* | *4.80* | *4.81* | *4.81* | *4.82* | *4.82* | *4.86* | **4.76** | *4.82* | *4.83* |
| Net Commercial Imports [b] | **8.72** | **9.30** | **9.16** | **9.28** | *8.64* | *9.86* | *9.77* | *9.17* | *9.28* | *9.82* | *9.94* | *9.55* | **9.12** | *9.36* | *9.65* |
| Net SPR Withdrawals | **-0.10** | **-0.15** | **-0.12** | **-0.11** | *0.00* | *-0.10* | *-0.11* | *-0.11* | *-0.13* | *0.00* | *0.00* | *0.00* | **-0.12** | *-0.08* | *-0.03* |
| Net Commercial Withdrawals | **-0.24** | **0.18** | **0.51** | **-0.08** | *-0.03* | *-0.02* | *0.14* | *-0.05* | *-0.23* | *-0.04* | *0.14* | *-0.03* | **0.09** | *0.01* | *-0.04* |
| 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** | *0.07* | *0.18* | *0.14* | *0.12* | *0.17* | *0.19* | *0.17* | *0.12* | **0.11** | *0.13* | *0.16* |
| Total Crude Oil Supply | **14.44** | **15.34** | **15.21** | **14.78** | *14.55* | *15.71* | *15.65* | *14.95* | *14.90* | *15.73* | *15.98* | *15.42* | **14.95** | *15.22* | *15.51* |
| Other Supply | | | | | | | | | | | | | | | |
| NGL Production | **1.88** | **1.91** | **1.89** | **1.84** | *1.76* | *1.61* | *1.70* | *1.81* | *1.93* | *1.94* | *1.88* | *1.96* | **1.88** | *1.72* | *1.93* |
| Other Hydrocarbon and Alcohol Inputs | **0.37** | **0.44** | **0.43** | **0.43** | *0.44* | *0.42* | *0.42* | *0.42* | *0.38* | *0.38* | *0.41* | *0.41* | **0.42** | *0.42* | *0.40* |
| 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** | *0.91* | *0.93* | *0.94* | *0.93* | *0.93* | *0.93* | *0.94* | *0.96* | **0.96** | *0.93* | *0.94* |
| Net Product Imports [c] | **1.37** | **1.56** | **1.37** | **1.36** | *1.47* | *1.63* | *1.62* | *1.60* | *1.68* | *1.69* | *1.67* | *1.58* | **1.42** | *1.58* | *1.66* |
| Product Stock Withdrawn or Added (-) | **0.51** | **-0.49** | **0.06** | **0.49** | *0.87* | *-0.68* | *-0.37* | *0.32* | *0.32* | *-0.63* | *-0.34* | *0.34* | **0.15** | *0.03* | *-0.08* |
| Total Supply | **19.53** | **19.72** | **19.92** | **19.87** | *20.02* | *19.62* | *19.96* | *20.03* | *20.16* | *20.05* | *20.54* | *20.67* | **19.76** | *19.91* | *20.36* |
| **Demand** | | | | | | | | | | | | | | | |
| Motor Gasoline | **8.49** | **9.00** | **9.05** | **8.85** | *8.54* | *8.97* | *9.11* | *9.01* | *8.77* | *9.22* | *9.34* | *9.26* | **8.85** | *8.91* | *9.15* |
| Jet Fuel | **1.57** | **1.61** | **1.63** | **1.65** | *1.55* | *1.51* | *1.63* | *1.62* | *1.53* | *1.56* | *1.64* | *1.68* | **1.61** | *1.58* | *1.60* |
| Distillate Fuel Oil | **3.80** | **3.70** | **3.71** | **3.89** | *4.22* | *3.82* | *3.70* | *3.96* | *4.19* | *3.83* | *3.86* | *4.11* | **3.78** | *3.92* | *4.00* |
| Residual Fuel Oil | **0.73** | **0.69** | **0.62** | **0.76** | *0.83* | *0.80* | *0.73* | *0.65* | *0.73* | *0.57* | *0.69* | *0.65* | **0.70** | *0.75* | *0.66* |
| Other Oils [d] | **4.93** | **4.72** | **4.91** | **4.73** | *4.88* | *4.53* | *4.79* | *4.79* | *4.95* | *4.86* | *5.01* | *4.97* | **4.82** | *4.75* | *4.95* |
| Total Demand | **19.53** | **19.72** | **19.92** | **19.87** | *20.03* | *19.62* | *19.96* | *20.03* | *20.16* | *20.05* | *20.54* | *20.67* | **19.76** | *19.91* | *20.35* |
| Total Petroleum Net Imports | **10.11** | **10.87** | **10.54** | **10.64** | *10.11* | *11.49* | *11.39* | *10.78* | *10.97* | *11.51* | *11.61* | *11.14* | **10.54** | *10.95* | *11.31* |
| **Closing Stocks** (million barrels) | | | | | | | | | | | | | | | |
| Crude Oil (excluding SPR) | **334** | **318** | **271** | **278** | *280* | *282* | *269* | *274* | *295* | *299* | *287* | *290* | **278** | *274* | *290* |
| Total Motor Gasoline | **213** | **217** | **206** | **209** | *200* | *205* | *202* | *205* | *210* | *214* | *208* | *212* | **209** | *205* | *212* |
| Finished Motor Gasoline | **160** | **168** | **157** | **162** | *145* | *152* | *149* | *154* | *152* | *159* | *155* | *159* | **162** | *154* | *159* |
| Blending Components | **54** | **49** | **49** | **47** | *55* | *54* | *53* | *52* | *57* | *54* | *53* | *53* | **47** | *52* | *53* |
| Jet Fuel | **42** | **39** | **41** | **39** | *37* | *39* | *40* | *40* | *38* | *41* | *43* | *42* | **39** | *40* | *42* |
| Distillate Fuel Oil | **123** | **133** | **127** | **134** | *99* | *109* | *127* | *131* | *102* | *113* | *130* | *133* | **134** | *131* | *133* |
| Residual Fuel Oil | **34** | **33** | **33** | **31** | *32* | *35* | *36* | *37* | *35* | *36* | *37* | *38* | **31** | *37* | *38* |
| Other Oils [e] | **265** | **301** | **309** | **258** | *225* | *267* | *283* | *246* | *245* | *283* | *300* | *261* | **258** | *246* | *261* |
| Total Stocks (excluding SPR) | **1011** | **1040** | **987** | **949** | *873* | *937* | *958* | *933* | *925* | *986* | *1005* | *977* | **949** | *933* | *977* |
| Crude Oil in SPR | **561** | **576** | **587** | **599** | *599* | *608* | *618* | *628* | *640* | *640* | *640* | *640* | **599** | *628* | *640* |
| 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* | *1547* | *1578* | *1564* | *1567* | *1628* | *1647* | *1619* | **1550** | *1564* | *1619* |

[a] Includes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

[a]Percent change in demand quantity resulting from specified percent changes in model inputs.
[b]Short-Term Integrated Forecasting System.
[c]Refiner acquisitions cost of imported crude oil.
[d]Average unit value of marketed natural gas production reported by States.
[e]Refers to percent changes in degree-days.
[f]Response during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days. Response during the spring/summer period (second and third calendar quarters) refers to change in cooling degree-days.

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

(Million Barrels per Day)

| | High Price Case | Low Price Case | Difference | | |
|---|---|---|---|---|---|
| | | | Total | Uncertainty | Price Impact |
| United States | *5.95* | *5.61* | *0.34* | *0.07* | *0.27* |
| Lower 48 States | *5.02* | *4.70* | *0.32* | *0.05* | *0.26* |
| Alaska | *0.95* | *0.92* | *0.03* | *0.02* | *0.01* |

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

## Table 8. U.S. Natural Gas Supply and Demand: Base Case

(Trillion Cubic Feet)

| | 2002 | | | | 2003 | | | | 2004 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | 2002 | 2003 | 2004 |
| **Supply** | | | | | | | | | | | | | | | |
| Total Dry Gas Production | **4.69** | **4.77** | **4.78** | **4.81** | 4.83 | 4.87 | 4.95 | 4.94 | 4.90 | 4.81 | 4.87 | 4.95 | **19.05** | *19.60* | *19.52* |
| Gross Imports | **0.98** | **0.95** | **1.03** | **1.04** | 1.01 | 1.01 | 1.10 | 1.10 | 1.09 | 1.10 | 1.15 | 1.15 | **4.01** | *4.22* | *4.50* |
| Pipeline | **0.95** | **0.88** | **0.97** | **0.97** | 0.93 | 0.87 | 0.96 | 0.97 | 0.98 | 0.93 | 0.99 | 1.01 | **3.78** | *3.73* | *3.91* |
| LNG | **0.03** | **0.07** | **0.06** | **0.07** | 0.07 | 0.14 | 0.15 | 0.13 | 0.12 | 0.16 | 0.16 | 0.14 | **0.23** | *0.49* | *0.59* |
| Gross Exports | **0.10** | **0.12** | **0.14** | **0.15** | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.21 | 0.23 | **0.52** | *0.69* | *0.80* |
| Net Imports | **0.88** | **0.83** | **0.90** | **0.89** | 0.84 | 0.84 | 0.93 | 0.92 | 0.91 | 0.91 | 0.94 | 0.93 | **3.49** | *3.53* | *3.69* |
| 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** | 5.70 | 5.73 | 5.90 | 5.89 | 5.83 | 5.73 | 5.83 | 5.90 | **22.62** | *23.21* | *23.29* |
| Working Gas in Storage | | | | | | | | | | | | | | | |
| Opening | **2.90** | **1.52** | **2.31** | **3.04** | *2.38* | *0.68* | *1.70* | *2.81* | *2.35* | *1.03* | *1.92* | *2.81* | **2.90** | *2.38* | *2.35* |
| Closing | **1.52** | **2.31** | **3.04** | **2.38** | *0.68* | *1.70* | *2.81* | *2.35* | *1.03* | *1.92* | *2.81* | *2.31* | **2.38** | *2.35* | *2.31* |
| Net Withdrawals | **1.39** | **-0.79** | **-0.73** | **0.67** | *1.70* | *-1.03* | *-1.11* | *0.46* | *1.32* | *-0.90* | *-0.89* | *0.51* | **0.53** | *0.03* | *0.04* |
| Total Supply | **6.98** | **4.83** | **4.96** | **6.38** | *7.40* | *4.70* | *4.79* | *6.35* | *7.15* | *4.84* | *4.94* | *6.41* | **23.15** | *23.24* | *23.34* |
| Balancing Item [a] | **-0.12** | **0.14** | **-0.08** | **-0.64** | *-0.08* | *0.20* | *-0.03* | *-0.76* | *0.09* | *0.11* | *-0.09* | *-0.77* | **-0.71** | *-0.67* | *-0.66* |
| Total Primary Supply | **6.85** | **4.96** | **4.88** | **5.74** | *7.32* | *4.90* | *4.77* | *5.59* | *7.24* | *4.95* | *4.85* | *5.63* | **22.44** | *22.57* | *22.68* |
| **Demand** | | | | | | | | | | | | | | | |
| Residential | **2.19** | **0.84** | **0.37** | **1.51** | *2.54* | *0.82* | *0.33* | *1.37* | *2.43* | *0.83* | *0.37* | *1.40* | **4.91** | *5.05* | *5.02* |
| Commercial | **1.20** | **0.60** | **0.42** | **0.90** | *1.33* | *0.59* | *0.42* | *0.90* | *1.35* | *0.58* | *0.40* | *0.85* | **3.11** | *3.23* | *3.19* |
| Industrial | **2.15** | **2.03** | **1.98** | **2.06** | *2.15* | *1.98* | *1.93* | *2.03* | *2.16* | *2.03* | *2.04* | *2.11* | **8.23** | *8.09* | *8.35* |
| Lease and Plant Fuel | **0.26** | **0.26** | **0.26** | **0.27** | *0.26* | *0.25* | *0.24* | *0.24* | *0.25* | *0.24* | *0.25* | *0.26* | **1.05** | *0.99* | *1.00* |
| Other Industrial | **1.89** | **1.77** | **1.72** | **1.80** | *1.89* | *1.73* | *1.70* | *1.79* | *1.92* | *1.79* | *1.79* | *1.86* | **7.18** | *7.10* | *7.36* |
| CHP [b] | **0.32** | **0.31** | **0.35** | **0.29** | *0.30* | *0.28* | *0.31* | *0.28* | *0.32* | *0.30* | *0.33* | *0.30* | **1.28** | *1.17* | *1.24* |
| Non-CHP | **1.57** | **1.45** | **1.37** | **1.51** | *1.58* | *1.45* | *1.39* | *1.51* | *1.60* | *1.49* | *1.47* | *1.56* | **5.90** | *5.93* | *6.11* |
| Transportation [c] | **0.20** | **0.14** | **0.14** | **0.16** | 0.21 | 0.14 | 0.15 | 0.17 | 0.21 | 0.15 | 0.13 | 0.17 | **0.64** | *0.67* | *0.67* |
| Electric Power [d] | **1.12** | **1.35** | **1.97** | **1.11** | *1.09* | *1.38* | *1.93* | *1.12* | *1.07* | *1.36* | *1.91* | *1.11* | **5.55** | *5.52* | *5.45* |
| Total Demand | **6.85** | **4.96** | **4.88** | **5.74** | *7.32* | *4.90* | *4.77* | *5.59* | *7.24* | *4.95* | *4.85* | *5.63* | **22.44** | *22.57* | *22.68* |

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

[b]Natural 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.

[c]Pipeline fuel use plus natural gas used as vehicle fuel.

[d]Natural 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** | **267.6** | **270.8** | **272.8** | *264.1* | *265.0* | *277.5* | *280.5* | *271.8* | *257.8* | *275.7* | *277.2* | **1093.8** | *1087.1* | *1082.6* |
| Appalachia | **108.3** | **99.1** | **95.2** | **94.2** | *95.4* | *96.2* | *98.6* | *100.1* | *99.9* | *91.1* | *96.3* | *96.7* | **396.8** | *390.3* | *384.0* |
| Interior | **36.8** | **37.3** | **36.6** | **35.6** | *36.1* | *34.9* | *33.7* | *31.1* | *32.0* | *32.9* | *32.0* | *29.0* | **146.2** | *135.9* | *125.8* |
| Western | **137.6** | **131.2** | **138.9** | **143.1** | *132.5* | *133.9* | *143.5* | *149.3* | *140.0* | *133.8* | *147.4* | *151.4* | **550.8** | *559.2* | *572.7* |
| Primary Stock Levels [a] | | | | | | | | | | | | | | | |
| Opening | **35.9** | **40.3** | **41.3** | **35.7** | *32.0* | *31.3* | *31.1* | *29.7* | *32.0* | *31.2* | *31.6* | *29.5* | **35.9** | *32.0* | *32.0* |
| Closing | **40.3** | **41.3** | **35.7** | **32.0** | *31.3* | *31.1* | *29.7* | *32.0* | *31.2* | *31.6* | *29.5* | *32.2* | **32.0** | *32.0* | *32.2* |
| Net Withdrawals | **-4.4** | **-1.0** | **5.6** | **3.7** | *0.7* | *0.2* | *1.4* | *-2.3* | *0.8* | *-0.4* | *2.0* | *-2.7* | **3.9** | *(S)* | *-0.2* |
| Imports | **4.0** | **3.9** | **4.7** | **4.4** | *5.0* | *6.1* | *5.1* | *4.7* | *5.5* | *5.9* | *5.4* | *5.0* | **16.9** | *20.8* | *21.8* |
| Exports | **9.3** | **11.0** | **9.3** | **10.0** | *8.5* | *11.4* | *11.1* | *10.8* | *10.0* | *10.6* | *10.4* | *10.1* | **39.6** | *41.8* | *41.1* |
| Total Net Domestic Supply | **273.0** | **259.4** | **271.8** | **270.8** | *261.2* | *259.9* | *272.8* | *272.1* | *268.2* | *252.7* | *272.7* | *269.4* | **1075.0** | *1066.0* | *1063.0* |
| Secondary Stock Levels [b] | | | | | | | | | | | | | | | |
| Opening | **146.0** | **152.9** | **158.0** | **142.7** | *148.9* | *146.2* | *158.4* | *149.3* | *164.0* | *166.5* | *176.4* | *162.2* | **146.0** | *148.9* | *164.0* |
| Closing | **152.9** | **158.0** | **142.7** | **148.9** | *146.2* | *158.4* | *149.3* | *164.0* | *166.5* | *176.4* | *162.2* | *168.3* | **148.9** | *164.0* | *168.3* |
| Net Withdrawals | **-6.9** | **-5.1** | **15.3** | **-6.2** | *2.8* | *-12.3* | *9.1* | *-14.6* | *-2.6* | *-9.9* | *14.2* | *-6.1* | **-2.9** | *-15.0* | *-4.3* |
| Waste Coal Supplied to IPPs [c] | **2.8** | **2.8** | **2.8** | **2.8** | *2.9* | *2.9* | *2.9* | *2.9* | *3.7* | *3.7* | *3.7* | *3.7* | **11.1** | *11.6* | *14.8* |
| Total Supply | **268.8** | **257.1** | **289.9** | **267.4** | *266.9* | *250.5* | *284.8* | *260.4* | *269.3* | *246.5* | *290.6* | *266.9* | **1083.2** | *1062.6* | *1073.5* |
| **Demand** | | | | | | | | | | | | | | | |
| Coke Plants | **5.4** | **5.6** | **5.6** | **5.9** | *6.0* | *6.4* | *6.5* | *5.6* | *5.9* | *5.7* | *6.0* | *5.4* | **22.5** | *24.5* | *22.9* |
| Electric Power Sector [d] | **231.6** | **231.1** | **267.0** | **245.6** | *248.3* | *234.4* | *264.0* | *238.3* | *247.3* | *227.0* | *270.6* | *245.4* | **975.4** | *985.1* | *990.3* |
| Retail and General Industry | **17.6** | **16.0** | **16.1** | **17.7** | *17.4* | *14.3* | *14.3* | *16.4* | *16.2* | *13.9* | *14.0* | *16.2* | **67.4** | *62.5* | *60.2* |
| Total Demand [e] | **254.6** | **252.8** | **288.7** | **269.2** | *271.8* | *255.1* | *284.8* | *260.4* | *269.3* | *246.5* | *290.6* | *266.9* | **1065.4** | *1072.1* | *1073.5* |
| Discrepancy [f] | **14.2** | **4.2** | **1.1** | **-1.8** | *-4.9* | *-4.6* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | **17.8** | *-9.5* | *0.0* |

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

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

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

[d] Coal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

[e] Total Demand includes estimated IPP consumption.

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

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

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

## Table 10a. U.S. Electricity Supply and Demand

| | 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** | *487.5* | *456.3* | *513.8* | *463.7* | *480.5* | *439.9* | *524.3* | *474.6* | **1904.7** | *1921.3* | *1919.3* |
| Petroleum | **18.0** | **21.6** | **24.9** | **20.2** | *32.7* | *34.5* | *35.2* | *18.1* | *23.0* | *16.3* | *29.1* | *18.3* | **84.6** | *120.5* | *86.6* |
| Natural Gas | **121.9** | **143.8** | **211.3** | **123.5** | *121.3* | *149.1* | *206.8* | *127.0* | *123.4* | *148.5* | *207.4* | *126.8* | **600.5** | *604.2* | *606.1* |
| Nuclear | **195.6** | **187.8** | **205.7** | **190.9** | *190.2* | *181.8* | *205.3* | *190.4* | *195.1* | *191.4* | *206.3* | *191.5* | **780.1** | *767.6* | *784.3* |
| Hydroelectric | **59.9** | **76.8** | **59.4** | **54.7** | *60.8* | *76.9* | *62.5* | *63.0* | *77.7* | *83.8* | *66.9* | *68.2* | **250.8** | *263.2* | *296.6* |
| Geothermal and Other [b] | **13.3** | **14.1** | **14.2** | **13.1** | *12.9* | *13.6* | *14.5* | *14.2* | *15.1* | *14.9* | *15.5* | *15.1* | **54.7** | *55.2* | *60.7* |
| Subtotal | **863.0** | **896.1** | **1035.0** | **881.3** | *905.4* | *912.2* | *1038.0* | *876.4* | *914.7* | *894.9* | *1049.5* | *894.6* | **3675.4** | *3732.1* | *3753.7* |
| Other Sectors [c] | **40.5** | **39.8** | **44.1** | **38.6** | *39.8* | *38.2* | *40.9* | *39.0* | *39.5* | *39.6* | *42.6* | *40.7* | **163.1** | *157.8* | *162.4* |
| Total Generation | **903.5** | **935.9** | **1079.2** | **920.0** | *945.2* | *950.4* | *1078.9* | *915.4* | *954.2* | *934.5* | *1092.1* | *935.3* | **3838.6** | *3889.9* | *3916.1* |
| Net Imports [d] | **6.3** | **4.7** | **8.6** | **3.2** | *2.4* | *5.8* | *7.6* | *3.2* | *2.4* | *2.6* | *5.3* | *2.3* | **22.9** | *19.1* | *12.7* |
| Total Supply | **909.8** | **940.6** | **1087.8** | **923.2** | *947.6* | *956.2* | *1086.5* | *918.6* | *956.6* | *937.1* | *1097.4* | *937.6* | **3861.4** | *3909.0* | *3928.8* |
| Losses and Unaccounted for [e] | **38.6** | **67.6** | **50.8** | **49.2** | *37.9* | *72.3* | *52.8* | *49.2* | *39.4* | *67.4* | *51.2* | *50.2* | **206.1** | *212.1* | *208.1* |
| Demand | | | | | | | | | | | | | | | |
| Retail Sales [f] | | | | | | | | | | | | | | | |
| Residential | **311.3** | **281.7** | **382.7** | **292.5** | *336.0* | *281.9* | *386.7* | *287.8* | *338.2* | *274.4* | *391.5* | *292.1* | **1268.2** | *1292.4* | *1296.2* |
| Commercial | **255.1** | **273.0** | **313.4** | **266.7** | *265.8* | *280.8* | *315.0* | *268.6* | *269.8* | *275.7* | *317.5* | *273.7* | **1108.1** | *1130.1* | *1136.6* |
| Industrial | **236.3** | **249.0** | **262.3** | **246.2** | *238.5* | *252.3* | *257.1* | *243.6* | *239.1* | *249.6* | *260.4* | *249.8* | **993.8** | *991.5* | *999.0* |
| Other | **23.9** | **25.3** | **30.0** | **26.0** | *25.5* | *26.8* | *29.8* | *26.5* | *26.5* | *26.3* | *29.9* | *26.9* | **105.2** | *108.6* | *109.6* |
| Subtotal | **826.5** | **829.1** | **988.2** | **831.4** | *865.8* | *841.8* | *988.6* | *826.4* | *873.6* | *826.0* | *999.2* | *842.5* | **3475.2** | *3522.6* | *3541.4* |
| Other Use/Sales [g] | **44.7** | **44.0** | **48.7** | **42.7** | *43.9* | *42.2* | *45.1* | *43.0* | *43.6* | *43.7* | *47.1* | *44.9* | **180.1** | *174.2* | *179.3* |
| Total Demand | **871.3** | **873.0** | **1037.0** | **874.1** | *909.7* | *884.0* | *1033.7* | *869.5* | *917.3* | *869.7* | *1046.3* | *887.4* | **3655.3** | *3696.9* | *3720.7* |

[a]Electric Utilities and independent power producers.

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

[c]Electricity generation from combined heat and power facilities and electricity-only plants in the industrial and commercial sectors.

[d]Data for 2002 are estimates.

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

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

[g]Defined 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** | *487.5* | *456.3* | *513.8* | *463.7* | *480.5* | *439.9* | *524.3* | *474.6* | **1904.7** | *1921.3* | *1919.3* |
| Petroleum | **18.0** | **21.6** | **24.9** | **20.2** | *32.7* | *34.5* | *35.2* | *18.1* | *23.0* | *16.3* | *29.1* | *18.3* | **84.6** | *120.5* | *86.6* |
| Natural Gas | **121.9** | **143.8** | **211.3** | **123.5** | *121.3* | *149.1* | *206.8* | *127.0* | *123.4* | *148.5* | *207.4* | *126.8* | **600.5** | *604.2* | *606.1* |
| Other [b] | **268.8** | **278.7** | **279.3** | **258.7** | *263.8* | *272.3* | *282.2* | *267.7* | *287.9* | *290.2* | *288.8* | *274.8* | **1085.5** | *1086.1* | *1141.6* |
| Subtotal | **863.0** | **896.1** | **1035.0** | **881.3** | *905.4* | *912.2* | *1038.0* | *876.4* | *914.7* | *894.9* | *1049.5* | *894.6* | **3675.4** | *3732.1* | *3753.7* |
| Commercial | | | | | | | | | | | | | | | |
| Coal | **0.3** | **0.2** | **0.3** | **0.3** | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.2* | *0.3* | **1.0** | *1.1* | *1.1* |
| Petroleum | **0.1** | **0.1** | **0.1** | **0.1** | *0.2* | *0.1* | *0.1* | *0.1* | *0.2* | *0.1* | *0.1* | *0.1* | **0.4** | *0.6* | *0.5* |
| Natural Gas | **1.1** | **1.0** | **2.4** | **1.0** | *1.1* | *1.2* | *2.0* | *1.2* | *1.2* | *1.2* | *1.9* | *1.1* | **5.4** | *5.4* | *5.4* |
| Other [b] | **0.4** | **0.5** | **0.5** | **0.5** | *0.4* | *0.6* | *0.4* | *0.6* | *0.5* | *0.6* | *0.4* | *0.6* | **1.9** | *2.0* | *2.0* |
| Subtotal | **1.8** | **1.8** | **3.3** | **1.8** | *2.0* | *2.2* | *2.8* | *2.2* | *2.2* | *2.1* | *2.6* | *2.1* | **8.7** | *9.1* | *9.0* |
| Industrial | | | | | | | | | | | | | | | |
| Coal | **4.9** | **5.0** | **5.4** | **5.3** | *5.3* | *4.7* | *5.0* | *5.2* | *5.1* | *4.8* | *5.3* | *5.4* | **20.7** | *20.2* | *20.7* |
| Petroleum | **1.2** | **1.1** | **1.2** | **1.3** | *1.6* | *1.7* | *1.6* | *1.2* | *1.1* | *0.9* | *1.4* | *1.2* | **4.9** | *6.1* | *4.5* |
| Natural Gas | **21.0** | **19.5** | **21.4** | **17.9** | *20.1* | *17.7* | *19.4* | *17.9* | *20.3* | *19.1* | *20.8* | *18.8* | **79.9** | *75.1* | *79.0* |
| Other [b] | **11.6** | **12.3** | **12.8** | **12.3** | *10.7* | *11.9* | *12.0* | *12.6* | *10.8* | *12.7* | *12.6* | *13.2* | **49.0** | *47.3* | *49.2* |
| Subtotal | **38.7** | **38.0** | **40.9** | **36.8** | *37.8* | *36.1* | *38.1* | *36.8* | *37.3* | *37.5* | *40.0* | *38.6* | **154.4** | *148.7* | *153.5* |
| Total | **903.5** | **935.9** | **1079.2** | **920.0** | *945.2* | *950.4* | *1078.9* | *915.4* | *954.2* | *934.5* | *1092.1* | *935.3* | **3838.6** | *3889.9* | *3916.1* |

[a] Electric 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** | *5.119* | *4.819* | *5.429* | *4.903* | *5.089* | *4.668* | *5.567* | *5.048* | **20.0** | *20.3* | *20.4* |
| Petroleum | **0.194** | **0.226** | **0.267** | **0.218** | *0.352* | *0.376* | *0.379* | *0.196* | *0.249* | *0.176* | *0.312* | *0.199* | **0.9** | *1.3* | *0.9* |
| Natural Gas | **1.087** | **1.326** | **1.957** | **1.084** | *1.052* | *1.356* | *1.888* | *1.098* | *1.051* | *1.328* | *1.866* | *1.082* | **5.5** | *5.4* | *5.3* |
| Other [b] | **2.843** | **3.082** | **3.169** | **2.869** | *2.912* | *2.887* | *3.001* | *2.849* | *3.065* | *3.078* | *3.071* | *2.924* | **12.0** | *11.6* | *12.1* |
| Subtotal | **8.875** | **9.381** | **10.878** | **9.214** | *9.435* | *9.438* | *10.696* | *9.045* | *9.454* | *9.251* | *10.816* | *9.253* | **38.3** | *38.6* | *38.8* |
| Commercial | | | | | | | | | | | | | | | |
| Coal | **0.003** | **0.003** | **0.004** | **0.003** | *0.003* | *0.003* | *0.003* | *0.004* | *0.004* | *0.003* | *0.003* | *0.004* | **0.013** | *0.014* | *0.013* |
| Petroleum | **0.001** | **0.001** | **0.001** | **0.001** | *0.003* | *0.002* | *0.002* | *0.002* | *0.002* | *0.001* | *0.001* | *0.001* | **0.005** | *0.008* | *0.006* |
| Natural Gas | **0.009** | **0.009** | **0.019** | **0.009** | *0.009* | *0.010* | *0.017* | *0.010* | *0.011* | *0.011* | *0.016* | *0.009* | **0.047** | *0.046* | *0.047* |
| Other [b] | **0.006** | **0.007** | **0.007** | **0.008** | *0.006* | *0.009* | *0.006* | *0.009* | *0.007* | *0.009* | *0.006* | *0.009* | **0.028** | *0.030* | *0.030* |
| Subtotal | **0.019** | **0.020** | **0.032** | **0.021** | *0.021* | *0.024* | *0.028* | *0.024* | *0.024* | *0.023* | *0.026* | *0.023* | **0.092** | *0.098* | *0.096* |
| Industrial | | | | | | | | | | | | | | | |
| Coal | **0.062** | **0.064** | **0.067** | **0.068** | *0.068* | *0.059* | *0.063* | *0.065* | *0.065* | *0.061* | *0.067* | *0.069* | **0.261** | *0.255* | *0.262* |
| Petroleum | **0.015** | **0.014** | **0.015** | **0.016** | *0.019* | *0.021* | *0.020* | *0.014* | *0.013* | *0.010* | *0.017* | *0.015* | **0.059** | *0.074* | *0.055* |
| Natural Gas | **0.183** | **0.179** | **0.197** | **0.157** | *0.179* | *0.160* | *0.174* | *0.159* | *0.182* | *0.171* | *0.186* | *0.169* | **0.717** | *0.671* | *0.707* |
| Other [b] | **0.142** | **0.145** | **0.153** | **0.162** | *0.138* | *0.157* | *0.157* | *0.162* | *0.141* | *0.167* | *0.164* | *0.168* | **0.603** | *0.614* | *0.640* |
| Subtotal | **0.402** | **0.401** | **0.433** | **0.403** | *0.404* | *0.397* | *0.413* | *0.401* | *0.401* | *0.409* | *0.433* | *0.420* | **1.639** | *1.615* | *1.664* |
| Total | **9.296** | **9.802** | **11.342** | **9.638** | *9.860* | *9.858* | *11.137* | *9.471* | *9.878* | *9.683* | *11.275* | *9.696* | **40.078** | *40.326* | *40.533* |
| | | | | | | (Physical Units) | | | | | | | | | |
| Electric Power [a] | | | | | | | | | | | | | | | |
| Coal (Million Short Tons) | **231.0** | **230.8** | **266.7** | **245.1** | *248.9* | *234.3* | *264.0* | *238.4* | *247.4* | *227.0* | *270.7* | *245.4* | **973.7** | *985.6* | *990.6* |
| Petroleum (Million Barrels per Day) | **0.348** | **0.402** | **0.470** | **0.383** | *0.636* | *0.675* | *0.667* | *0.348* | *0.445* | *0.316* | *0.549* | *0.353* | **0.401** | *0.581* | *0.416* |
| Natural Gas (Trillion Cubic Feet) | **1.060** | **1.294** | **1.909** | **1.058** | *1.026* | *1.323* | *1.842* | *1.071* | *1.025* | *1.296* | *1.820* | *1.056* | **5.321** | *5.261* | *5.197* |
| Commercial | | | | | | | | | | | | | | | |
| Coal (Million Short Tons) | **0.1** | **0.1** | **0.1** | **0.1** | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | **0.5** | *0.5* | *0.5* |
| Petroleum (Million Barrels per Day) | **0.002** | **0.002** | **0.003** | **0.002** | *0.006* | *0.003* | *0.003* | *0.003* | *0.004* | *0.002* | *0.003* | *0.003* | **0.002** | *0.004* | *0.003* |
| Natural Gas (Trillion Cubic Feet) | **0.009** | **0.009** | **0.019** | **0.008** | *0.009* | *0.010* | *0.017* | *0.010* | *0.010* | *0.010* | *0.015* | *0.009* | **0.045** | *0.045* | *0.045* |
| Industrial | | | | | | | | | | | | | | | |
| Coal (Million Short Tons) | **2.7** | **2.7** | **2.9** | **2.9** | *2.9* | *2.5* | *2.7* | *2.8* | *2.8* | *2.6* | *2.9* | *2.9* | **11.2** | *10.9* | *11.2* |
| Petroleum (Million Barrels per Day) | **0.027** | **0.025** | **0.026** | **0.028** | *0.036* | *0.038* | *0.035* | *0.025* | *0.024* | *0.019* | *0.030* | *0.026* | **0.026** | *0.033* | *0.025* |
| Natural Gas (Trillion Cubic Feet) | **0.179** | **0.174** | **0.192** | **0.153** | *0.174* | *0.155* | *0.170* | *0.155* | *0.177* | *0.167* | *0.181* | *0.164* | **0.699** | *0.654* | *0.689* |

[a] Electric 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** | *2.756* | *3.106* | **21.2** | *5.1* | *12.7* |
| Geothermal, Solar and Wind Energy [b] | **0.363** | **0.392** | *0.394* | *0.457* | **8.0** | *0.5* | *16.0* |
| Biofuels [c] | **0.450** | **0.466** | *0.478* | *0.495* | **3.6** | *2.6* | *3.6* |
| Total | **2.978** | **3.481** | *3.628* | *4.058* | **16.9** | *4.2* | *11.9* |
| **Other Sectors [d]** | | | | | | | |
| Residential and Commercial [e] | **0.567** | **0.513** | *0.534* | *0.551* | **-9.5** | *4.1* | *3.2* |
| Residential | **0.475** | **0.418** | *0.436* | *0.455* | **-12.0** | *4.3* | *4.4* |
| Commercial | **0.091** | **0.095** | *0.098* | *0.096* | **4.4** | *3.2* | *-2.0* |
| Industrial [f] | **1.641** | **1.734** | *1.642* | *1.684* | **5.7** | *-5.3* | *2.6* |
| Transportation [g] | **0.147** | **0.175** | *0.205* | *0.205* | **19.0** | *17.1* | *0.0* |
| Total | **2.354** | **2.422** | *2.381* | *2.440* | **2.9** | *-1.7* | *2.5* |
| Total Renewable Energy Demand | **5.331** | **5.903** | *6.008* | *6.498* | **10.7** | *1.8* | *8.2* |

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

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

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

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

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

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

[g]Ethanol blended into gasoline.

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** | *9629* | *9987* |
| 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** | *27.64* | *24.74* |
| **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** | *5.80* | *5.77* |
| 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** | *10.95* | *11.31* |
| **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** | *19.91* | *20.35* |
| 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** | **22.44** | *22.57* | *22.68* |
| Coal | | | | | | | | | | | | | | | |
| (million short tons) | **904** | **899** | **908** | **944** | **951** | **962** | **1006** | **1030** | **1037** | **1039** | **1084** | **1060** | **1065** | *1072* | *1073* |
| Electricity (billion kilowatthours) | | | | | | | | | | | | | | | |
| Retail Sales [c] | **2713** | **2762** | **2763** | **2861** | **2935** | **3013** | **3101** | **3146** | **3264** | **3312** | **3421** | **3370** | **3475** | *3523* | *3541* |
| Other Use/Sales [d] | **115** | **118** | **122** | **128** | **134** | **144** | **146** | **148** | **161** | **183** | **181** | **173** | **180** | *174* | *179* |
| Total | **2827** | **2880** | **2886** | **2989** | **3069** | **3157** | **3247** | **3294** | **3425** | **3495** | **3603** | **3543** | **3655** | *3697* | *3721* |
| 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** | *98.4* | *99.8* |
| 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** | *10.22* | *10.00* |

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

[b] Includes lease condensate.

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

[d] Defined 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 CONTROL0703.

## 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** | *9629* | *9987* |
| 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** | *1.124* | *1.143* |
| Real Disposable Personal Income (billion chained 1996 Dollars) | **5014** | **5033** | **5189** | **5261** | **5397** | **5539** | **5678** | **5854** | **6169** | **6328** | **6630** | **6748** | **7032** | *7225* | *7483* |
| Manufacturing Production (Index, 1996=1.000) | **74.156** | **72.721** | **75.516** | **78.214** | **83.212** | **87.846** | **92.157** | **100.000** | **106.518** | **111.872** | **117.672** | **112.800** | **111.691** | *111.109* | *117.885* |
| Real Fixed Investment (billion chained 1996 dollars) | **895** | **833** | **886** | **958** | **1046** | **1109** | **1213** | **1329** | **1480** | **1595** | **1692** | **1627** | **1577** | *1595* | *1652* |
| 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** | *1.019* | *1.001* |
| 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** | *-7.8* | *14.0* |
| 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** | *1.390* | *1.394* |
| 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** | *1.837* | *1.869* |
| 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** | *0.958* | *0.859* |
| 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** | *130.2* | *131.7* |
| 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** | *91.8* | *93.4* |
| Total Industrial Production (index, 1997=100.0) | **77.6** | **76.3** | **78.3** | **80.9** | **85.2** | **89.3** | **93.2** | **100.0** | **105.6** | **110.1** | **115.3** | **111.2** | **110.4** | *110.3* | *116.1* |
| 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** | **115.8** | *117.3* | *118.5* |
| **Weather** [a] | | | | | | | | | | | | | | | |
| Heating Degree-Days | | | | | | | | | | | | | | | |
| U.S. | **4016** | **4200** | **4441** | **4700** | **4483** | **4531** | **4713** | **4542** | **3951** | **4169** | **4460** | **4207** | **4284** | *4607* | *4477* |
| New England | **5848** | **5960** | **6844** | **6728** | **6672** | **6559** | **6679** | **6662** | **5680** | **5952** | **6489** | **6055** | **6099** | *7050* | *6488* |
| Middle Atlantic | **4998** | **5177** | **5964** | **5948** | **5934** | **5831** | **5986** | **5809** | **4812** | **5351** | **5774** | **5323** | **5372** | *6206* | *5723* |
| U.S. Gas-Weighted | **4139** | **4337** | **4458** | **4754** | **4659** | **4707** | **4980** | **4802** | **4183** | **4399** | **4680** | **4451** | **4560** | *4862* | *4730* |
| Cooling Degree-Days (U.S.) | **1260** | **1331** | **1040** | **1218** | **1220** | **1293** | **1180** | **1156** | **1410** | **1297** | **1229** | **1256** | **1393** | *1228* | *1240* |

[a]Population-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 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 CONTROL0703.

## 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** | **22.55** | *22.41* | *22.32* |
| 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** | *20.15* | *20.07* |
| 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** | *12.28* | *12.26* |
| 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* | *2.64* |
| 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** | *8.02* | *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** | *2.72* | *3.07* |
| 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** | *3.19* | *3.32* |
| 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** | **70.82** | *71.12* | *71.86* |
| **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** | *-0.57* | *-0.53* |
| 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** | *3.62* | *3.79* |
| 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** | *20.70* | *21.39* |
| 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** | *2.81* | *2.84* |
| 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** | *0.07* | *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** | *26.67* | *27.58* |
| **Adjustments** [a] | **-0.25** | **1.06** | **1.65** | **2.50** | **0.58** | **2.63** | **3.06** | **1.93** | **0.25** | **1.76** | **3.11** | **-1.62** | **0.69** | *0.30* | *0.11* |
| **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** | **21.98** | *22.10* | *22.12* |
| Natural Gas | **19.72** | **20.15** | **20.83** | **21.35** | **21.84** | **22.78** | **23.20** | **23.33** | **22.93** | **23.01** | **24.04** | **22.84** | **23.06** | *23.19* | *23.29* |
| 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** | *38.69* | *39.55* |
| 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** | *8.02* | *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** | *6.10* | *6.41* |
| Total | **84.57** | **84.64** | **86.05** | **87.78** | **89.57** | **91.50** | **94.52** | **94.97** | **95.34** | **96.97** | **99.32** | **96.08** | **97.29** | *98.09* | *99.56* |

[a] Balancing 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** | *27.64* | *24.74* |
| 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** | *30.75* | *27.25* |
| **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** | *4.94* | *4.07* |
| **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** | *1.56* | *1.47* |
| 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** | *1.52* | *1.43* |
| 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** | *1.51* | *1.45* |
| 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** | *0.84* | *0.79* |
| 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** | *1.35* | *1.25* |
| 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** | *29.11* | *24.82* |
| **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** | *1.25* | *1.23* |
| 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** | *4.67* | *4.02* |
| 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** | *5.33* | *4.59* |
| **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** | **7.85** | *9.32* | *9.46* |
| Electricity (cents per kilowatthour) | **7.85** | **8.05** | **8.23** | **8.34** | **8.40** | **8.40** | **8.36** | **8.43** | **8.26** | **8.16** | **8.24** | **8.48** | **8.45** | *8.54* | *8.56* |

[a] Refiner acquisition cost (RAC) of imported crude oil.
[b] West Texas Intermediate.
[c] Average self-service cash prices.
[d] Average for all sulfur contents.
[e] Includes independent power producers after January 2002.
[f] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

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

## Table A5. Annual U.S. Petroleum Supply and Demand: 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** | *5.80* | *5.77* |
| 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** | *4.82* | *4.83* |
| 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** | *9.36* | *9.65* |
| 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** | *-0.08* | *-0.03* |
| 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** | *0.01* | *-0.04* |
| 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** | *0.13* | *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** | *15.22* | *15.51* |
| 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** | *1.72* | *1.93* |
| 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** | *0.42* | *0.40* |
| 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** | *1.58* | *1.66* |
| 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** | *0.03* | *-0.08* |
| 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** | *19.91* | *20.36* |
| **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** | *8.91* | *9.15* |
| 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** | *1.58* | *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* | *4.00* |
| 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** | *0.75* | *0.66* |
| 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** | *4.75* | *4.95* |
| 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** | *19.91* | *20.35* |
| 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** | *10.95* | *11.31* |
| Closing Stocks (million barrels) | | | | | | | | | | | | | | | |
| Crude Oil (excluding SPR) | **323** | **325** | **318** | **335** | **337** | **303** | **284** | **305** | **324** | **284** | **286** | **312** | **278** | *274* | *290* |
| Total Motor Gasoline | **220** | **219** | **216** | **226** | **215** | **202** | **195** | **210** | **216** | **193** | **196** | **210** | **209** | *205* | *212* |
| Jet Fuel | **52** | **49** | **43** | **40** | **47** | **40** | **40** | **44** | **45** | **41** | **45** | **42** | **39** | *40* | *42* |
| Distillate Fuel Oil | **132** | **144** | **141** | **141** | **145** | **130** | **127** | **138** | **156** | **125** | **118** | **145** | **134** | *131* | *133* |
| Residual Fuel Oil | **49** | **50** | **43** | **44** | **42** | **37** | **46** | **40** | **45** | **36** | **36** | **41** | **31** | *37* | *38* |
| Other Oils [f] | **227** | **251** | **292** | **237** | **274** | **348** | **280** | **204** | **212** | **396** | **246** | **178** | **345** | *262* | *218* |

[a] Includes lease condensate.

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

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

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

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

## Table A6. Annual U.S. Natural Gas Supply and Demand: 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** | *19.60* | *19.52* |
| 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** | *4.22* | *4.50* |
| 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** | *0.69* | *0.80* |
| 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** | *3.53* | *3.69* |
| 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** | *0.08* | *0.08* |
| 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** | *23.21* | *23.29* |
| 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** | *2.38* | *2.35* |
| 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** | *2.35* | *2.31* |
| 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** | *0.03* | *0.04* |
| 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** | *23.24* | *23.34* |
| 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** | **-0.71** | *-0.67* | *-0.66* |
| 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** | **22.44** | *22.57* | *22.68* |
| **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** | **4.91** | *5.05* | *5.02* |
| 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** | **3.11** | *3.23* | *3.19* |
| 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** | **8.23** | *8.09* | *8.35* |
| 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** | *0.99* | *1.00* |
| 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** | **7.18** | *7.10* | *7.36* |
| 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** | *1.17* | *1.24* |
| 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** | **5.90** | *5.93* | *6.11* |
| Transportation [c] | **0.66** | **0.60** | **0.59** | **0.63** | **0.69** | **0.70** | **0.72** | **0.76** | **0.64** | **0.66** | **0.66** | **0.64** | **0.64** | *0.67* | *0.67* |
| 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** | *5.52* | *5.45* |
| 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** | **22.44** | *22.57* | *22.68* |

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

[b] Natural 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.

[c] Pipeline fuel use plus natural gas used as vehicle fuel.

[d] Natural 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** | **1093.8** | *1087.1* | *1082.6* |
| 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** | **396.8** | *390.3* | *384.0* |
| 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** | **146.2** | *135.9* | *125.8* |
| 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** | **550.8** | *559.2* | *572.7* |
| 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** | *32.0* | *32.0* |
| 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** | **32.0** | *32.0* | *32.2* |
| 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** | **3.9** | *S* | *-0.2* |
| 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** | *20.8* | *21.8* |
| 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** | *41.8* | *41.1* |
| 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** | **1075.0** | *1066.0* | *1063.0* |
| 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** | *148.9* | *164.0* |
| 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** | **148.9** | *164.0* | *168.3* |
| 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** | **-2.9** | *-15.0* | *-4.3* |
| 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* | *14.8* |
| 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** | **1083.2** | *1062.6* | *1073.5* |
| **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** | *24.5* | *22.9* |
| 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** | **964.5** | **975.4** | *985.1* | *990.3* |
| 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** | *62.5* | *60.2* |
| 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** | *4.4* | *4.1* |
| 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** | *58.1* | *56.2* |
| CHP [e] | **27.8** | **27.0** | **28.2** | **28.9** | **29.7** | **29.4** | **29.4** | **29.9** | **28.6** | **27.8** | **28.0** | **26.4** | **26.5** | *25.1* | *25.8* |
| Non-CHP | **48.5** | **48.4** | **45.8** | **46.0** | **45.5** | **43.7** | **42.3** | **41.7** | **38.9** | **37.0** | **37.2** | **38.8** | **36.6** | *33.0* | *30.4* |
| 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** | **1060.2** | **1065.4** | *1072.1* | *1073.5* |
| 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** | **17.8** | *-9.5* | *0.0* |

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

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

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

[d] Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 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).

[e] Coal 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 ie the industrial sector.

[f] Total Demand includes estimated IPP consumption.

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

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

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

## Table A8. Annual U.S. Electricity Supply and Demand: 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** | *1921.3* | *1919.3* |
| 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** | *120.5* | *86.6* |
| 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** | *604.2* | *606.1* |
| Nuclear | **576.9** | **612.6** | **618.8** | **610.3** | **640.4** | **673.4** | **674.7** | **628.6** | **673.7** | **728.3** | **753.9** | **768.8** | **780.1** | *767.6* | *784.3* |
| 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** | *263.2* | *296.6* |
| 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** | *55.2* | *60.7* |
| 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** | *3732.1* | *3753.7* |
| 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** | *157.8* | *162.4* |
| 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** | *3889.9* | *3916.1* |
| 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** | *19.1* | *12.7* |
| 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** | *3909.0* | *3928.8* |
| 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** | *212.1* | *208.1* |
| **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** | *1292.4* | *1296.2* |
| 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** | *1130.1* | *1136.6* |
| 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** | *991.5* | *999.0* |
| 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** | *108.6* | *109.6* |
| 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** | *3522.6* | *3541.4* |
| 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** | *174.2* | *179.3* |
| 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** | *3696.9* | *3720.7* |

[a] Electric Utilities and independent power producers.

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

[c] Electricity generation from combined heat and power facilities and electricity-only plants in the industrial and commercial sectors.

[d] Data for 2002 are estimates.

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

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

[g] Defined 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.