■ **Short-Term Energy Outlook**   **September 2002**

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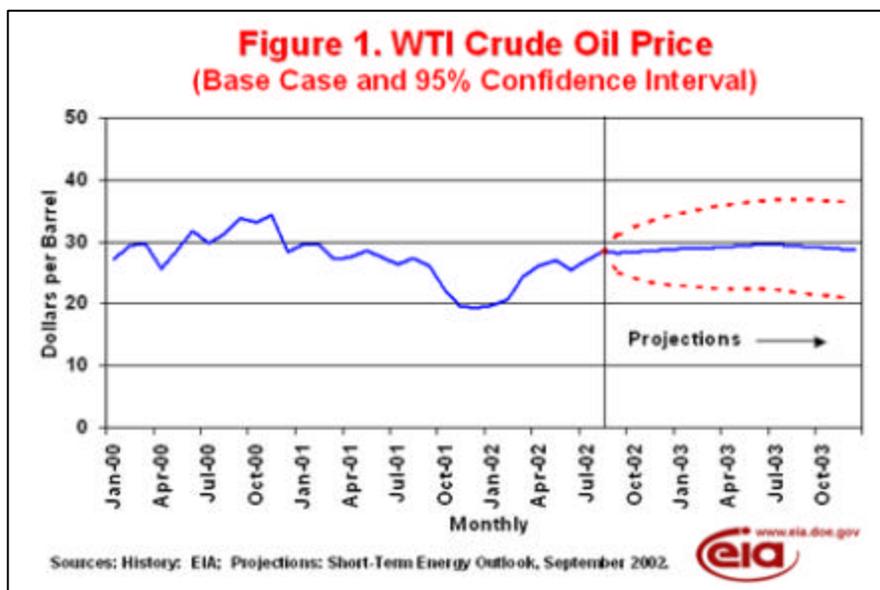(Base Case and 95% Confidence Interval)

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

Overview

World Oil Markets: The waxing and waning intensities of concern surrounding potential military action against Iraq and uncertainty over OPEC production policy leading up to their September 19 meeting have contributed to WTI spot crude oil prices bouncing between $26 and $30 per barrel since early August. The average spot WTI price in August was $28.40 per barrel. Developments suggesting an easing of tensions could temporarily send prices lower in the short run. However, a modest measure of restraint with respect to oil output by OPEC would probably keep oil prices closer to $30 per barrel than to $20 through 2003, even if the political and military status quo were maintained. Solid growth in world oil demand this winter (and for 2003 as a whole) is likely to tighten world oil markets and reduce commercial oil inventories. This is our baseline assessment, but, as usual, we acknowledge the wide range of uncertainty (due to weather, OPEC actions, and general economic conditions) in oil prices as illustrated by Figure 1.

Winter Outlook Preview: Under normal weather circumstances, fuel supply conditions are expected to be sufficient to avoid any serious heating fuel price spikes this winter. Despite a hot summer this year (cooling degree-days were about 11 percent above normal), increased natural gas demand in the electric power sector did not substantially derail natural gas storage from its track toward very high (perhaps record) pre-season levels. This situation provides a direct cushion against price spikes for natural gas end users and indirect insurance for fuel oil users (inasmuch as incentives and necessities for fuel-switching at mid-winter should be minimized under a fairly wide range of possible conditions). However, high oil prices and expected strong demand increases are expected to generate higher winter fuel bills for most residential customers compared to the winter of 2001-2002 (Figure 2), especially if distillate inventories remain in the lower half of the normal range.

U.S. Natural Gas Markets: While natural gas in storage remains ample, sharp increases in natural gas demand are likely this winter, largely because of the high probability of comparatively cold weather, but also because of the continued expectation of solid recovery in the U.S. industrial economy by the fourth quarter of this year and into 2003. The expected increase in natural gas demand for the coming winter is 12 percent above the year-ago level. Much of the accumulated cushion in natural gas storage will probably be expended toward feeding consumption growth. While severe price spikes are unlikely, the prospect for continued demand strength for the industrial and power sectors of the economy should lend above-average support to spot natural gas prices. This winter, we expect to see natural gas wellhead prices averaging around $3.20 per thousand cubic feet, or about $0.80 per thousand cubic feet above last winter's price. For

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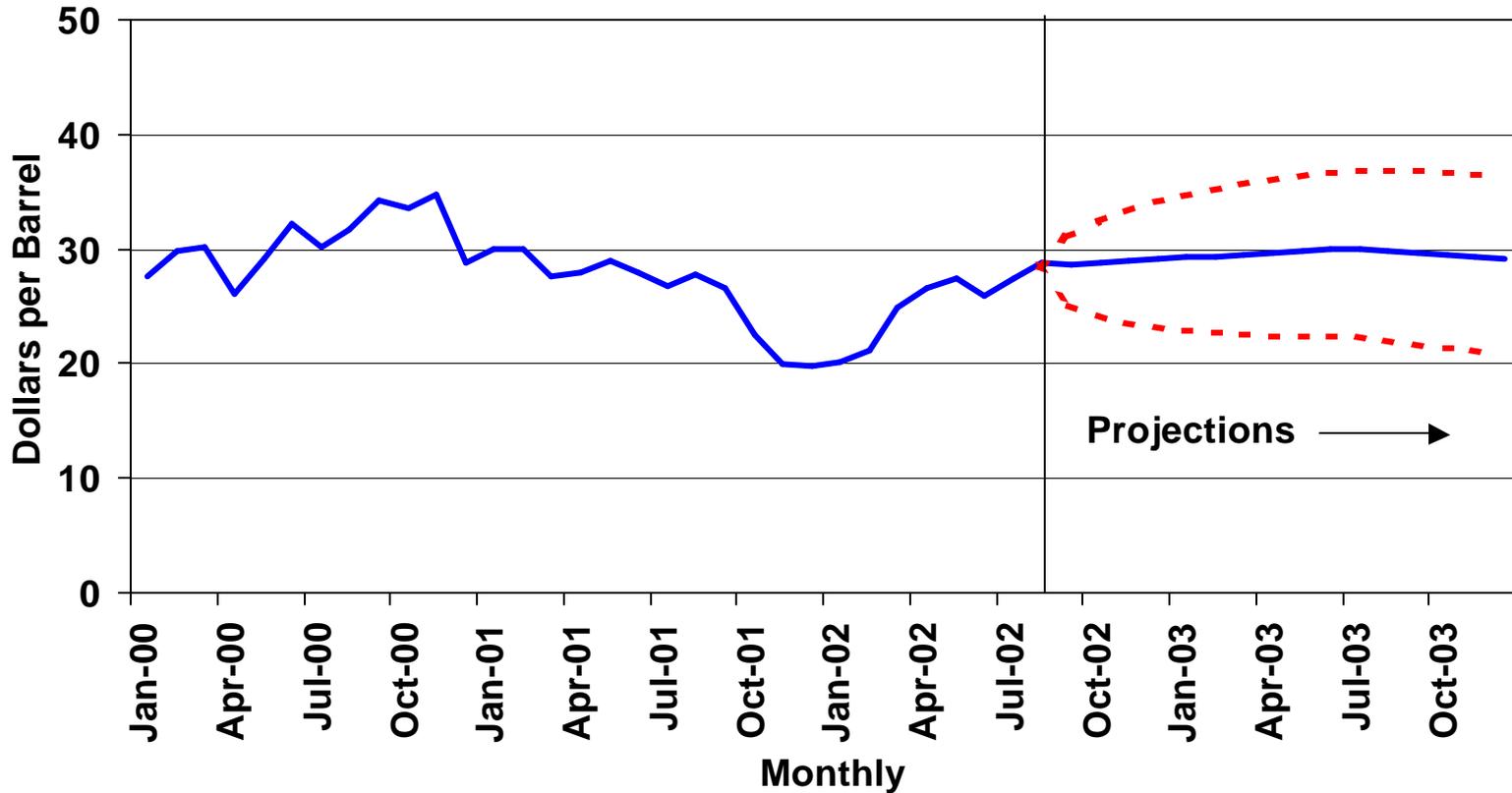
Projections →

Monthly

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

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Figure 2. Household Winter Heating Fuel Summary

Illustrative Consumer Prices and Expenditures for Heating Fuels During the Winter				
	1999-2000 Actual	2000-2001 Actual	2001-2002 Actual	2002-2003 Base Forecast
Natural Gas (Midwest)				
Consumption (mcf)	81.7	99.1	81.3	91.3
Avg. Price ($/mcf)	6.69	9.54	7.33	7.67
Expenditures ($)	546	945	596	700
Heating Oil (Northeast)				
Consumption (gals)	644	731	584	692
Avg. Price ($/gal)	1.16	1.37	1.10	1.32
Expenditures ($)	751	999	642	912
Propane (Midwest)				
Consumption (gals)	807	979	803	902
Avg. Price ($/gal)	1.02	1.37	1.10	1.19
Expenditures ($)	824	1344	887	1075

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

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all of 2003, the average natural gas wellhead price is projected to be about $3.28 per thousand cubic feet compared to $2.80 last year.

International Oil Markets

Crude Oil Prices. West Texas Intermediate (WTI) crude oil spot prices finished about $1.40 per barrel higher in August than in July, with the August average reaching $28.40 per barrel (Figure 1). Other world oil price markers also rose in August, with both Brent crude oil spot prices and the OPEC basket prices averaging $0.80 - $0.90 per barrel more in August than in July. Traders suggested that much of the price increase was due to worries over possible oil shortfalls if there were a clash with Iraq, as well as statements by Kuwait and other OPEC members opposing any quota hikes at OPEC's September meeting.

The OPEC basket price has been above $22 per barrel since March 8, and the August average of almost $26 per barrel marked the sixth consecutive month that the OPEC basket price averaged above the lower end of OPEC's original target range of $22 - $28 per barrel for the OPEC basket price. The OPEC basket price is projected to remain within this target range throughout the forecast period, with prices expected to rise through early 2003 before leveling off in mid-year. This assumes significant increases in OPEC production.

International Oil Supply and Demand. OPEC 10 production in August is estimated to have been 1.8 million barrels per day above quota levels, slightly more than the level of above-quota production in July. Increases in OPEC 10 production in August were offset by a drop in Iraqi production so that total OPEC production for the month was about the same as in July. Iraqi production in August was over 1.2 million barrels per day lower than during the same month last year. The *Outlook* assumes that Iraqi production will continue to fluctuate, with another downturn expected following the next rollover or the United Nation's oil-for-food program at the end of November.

Figure 3. OECD Commercial Oil Stocks
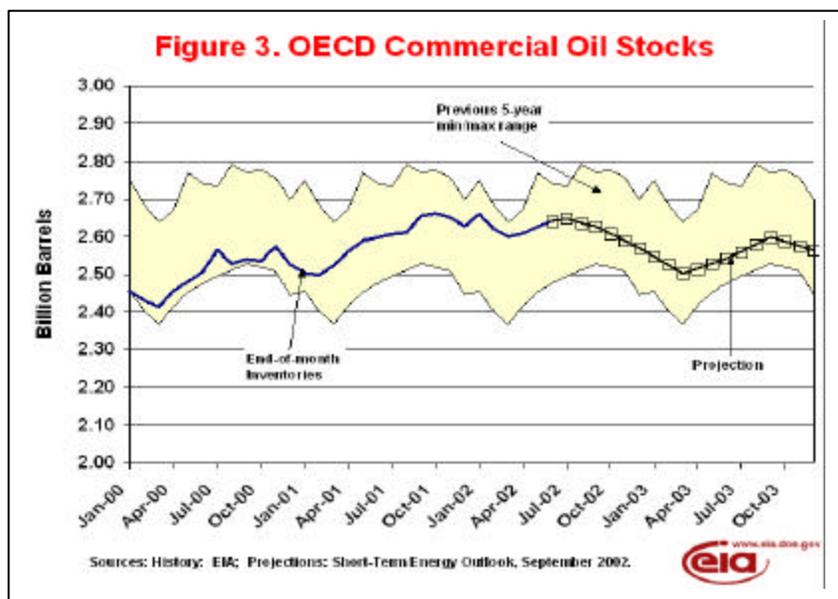
The current level of OPEC 10 production has prompted speculation that OPEC will increase production quotas at its September meeting in order to bring quotas more in line with actual production levels. However, Kuwait and Venezuela have stated that it remained opposed to any quota increases as long as the OPEC basket price remained within the target range, and for the first time this year there is considerable uncertainty as to what the outcome of the OPEC meeting will be.

EIA's current *Outlook* assumes that OPEC 10 production will rise further over the rest of 2002 in order to prevent prices from rising above OPEC's target range. EIA projects that the demand for oil will rise by 1.4 million barrels per day during the fourth quarter above third quarter levels and that additional oil will be needed to keep OECD commercial oil inventories within their observed 5-year range (Figure 3).
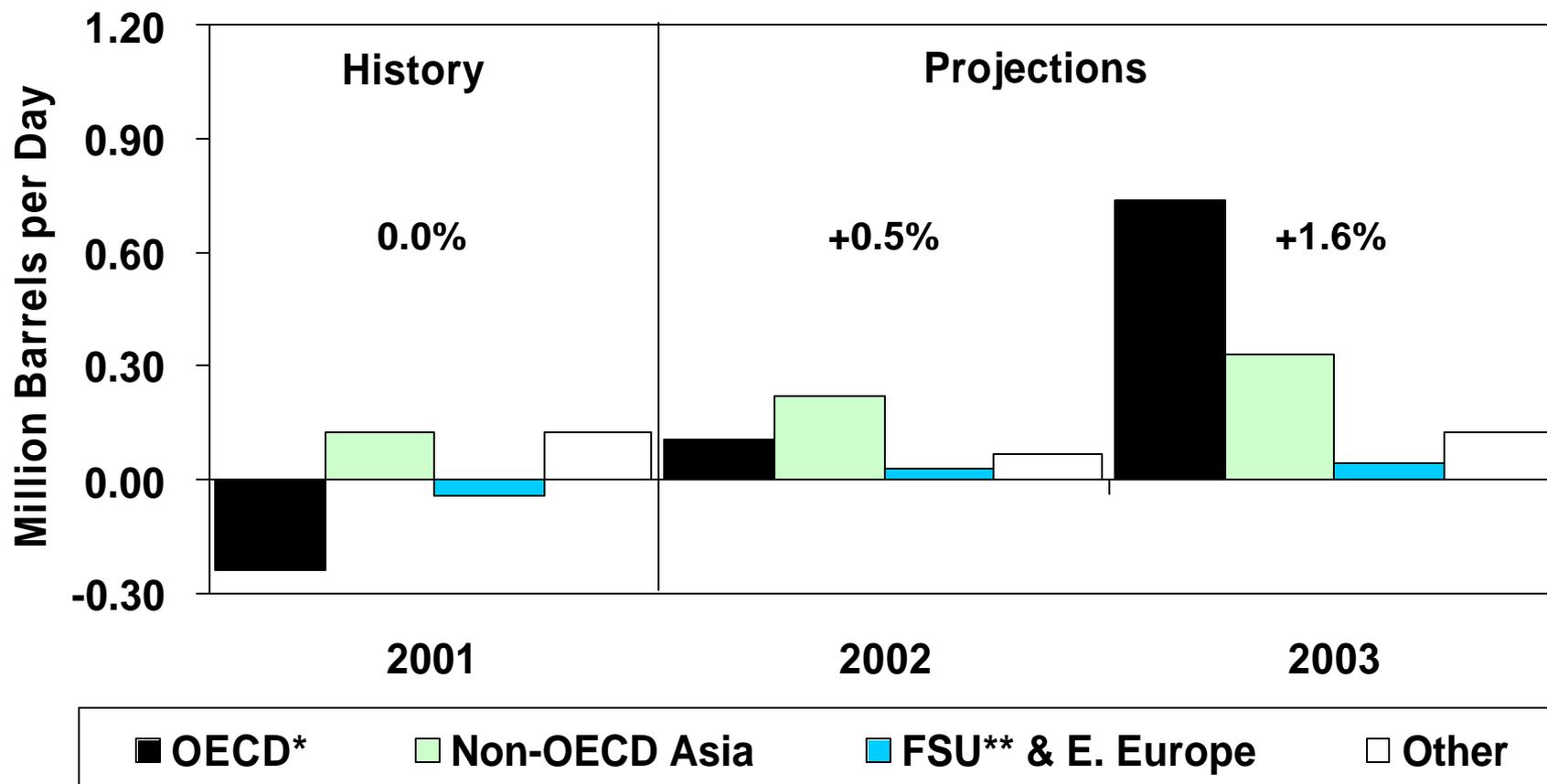
The projected recovery of the U.S. economy at end-2002 and 2003 (when U.S. GDP growth is projected to exceed 3 percent on an annual basis) is expected to result in a recovery in world oil demand as well. About half of the 1.2 million barrels per day growth in world oil demand in 2003 is projected to come from U.S. demand (Figure 4).

Figure 3. OECD Commercial Oil Stocks
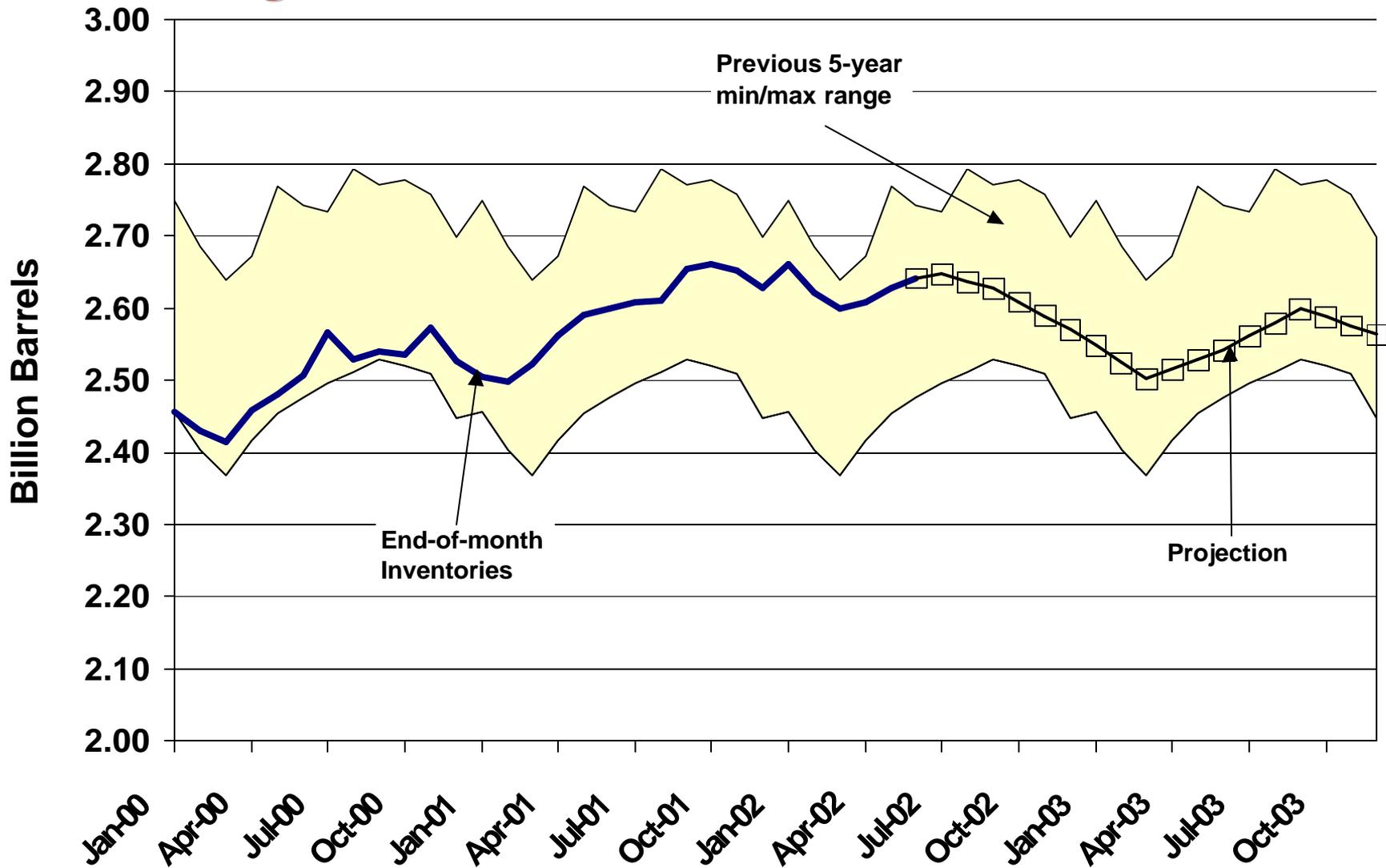
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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

Million Barrels per Day

1.20
0.90
0.60
0.30
0.00
-0.30

History

0.0%

Projections

+0.5%

+1.6%

2001

2002

2003

■ **OECD***   □ **Non-OECD Asia**   ■ **FSU** & E. Europe**   □ **Other**

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

** FSU = Former Soviet Union

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

U. S. Energy Prices

Motor Gasoline: Average monthly retail motor gasoline prices have been remarkably stable during most of the driving season this year. Inadequate gasoline supplies during the previous two driving seasons, on the other hand, resulted in price volatility at the pump (Figure 5). Ample gasoline supplies this year provided a cushion in the market and thus a price ceiling for much of the spring and summer.   Despite the protracted stability, pump prices could rise over the next few months, as long as crude oil prices keep rising.   Because of the robust supply picture, refiner margins (the difference between the refiner price of gasoline and the refiner acquisition cost of crude oil) were unspectacular this summer, particularly when compared to the margins from the last two summers (Figure 6). In 2003, retail gasoline prices are expected to increase by 10-15 cents per gallon on an annual basis, assuming rising crude oil prices and recovering refiner margins, and continuing economic growth to boost gasoline demand. At the end of August, motor gasoline inventories were 205 million barrels, right at the upper end of the "normal" range (Figure 7).

Distillate Fuel Oil (Heating oil and Diesel Fuel): From late March through the first half of August, retail diesel fuel oil prices remained static, as inventories were high, limiting price increases. Recently, however, diesel prices have climbed, jumping about 8-9 cents per gallon in the last three weeks. Although the change was high, the magnitude of change is not that unusual for this time of year. Some of the additional price increase may be related to regional supply problems, such as along the Williams Pipeline in the Midwest, and in California, where the BP refinery in Carson was shut down due to a fire. Prior to the beginning of the heating season, fuel oil suppliers start building their inventories for the winter, increasing demand and pushing up the price. Moreover, crude oil price increases have also helped lift end-use prices. At the end of August, distillate fuel oil inventories were about 130 million barrels, slightly below the middle of the 5-year average range (Figure 8), but the emerging trend is toward the lower end of the range.   Economic recovery and the expectation of higher crude oil prices in 2003 are expected to generate increases of 14 to 17 cents per gallon for diesel fuel and retail heating oil (Figure 9). This winter, retail heating oil prices are projected to be about 21 cents per gallon above those of the previous winter. Higher expected crude oil prices this winter (about $8.00 per barrel or 19 cents per gallon above last winter) account for most of the projected difference. It should also be remembered that the previous heating season in the Northeast (the Mid-Atlantic and New England, where 75 percent of the nation's heating oil is consumed) was 18 percent warmer than average, which greatly eased demand pressure on heating fuel prices.

Natural Gas: Since the last half of August, spot wellhead prices have remained over $3.00 per thousand cubic feet (mcf). Last month's unusually hot weather across the nation diverted some of the natural gas away from storage injections to electricity generating plants to meet the above-normal cooling demand. As a result, the price of natural gas, which had been hovering around $3.00 per thousand cubic feet, began rising (Figure 10).   Now that the summer is nearly over cooling demand should be tapering off, while at the same time, the heating season has not yet begun. Thus, during this interval, higher natural gas injection rates are expected.

The conditions that bear watching during the next two months are the weather and the volume of working natural gas in underground storage that is likely to be in place by November 1, (the date considered to be the start of the heating season). Generally, a level of 3 - 3.2 trillion cubic feet of working natural gas in storage by November 1 is considered ample. Under most circumstances, this range of peak storage would be sufficient to ensure coverage of winter demand without large increases in spot prices. During September and October, large quantities of natural gas are typically added to storage. However, if September is unusually hot, particularly in regions that consume large amounts of natural gas at electric utilities (such as Texas), some natural gas may be diverted away from storage and into electricity generation to meet the added cooling demand. Alternatively, colder-than-normal weather in October and/or November would

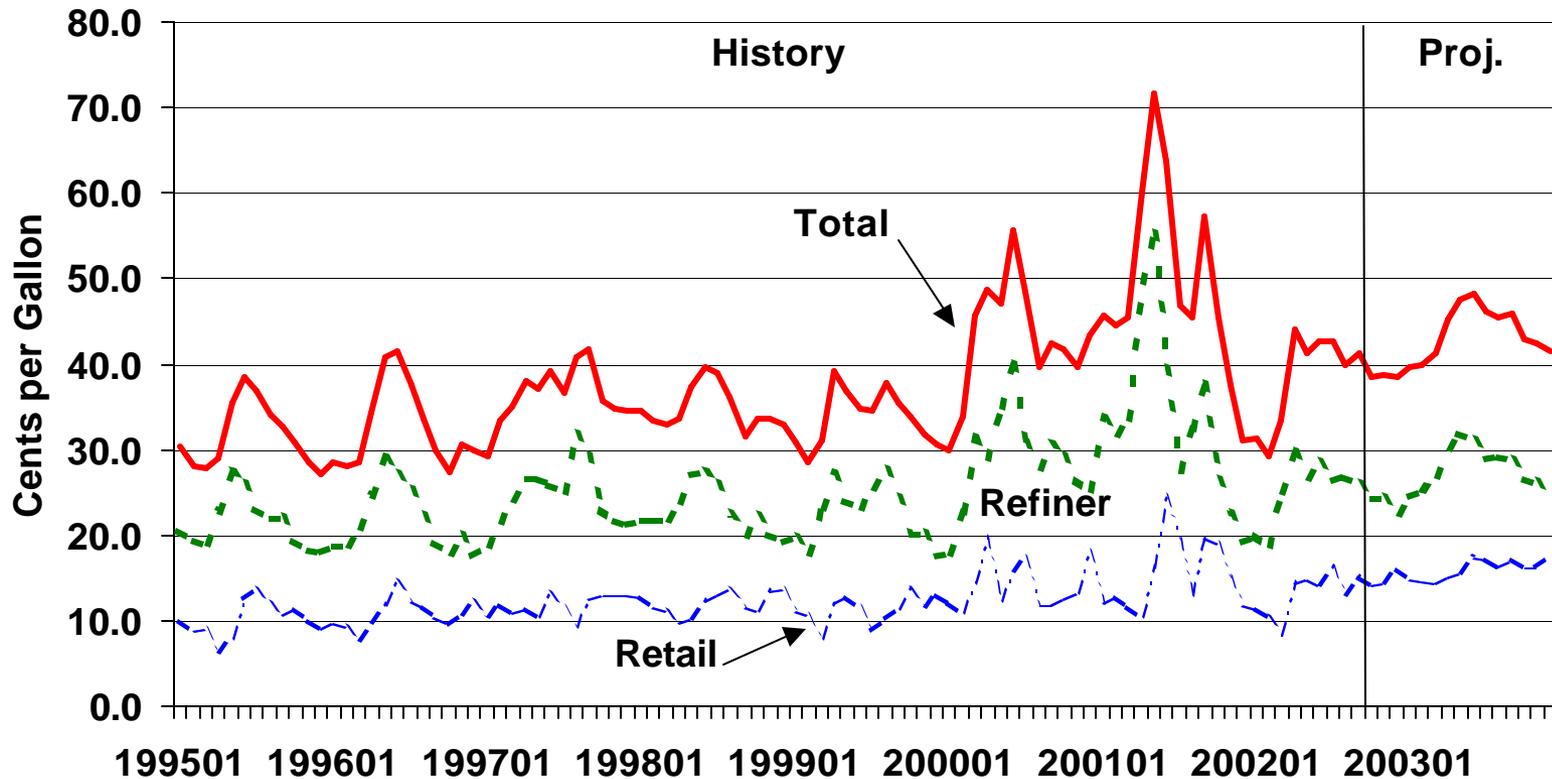# Figure 5. Gasoline Prices and Crude Oil Costs
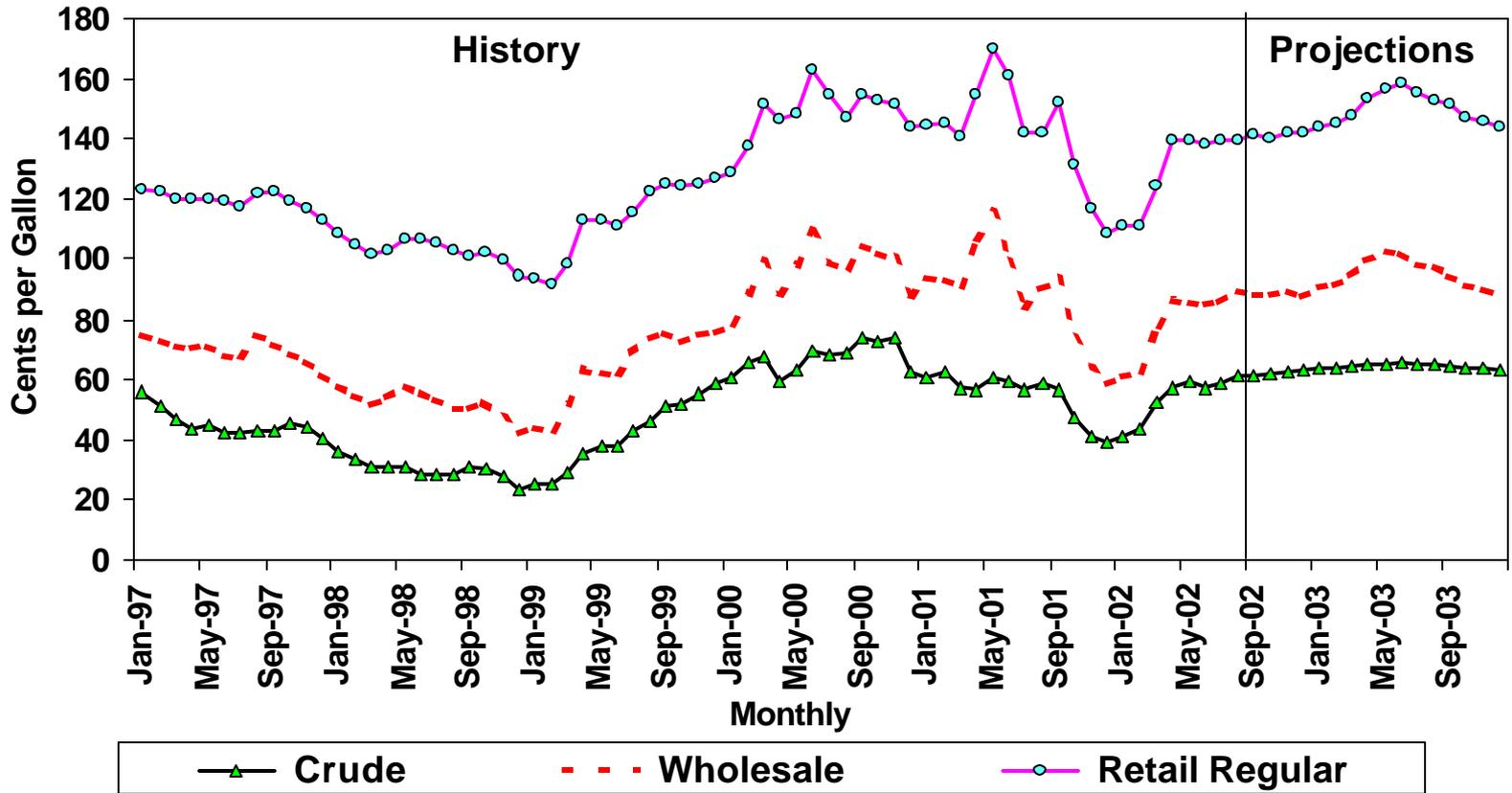
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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Figure 6. Motor Gasoline Spreads

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

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Figure 7. U.S. Gasoline Inventories
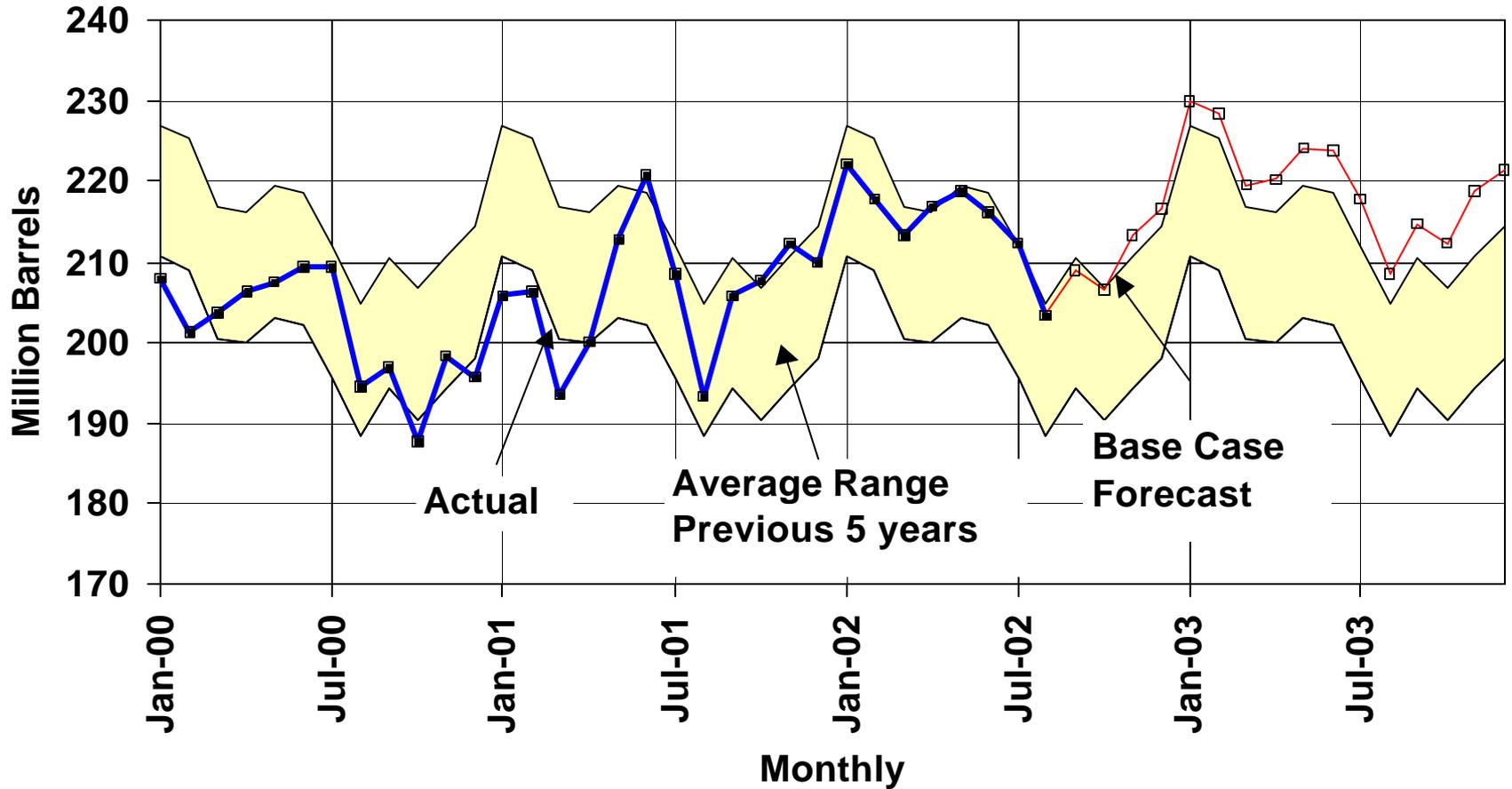
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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Figure 8. Distillate Fuel Inventories
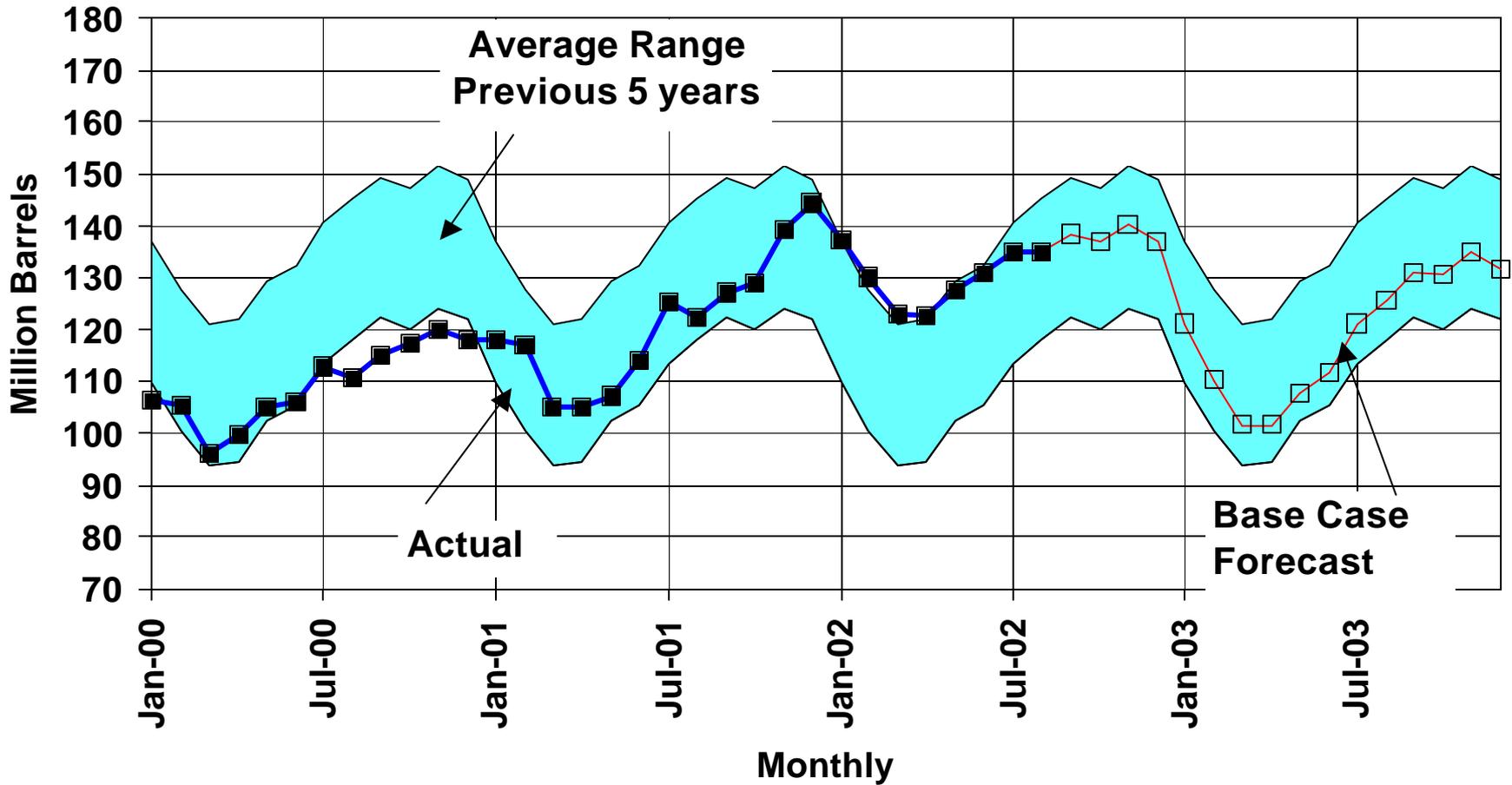
Average Range Previous 5 years

Actual

Base Case Forecast

Million Barrels

Monthly

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Figure 9. Distillate Fuel Prices
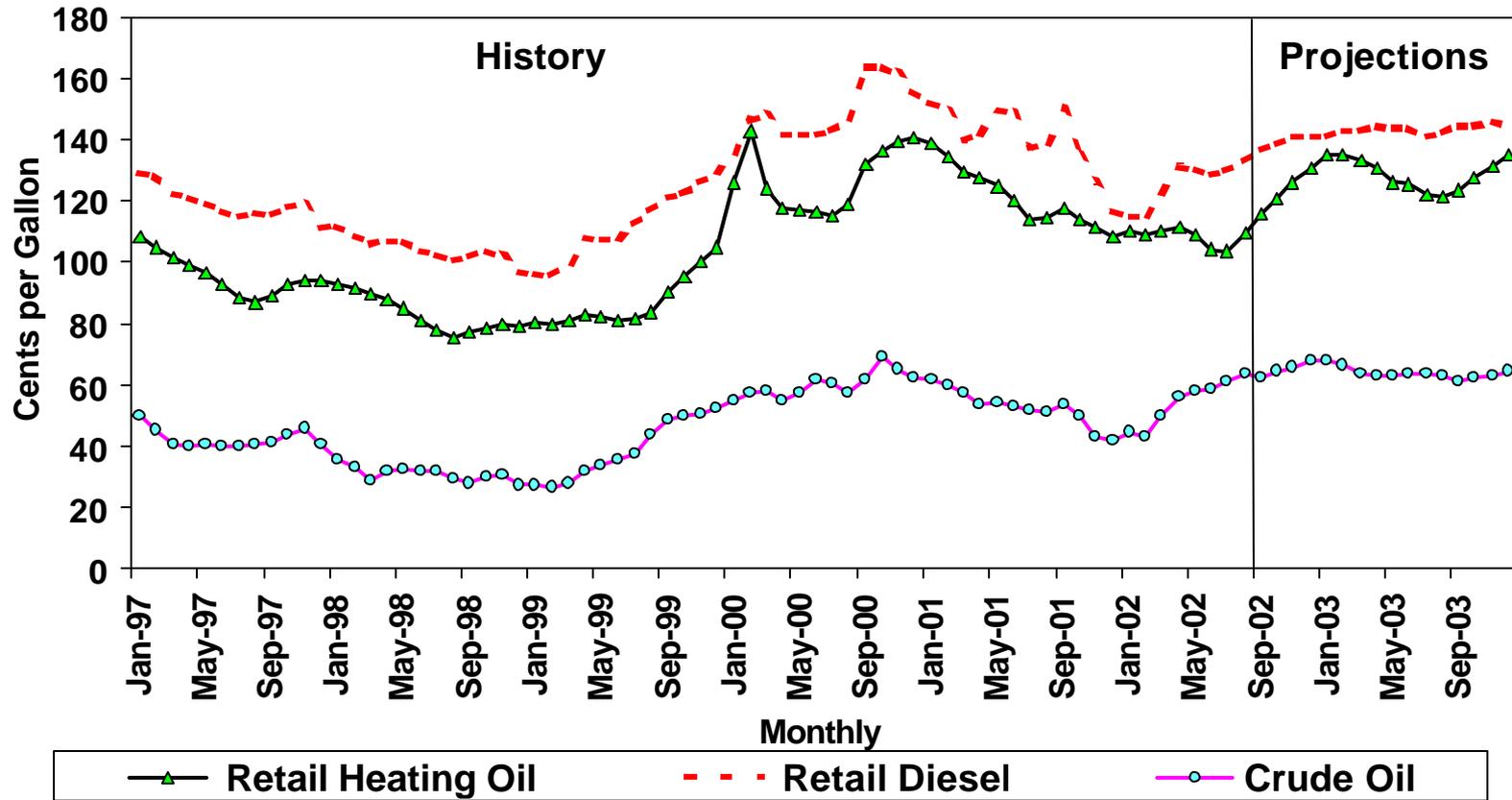
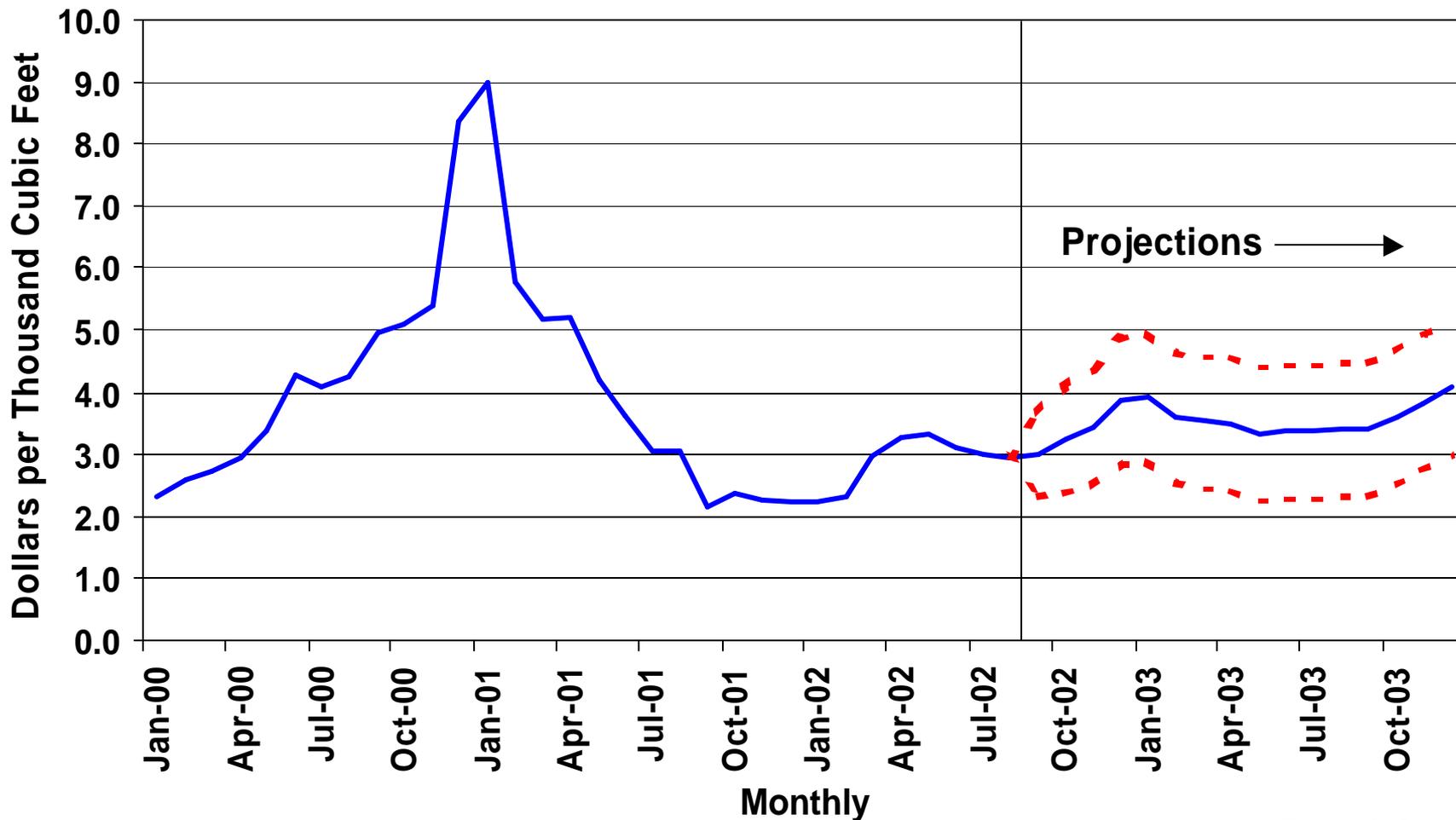Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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Figure 10. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval)

Projections ➝

Monthly

Dollars per Thousand Cubic Feet

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

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boost heating demand for natural gas, also sidetracking injections into storage. In either case, the result would likely be higher wellhead prices. On the other hand, milder-than-normal weather over the next several months could cause a drop in spot natural gas prices, particularly given the current surplus of working natural gas in storage. Working natural gas in underground storage has remained above the previous 5-year average since the beginning of the year. By the end of August, the storage level for working natural gas was about 8 percent higher than last year and about 12 percent above the previous 5-year average for that month.

In addition to the weather, two factors that would influence natural gas prices are world oil prices and the pace of economic growth. Both crude oil prices and economic growth are expected to pick up over the forecast period, causing natural gas prices to also rise.

This winter, we expect to see natural gas wellhead prices averaging around $3.20 per thousand cubic feet, or about $0.80 per thousand cubic feet above last winter's price. For all of 2002, the annual average natural gas wellhead price is projected to be about $2.80 per thousand cubic feet compared to over $4.00 last year. Next year, wellhead prices are projected to gain about $0.40 per thousand cubic feet over the 2002 price on an annual basis. The assumption of normal weather this winter translates into a scenario that is 12 percent colder than last winter. In 2003, the combination of projected lower volumes of underground natural gas in storage, a recovering economy (which boosts natural gas demand), and a higher level (on an annual basis) of crude oil prices could push natural gas wellhead prices upward to a projected price of $3.25 per thousand cubic feet for the year.

U. S. Oil Demand

For 2002 as a whole, total domestic petroleum demand is projected to average 19.70 million barrels per day, an increase of only 50,000 barrels per day, or 0.3 percent, from the 2001 average (Figure 11). That would represent the second consecutive year of virtually no change in total petroleum demand. But the apparent lack of growth in total petroleum demand belies the short-term fluctuations as well as differences in individual product demand behavior. Total petroleum products demand displayed a downturn in the first half of the year but is projected to stage a marked recovery during the second half. Also, individual products consumption growth has displayed great variation: steady growth in motor gasoline demand and robust demand growth in liquefied petroleum gases have contrasted with weakness in distillate and jet-fuel demand as well as a sharp contraction in residual fuel oil use.

Current data for the first half of 2002 indicate that total petroleum deliveries declined by 210,000 barrels per day, or 1.1 percent, from the same period in 2001. Buoyed by continued growth in real disposable income as well as year-to-year declines in retail pump prices, motor gasoline demand displayed year-to-year growth of 275,000 barrels per day, or more than 3 percent. But the effects of the terrorist attacks of last year have clearly taken their toll on jet-fuel markets: U.S. jet fuel demand declined by 135,000 barrels per day, or 8.7 percent. Distillate demand fell by 230,000 barrels per day, or 6 percent, as a result of record mild weather during the first quarter, a substantial downturn in industrial production, and greatly expanded availability of natural gas for power generation and industrial uses. The substantial declines in natural gas prices from the record levels of early 2001 (as well as the above-mentioned record mild weather earlier this year) helped drive residual fuel oil demand down by 265,000 barrels per day, or 29 percent, to an average 675,000 barrels per day. Demand for other (mostly industrial) petroleum products managed to stage a robust 320,000 barrels-per-day, or 7.6-percent, increase, reaching almost 5 million barrels per day. But almost all of that growth resulted from increased demand for liquefied petroleum gases (LPG's) for petrochemical plants brought about by the precipitous year-to-year decline in natural gas prices.

The second half of this year is expected to yield a marked recovery in total petroleum products demand, punctuated by particularly strong year-over-year growth in the fourth quarter. Motor gasoline demand is

Figure 11. Petroleum Products Demand Growth
(Change from Year Ago)
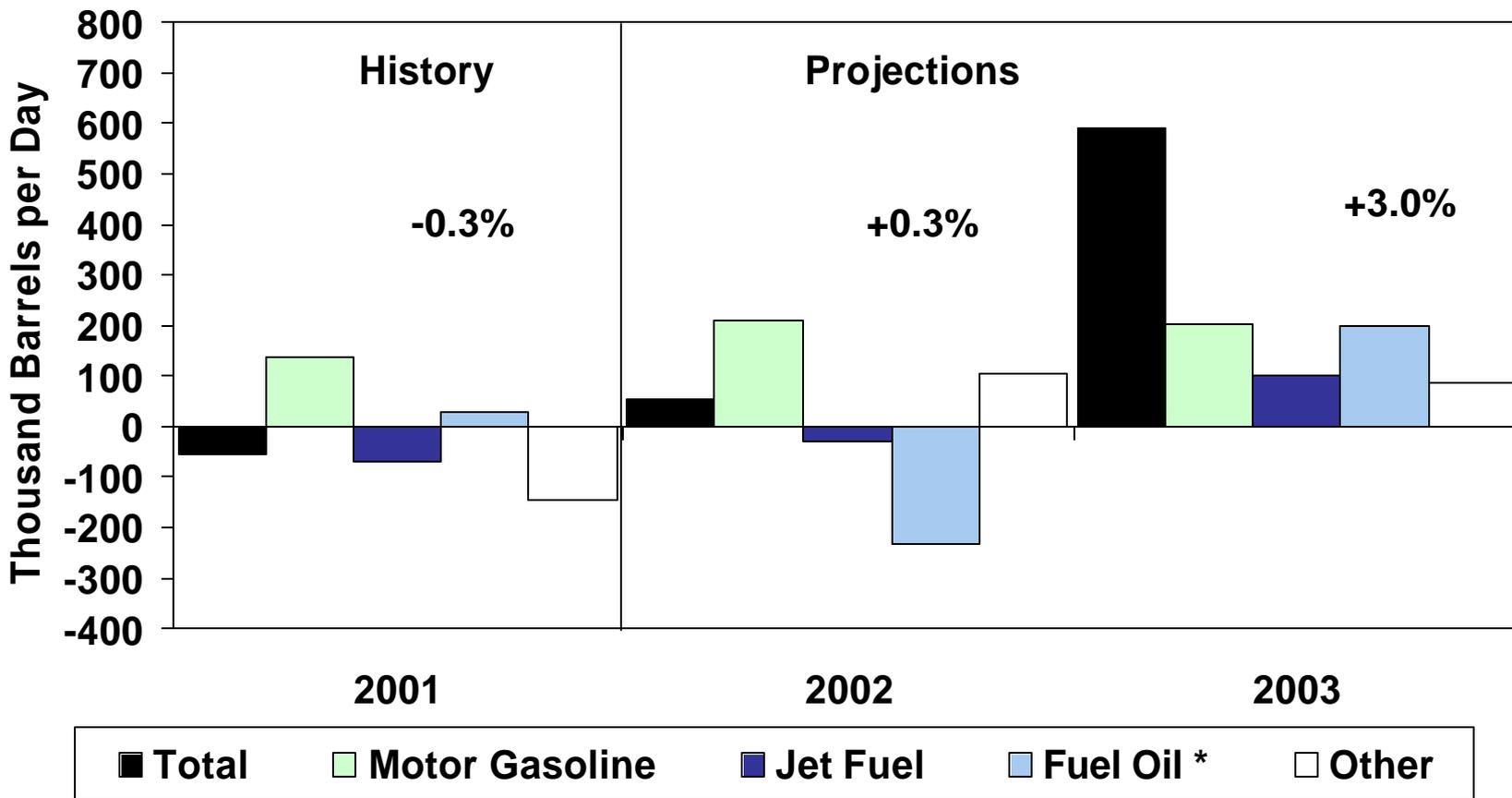
* Sum of distillate and residual fuel.

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

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expected to continue its upward trend, with growth averaging 145,000 barrels per day, or 1.8 percent, from the same period in 2001. Jet fuel demand is expected to be 120,000 barrels per day, or 7.5 percent, higher than last year. But that is still far less than what would have occurred in the absence of the events of last September. In fact, capacity curtailments recently announced by several major U.S. air carriers are expected to limit the already moderate pace of the ongoing recovery. Distillate fuel oil demand is expected to grow, by about 35,000 barrels per day, or 1.0 percent, reflecting (in part) the delay of any measurable recovery in industrial demand until the fourth quarter of this year.   Moreover, residual fuel oil demand, still reeling from the effects of competitive natural gas prices, is projected to register another year-to-year decline, contracting by an additional 35,000 barrels per day, or 5.0 percent.   LPG's are projected to continue to register year-to-year increases, averaging 70,000 barrels per day, or 3.5 percent.   Other oils, reflecting the nascent recovery, are expected to rise 15,000 barrels per day, or 0.6 percent.

In 2003, we assume accelerating growth in industrial activity and normal weather patterns (in contrast to the mild weather of the previous winter). Total petroleum demand growth is projected to climb by 590,000 barrels per day, or 3.0 percent, to 20.29 million barrels per day. That would be the first substantial growth in U.S. oil demand in 3 years.   All of the major petroleum products are expected to contribute to that growth. Motor gasoline demand is projected to increase 200,000 barrels per day, or 2.3 percent. Reflecting continued recovery from the events of September 2001, jet fuel demand is projected to increase 100,000 barrels per day, or 6.1 percent, approaching averages last seen in 2000. Under assumptions of normal weather and strong recovery in industrial output, distillate demand is projected to increase by 90,000 barrels per day, or 2.1 percent. Having declined substantially in the previous two years, residual fuel oil demand is expected to stage a strong recovery, growing by 120,000 barrels per day, or 17.8 percent, to 800,000 barrels per day, largely because of strong first quarter demand from weather factors. Accelerating petrochemical demand growth and assumptions of normal weather are expected to bring about growth of 90,000 barrels-per-day, or 1.9 percent, in combined liquefied petroleum gas and other oils demand.

U.S. Oil Supply

Average domestic oil production is expected to increase by 91,000 barrels per day or 1.6 percent in 2002, to a level of 5.89 million barrels of oil per day (Figure 12).   For 2003, the average production rate seen in 2002 is expected to fall slightly.
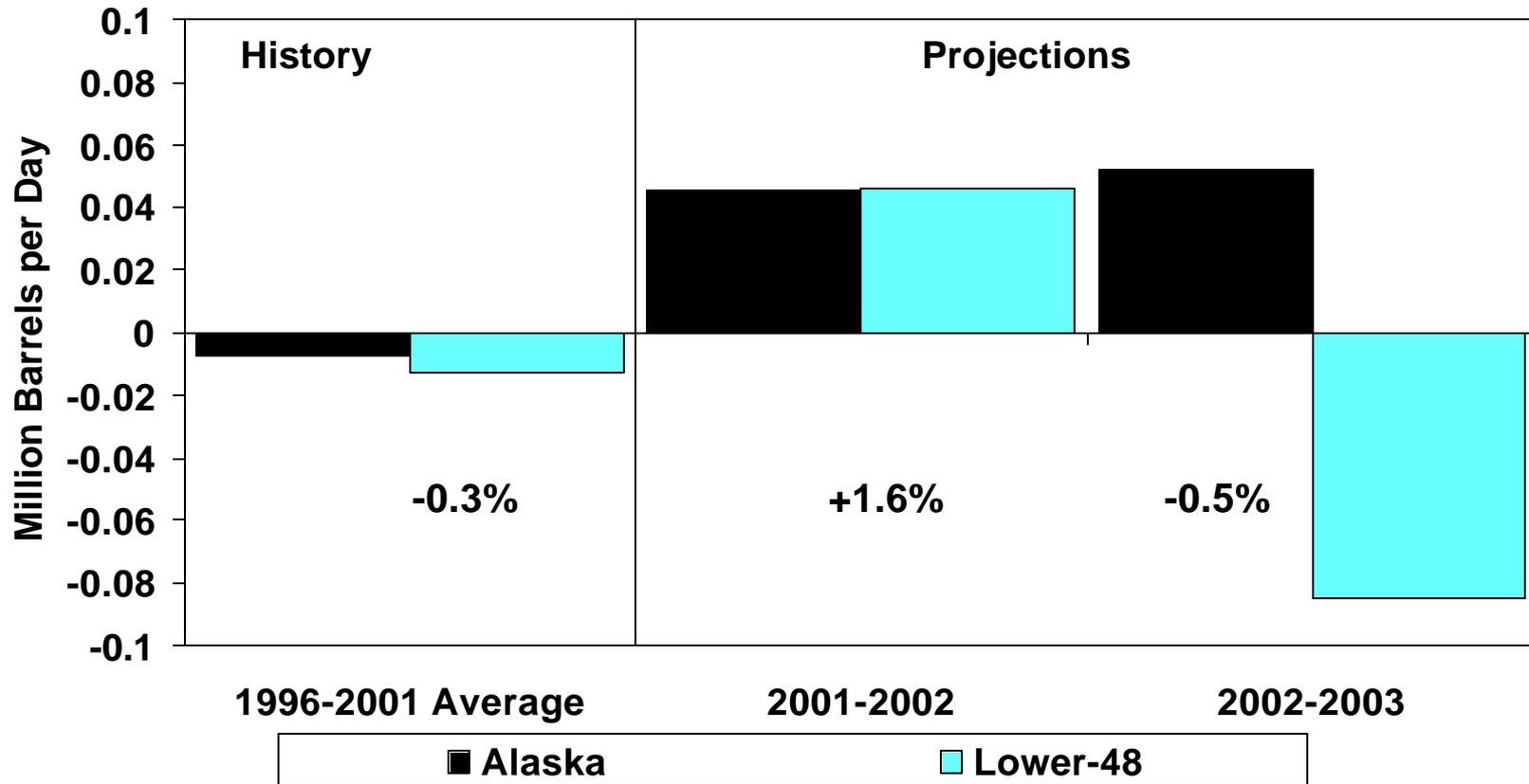
Lower-48 States oil production is expected to increase by 45,000 barrels per day to a rate of 4.9 million barrels per day in 2002, followed by a decrease of 84,000 barrels per day in 2003. Shell's Brutus Federal Offshore platform oil production is expected to peak at 100,000 barrels per day in 2002. The production from the new Brutus platform offsets the decline in production from other fields in 2002. Oil production from the Mars, Troika, Ursa, Dianna-Hoover and Brutus Federal Offshore fields is expected to account for about 9.3 percent of the lower-48 oil production by the fourth quarter of 2003.

Alaska is expected to account for 18.0 percent of total U.S. oil production in 2003. Alaska oil production is expected to increase by 4.7 percent in 2002 and increase by 5.2 percent in 2003. The increase in 2003 will be the result of field facilities expansion in the new satellite Colville River (Alpine) field. Another satellite field, North Star, came on in November 2001 at a rate of over 50 thousand barrels per day. Production from the Kuparuk River field plus like production from West Sak, Tabasco, Tarn and Meltwater fields is expected to stay at an average of 220 thousand barrels per day in the 2002 and 2003 forecast periods.

Natural Gas Demand and Supply

In 2002, natural gas demand is projected to increase by 3.3 percent over 2001 levels. The expectation of rising demand in the industrial sector is balanced by lowered electric utility demand expectations; however, nonutilty demand for natural gas for power generation continues to rise. In 2003, natural gas demand

Figure 12. U.S. Crude Oil Production Growth
(Change from Year Ago)

Million Barrels per Day (y-axis, scale from -0.1 to 0.1)

History | Projections

-0.3%   +1.6%   -0.5%

1996-2001 Average   2001-2002   2002-2003

■ Alaska   ■ Lower-48

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growth is expected to increase by 3.6 percent, as the economy continues to recover (Figure 13). In 2003, natural gas demand growth is expected across all sectors, with the exception of the electric utility sector. This is because of the still ongoing transfer of ownership of electric power plants from utility to independent power producers (included in the industrial sector) that stems from deregulation.

This winter, natural gas demand is expected to average 12 percent higher than last winter due to the assumption of normal weather. Wellhead natural gas prices are expected to rise in response to demand increases, and residential natural gas prices are expected to average 26 cents higher than they were last winter.

Working natural gas in storage is estimated to have reached about 2,774 billion cubic feet (bcf) by the end of August, 12 percent above the 5-year average. Storage levels are now about 200 bcf higher than a year ago, and over half of that surplus is in the producing region. Storage is expected to remain above average levels at least through the beginning of the next heating season (Figure 14). In August 2002, spot natural gas prices averaged about $2.87 per thousand cubic feet (mcf), close to the August 2001 average of $2.81. The forecast for natural gas prices for 2003 is an increase of about $0.46 per mcf from the 2002 yearly average of $2.79 per mcf.

Domestic dry natural gas production is projected to fall by about 1.7 percent in 2002 compared to the 2001 growth rate of 2.4 percent. Lower natural gas prices have reduced production and resource development incentives from their highs of last year. Still, current supplies, including natural gas in storage, appear to be at very comfortable levels. In 2003, production is expected to rebound by 3.2 percent as demand rises and inventories fall back closer to normal.

Natural gas-directed drilling, while down sharply from 2001 levels, is still quite strong by a longer historical perspective. Nevertheless, natural gas drilling activity has fallen significantly from the peaks seen in July 2001, which were spurred by extremely high prices for natural gas. Baker Hughes reported average active rigs drilling for natural gas in August at 721, 43 percent below the year-ago level. Aggregate lease revenues from domestic oil and natural gas production are expected to move up this year and settle at about $330 million per day in 2003, which would be approximately a 30-percent increase over the rates seen at the end of 2001 **(Figure 15).** Inasmuch as these revenues are a strong determinant of industry cash flow, which in turn is a powerful driver of drilling activity levels, an upward trend in drilling levels generally (and natural gas-directed drilling in particular) is anticipated for this year and into 2003 **(Figure 16).** Thus, natural gas drilling appears to be in the early stages of a renewed upswing in activity.

Electricity Demand and Supply

Total annual electricity demand growth (retail sales plus industrial generation for own use and other direct sales) is expected to continue to slip by 0.7 percent this year, principally due to a weak first half. But electricity demand is expected to begin to revive in the third quarter of 2002, and to grow by 3.0 percent in 2003 (Figure 17) as the economy recovers.

Total U.S. electricity utility output hit an all-time high the week ending August 3, according to the Edison Electric Institute, due in large part to a heat wave across much of the country. The Mid-Atlantic and Southeastern states saw the highest increases in output relative to the year before. This summer's electricity demand by the residential sector was 4.1 percent above last summer's as cooling degree-days are estimated to have averaged 8.6 percent above last summer and 10.5 percent above normal.

In 2001, total hydropower generation was down to lows not seen since 1966. In 2002, total hydro generation is expected to rise by 23 percent with normal precipitation in the Pacific Northwest, the main region affected. Total oil-fired generation is projected to be down considerably, by 30 percent from last year due to

Figure 13. Total Natural Gas Demand Growth Patterns
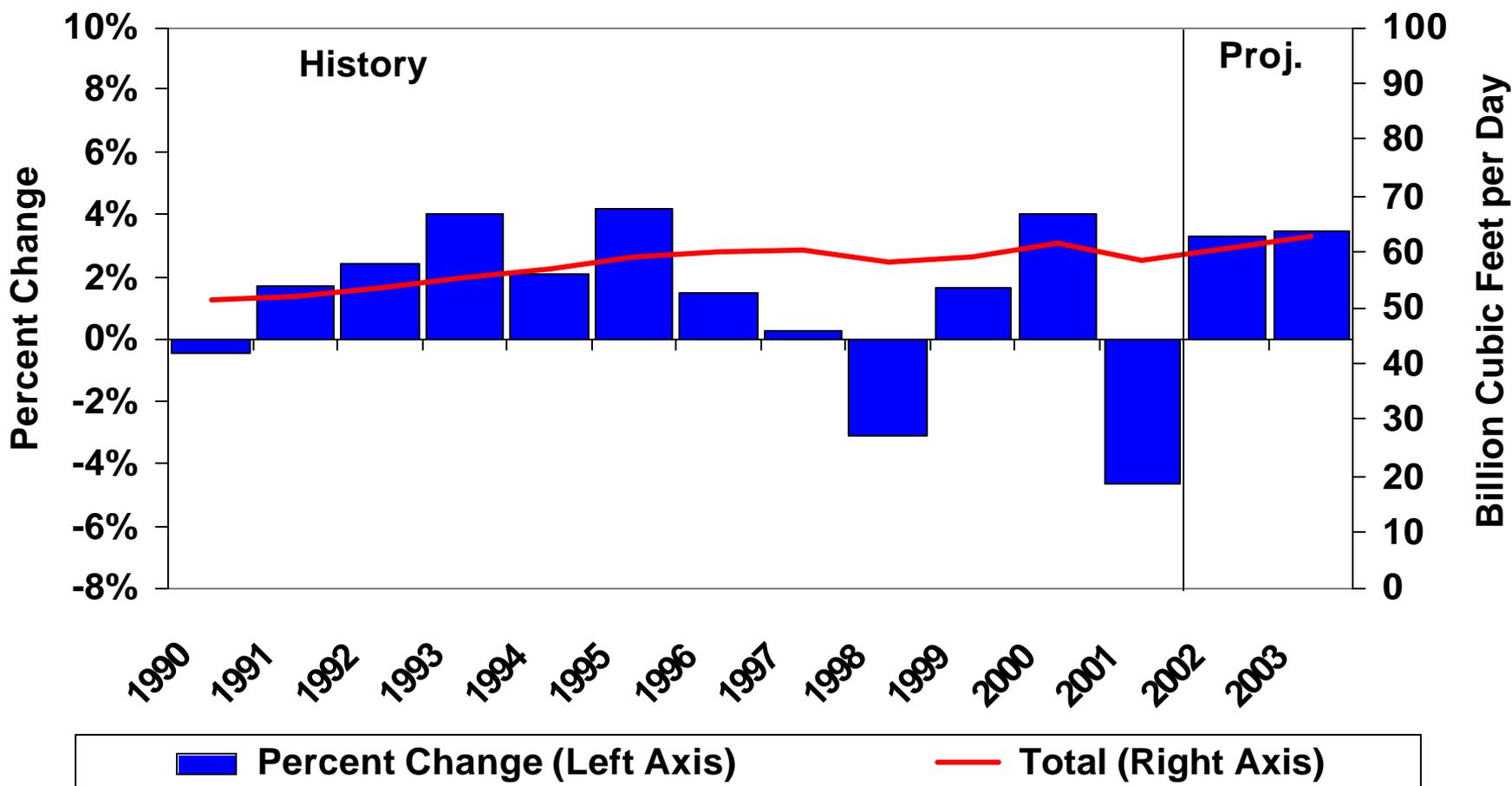
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

Note: This chart replaces a previous Figure 12 because of revised data for January 2002.

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Figure 14. Working Gas in Storage
(Difference from Previous 5-Year Average)
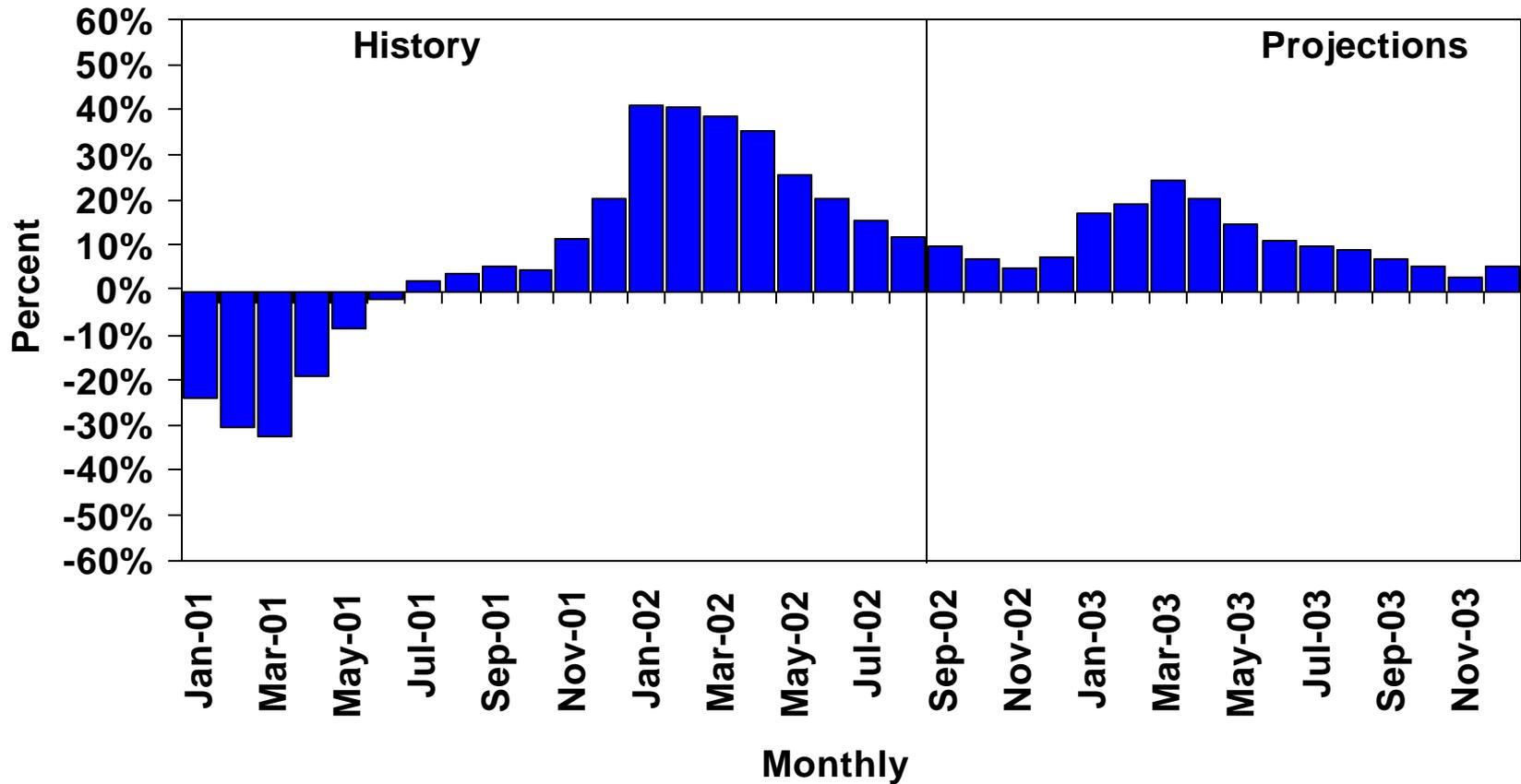
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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

Projections

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

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Figure 16. U.S. Natural Gas-Directed Drilling Activity
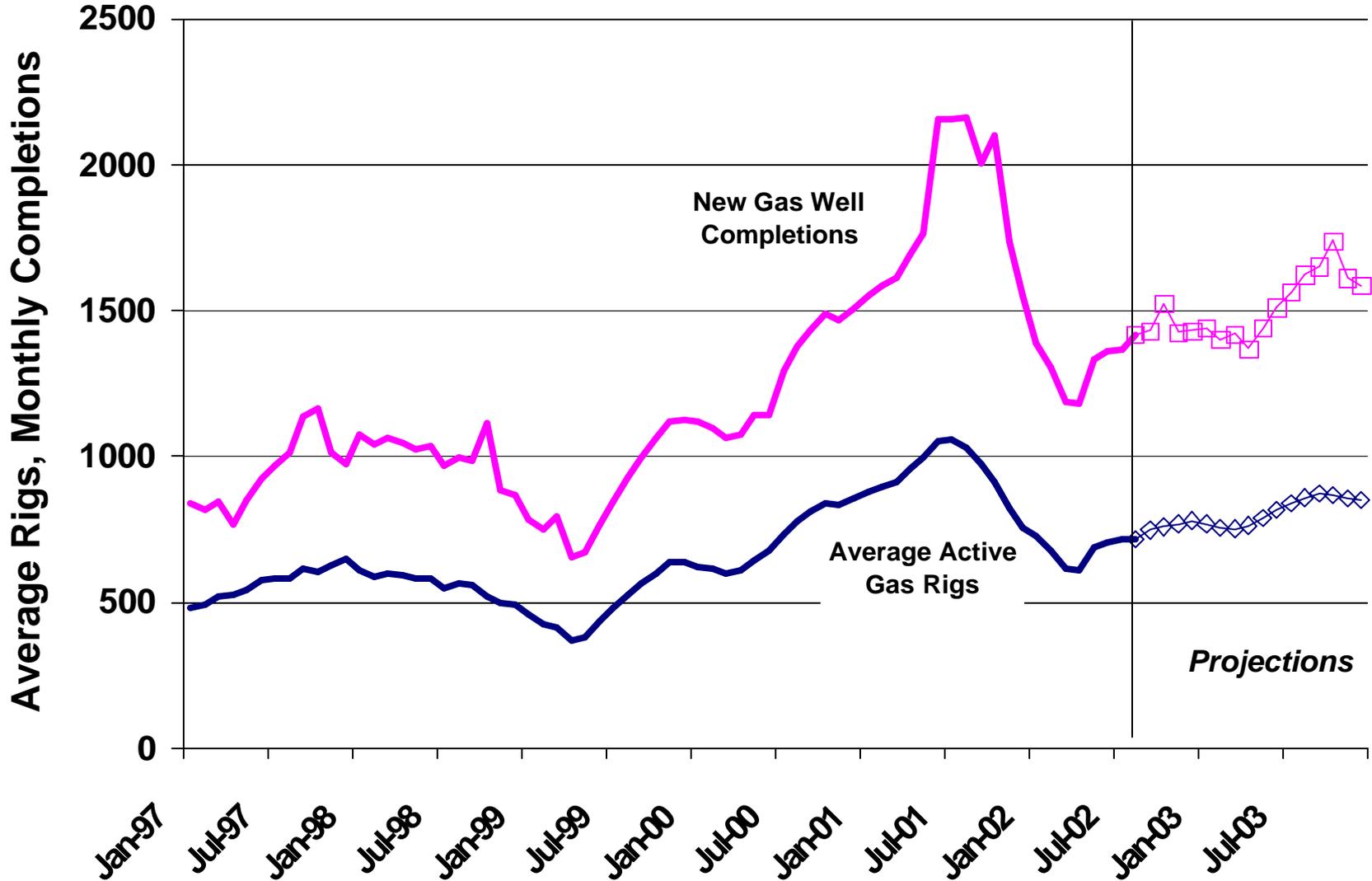
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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Figure 17. Total Electricity Demand Growth Patterns
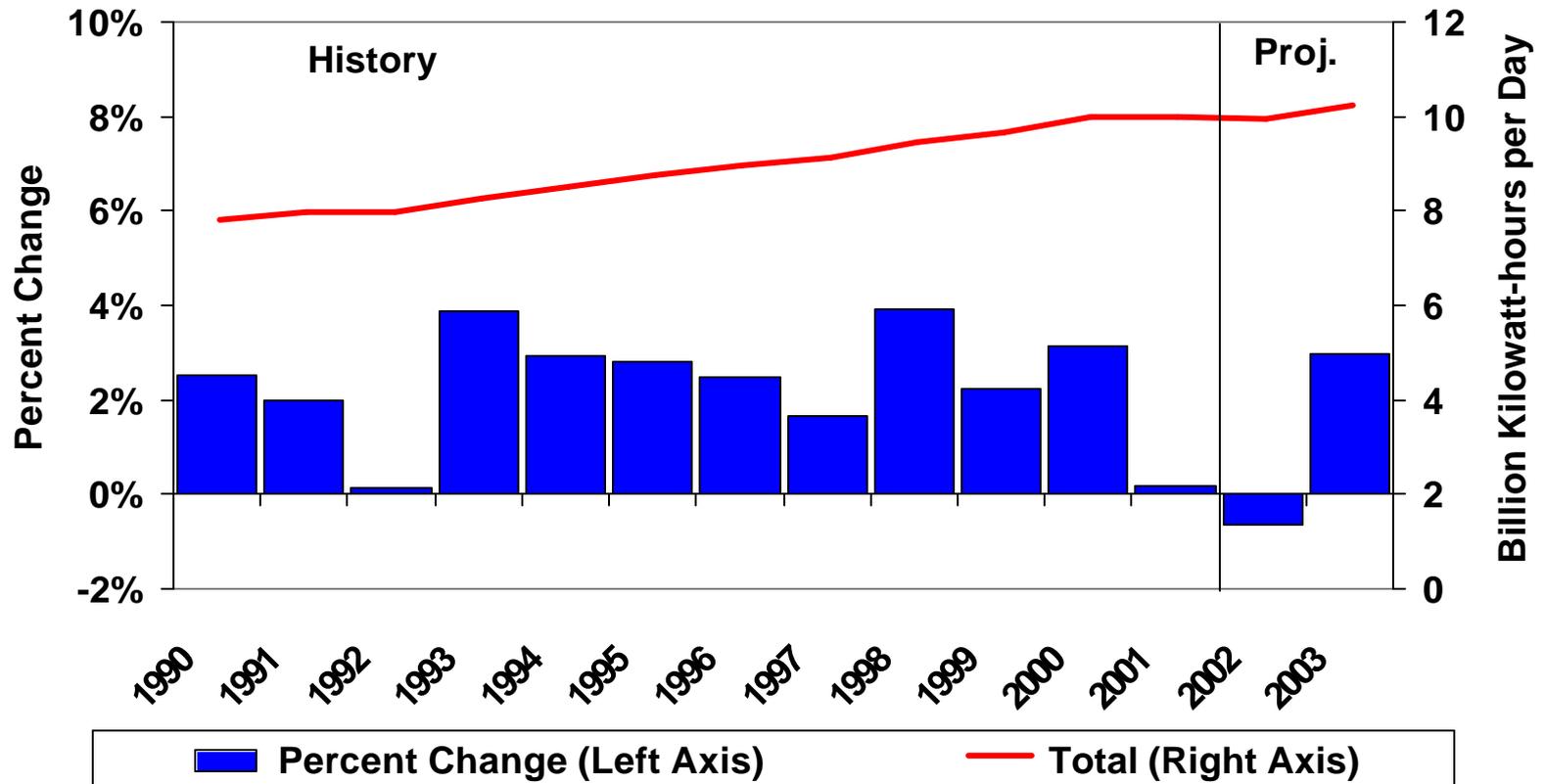
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2002.

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higher relative prices, while total natural gas-fired generation is projected to be up by 7.2 percent from what it was last year. Total nuclear generation is expected to be less than 1 percent above the 2001 level in both 2002 and 2003. The capacity factor for 2001 was 89.5% and capacity factors for 2002 and 2003 are both projected to be slightly above 90%. The projection reflects revised and increasing capacities for the 103 operating units. Nuclear plant owners have filed applications with the Nuclear Regulatory Commission for uprates for many years; however, there have recently been many more and larger uprates sought. There were applications for uprates at 22 units in 2001 and an equal number is expected through 2003. The planned expansions range from 1 to 20 percent of the current capacities and each could take from 12 to 36 months to implement. The resulting capacity increases through 2003 could easily be equivalent to 1-2 additional reactors. Currently, the only major outage is with the Davis-Besse facility, which is expected to resume operation by late December.

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

	Year				Annual Percentage Change		
	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	**9191**	**9215**	*9440*	*9744*	*0.3*	*2.4*	*3.2*
Imported Crude Oil Price [a] (nominal dollars per barrel)..................................	**27.72**	**22.01**	*23.64*	*26.91*	*-20.6*	*7.4*	*13.8*
Petroleum Supply (million barrels per day) Crude Oil Production [b]	**5.82**	**5.80**	*5.89*	*5.86*	*-0.3*	*1.6*	*-0.5*
Total Petroleum Net Imports (including SPR)...	**10.43**	**10.91**	*10.38*	*11.10*	*4.6*	*-4.9*	*6.9*
Energy Demand							
World Petroleum (million barrels per day)	**76.0**	**76.0**	*76.4*	*77.6*	*0.0*	*0.5*	*1.6*
Petroleum (million barrels per day)	**19.70**	**19.65**	*19.70*	*20.29*	*-0.3*	*0.3*	*3.0*
Natural Gas (trillion cubic feet)	**22.54**	**21.43**	*22.13*	*22.92*	*-4.9*	*3.3*	*3.6*
Coal [c] (million short tons)	**1081**	**1050**	**1058**	**1064**	*-2.9*	*0.8*	*0.6*
Electricity (billion kilowatthours) Retail Sales [d]	**3421**	**3397**	*3376*	*3472*	*-0.7*	*-0.6*	*2.8*
Nonutility Use/Sales [e]	**199**	**215**	*217*	*229*	*8.0*	*0.9*	*5.5*
Total	**3620**	**3611**	*3593*	*3700*	*-0.2*	*-0.5*	*3.0*
Total Energy Demand [f] (quadrillion Btu)	**99.6**	**97.1**	**97.9**	**100.4**	*-2.5*	*0.8*	*2.6*
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)............................	**10.83**	**10.53**	*10.37*	*10.30*	*-2.8*	*-1.5*	*-0.7*
Renewable Energy as Percent of Total [g]	**7.2**	**6.7**	*7.3*	*7.7*			

[a]Refers to the refiner acquisition cost (RAC) of imported crude oil.
[b]Includes lease condensate.
[c]Total Demand includes estimated Independent Power Producer (IPP) coal consumption.
[d]Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2000 are estimates.
[e]Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.
[f]The conversion from physical units to Btu is calculated by using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, Monthly Energy Review (MER). Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).
[g]Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy.
SPR: Strategic Petroleum Reserve.
Notes: Minor discrepancies with other published EIA historical data are due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0802.

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

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Macroeconomic [a]															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR)	9230	9193	9186	9249	9363	9388	9468	9539	9626	9702	9780	9866	9215	9440	9744
Percentage Change from Prior Year	1.5	-0.1	-0.4	0.1	1.4	2.1	3.1	3.1	2.8	3.3	3.3	3.4	0.3	2.4	3.2
Annualized Percent Change from Prior Quarter	-0.6	-1.6	-0.3	2.7	5.0	1.1	3.4	3.0	3.6	3.1	3.2	3.5			
GDP Implicit Price Deflator (Index, 1996=1.000)	1.087	1.093	1.099	1.098	1.101	1.105	1.111	1.120	1.131	1.136	1.144	1.152	1.094	1.109	1.140
Percentage Change from Prior Year	2.4	2.5	2.6	2.0	1.4	1.0	1.1	2.1	2.6	2.8	2.9	2.8	2.4	1.4	2.8
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	6704	6695	6864	6729	6962	7028	7085	7112	7141	7168	7166	7169	6748	7047	7161
Percentage Change from Prior Year	2.7	1.3	2.8	0.3	3.9	5.0	3.2	5.7	2.6	2.0	1.1	0.8	1.8	4.4	1.6
Manufacturing Production (Index, 1996=1.000)	1.221	1.202	1.187	1.167	1.176	1.188	1.197	1.208	1.222	1.238	1.255	1.271	1.194	1.192	1.247
Percentage Change from Prior Year	-1.0	-4.3	-5.6	-6.1	-3.7	-1.1	0.9	3.5	3.9	4.2	4.9	5.2	-4.3	-0.2	4.6
OECD Economic Growth (percent) [b]													0.9	1.8	2.6
Weather [c]															
Heating Degree-Days															
U.S.	2329	446	85	1363	2067	521	74	1622	2231	518	86	1622	4223	4284	4456
New England	3268	802	122	1867	2800	919	165	2237	3171	882	167	2237	6059	6120	6457
Middle Atlantic	2950	627	102	1618	2476	704	89	2002	2888	699	105	2001	5297	5271	5693
U.S. Gas-Weighted	2450	470	93	1438	2181	558	77	1714	2348	555	90	1713	4451	4530	4706
Cooling Degree-Days (U.S.)	26	371	779	80	30	404	845	76	33	347	783	76	1256	1354	1238

[a]Macroeconomic projections from DRI/McGraw-Hill 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 1990 population.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419). Projections of OECD growth are based on DRI-WEFA, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0802.

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

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Macroeconomic [a]															
Real Fixed Investment															
(billion chained 1996 dollars-SAAR)...	**1682**	**1634**	**1616**	**1578**	*1576*	*1577*	*1582*	*1585*	*1599*	*1618*	*1652*	*1689*	**1627**	*1580*	*1640*
Real Exchange Rate															
(index)..............................	**1.112**	**1.149**	**1.141**	**1.157**	*1.191*	*1.148*	*1.126*	*1.115*	*1.104*	*1.095*	*1.083*	*1.075*	**1.140**	*1.145*	*1.089*
Business Inventory Change															
(billion chained 1996 dollars-SAAR)...	**-18.6**	**-41.7**	**-44.1**	**-40.2**	*-31.9*	*-14.5*	*-4.5*	*1.6*	*2.9*	*4.4*	*4.7*	*6.2*	**-36.2**	*-12.3*	*4.5*
Producer Price Index															
(index, 1982=1.000)...........................	**1.385**	**1.363**	**1.329**	**1.292**	*1.296*	*1.311*	*1.334*	*1.350*	*1.362*	*1.360*	*1.370*	*1.376*	**1.342**	*1.323*	*1.367*
Consumer Price Index															
(index, 1982-1984=1.000)..................	**1.759**	**1.773**	**1.776**	**1.775**	*1.781*	*1.796*	*1.810*	*1.826*	*1.843*	*1.854*	*1.869*	*1.884*	**1.771**	*1.803*	*1.862*
Petroleum Product Price Index															
(index, 1982=1.000)...........................	**0.892**	**0.968**	**0.875**	**0.677**	*0.656*	*0.808*	*0.820*	*0.903*	*0.935*	*0.882*	*0.878*	*0.929*	**0.853**	*0.797*	*0.906*
Non-Farm Employment															
(millions)	**132.4**	**132.2**	**131.9**	**131.1**	*130.8*	*130.7*	*130.8*	*131.0*	*131.6*	*132.2*	*132.9*	*133.7*	**131.9**	*130.8*	*132.6*
Commercial Employment															
(millions)	**92.9**	**92.9**	**92.8**	**92.3**	*92.1*	*92.2*	*92.3*	*92.4*	*92.9*	*93.5*	*94.1*	*94.9*	**92.7**	*92.3*	*93.8*
Total Industrial Production															
(index, 1996=1.000)...........................	**1.199**	**1.181**	**1.167**	**1.147**	*1.154*	*1.167*	*1.176*	*1.188*	*1.201*	*1.215*	*1.230*	*1.245*	**1.173**	*1.171*	*1.223*
Housing Stock															
(millions)	**117.5**	**117.7**	**118.0**	**118.6**	*119.3*	*119.5*	*119.7*	*120.0*	*120.3*	*120.6*	*120.9*	*121.2*	**118.0**	*119.6*	*120.7*
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1996=1.000)...........................	**1.081**	**1.073**	**1.069**	**1.060**	*1.069*	*1.076*	*1.082*	*1.089*	*1.098*	*1.110*	*1.123*	*1.135*	**1.071**	*1.079*	*1.117*
Vehicle Miles Traveled [b]															
(million miles/day)..............................	**7106**	**7883**	**7877**	**7574**	*7235*	*8018*	*8099*	*7737*	*7483*	*8202*	*8347*	*7857*	**7612**	*7775*	*7974*
Vehicle Fuel Efficiency															
(index, 1999=1.000)...........................	**0.990**	**1.052**	**1.029**	**1.013**	*0.984*	*1.030*	*1.042*	*1.016*	*0.999*	*1.038*	*1.043*	*1.002*	**1.021**	*1.019*	*1.021*
Real Vehicle Fuel Cost															
(cents per mile)	**4.11**	**4.33**	**3.96**	**3.33**	*3.32*	*3.76*	*3.68*	*3.74*	*3.84*	*3.87*	*3.80*	*3.80*	**3.93**	*3.63*	*3.83*
Air Travel Capacity															
(mill. available ton-miles/day).............	**488.9**	**495.6**	**476.6**	**430.2**	*432.0*	*439.2*	*454.4*	*467.2*	*468.4*	*474.2*	*486.1*	*492.1*	**472.7**	*448.3*	*480.3*
Aircraft Utilization															
(mill. revenue ton-miles/day)..............	**263.7**	**282.8**	**265.9**	**225.3**	*235.7*	*268.9*	*288.2*	*265.5*	*259.9*	*280.5*	*296.5*	*283.4*	**259.4**	*264.7*	*280.2*
Airline Ticket Price Index															
(index, 1982-1984=1.000)..................	**2.399**	**2.408**	**2.452**	**2.318**	*2.317*	*2.377*	*2.417*	*2.449*	*2.504*	*2.526*	*2.539*	*2.548*	**2.394**	*2.390*	*2.529*
Raw Steel Production															
(million tons).......................................	**25.53**	**26.07**	**25.25**	**22.05**	*23.92*	*25.03*	*23.00*	*22.68*	*23.60*	*24.76*	*24.25*	*23.99*	**98.89**	*94.63*	*96.60*

[a]Macroeconomic projections from DRI-WEFA 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)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Demand [a]															
OECD															
U.S. (50 States)	19.9	19.6	19.7	19.4	19.4	19.6	19.8	20.0	20.2	20.0	20.4	20.6	19.6	19.7	20.3
U.S. Territories	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4
Canada	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.1	2.1	1.9	1.9	2.0
Europe	15.2	14.8	15.5	15.6	15.1	14.9	15.6	15.7	15.6	14.6	15.2	15.9	15.3	15.3	15.3
Japan	6.1	5.0	5.1	5.5	5.7	4.9	5.1	5.5	5.9	4.8	5.0	5.4	5.4	5.3	5.3
Other OECD	5.3	4.9	4.9	5.2	5.3	5.1	5.0	5.3	5.1	5.1	5.4	5.4	5.1	5.2	5.2
Total OECD	48.9	46.5	47.4	47.9	47.9	46.8	47.7	48.7	49.1	46.8	48.5	49.8	47.7	47.8	48.5
Non-OECD															
Former Soviet Union	3.7	3.6	3.6	3.6	3.8	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.6	3.7	3.7
Europe	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
China	4.9	4.9	4.8	4.8	5.1	5.0	5.0	5.0	5.3	5.2	5.2	5.2	4.9	5.0	5.2
Other Asia	7.4	7.4	7.1	7.4	7.4	7.4	7.2	7.5	7.6	7.6	7.3	7.7	7.3	7.4	7.5
Other Non-OECD	11.7	11.9	12.0	11.8	11.7	12.0	12.0	11.9	11.8	12.1	12.2	12.1	11.8	11.9	12.0
Total Non-OECD	28.4	28.4	28.1	28.3	28.6	28.7	28.4	28.7	29.1	29.1	28.9	29.3	28.3	28.6	29.1
Total World Demand	77.2	74.9	75.5	76.3	76.5	75.5	76.1	77.5	78.2	75.9	77.4	79.0	76.0	76.4	77.6
Supply [b]															
OECD															
U.S. (50 States)	8.7	9.0	9.0	9.1	9.1	9.2	9.1	9.1	9.1	9.0	9.0	9.2	9.0	9.1	9.1
Canada	2.8	2.8	2.7	2.9	2.9	3.0	3.1	3.1	3.0	3.0	3.1	3.2	2.8	3.0	3.1
Mexico	3.6	3.5	3.6	3.6	3.6	3.6	3.7	3.6	3.8	3.8	3.9	3.8	3.6	3.7	3.8
North Sea [c]	6.4	6.1	6.2	6.5	6.3	6.1	6.3	6.6	6.2	5.8	5.9	6.2	6.3	6.3	6.0
Other OECD	1.6	1.6	1.6	1.6	1.6	1.3	1.3	1.3	1.2	1.3	1.3	1.2	1.6	1.4	1.3
Total OECD	23.2	23.0	23.1	23.7	23.6	23.2	23.5	23.8	23.3	23.0	23.2	23.6	23.2	23.5	23.3
Non-OECD															
OPEC	31.1	29.9	30.1	29.2	27.9	27.4	28.2	28.4	29.6	29.3	30.4	29.9	30.1	28.0	29.8
Former Soviet Union	8.6	8.7	8.9	9.1	9.0	9.1	9.3	9.4	9.4	9.5	9.7	9.8	8.8	9.2	9.6
China	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.3	3.4	3.4	3.3	3.3	3.3
Other Non-OECD	11.2	11.1	11.3	11.3	11.5	11.4	11.6	11.8	11.6	11.7	11.9	12.0	11.2	11.6	11.8
Total Non-OECD	54.3	53.0	53.6	52.9	51.7	51.2	52.4	52.9	53.9	53.9	55.3	55.0	53.5	52.1	54.5
Total World Supply	77.5	76.0	76.7	76.6	75.3	74.4	75.9	76.7	77.2	76.8	78.6	78.6	76.7	75.6	77.8
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.2	-0.9	-0.2	-0.1	0.2	-0.5	0.0	0.3	0.2	-0.7	-0.3	0.3	-0.3	0.0	-0.1
Other	-0.1	-0.2	-1.0	-0.3	1.0	1.5	0.3	0.5	0.8	-0.2	-0.9	0.1	-0.4	0.8	0.0
Total Stock Withdrawals	-0.2	-1.1	-1.2	-0.3	1.2	1.1	0.2	0.8	1.0	-0.9	-1.2	0.4	-0.7	0.8	-0.2
OECD Comm. Stocks, End (bill. bbls.)	2.5	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.7	2.6	2.6
Non-OPEC Supply	46.4	46.1	46.6	47.4	47.4	47.0	47.8	48.3	47.5	47.5	48.2	48.8	46.6	47.6	48.0
Net Exports from Former Soviet Union	4.9	5.1	5.3	5.5	5.2	5.5	5.7	5.7	5.5	5.8	6.0	6.1	5.2	5.5	5.9

[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)

	2001 1st	2001 2nd	2001 3rd	2001 4th	2002 1st	2002 2nd	2002 3rd	2002 4th	2003 1st	2003 2nd	2003 3rd	2003 4th	Year 2001	Year 2002	Year 2003
Crude Oil Prices (dollars per barrel)															
Imported Average [a]	24.09	23.86	23.04	16.94	19.32	23.84	25.14	26.00	26.59	27.09	27.23	26.69	22.01	23.64	26.91
WTI [b] Spot Average	28.82	27.92	26.66	20.40	21.66	26.25	27.84	28.54	28.99	29.38	29.48	28.94	25.95	26.07	29.20
Natural Gas Wellhead															
(dollars per thousand cubic feet)	6.37	4.56	3.06	2.50	2.34	3.01	2.83	2.99	3.43	3.17	3.12	3.29	4.12	2.79	3.25
Petroleum Products															
Gasoline Retail [c] (dollars per gallon)															
All Grades	1.47	1.66	1.49	1.23	1.20	1.43	1.44	1.43	1.46	1.54	1.53	1.48	1.47	1.38	1.50
Regular Unleaded	1.43	1.62	1.45	1.19	1.16	1.39	1.40	1.40	1.43	1.51	1.50	1.45	1.43	1.34	1.47
No. 2 Diesel Oil, Retail (dollars per gallon)	1.47	1.47	1.42	1.27	1.18	1.30	1.33	1.41	1.43	1.44	1.44	1.46	1.41	1.31	1.44
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.84	0.80	0.76	0.61	0.60	0.68	0.75	0.85	0.88	0.87	0.87	0.88	0.76	0.72	0.88
No. 2 Heating Oil, Retail (dollars per gallon)	1.34	1.25	1.15	1.11	1.09	1.09	1.11	1.28	1.35	1.29	1.24	1.33	1.22	1.15	1.32
No. 6 Residual Fuel Oil, Retail [d] (dollars per barrel)	25.13	22.29	21.76	18.97	19.35	24.08	26.28	27.75	27.84	26.53	26.65	26.71	22.30	24.42	26.97
Electric Utility Fuels															
Coal (dollars per million Btu)	1.23	1.24	1.23	1.22	1.22	1.21	1.20	1.19	1.20	1.21	1.19	1.19	1.23	1.21	1.20
Heavy Fuel Oil [e] (dollars per million Btu)	4.21	3.82	3.50	2.89	2.73	3.76	4.45	4.48	4.25	4.32	4.54	4.32	3.71	3.98	4.38
Natural Gas (dollars per million Btu)	7.26	4.96	3.47	2.97	3.22	3.32	2.92	3.22	3.84	3.49	3.43	3.68	4.43	3.13	3.56
Other Residential															
Natural Gas (dollars per thousand cubic feet)	10.10	10.66	10.64	7.67	7.14	7.88	9.49	7.65	7.68	8.63	9.91	8.07	9.62	7.62	8.13
Electricity (cents per kilowatthour)	7.96	8.62	8.85	8.47	8.08	8.61	8.84	8.39	8.09	8.68	8.90	8.45	8.48	8.50	8.54

[a] Refiner acquisition cost (RAC) of imported crude oil.
[b] West Texas Intermediate.
[c] Average self-service cash prices.
[d] Average for all sulfur contents.
[e] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.
   Notes: Data are estimated for the fourth quarter of 2000. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
   Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Petroleum Marketing Monthly, DOE/EIA-0380; Natural Gas Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0226.

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

(Million Barrels per Day, Except Closing Stocks)

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Crude Oil Supply															
Domestic Production [a]	5.82	5.82	5.73	5.84	5.93	5.88	5.85	5.92	5.93	5.85	5.81	5.86	5.80	5.89	5.86
Alaska	0.99	0.96	0.92	0.99	1.03	1.00	0.96	1.04	1.07	1.04	1.03	1.10	0.96	1.01	1.06
Lower 48	4.83	4.86	4.81	4.85	4.89	4.88	4.89	4.87	4.86	4.81	4.78	4.76	4.84	4.88	4.80
Net Commercial Imports [b]	9.02	9.66	9.41	9.10	8.66	9.17	9.15	9.02	9.08	9.86	9.90	9.44	9.30	9.00	9.57
Net SPR Withdrawals	0.00	0.00	-0.01	-0.05	-0.13	-0.16	-0.11	-0.14	-0.15	-0.11	-0.11	-0.11	-0.02	-0.14	-0.12
Net Commercial Withdrawals	-0.26	0.00	-0.01	-0.03	-0.22	0.17	0.26	0.05	-0.19	0.00	0.12	0.02	-0.07	0.07	-0.01
Product Supplied and Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.16	0.16	0.10	0.04	0.17	0.26	0.22	0.13	0.18	0.20	0.17	0.13	0.12	0.19	0.17
Total Crude Oil Supply	14.75	15.65	15.21	14.90	14.41	15.32	15.37	14.97	14.85	15.79	15.90	15.34	15.13	15.02	15.47
Other Supply															
NGL Production	1.65	1.88	1.96	1.97	1.86	1.91	1.89	1.86	1.86	1.89	1.91	1.95	1.87	1.88	1.90
Other Hydrocarbon and Alcohol Inputs	0.37	0.39	0.40	0.38	0.37	0.44	0.41	0.41	0.40	0.40	0.42	0.43	0.38	0.41	0.41
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	0.90	0.90	0.88	0.94	0.96	0.95	0.93	0.94	0.91	0.94	0.95	0.97	0.90	0.94	0.94
Net Product Imports [c]	2.13	1.64	1.40	1.21	1.32	1.48	1.29	1.31	1.61	1.53	1.54	1.45	1.59	1.35	1.53
Product Stock Withdrawn or Added (-)	0.09	-0.86	-0.15	0.01	0.51	-0.46	-0.11	0.46	0.54	-0.55	-0.29	0.44	-0.23	0.10	0.03
Total Supply	19.89	19.60	19.70	19.41	19.43	19.64	19.78	19.95	20.17	19.99	20.43	20.59	19.65	19.70	20.30
Demand															
Motor Gasoline	8.29	8.66	8.85	8.64	8.50	9.00	8.98	8.80	8.65	9.13	9.24	9.06	8.61	8.82	9.02
Jet Fuel	1.73	1.72	1.67	1.51	1.57	1.61	1.62	1.70	1.72	1.68	1.73	1.77	1.66	1.63	1.72
Distillate Fuel Oil	4.23	3.75	3.67	3.75	3.79	3.71	3.63	3.86	4.05	3.70	3.64	3.92	3.85	3.75	3.83
Residual Fuel Oil	0.95	0.88	0.77	0.66	0.69	0.66	0.64	0.73	0.90	0.70	0.80	0.79	0.81	0.68	0.80
Other Oils [d]	4.70	4.60	4.74	4.86	4.89	4.66	4.91	4.86	4.84	4.78	5.02	5.04	4.73	4.83	4.92
Total Demand	19.89	19.60	19.70	19.41	19.43	19.64	19.78	19.95	20.17	19.99	20.43	20.58	19.65	19.70	20.29
Total Petroleum Net Imports	11.17	11.33	10.82	10.33	10.03	10.67	10.44	10.33	10.69	11.39	11.44	10.89	10.91	10.38	11.10
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	309	308	309	312	332	317	293	288	305	306	294	292	312	288	292
Total Motor Gasoline	194	221	206	210	213	216	210	213	214	214	204	208	210	213	208
Finished Motor Gasoline	145	169	158	161	160	168	162	165	160	164	156	159	161	165	159
Blending Components	49	51	48	48	53	48	48	48	54	51	49	49	48	48	49
Jet Fuel	41	43	43	42	42	40	40	39	37	40	42	41	42	39	41
Distillate Fuel Oil	105	114	127	145	123	131	133	133	99	109	128	129	145	133	129
Residual Fuel Oil	39	42	37	41	34	33	34	35	32	35	36	37	41	35	37
Other Oils [e]	255	292	312	287	265	300	312	268	257	291	305	261	287	268	261
Total Stocks (excluding SPR)	942	1020	1034	1036	1010	1037	1023	976	944	995	1010	967	1036	976	967
Crude Oil in SPR	542	543	545	550	561	576	587	600	613	623	633	643	550	600	643
Heating Oil Reserve	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (including SPR and HOR)	1486	1565	1581	1588	1573	1615	1611	1577	1559	1620	1645	1613	1588	1577	1613

[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...	6.16	5.69	0.47	0.07	0.40
Lower 48 States..	5.04	4.60	0.44	0.05	0.39
Alaska...	1.12	1.09	0.03	0.02	0.02

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

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

	2001				2002				2003				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply															
Total Dry Gas Production	4.86	4.86	4.84	4.89	4.85	4.75	4.73	4.79	4.87	4.90	4.93	5.04	19.45	19.12	19.74
Net Imports	0.98	0.90	0.95	0.83	0.89	0.77	0.83	0.84	0.86	0.83	0.87	0.90	3.65	3.33	3.47
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	0.09
Total New Supply.................................	5.86	5.77	5.81	5.74	5.76	5.53	5.58	5.66	5.76	5.76	5.83	5.97	23.17	22.54	23.30
Working Gas in Storage															
Opening...	1.72	0.74	1.88	2.94	2.90	1.52	2.31	3.06	2.59	1.36	2.13	2.99	1.72	2.90	2.59
Closing..	0.74	1.88	2.94	2.90	1.52	2.31	3.06	2.59	1.36	2.13	2.99	2.54	2.90	2.59	2.54
Net Withdrawals..................................	0.98	-1.14	-1.06	0.04	1.39	-0.79	-0.75	0.47	1.23	-0.77	-0.86	0.45	-1.18	0.32	0.05
Total Supply..	6.84	4.63	4.74	5.78	7.15	4.74	4.83	6.13	6.98	4.99	4.97	6.42	21.99	22.85	23.36
Balancing Item [a]	0.26	0.00	-0.26	-0.55	-0.55	-0.11	0.09	-0.16	0.31	0.00	-0.13	-0.61	-0.56	-0.72	-0.43
Total Primary Supply	7.09	4.63	4.49	5.22	6.60	4.64	4.92	5.97	7.29	4.98	4.84	5.81	21.43	22.13	22.92
Demand															
Lease and Plant Fuel...............................	0.29	0.29	0.29	0.29	0.29	0.29	0.31	0.32	0.32	0.31	0.31	0.32	1.16	1.21	1.26
Pipeline Use..	0.20	0.13	0.13	0.15	0.19	0.11	0.11	0.15	0.20	0.13	0.12	0.16	0.61	0.57	0.62
Residential...	2.45	0.76	0.37	1.22	2.19	0.85	0.43	1.41	2.44	0.87	0.41	1.41	4.81	4.89	5.13
Commercial	1.34	0.62	0.45	0.76	1.20	0.62	0.45	0.88	1.31	0.64	0.46	0.90	3.16	3.16	3.31
Industrial (Incl. Nonutility Use)................	2.33	2.11	2.28	2.28	2.29	2.15	2.69	2.74	2.65	2.47	2.68	2.64	9.00	9.86	10.43
Electric Utilities	*0.47*	*0.71*	*0.97*	0.53	0.45	0.63	0.93	0.45	0.38	0.56	0.84	0.39	2.69	2.47	2.17
Total Demand	7.09	4.63	4.49	5.22	6.60	4.64	4.92	5.97	7.29	4.98	4.84	5.81	21.43	22.13	22.92

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

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

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

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

	2001 1st	2001 2nd	2001 3rd	2001 4th	2002 1st	2002 2nd	2002 3rd	2002 4th	2003 1st	2003 2nd	2003 3rd	2003 4th	Year 2001	Year 2002	Year 2003
Supply															
Production	283.6	278.3	278.1	281.3	281.1	259.2	272.9	266.0	275.1	252.5	277.9	273.5	1121.3	1079.3	1079.0
Appalachia..........................	110.8	109.0	104.1	105.1	107.1	98.7	100.8	97.2	103.6	95.0	99.2	97.7	428.9	403.8	395.5
Interior	37.5	37.0	37.9	35.2	36.6	33.5	35.2	31.6	33.0	30.6	34.4	30.7	147.7	136.8	128.6
Western..............................	135.3	132.3	136.1	141.0	137.5	127.0	135.9	137.3	138.5	126.9	144.3	145.1	544.7	537.7	554.9
Primary Stock Levels [a]															
Opening...........................	31.9	39.2	38.3	37.0	33.9	44.5	39.5	33.1	32.5	32.8	31.6	33.0	31.9	33.9	32.5
Closing............................	39.2	38.3	37.0	33.9	44.5	39.5	33.1	32.5	32.8	31.6	33.0	32.7	33.9	32.5	32.7
Net Withdrawals..............	-7.3	0.9	1.2	3.1	-10.6	4.9	6.4	0.6	-0.2	1.1	-1.4	0.3	-2.0	1.4	-0.2
Imports.............................	3.9	4.1	6.0	5.7	4.0	3.9	3.8	3.9	3.6	3.5	3.5	3.6	19.8	15.5	14.2
Exports............................	11.8	13.5	11.7	11.7	9.3	11.0	10.6	10.4	10.0	10.0	10.3	10.2	48.7	41.4	40.5
Total Net Domestic Supply	268.4	269.9	273.7	278.5	265.3	257.0	272.4	260.0	268.4	247.2	269.8	267.2	1090.4	1054.7	1052.6
Secondary Stock Levels [b]															
Opening...........................	108.1	112.5	127.1	117.0	136.5	142.8	149.1	138.5	137.2	142.3	146.1	130.8	108.1	136.5	137.2
Closing............................	112.5	127.1	117.0	136.5	142.8	149.1	138.5	137.2	142.3	146.1	130.8	137.3	136.5	137.2	137.3
Net Withdrawals..............	-4.4	-14.5	10.1	-19.5	-6.3	-6.3	10.6	1.3	-5.1	-3.7	15.3	-6.5	-28.4	-0.7	-0.1
Waste Coal Supplied to IPPs [c]	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	10.6	11.1	11.6
Total Supply........................	266.6	258.0	286.4	261.6	261.8	253.4	285.8	264.1	266.2	246.3	287.9	263.6	1072.7	1065.1	1064.0
Demand															
Coke Plants	6.8	6.9	6.6	5.8	5.5	6.0	6.2	5.9	6.1	6.1	6.2	5.9	26.1	23.5	24.3
Electricity Production															
Electric Utilities	200.8	193.2	220.5	191.8	184.5	184.5	217.1	190.3	194.4	179.1	213.6	190.5	806.3	776.3	777.5
Nonutilities (Excl. Cogen.) [d]	36.7	34.7	40.8	38.5	47.2	45.1	52.0	48.4	48.2	46.1	53.2	49.6	150.6	192.7	197.1
Retail and General Industry................	18.1	16.1	16.3	17.0	17.1	15.3	15.1	17.8	17.4	15.1	14.9	17.6	67.5	65.3	65.0
Total Demand [e]	262.3	251.0	284.2	253.0	254.1	250.8	290.4	262.5	266.2	246.3	287.9	263.6	1050.5	1057.8	1064.0
Discrepancy [f]......................	4.3	7.0	2.2	8.6	7.6	2.7	-4.6	1.6	0.0	0.0	0.0	0.0	22.2	7.3	0.0

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

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

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

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

[e]Total Demand includes estimated IPP consumption.

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

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

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

Table 10. U.S. Electricity Supply and Demand: Base Case

(Billion Kilowatt-hours)

	2001 1st	2001 2nd	2001 3rd	2001 4th	2002 1st	2002 2nd	2002 3rd	2002 4th	2003 1st	2003 2nd	2003 3rd	2003 4th	Year 2001	Year 2002	Year 2003
Supply															
Net Utility Generation															
Coal	391.8	376.1	423.9	368.4	363.0	346.0	408.1	354.7	364.2	332.9	399.0	353.5	1560.1	1471.8	1449.5
Petroleum	24.1	21.6	21.4	11.9	12.1	10.4	23.2	10.0	18.6	10.5	24.4	13.6	78.9	55.7	67.0
Natural Gas	46.2	69.6	95.7	53.0	46.3	62.4	91.5	44.7	37.7	54.8	82.5	38.1	264.4	244.9	213.2
Nuclear	135.9	130.2	140.6	127.5	129.5	123.8	133.3	123.8	127.1	124.6	134.2	124.6	534.2	510.4	510.5
Hydroelectric	50.2	49.8	45.6	44.5	55.7	63.2	56.9	59.2	69.1	74.6	62.7	62.1	190.1	235.0	268.5
Geothermal and Other [a]	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	2.2	2.2	2.4
Subtotal	648.6	647.8	727.7	605.8	607.2	606.3	713.6	592.8	617.3	598.0	703.4	592.5	2630.0	2519.9	2511.2
Nonutility Generation [b]															
Coal	92.9	81.3	95.6	82.8	90.2	77.1	98.9	90.5	97.9	90.2	116.4	107.9	352.5	356.8	412.5
Petroleum	17.7	12.2	11.9	7.3	7.9	6.1	12.3	7.1	12.7	7.4	15.8	11.0	49.1	33.4	46.9
Natural Gas	79.7	86.6	111.8	88.5	95.1	104.9	125.6	106.2	113.4	115.0	140.1	119.9	366.6	431.8	488.4
Other Gaseous Fuels [c]	4.1	4.5	5.8	4.6	4.9	5.1	6.3	5.3	5.5	5.6	7.4	6.2	18.9	21.6	24.7
Nuclear	56.2	55.3	60.4	62.7	65.5	64.7	69.6	64.7	66.4	65.0	70.0	65.2	234.6	264.5	266.6
Hydroelectric	5.2	6.3	3.3	3.2	5.0	8.1	4.2	4.2	6.2	9.5	4.6	4.4	18.0	21.4	24.8
Geothermal and Other [d]	20.7	21.9	23.0	22.5	24.2	23.6	24.4	24.0	23.4	24.0	24.8	24.5	88.2	96.2	96.8
Subtotal	276.6	268.2	311.6	271.5	292.7	289.6	341.3	302.0	325.6	316.9	379.0	339.2	1127.9	1225.6	1360.7
Total Generation	925.2	916.0	1039.4	877.3	899.9	895.9	1055.0	894.8	942.9	914.9	1082.4	931.7	3757.8	3745.6	3871.8
Net Imports [e]	3.6	7.2	5.1	4.4	4.9	8.5	6.3	5.6	6.1	7.7	11.1	6.6	20.3	25.3	31.4
Total Supply	928.8	923.2	1044.4	881.7	904.8	904.4	1061.3	900.4	949.0	922.6	1093.5	938.2	3778.1	3770.9	3903.3
Losses and Unaccounted for [f]	22.0	62.5	42.2	40.1	34.8	52.8	43.5	46.8	43.4	59.3	52.8	47.4	166.7	177.8	202.9
Demand															
Retail Sales [g]															
Residential	322.6	262.8	353.2	262.4	307.4	266.1	376.3	282.6	329.1	262.8	375.1	287.0	1201.0	1232.4	1254.0
Commercial	257.0	264.6	305.2	258.2	255.8	270.3	309.6	257.4	254.8	265.5	309.5	267.3	1085.0	1093.0	1097.1
Industrial	247.6	252.8	252.7	241.0	224.6	229.8	238.8	236.5	235.9	250.3	262.2	251.5	994.1	929.6	999.9
Other	27.2	28.3	33.1	28.0	25.8	29.3	34.8	30.7	29.5	29.1	32.5	29.5	116.7	120.6	120.6
Subtotal	854.4	808.6	944.3	789.6	813.6	795.4	959.4	807.1	849.2	807.8	979.3	835.2	3396.1	3375.6	3471.5
Nonutility Use/Sales [h]	52.5	52.2	58.0	52.0	56.4	56.2	58.4	46.4	56.3	55.6	61.4	55.5	214.6	217.4	228.8
Total Demand	906.8	860.7	1002.2	841.6	870.1	851.6	1017.8	853.6	905.6	863.3	1040.7	890.8	3611.4	3593.0	3700.4
Memo:															
Nonutility Sales to Electric Utilities [b]	224.1	216.0	253.7	219.5	236.3	233.4	283.0	255.5	269.2	261.3	317.7	283.6	913.2	1008.2	1131.8

[a] "Other" includes generation from wind, wood, waste, and solar sources.
[b] Electricity(net Generation) from nonutility sources, including cogenerators and small power producers.
[c] Includes refinery still gas and other process or waste gases and liquefied petroleum gases.
[d] Includes geothermal, solar, wind, wood, waste, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.
[e] Data for 2000 are estimates.
[f] Balancing item, mainly transmission and distribution losses.
[g] Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2000 are estimated.
[h] Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.
Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: Electric Power Monthly, DOE/EIA -0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

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

	Year				Annual Percentage Change		
	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Electric Utilities							
Hydroelectric Power [a]	**2.600**	**1.991**	*2.462*	*2.813*	**-23.4**	*23.7*	*14.3*
Geothermal, Solar and Wind Energy [b]	**0.004**	**0.005**	*0.006*	*0.008*	**25.0**	*20.0*	*33.3*
Biofuels [c]	**0.021**	**0.019**	*0.018*	*0.019*	**-9.5**	*-5.3*	*5.6*
Total	**2.625**	**2.015**	*2.486*	*2.839*	**-23.2**	*23.4*	*14.2*
Nonutility Power Generators							
Hydroelectric Power [a]	**0.257**	**0.187**	*0.221*	*0.257*	**-27.2**	*18.2*	*16.3*
Geothermal, Solar and Wind Energy [b]	**0.355**	**0.356**	*0.356*	*0.347*	**0.3**	*0.0*	*-2.5*
Biofuels [c]	**0.642**	**0.703**	*0.778*	*0.793*	**9.5**	*10.7*	*1.9*
Total	**1.254**	**1.245**	*1.356*	*1.396*	**-0.7**	*8.9*	*2.9*
Total Power Generation..............................	**3.879**	**3.260**	*3.842*	*4.236*	**-16.0**	*17.9*	*10.3*
Other Sectors [d]							
Residential and Commercial [e]	**0.570**	**0.560**	*0.560*	*0.590*	**-1.8**	*0.0*	*5.4*
Industrial [f]	**2.410**	**2.410**	*2.470*	*2.540*	**0.0**	*2.5*	*2.8*
Transportation [g]	**0.114**	**0.120**	*0.129*	*0.140*	**5.3**	*7.5*	*8.5*
Total	**3.094**	**3.090**	*3.159*	*3.270*	**-0.1**	*2.2*	*3.5*
Net Imported Electricity [h]	**0.244**	**0.146**	*0.181*	*0.225*	**-40.2**	*24.0*	*24.3*
Total Renewable Energy Demand...............	**7.217**	**6.496**	*7.183*	*7.731*	**-10.0**	*10.6*	*7.6*

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

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

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

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

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

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

[g]Ethanol blended into gasoline.

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

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

Table A1. Annual U.S. Energy Supply and Demand: Base Case

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)......................................	**6592**	**6708**	**6676**	**6880**	**7063**	**7348**	**7544**	**7813**	**8159**	**8509**	**8859**	**9191**	**9215**	*9440*	*9744*
Imported Crude Oil Price [a] (nominal dollars per barrel)..	**18.07**	**21.79**	**18.74**	**18.20**	**16.13**	**15.53**	**17.14**	**20.62**	**18.49**	**12.07**	**17.26**	**27.72**	**22.01**	*23.64*	*26.91*
Petroleum Supply															
Crude Oil Production [b] (million barrels per day)	**7.61**	**7.36**	**7.42**	**7.17**	**6.85**	**6.66**	**6.56**	**6.46**	**6.45**	**6.25**	**5.88**	**5.82**	**5.80**	*5.89*	*5.86*
Total Petroleum Net Imports (including SPR) (million barrels per day)	**7.20**	**7.18**	**6.63**	**6.96**	**7.66**	**8.09**	**7.89**	**8.50**	**9.16**	**9.76**	**9.92**	**10.43**	**10.91**	*10.38*	*11.10*
Energy Demand															
World Petroleum (million barrels per day)	**65.9**	**66.0**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**72.9**	**73.6**	**75.0**	**76.0**	**76.0**	*76.4*	*77.6*
U.S. Petroleum (million barrels per day)	**17.37**	**17.04**	**16.77**	**17.10**	**17.24**	**17.72**	**17.72**	**18.31**	**18.62**	**18.92**	**19.52**	**19.70**	**19.65**	*19.70*	*20.29*
Natural Gas (trillion cubic feet)..	**18.80**	**18.72**	**19.03**	**19.54**	**20.28**	**20.71**	**21.58**	**21.96**	**21.95**	**21.27**	**21.61**	**22.54**	**21.43**	*22.13*	*22.92*
Coal (million short tons)	**895**	**903**	**899**	**907**	**943**	**950**	**962**	**1006**	**1030**	**1038**	**1045**	**1081**	**1050**	*1058*	*1064*
Electricity (billion kilowatthours)															
Retail Sales [c]	**2647**	**2713**	**2762**	**2763**	**2861**	**2935**	**3013**	**3101**	**3146**	**3264**	**3312**	**3421**	**3397**	*3376*	*3472*
Nonutility Own Use [d]	**NA**	**104**	**111**	**122**	**127**	**141**	**149**	**149**	**149**	**160**	**189**	**199**	**215**	*217*	*229*
Total	**NA**	**2817**	**2873**	**2885**	**2988**	**3075**	**3162**	**3250**	**3295**	**3424**	**3501**	**3620**	**3611**	*3593*	*3700*
Total Energy Demand [e] (quadrillion Btu)	**84.2**	**84.2**	**84.5**	**85.6**	**87.4**	**89.2**	**90.9**	**93.9**	**94.2**	**94.8**	**97.0**	**99.6**	**97.1**	*97.9*	*100.4*
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).................................	**NA**	**12.55**	**12.66**	**12.44**	**12.37**	**12.14**	**12.05**	**12.04**	**11.54**	**11.14**	**10.95**	**10.83**	**10.53**	*10.37*	*10.30*

[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 nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.
[e] "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, Annual Energy Review, 1999, DOE/EIA-0384(97) (AER), Table 1.1. Prior to 1990, some components of renewable energy consumption, particularly relating to consumption at nonutility electric generating facilities, were not available. For those years, a less comephensive measure of total energy demand can be found in EIA's AER. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, Monthly Energy Review (MER). Consequently, the historical data may not precisely match those published in the MER or the AER.
Notes: SPR: Strategic Petroleum Reserve. Minor discrepancies with other published EIA historical data are due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0802.

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

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars)	6592	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	9440	9744
GDP Implicit Price Deflator (Index, 1996=1.000)	0.833	0.865	0.897	0.918	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.069	1.094	1.109	1.140
Real Disposable Personal Income (billion chained 1996 Dollars)	4907	5014	5033	5189	5261	5397	5539	5678	5854	6169	6328	6630	6748	7047	7161
Manufacturing Production (Index, 1996=1.000)	0.815	0.811	0.791	0.823	0.853	0.905	0.953	1.000	1.079	1.142	1.191	1.247	*1.194*	*1.192*	*1.247*
Real Fixed Investment (billion chained 1996 dollars)	911	895	833	886	958	1046	1109	1213	1329	1480	1595	1692	1627	1580	1640
Real Exchange Rate (Index, 1996=1.000)	NA	0.918	0.920	0.926	0.956	0.933	0.869	0.918	0.992	1.044	1.047	1.083	*1.140*	*1.145*	*1.089*
Business Inventory Change (billion chained 1996 dollars)	14.2	8.9	-6.8	-4.7	3.6	12.1	14.1	10.1	14.8	27.1	14.4	17.5	-36.2	-12.3	4.5
Producer Price Index (index, 1982=1.000)	1.122	1.163	1.165	1.172	1.189	1.205	1.247	1.277	1.276	1.244	1.255	1.328	*1.342*	*1.323*	*1.367*
Consumer Price Index (index, 1982-1984=1.000)	1.239	1.307	1.362	1.403	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	*1.771*	*1.803*	*1.862*
Petroleum Product Price Index (index, 1982=1.000)	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	*0.853*	*0.797*	*0.906*
Non-Farm Employment (millions)	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.9	128.9	131.7	*131.9*	*130.8*	*132.6*
Commercial Employment (millions)	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.6	92.0	*92.7*	*92.3*	*93.8*
Total Industrial Production (index, 1996=1.000)	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	*1.2*	*1.2*	*1.223*
Housing Stock (millions)	102.8	103.4	104.4	105.4	106.7	108.0	109.6	110.9	112.3	114.1	115.7	116.2	*118.0*	*119.6*	*120.7*
Weather [a]															
Heating Degree-Days															
U.S.	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	*4223*	*4284*	*4456*
New England	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6489	*6059*	*6120*	*6457*
Middle Atlantic	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5774	*5297*	*5271*	*5693*
U.S. Gas-Weighted	4856	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4680	*4451*	*4530*	*4706*
Cooling Degree-Days (U.S.)	1156.0	1260.0	1331.0	1040.0	1218.0	1220.0	1293.0	1180.0	1156.0	1410.0	1297.0	1229.0	*1256.0*	*1354.2*	*1238*

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0802.

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

(Millions Barrels per Day, Except OECD Commercial Stocks)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Demand [a]															
OECD															
U.S. (50 States)	17.3	17.0	16.7	17.0	17.2	17.7	17.7	18.3	18.6	18.9	19.5	19.7	19.6	*19.7*	*20.3*
Europe [b]	13.2	13.3	13.3	14.0	14.2	14.1	14.2	14.8	15.0	15.3	15.2	15.1	15.3	*15.3*	*15.3*
Japan	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.6	5.5	5.4	*5.3*	*5.3*
Other OECD	5.2	5.4	5.6	5.9	6.2	6.6	6.8	6.9	7.3	7.1	7.4	7.5	7.3	*7.5*	*7.6*
Total OECD	40.8	40.8	41.6	42.6	43.0	44.2	45.0	46.1	46.6	46.9	47.7	47.9	47.7	*47.8*	*48.5*
Non-OECD															
Former Soviet Union	8.7	8.4	8.4	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.7	3.7	3.6	*3.7*	*3.7*
Europe	1.3	1.0	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	*0.6*	*0.6*
China	2.4	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.8	4.9	*5.0*	*5.2*
Other Asia	4.0	4.3	4.5	4.7	5.1	5.5	5.9	6.3	6.6	6.7	6.9	7.3	7.3	*7.4*	*7.5*
Other Non-OECD	8.6	8.9	8.9	9.3	9.7	10.0	10.4	10.7	11.1	11.4	11.6	11.7	11.8	*11.9*	*12.0*
Total Non-OECD	25.1	24.9	25.0	24.2	24.0	24.1	24.9	25.3	26.2	26.7	27.3	28.1	28.3	*28.6*	*29.1*
Total World Demand	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	76.0	76.0	*76.4*	*77.6*
Supply [c]															
OECD															
U.S. (50 States)	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.1	9.0	*9.1*	*9.1*
Canada	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.7	2.8	*3.0*	*3.1*
Mexico	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.5	3.6	*3.7*	*3.8*
North Sea [d]	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	5.9	5.8	6.0	6.0	6.3	*6.3*	*6.0*
Other OECD	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.8	2.1	1.9	2.1	1.6	*1.4*	*1.3*
Total OECD	20.0	20.2	20.8	21.1	21.2	21.9	22.4	22.7	23.1	23.6	22.9	23.4	23.2	*23.5*	*23.3*
Non-OECD															
OPEC	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.3	30.9	30.1	*28.0*	*29.8*
Former Soviet Union	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.6	8.1	8.8	*9.2*	*9.6*
China	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3	*3.3*	*3.3*
Other Non-OECD	7.7	7.9	8.1	8.3	8.7	9.1	9.8	10.2	10.4	10.7	11.2	11.2	11.2	*11.6*	*11.8*
Total Non-OECD	45.9	46.6	45.9	45.9	46.2	46.3	47.5	48.7	50.6	51.6	51.3	53.4	53.5	*52.1*	*54.5*
Total World Supply	65.9	66.8	66.7	67.0	67.4	68.2	69.9	71.4	73.7	75.2	74.2	76.8	76.7	*75.6*	*77.8*
Total Stock Withdrawals	0.0	-0.8	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.2	-1.3	0.8	-0.8	-0.7	*0.8*	*-0.2*
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.4	2.5	2.7	*2.6*	*2.6*
Net Exports from Former Soviet Union	3.4	3.0	2.1	2.1	2.3	2.4	2.6	3.0	3.3	3.5	3.9	4.5	5.2	*5.5*	*5.9*

[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] OECD Europe includes the former East Germany.
[c] Includes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, refinery gains, alcohol, and liquids produced from coal and other sources.
[d] Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.
   OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.
   OPEC: Organization of Petroleum Exporting Countries: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
   SPR: Strategic Petroleum Reserve
   Former Soviet Union: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.
   Notes: Minor discrepancies with other published EIA historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
   Sources: Energy Information Administration: latest data available from EIA databases supporting the following reports: International Petroleum Monthly, DOE/EIA-0520, and Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

Table A4. Annual Average U.S. Energy Prices: Base Case

(Nominal Dollars)

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Crude Oil Prices (dollars per barrel)															
Imported Average [a]	18.07	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.01	23.64	26.91
WTI [b] Spot Average	19.78	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.07	29.20
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.69	4.12	2.79	3.25
Petroleum Products															
Gasoline Retail [b] (dollars per gallon)															
All Grades	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.38	1.50
Regular Unleaded	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.34	1.47
No. 2 Diesel Oil, Retail (dollars per gallon)	0.99	1.17	1.13	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.41	1.31	1.44
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.57	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.72	0.88
No. 2 Heating Oil, Retail (dollars per gallon)	0.88	1.04	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.22	1.15	1.32
No. 6 Residual Fuel Oil, Retail [c] (dollars per barrel)	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.30	24.42	26.97
Electric Utility Fuels															
Coal (dollars per million Btu)	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.21	1.20
Heavy Fuel Oil [d] (dollars per million Btu)	2.86	3.22	2.48	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.71	3.98	4.38
Natural Gas (dollars per million Btu)	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.33	4.43	3.13	3.56
Other Residential															
Natural Gas (dollars per thousand cubic feet)	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.62	7.62	8.13
Electricity (cents per kilowatthour)	7.64	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.48	8.50	8.54

[a] Refiner acquisition cost (RAC) of imported crude oil.
[b] West Texas Intermediate.
[c] Average self-service cash prices.
[d] Average for all sulfur contents.
[e] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.
 Notes: Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
 Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Petroleum Marketing Monthly, DOE/EIA-0380; Natural Gas Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0226.

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

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Crude Oil Supply															
Domestic Production [a]	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	*5.89*	*5.86*
Alaska	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	*1.01*	*1.06*
Lower 48	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	*4.88*	*4.80*
Net Commercial Imports [b]	5.65	5.76	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	*9.00*	*9.57*
Net SPR Withdrawals	-0.03	0.01	0.05	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	*-0.14*	*-0.12*
Net Commercial Withdrawals	0.00	0.05	-0.01	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	*0.07*	*-0.01*
Product Supplied and Losses	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*
Unaccounted-for Crude Oil	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	*0.19*	*0.17*
Total Crude Oil Supply	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	*15.02*	*15.47*
Other Supply															
NGL Production	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.87	*1.88*	*1.90*
Other Hydrocarbon and Alcohol Inputs	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	*0.41*	*0.41*
Crude Oil Product Supplied	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*
Processing Gain	0.66	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	*0.94*	*0.94*
Net Product Imports [c]	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	*1.35*	*1.53*
Product Stock Withdrawn	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.23	*0.10*	*0.03*
Total Supply	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	*19.70*	*20.30*
Demand															
Motor Gasoline [d]	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	*8.82*	*9.02*
Jet Fuel	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	*1.63*	*1.72*
Distillate Fuel Oil	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	*3.75*	*3.83*
Residual Fuel Oil	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	*0.68*	*0.80*
Other Oils [e]	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	*4.83*	*4.92*
Total Demand	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	*19.70*	*20.29*
Total Petroleum Net Imports	7.20	7.18	6.63	6.96	7.66	8.09	7.89	8.50	9.16	9.76	9.92	10.43	10.91	*10.38*	*11.10*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	341	323	325	318	335	337	303	284	305	324	284	286	312	*288*	*292*
Total Motor Gasoline	213	220	219	216	226	215	202	195	210	216	193	196	210	*213*	*208*
Jet Fuel	41	52	49	43	40	47	40	40	44	45	41	45	42	*39*	*41*
Distillate Fuel Oil	106	132	144	141	141	145	130	127	138	156	125	118	145	*133*	*129*
Residual Fuel Oil	44	49	50	43	44	42	37	46	40	45	36	36	41	*35*	*37*
Other Oils [f]	293	227	251	292	237	274	348	280	204	212	396	246	178	*328*	*269*

[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														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Total Dry Gas Production	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	19.02	18.83	18.99	19.45	*19.12*	*19.74*
Net Imports	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.65	*3.33*	*3.47*
Supplemental Gaseous Fuels...............	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.08	*0.08*	*0.09*
Total New Supply..............................	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.75	21.84	22.12	22.35	22.61	23.17	*22.54*	*23.30*
Working Gas in Storage															
Opening..	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	*2.90*	*2.59*
Closing..	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	*2.59*	*2.54*
Net Withdrawals................................	0.34	-0.56	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.18	*0.32*	*0.05*
Total Supply...	19.03	18.82	19.70	20.11	20.70	21.11	21.85	21.73	21.84	21.56	22.56	23.41	21.99	*22.85*	*23.36*
Balancing Item [a]	-0.23	-0.11	-0.66	-0.56	-0.42	-0.40	-0.27	0.24	0.11	-0.29	-0.95	-0.88	-0.56	*-0.72*	*-0.43*
Total Primary Supply	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.27	21.61	22.54	21.43	*22.13*	*22.92*
Demand															
Lease and Plant Fuel.............................	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.13	1.16	*1.21*	*1.26*
Pipeline Use..	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	0.61	*0.57*	*0.62*
Residential..	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.81	*4.89*	*5.13*
Commercial	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.16	*3.16*	*3.31*
Industrial (Incl. Nonutilities)...................	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	8.69	9.01	9.51	9.00	*9.86*	*10.43*
Electric Utilities	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.11	3.04	2.69	*2.47*	*2.17*
Total Demand	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.27	21.61	22.54	21.43	*22.13*	*22.92*

[a] The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.
Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Oil and Gas, Reserves and Natural Gas Division.

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

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Production	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1121.3	*1079.3*	*1079.0*
Appalachia..	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	428.9	*403.8*	*395.5*
Interior	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.7	*136.8*	*128.6*
Western..	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	544.7	*537.7*	*554.9*
Primary Stock Levels [a]															
Opening..	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	*33.9*	*32.5*
Closing..	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	33.9	*32.5*	*32.7*
Net Withdrawals..	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-2.0	*1.4*	*-0.2*
Imports...	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	19.8	*15.5*	*14.2*
Exports	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	*41.4*	*40.5*
Total Net Domestic Supply	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1035.2	1090.4	*1054.7*	*1052.6*
Secondary Stock Levels [b]															
Opening..	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	*136.5*	*137.2*
Closing..	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	136.5	*137.2*	*137.3*
Net Withdrawals..	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.0	-14.6	35.9	-28.4	*-0.7*	*-0.1*
Waste Coal Supplied to IPPs [c]	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	10.6	*11.1*	*11.6*
Total Supply..	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.6	1043.1	1081.2	1072.7	*1065.1*	*1064.0*
Demand															
Coke Plants	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	*23.5*	*24.3*
Electricity Production															
Electric Utilities	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	894.1	859.3	806.3	*776.3*	*777.5*
Nonutilities (Excl. Cogen.) [d]	5.7	7.4	11.4	15.0	17.5	19.9	21.2	22.2	21.6	26.9	52.7	123.3	150.6	*192.7*	*197.1*
Retail and General Industry.........................	82.3	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	67.5	*65.3*	*65.0*
Total Demand [e]	895.4	902.9	899.1	907.4	943.5	950.1	962.0	1006.3	1030.1	1038.3	1044.5	1080.9	1050.5	*1057.8*	*1064.0*
Discrepancy [f]	1.1	-3.5	-7.7	0.5	-7.0	3.9	-1.6	0.4	3.1	-6.7	-1.5	0.4	22.2	*7.3*	*0.0*

[a]Primary stocks are held at the mines, preparation plants, and distribution points.
[b]Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.
[c]Estimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.
[d]Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2000 and projections for 2001 and 2002 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).
[e]Total Demand includes estimated IPP consumption.
[f]The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period. Prior to 1994, discrepancy may include some waste coal supplied to IPPs that has not been specifically identified.
  Notes: Rows and columns may not add due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.
  Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: Quarterly Coal Report, DOE/EIA-0121, and Electric Power Monthly, DOE/EIA-0226.
Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

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

	Year														
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Total Utility and Nonutility Net Generation															
Coal	1583.8	1590.3	1589.9	1621.1	1690.0	1691.7	1710.2	1795.7	1844.1	1873.9	1884.3	1967.7	1912.6	*1828.6*	*1862.0*
Petroleum...	164.0	124.0	119.0	99.4	112.3	105.5	75.3	81.7	93.0	126.9	123.6	108.8	128.0	*89.1*	*113.9*
Natural Gas..	357.1	378.3	392.6	418.3	428.4	465.9	498.5	455.8	485.4	540.6	556.6	596.6	631.0	*676.7*	*701.5*
Nuclear	529.4	577.0	612.6	618.8	610.4	640.5	673.4	674.7	628.6	673.7	731.2	753.9	768.8	*774.9*	*777.2*
Hydroelectric..	270.6	289.5	285.0	248.9	276.4	256.8	308.3	344.4	354.9	318.9	313.4	273.1	208.1	*256.4*	*293.3*
Geothermal and Other [a]	67.0	65.7	72.2	76.8	79.4	93.4	92.2	94.7	88.1	83.8	95.5	99.8	109.2	*119.9*	*123.9*
Total Generation	2971.9	3024.9	3071.3	3083.4	3196.9	3253.8	3357.8	3447.0	3494.2	3617.9	3704.5	3799.9	3757.8	*3745.6*	*3871.8*
Net Imports [b]	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	30.6	34.0	20.3	*25.3*	*31.4*
Total Supply	2982.8	3027.2	3091.0	3108.8	3224.7	3298.6	3397.1	3485.0	3530.8	3645.5	3735.1	3834.0	3778.1	*3770.9*	*3903.3*
Losses and Unaccounted for [c]	235.6	210.4	217.9	223.6	236.4	223.1	234.6	234.9	236.2	221.4	234.2	214.0	166.7	*177.8*	*202.9*
Demand															
Retail Sales [d]															
Residential	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1201.0	*1232.4*	*1254.0*
Commercial..	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1085.0	*1093.0*	*1097.1*
Industrial	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	994.1	*929.6*	*999.9*
Other...	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	116.7	*120.6*	*120.6*
Subtotal..	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3396.8	*3375.6*	*3471.5*
Nonutility Use/Sales [e]	100.4	104.2	111.0	121.8	126.9	140.9	149.2	148.9	149.0	159.8	188.8	198.6	214.6	*217.4*	*228.8*
Total Demand	2747.2	2816.7	2873.0	2885.1	2988.4	3075.5	3162.4	3250.1	3294.6	3424.0	3500.9	3620.0	3611.4	*3593.0*	*3700.4*
Memos:															
Nonutility Sales															
to Electric Utilities................................	87.1	112.5	135.3	164.4	187.5	202.2	214.2	220.6	222.7	245.9	342.0	586.0	913.2	*1008.2*	*1131.8*
Electric Utility Generation.....................	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3173.7	3015.4	2630.0	*2519.9*	*2511.2*
Nonutility Generation	187.6	216.7	246.3	286.1	314.4	343.1	363.3	369.6	371.7	405.7	530.9	784.6	1127.9	*1225.6*	*1360.7*

[a]Other includes generation from wind, wood, waste, and solar sources.
[b]Data for 2000 are estimates.
[c]Balancing item, mainly transmission and distribution losses.
[d]Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2000 are estimates.
[e]Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.
 Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics.
Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: Electric Power Monthly, DOE/EIA-0226 and Electric Power Annual,DOE/EIA-0348. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.