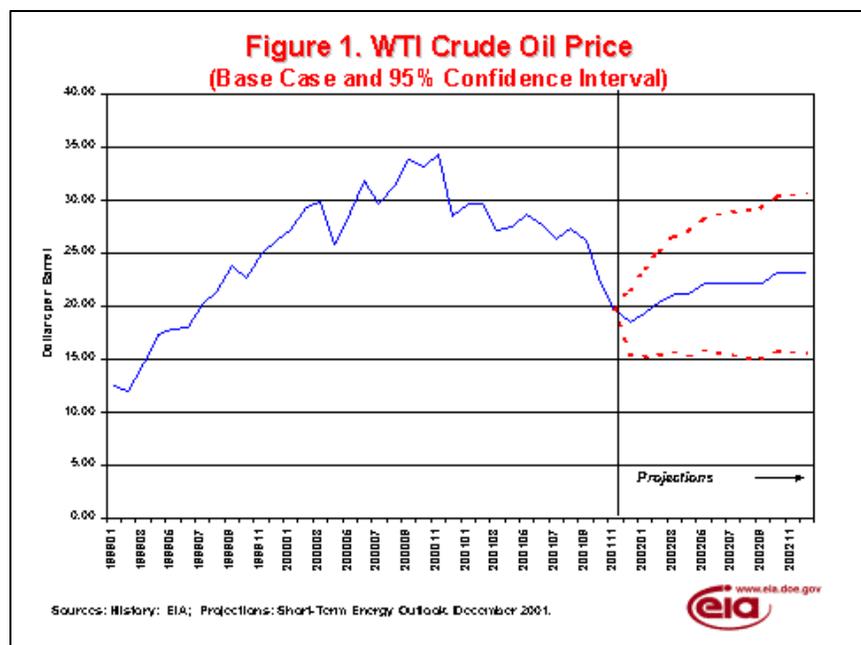


Short-Term Energy Outlook

December 2001



Overview

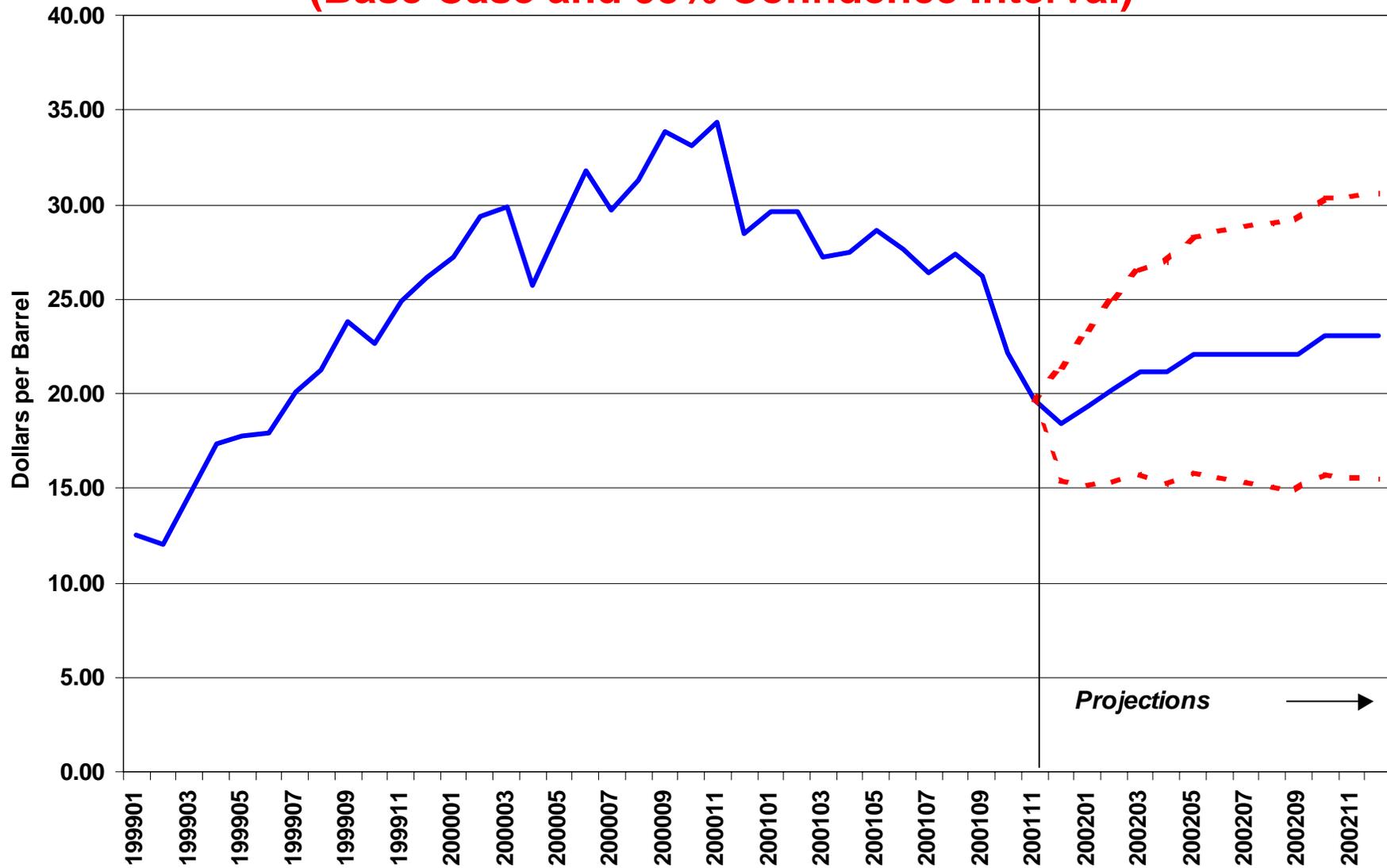
World Oil Markets. As major producing countries have jockeyed over the issue of production cutbacks, world oil prices have languished below the stated range preferred by OPEC (\$22-\$28 for the OPEC basket). OPEC has reported that their basket price averaged about \$17.60 per barrel in November, following a \$19.60 average in October and \$24.30 in September. Spot prices for West Texas Intermediate averaged about \$19.60 per barrel in November, a stark drop from approximately \$34 per barrel seen in November 2000 ([Figure 1](#)). However, while world market

conditions have resulted in increasing inventories in the industrialized markets, we still expect to see some recovery in prices by next spring. Nevertheless, unless world demand growth recovers more quickly than we now have reason to expect, prices that are comfortably within the OPEC band may be hard to come by over the next year.

U.S. Natural Gas Markets. Warm weather and continued weakness in U.S. industrial production have significantly weakened near-term spot gas prices. From mid-November through the first week of December, spot prices at the Henry Hub were near or below \$2.00 per thousand cubic feet compared to about \$3 at the end of October. An untypical build in natural gas storage levels in November reflected the continuing excess supply situation, particularly given the extraordinarily warm weather prevailing in the first two months of the heating season. It is becoming far less likely now that average spot gas prices will move significantly above \$2.00 per thousand cubic feet in 2002 unless some very cold weather intervenes in the near term. As it is, new gas supply (domestic production and net imports) requirements in the United States may well remain flat or fall in 2002 as the market works to reduce or at least contain the excess supply. For the heating season (October to March), demand for natural gas is projected to decline by 5.0 percent compared with growth of 6.7 percent last winter. Thus, under base case (normal weather) assumptions, spot wellhead prices, which averaged \$6.48 per thousand cubic feet last winter, are expected to be two-thirds lower this winter at about \$2.15 per thousand cubic feet.

Home Heating Costs Update. The warm temperatures and weak energy prices have once again moved base-case expectations for average home heating costs lower for the current heating season. We now believe that the probabilities are centered around the following outcomes for the six-month period ending next March 31 compared to the 2000-2001 heating season: a 35-percent reduction in average natural gas heating bills per gas-heated household; a 29-percent falloff in oil-heated household heating costs, and a 29-percent decline in comparable expenditures for households using propane for heating ([Figure 2](#)). For electricity-heated homes, we expect that average bills this winter will be down about 12 percent compared

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



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



Figure 2. Illustrative Household Expenditures for Heating Fuels

	1998-1999 Actual	1999-2000 Actual	2000-2001 Actual	2001-2002 Base Forecast
Natural Gas (Midwest)				
Consumption (mcf)	84.5	81.7	97.3	88.9
Avg. Price (\$/mcf)	6.29	6.67	9.54	6.74
Expenditures (\$)	532	545	928	599
Heating Oil (Northeast)				
Consumption (gals)	650	644	727	651
Avg. Price (\$/gal)	0.80	1.18	1.37	1.09
Expenditures (\$)	520	760	996	709
Propane (Midwest)				
Consumption (gals)	835	807	961	878
Avg. Price (\$/gal)	0.85	1.02	1.36	1.06
Expenditures (\$)	710	825	1,309	931

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

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



to the 2000-2001 season, principally because of expected lower usage due to weather effects. Some areas, (particularly the West South Central region) may see much larger declines because of the importance in those areas of natural gas costs in delivered electricity prices (see Tables 53 and 55 in EIA's [Electric Power Monthly](#) for regional residential electricity cost comparisons).

International Oil Markets

Data Note. Beginning with this Outlook, oil demand and supply statistics for the OECD will be presented on a basis that is consistent with International Energy Agency classifications. Data for Mexico, Poland, the Czech Republic, South Korea and Hungary are included in the OECD. Previously, data for these countries were included in the "non-OECD" category.

Crude Oil Prices. World oil prices continued to fall in November as excess oil supplies resulted in rising inventories relative to normal levels. The U.S. average imported crude oil price in November was estimated at \$16 per barrel, while the U.S. benchmark West Texas Intermediate crude oil price fell by over \$2 per barrel to average an estimated \$19.60 per barrel ([Figure 1](#)). The OPEC basket price, which formerly tracked closely with the average imported crude oil price, has been significantly higher recently, averaging a little under \$18 per barrel. World oil prices are expected to firm in 2002, assuming that OPEC cuts back production in accordance with stated intentions involving agreements with key non-OPEC producers to reduce world oil supplies.

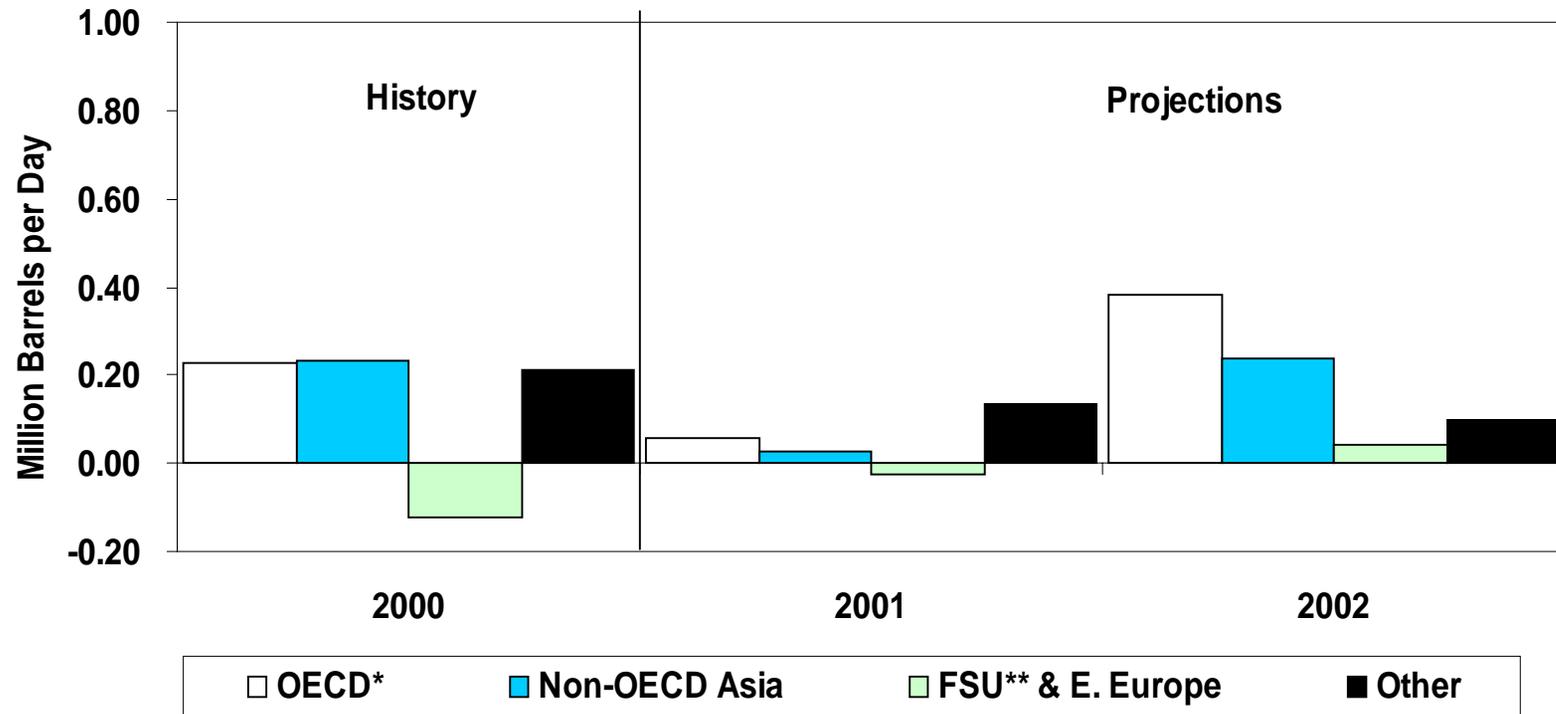
International Oil Supply. World oil markets have been expecting some sort of OPEC action to stem the decline in crude oil prices since mid-September. OPEC has requested that non-OPEC members join its efforts to support world oil prices by cutting back on production. Russia has committed to cut back shipments by 150,000 barrels per day (b/d), while Norway and Mexico have each promised to cut production at least 100,000 b/d. (In the case of Norway, as much as 200,000 b/d may be cut). Both Oman (50,000 b/d) and Angola (amount unspecified) have also pledged smaller reductions. EIA's Outlook assumes that some sort of agreement will be reached that will satisfy OPEC. However, it is an open question as to whether or not non-OPEC members have actually made substantial production cuts in support of OPEC in the past when making pledges to do so. Most past cutbacks were coincident with already scheduled outages. For the current base case we assume that little non-OPEC production will actually be removed from markets.

As a result, EIA's Outlook projects that non-OPEC production will still increase by about 1 million barrels per day in 2002, only slightly less than in its previous Outlook. This growth is still greater than the projected growth in demand in 2002, placing increased pressure on OPEC to make its own cutbacks in January 2002.

International Oil Demand. Economic forecasts for the United States for 2002 have been revised slightly downwards from the previous Outlook. However, EIA's global oil demand projections for 2002 still suggest world oil demand growth of 800,000 barrels per day, roughly the same as in its previous Outlook ([Figure 3](#)). The Outlook assumes that global jet fuel demand will decline by 10 percent during fourth quarter 2001. (We project that total demand for jet fuel in the United States will show a decline of about 11 percent from year-ago levels for the fourth quarter of 2001). For 2002, we anticipate worldwide jet fuel demand being about 5-7 percent below what would have been expected prior to the September 11 terrorist attacks.

World Oil Inventories. OECD commercial oil stocks continued to rise above last year's extremely low levels, ending about 80 million barrels higher in October than a year ago. The ongoing standoff between OPEC and key non-OPEC producers over production cutbacks, as well as warmer-than-normal weather, is expected to dampen the decline in inventory levels normally seen during the fourth quarter. With the assumed agreement between OPEC and non-OPEC producers to reduce world oil supplies, OECD commercial stocks are projected to remain in the middle of their normal range through most of 2002 ([Figure](#)

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



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

** FSU = Former Soviet Union

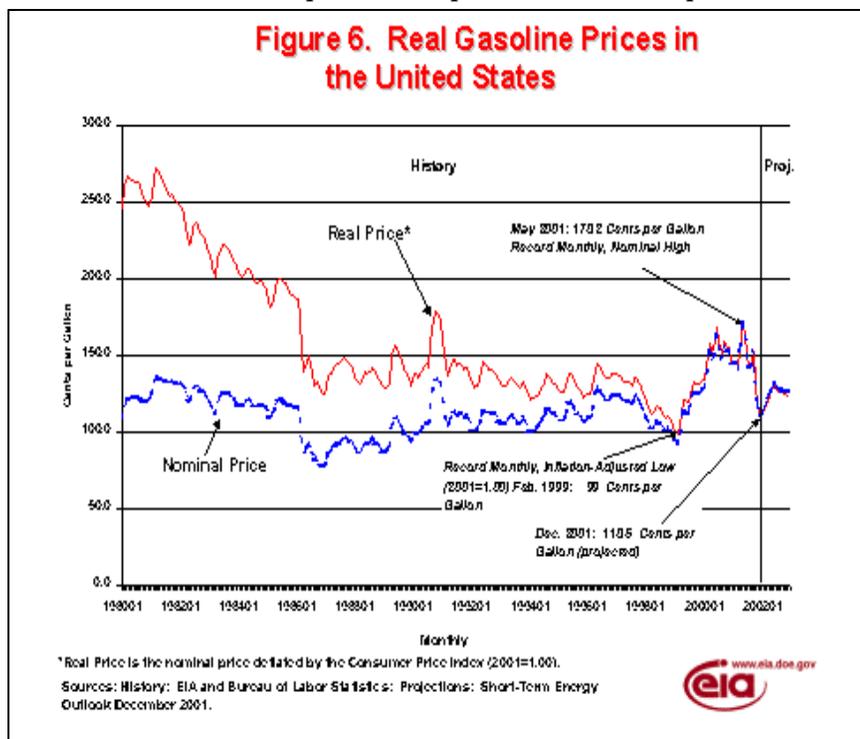
Sources: History: EIA; Projections: Short-Term Energy Outlook December 2001.



4). EIA does not attempt to estimate oil inventory levels on a global basis. However, the direction in which OECD commercial oil inventories are headed is discerned from EIA's world oil supply and demand estimates.

U. S. Energy Prices

Gasoline Prices: Average U.S. pump prices for regular gasoline have fallen 11 weeks in a row since September 17, to \$1.11 cents per gallon. This is the lowest weekly price since the second week of June 1999. December's projected price of \$1.105 per gallon would be the lowest monthly average pump price since March 1999 (Figure 5). In some parts of the country, motor gasoline has been selling for less than \$1.00 per gallon. It is interesting to note that with the exception of the period from late 1998 through early 1999 (when world crude oil prices collapsed), the current prices are the lowest in over 20 years when adjusted for inflation (Figure 6).

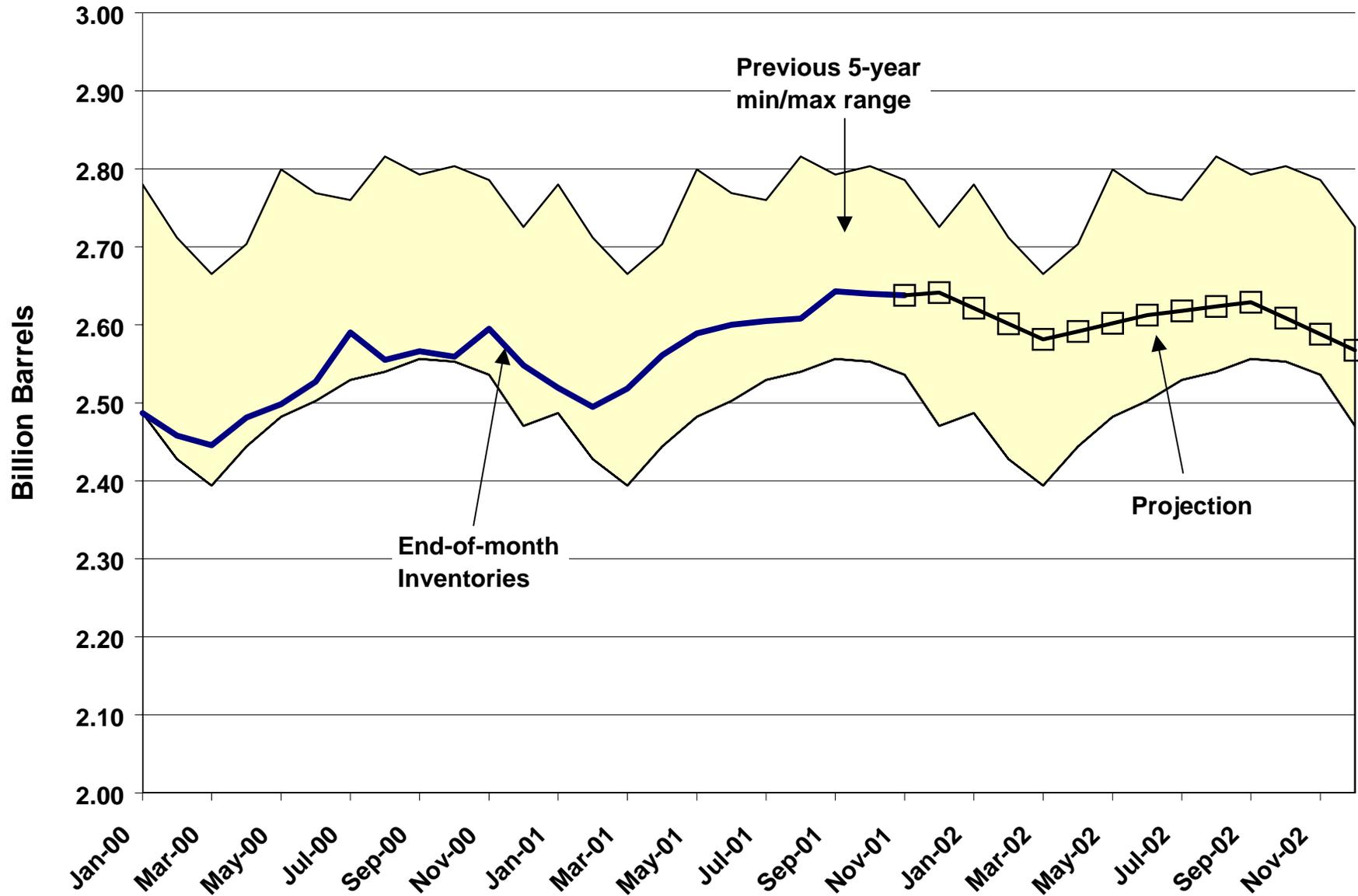


It is also interesting to point out that only 8 months ago we experienced the highest recorded U.S. average pump price (unadjusted for inflation) of \$1.70 per gallon. This recent steep drop in prices has been the result primarily of two factors: falling crude oil prices and waning refiner price spreads (the difference between the wholesale price and the price of crude oil). Since last May, crude oil prices have declined by about \$10 per barrel (24 cents per gallon). The refiner price spreads have plunged even faster than crude oil prices over the same time period, tumbling about 28 cents per gallon. This was the result of rising gasoline inventories (Figure 7) and poor economic growth, along with the normal seasonal drop-off in driving

during the winter. Furthermore, retail margins (the difference between the retail price and the refiner price of gasoline less taxes) have also tapered off, for some of the same reasons mentioned above. Prices are likely to bottom out either this month or next, then should rebound next spring as the driving season begins. If our base crude oil price path holds, barring any major supply disruptions, we can look forward to pump prices gaining about 20 cents per gallon by late spring. Most of the gain would stem from the increase in gasoline demand and the seasonal transition to reformulated gasoline. Somewhat higher crude oil prices would add about 10 cents per gallon to the gasoline price by May. Nevertheless, pump prices are expected to be on average, 26 cents per gallon lower during the next driving season (April-September) than they were during the same period in 2001.

Distillate Fuel Oil (Diesel and Heating Oil): From a consumer's or other end-user's point of view, distillate fuel oil (diesel and heating oil) prices will be bargains this winter compared to the prices paid last winter (Figure 8). Some of the same circumstances that have subordinated gasoline prices, namely lower crude costs and a falling economy, have also lowered the price of the distillate fuels. Moreover, the weather on the East Coast (where 75 percent of the nation's heating oil is consumed) has been extremely mild during October and November. The recent balmy weather resulted in reduced demand and thus a boost in distillate inventory levels. Compared to last winter's prices, heating oil and diesel prices are projected to be about 28-30 cents per gallon lower. Usually, by October or November, both heating oil and diesel prices

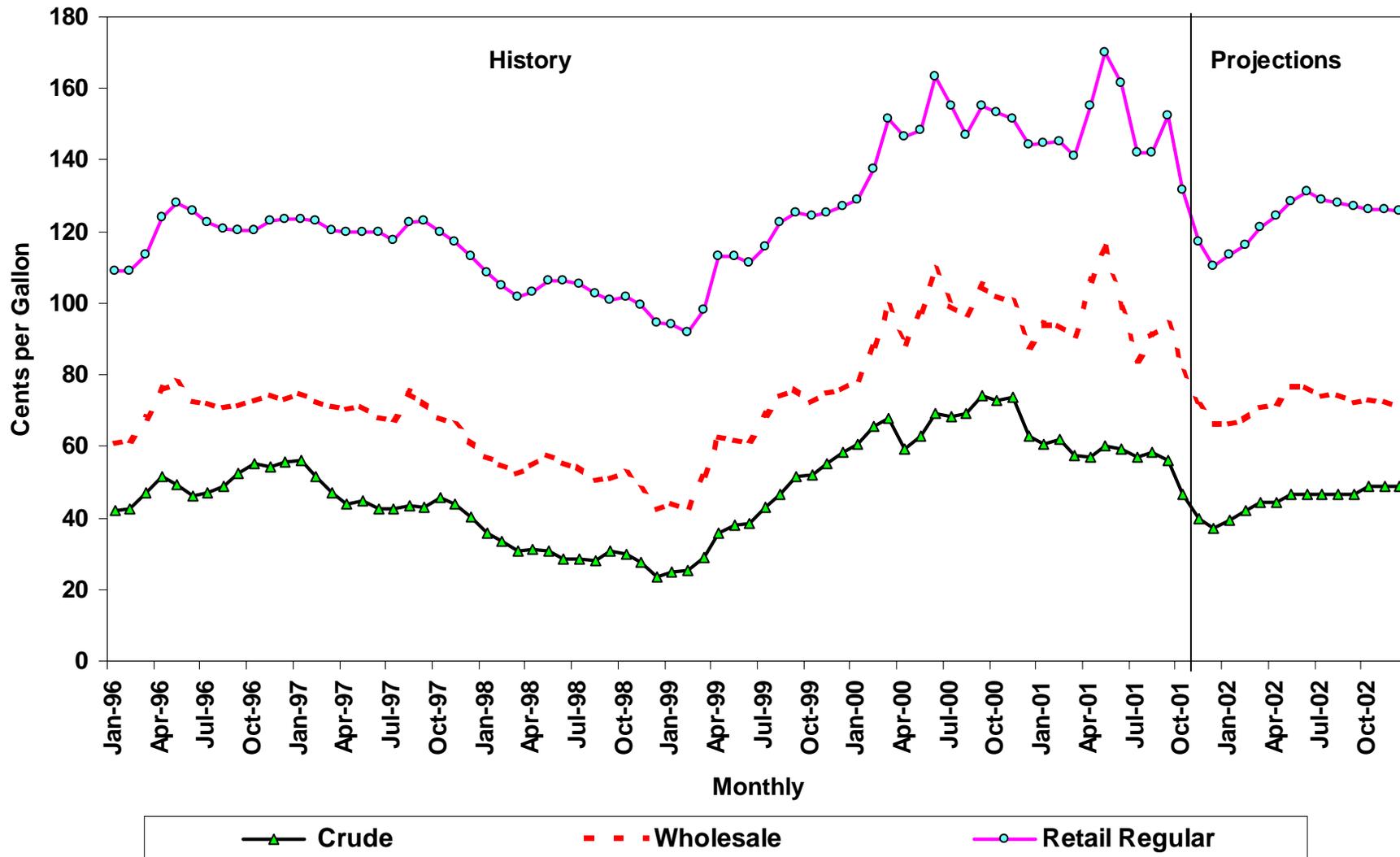
Figure 4. OECD Commercial Oil Stocks



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.

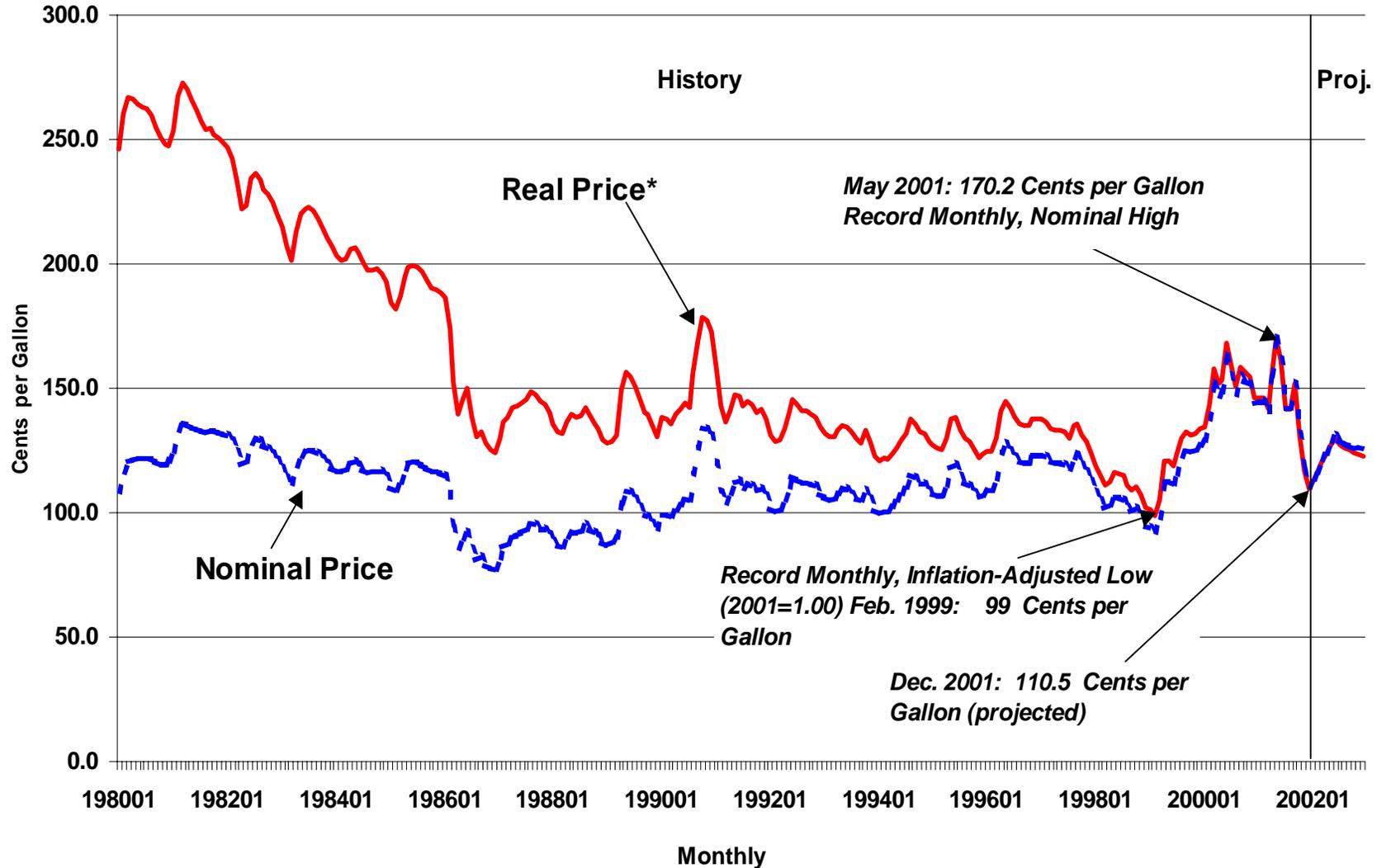


Figure 5. Motor Gasoline Prices



Sources: History: EIA; Projections: Short-Term Energy Outlook December 2001.

Figure 6. Real Gasoline Prices in the United States

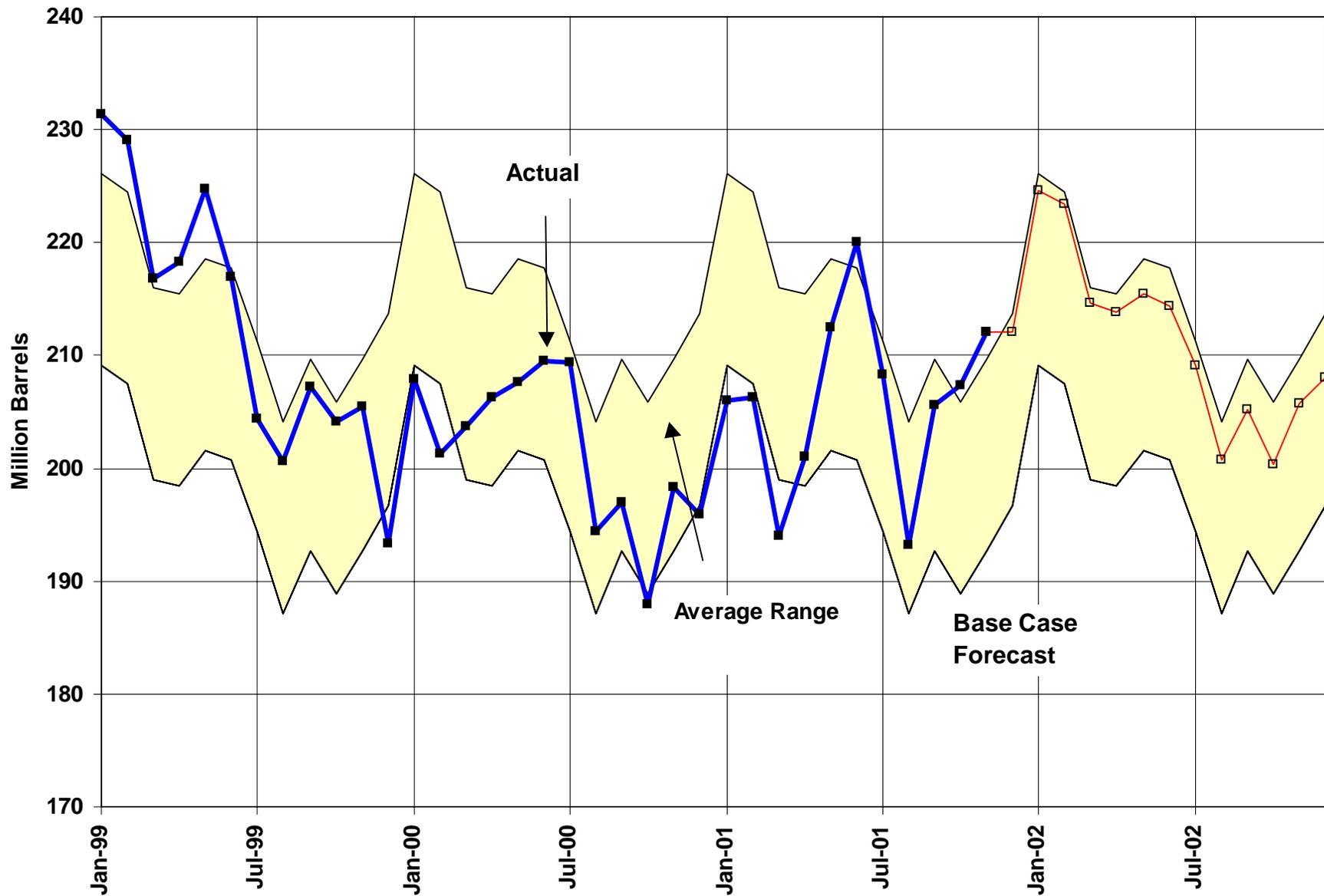


*Real Price is the nominal price deflated by the Consumer Price Index (2001=1.00).

Sources: History: EIA and Bureau of Labor Statistics: Projections: Short-Term Energy Outlook December 2001.

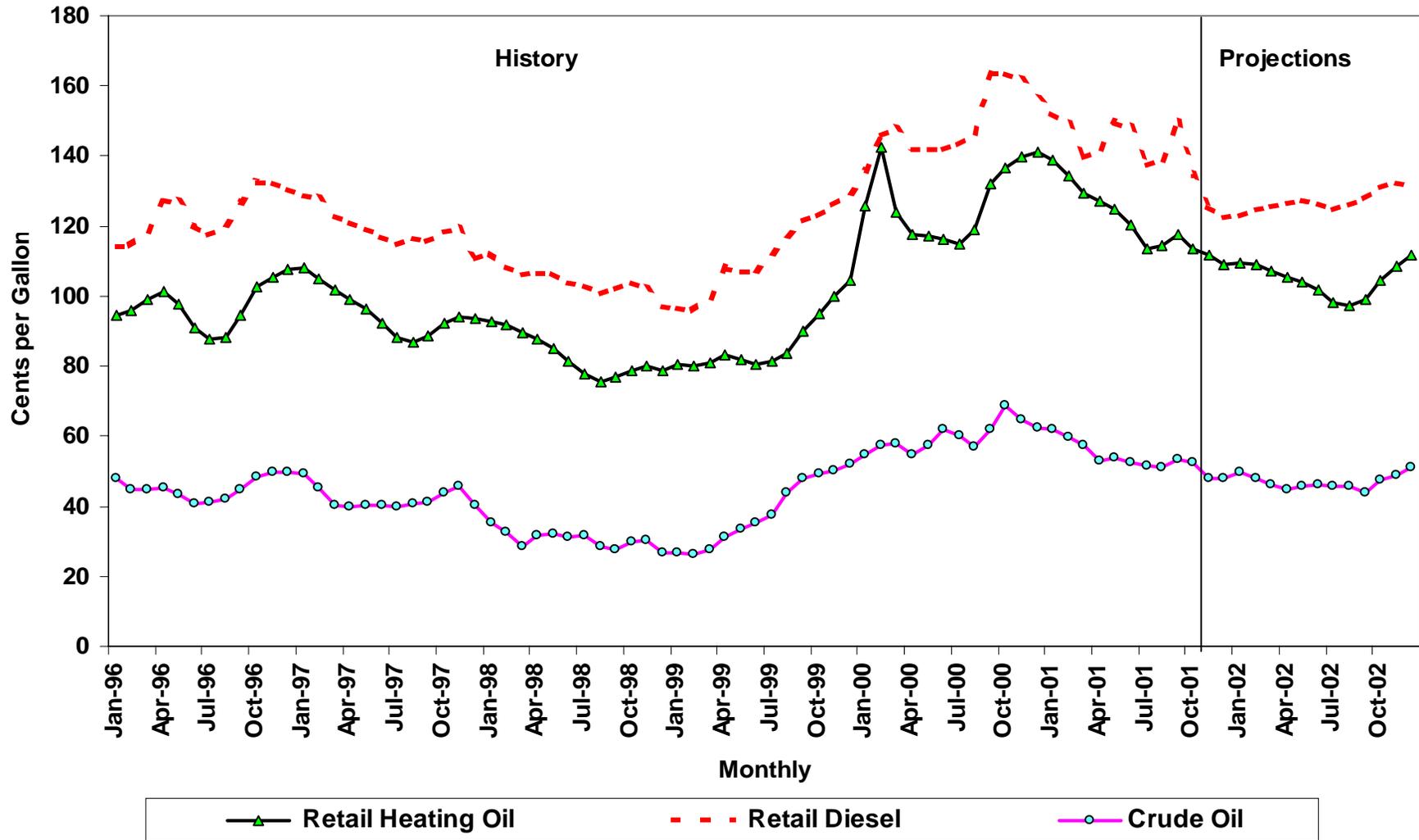


Figure 7. U.S. Gasoline Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.

Figure 8. Distillate Fuel Prices



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.

rise, as demand for these fuels swells during the heating season. This time, the retail prices for both of these fuels have been receding over the last few weeks. No large end-use price increases for both these fuels are expected over the next few months, even in the heart of the winter, assuming our crude oil price path holds and the weather does not turn abnormally cold on the East Coast.

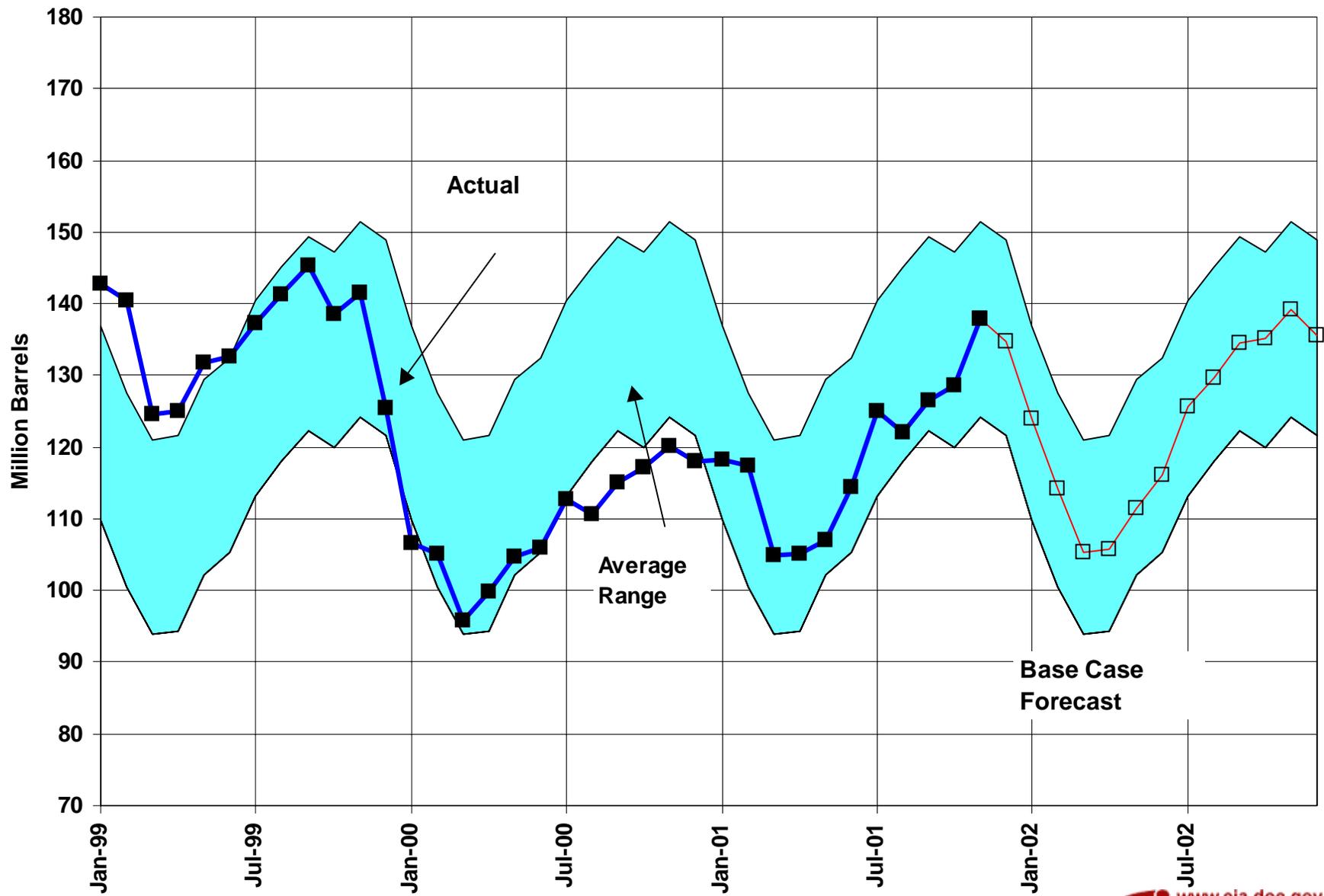
With the heating season about one-third over, distillate stocks are currently 18 million barrels above last year's levels ([Figure 9](#)). Almost all of this year-over-year inventory growth has been on the East Coast, the region most sensitive to distillate stock changes. By year's end, we project that total U.S. inventories will be about 135 million barrels, which puts us comfortably within the "normal" range, or about 14 percent above last year's level and very close to the previous 5-year average. Another factor favoring moderate distillate fuel prices this winter is the current and near-term natural gas price and supply situation. Low natural gas prices combined with very high inventories of natural gas will tend to eliminate any potential pressure on distillate markets from fuel switching. Last winter, very high natural gas prices resulted in significant fuel switching, which caused upward pressure on all distillate product prices.

Natural Gas: Underground storage levels set records last month. In fact, net injections into storage continued through the last week of November, which is normally a time of the year when withdrawals exceed injections. Spot wellhead prices for gas have often fallen below \$2.00 per thousand cubic feet in recent weeks. It should be remembered that just last winter natural gas spot wellhead prices averaged well above \$6.00 per thousand cubic feet. There are several causes for this extraordinary reduction in price. First, gas production increased, spurred on by the incentives of higher prices. Furthermore, gas demand decreased compared to last year because of mild summer weather. More importantly, demand for gas was reduced because of very high prices earlier this year and because of the slowing of the economy, particularly in those industrial sectors that are highly gas-intensive, such as the chemical and primary metals industries. In addition, petroleum inventories have been building, while petroleum product prices have been weakening fairly steadily since last winter. This combination would likely minimize any possible incremental price pressure on natural gas from the electric power sector in the event of adverse winter weather. Although spot prices have recently been less than \$2.00 per thousand cubic feet, the near-term (one-month out) futures price has recently been quoted at \$0.50 or more per thousand cubic feet higher. This disparity may reflect some continued unease in the gas industry about possible shortfalls in production, particularly given the experience of last winter. However, as we stated in the last report, the basics do not seem to be in place for any substantial price gains. In fact, due to the abnormal storage gains in November, we are adjusting our price forecast somewhat downward from our last Outlook. In the previous Outlook, we noted that working gas in underground storage at the end of October was well above the previous year's level (by 15 percent). For the end of November, the storage level is estimated to have been about 29 percent above last year's level. We project that natural gas wellhead prices will generally stay below \$2.40 per thousand cubic feet through the winter ([Figure 10](#)). Next year, assuming normal weather and barring any major supply disruptions, the annual average natural gas price is projected to be just under \$2.00 per thousand cubic feet, or less than half the 2001 average, due to weak industrial demand (particularly in the first half of the year) and high underground storage levels.

Electric Utility Fuels: In September, the price of delivered natural gas to electric utilities fell to about 18 percent below the heavy fuel oil price. The price differences are likely to narrow during the heating season, but not by as much as previously projected just last month due to November's increase in gas storage ([Figure 11](#)). Thus, natural gas has most likely already returned to its historical price advantage. By next spring, this advantage is expected to widen as natural gas prices are expected to once more decline, while oil prices gain slightly.

In the first half of this year, an unusual phenomenon occurred: for the first time in years, the monthly average price of coal to electric utilities increased notably. Due to pressures for coal substitution for

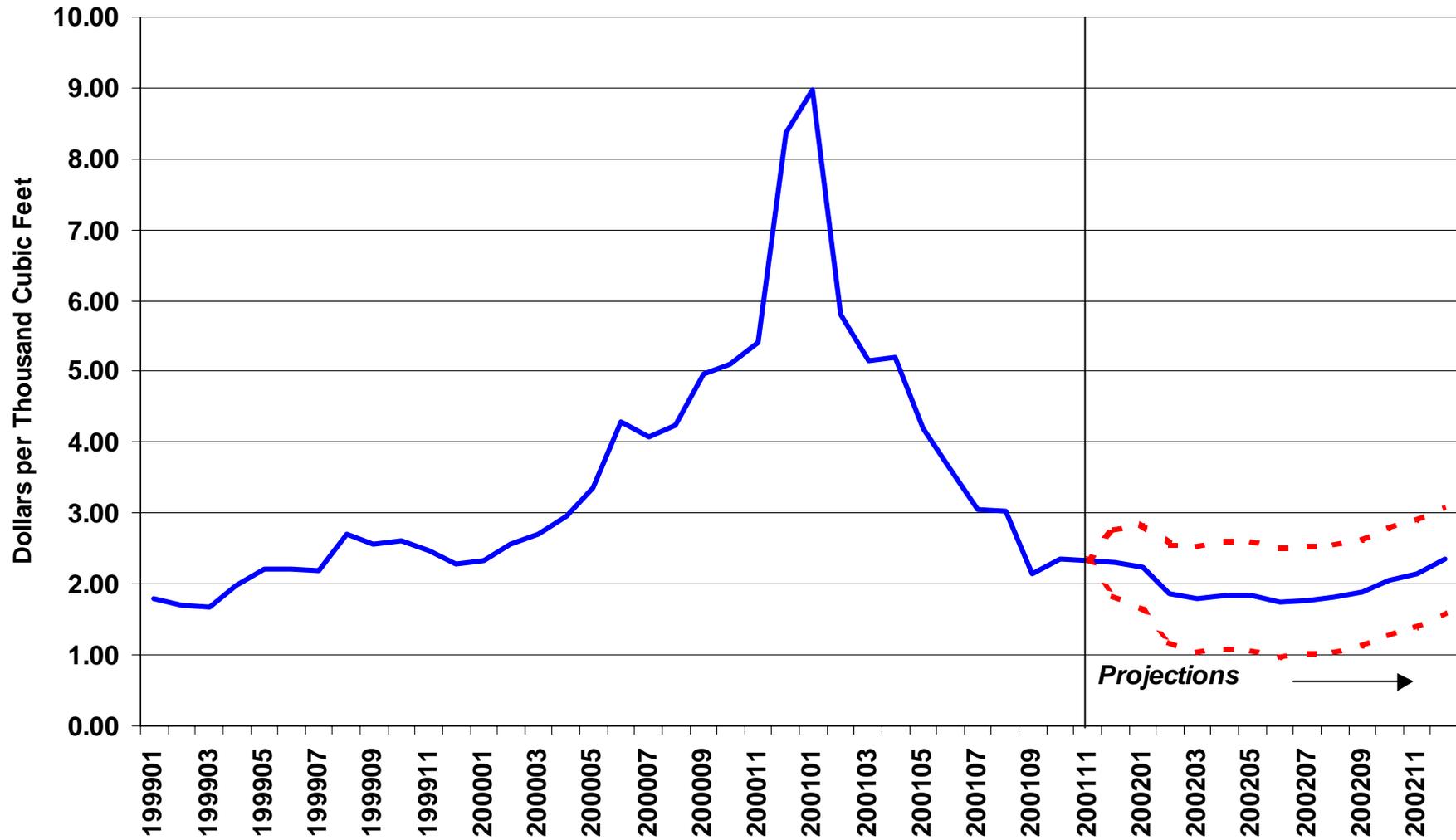
Figure 9. Distillate Fuel Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



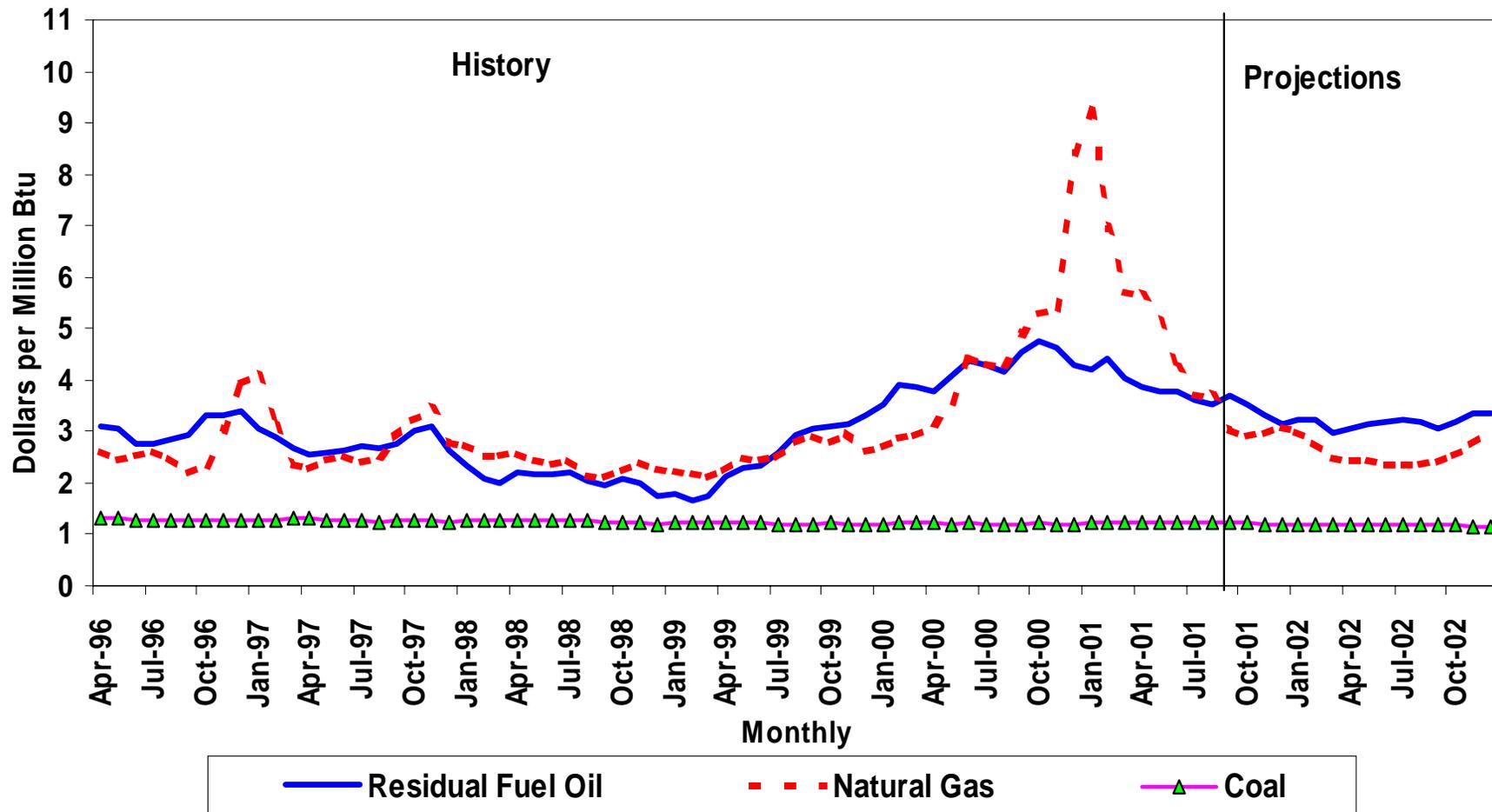
Figure 10. Natural Gas Spot Prices (Base Case and 95% Confidence Interval)



Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, December 2001.



Figure 11. Fossil Fuel Prices to Electric Utilities



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



expensive gas and also because of the very tight storage situation for coal at power generating stations, the price of coal jumped. However, by mid-summer the price began receding as coal stocks rebounded and as gas prices withered. Next year, coal prices should continue to recede as coal stocks gain and natural gas prices remain relatively low.

U.S. Oil Demand

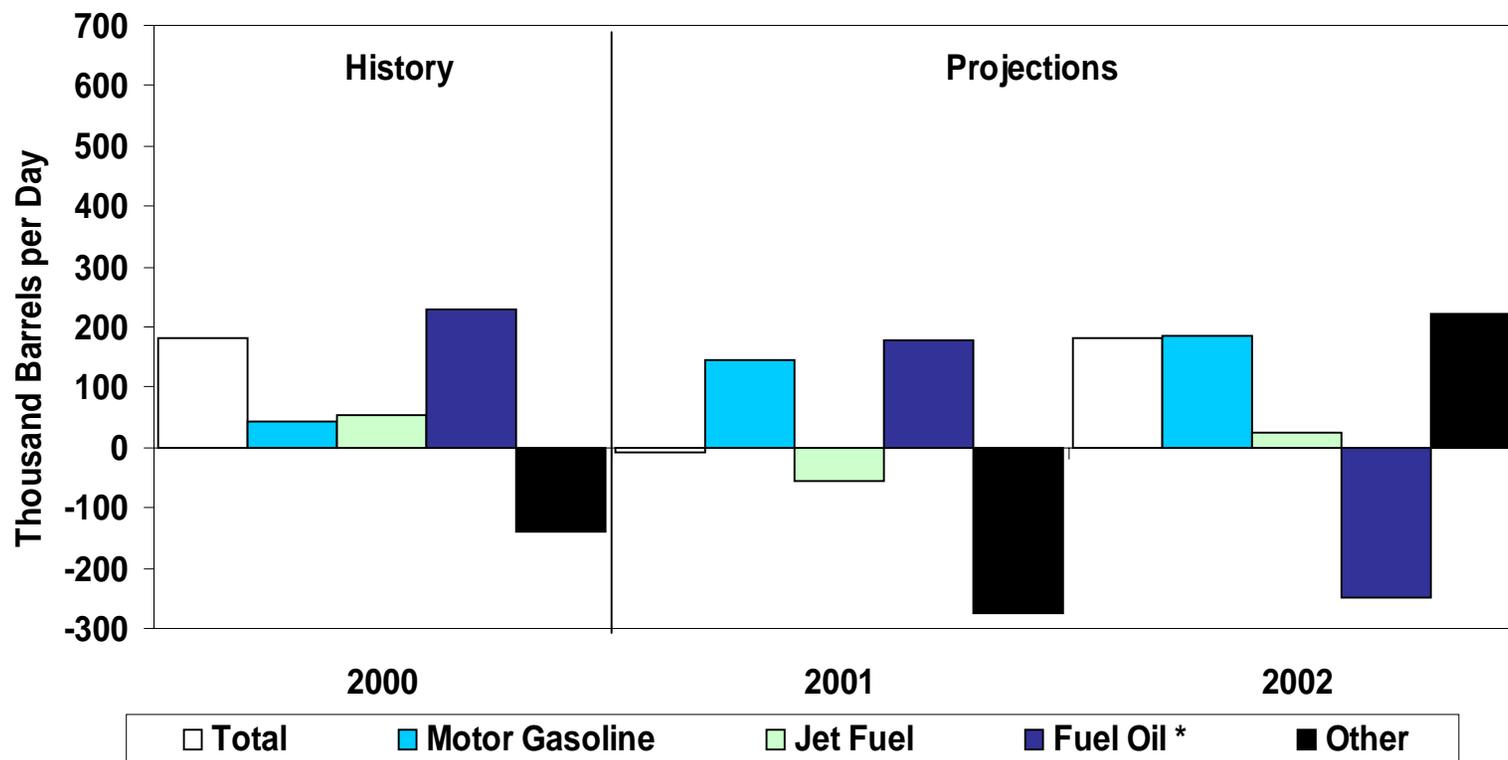
Recent updates to petroleum consumption data have underscored not only the current weakness in total U.S. oil demand but also the fact that these markets have been weak since the spring of this year. For the current year, total demand for petroleum products is projected to average 19.69 million barrels per day, approximately unchanged compared from the previous year's demand. In year-to-year terms, that would be the weakest showing in 10 years.

In 2001, two major transportation fuels held their ground, registering continuing (but somewhat erratic) gains. Motor gasoline demand, which has been buoyed by the decline in retail pump prices, is expected to register year-to-year gains of more than 2 percent during the current quarter and for the year as a whole ([Figure 12](#)). Diesel demand also registered gains during the first nine months of the year. But because of the intensification of the downturn, demand for that fuel is expected to remain flat during the current quarter. (A shift away from air freight to ground transportation in the wake of the terrorist attacks may have enabled the diesel market to avoid negative year-to-year growth in the current quarter.) Jet-fuel demand, which registered sizable gains during the first quarter of the year, recorded only slight increases in demand during much of the summer, even prior to the events of September 11. For much of the year, monthly air-traffic activity data had been showing year-to-year declines, but demand for commercial jet fuel continued to rise due to continued fleet expansion through deployment of new aircraft. (The resultant lower load factors and the enhanced energy efficiency of the new stock kept commercial jet fuel demand growth at a minimum). The current quarter is expected to witness a substantial year-to-year decline of almost 13 percent due to the contraction of airline activity, resulting in a more than 4-percent decline in commercial jet fuel demand and a 3-percent contraction in total jet fuel deliveries for the year as a whole. The overall expected gain in transportation fuel demand, however, is likely to be offset by weak demand for petroleum products in the industrial, residential and commercial sectors. The ongoing slide in manufacturing production that began in the second quarter is expected to contribute to the substantial contraction of industrial demand for fuel oil, distillate and petrochemical feedstocks. Also contributing to stagnant petroleum demand has been the spate of mild weather during the current quarter, which contrasts sharply with the same period last year, during which heating-oil purchases surged.

In 2002, total domestic petroleum demand is expected to increase by 180,000 barrels per day, or 0.9 percent, to 19.88 million barrels per day. Motor gasoline demand, boosted by continued low retail prices and accelerated growth in real disposable income, is expected to climb by more than 2 percent. Total jet-fuel demand is projected to climb 1.4 percent, reflecting increased military use. Commercial aviation demand, however, is projected to decline slightly. Distillate fuel oil demand, on the other hand, is projected to decline 2.5 percent. Deliveries of that fuel are expected to be negatively affected by continued weakness in the industrial sector and the assumption of normal weather during the first quarter, in contrast to the colder-than-normal first quarter of the previous winter. Residual fuel oil demand is projected to display a broad-based decline of more than 15 percent. Continued weakness in industrial output for much of the year and demand displacement by natural gas in the price-sensitive power-generation and industrial sectors account for much of the decline. Other petroleum products, reflecting a recovery in petrochemical sector demand for feedstock, are projected to stage a more than 5-percent increase in demand from the depressed levels of the previous year.

U.S. Oil Supply

Figure 12. Petroleum Products Demand Growth (Change from Year Ago)



* Sum of distillate and residual fuel.

Sources: History: EIA; Projections: Short-Term Energy Outlook December 2001.



Average domestic oil production is expected to increase by 18,000 barrels per day or 0.3 percent in 2001, to a level of 5.84 million barrels of oil per day ([Figure 13](#)). For 2002, a 1.8 percent decrease is expected, resulting in an average production rate of 5.73 million barrels of oil per day for the year. While drilling and other resource development activity have been sufficient to allow more or less steady oil production over the 2000-2001 period, the slowdown in drilling activity that has occurred since July and that is expected to continue into 2002 will most likely result in lower oil productive capacity and production next year, particularly during the second half of the year. [Baker Hughes](#), which tracks drilling rig activity in the United States and elsewhere, reports that, from mid-July to late November, active oil rigs dropped by 23 percent, to 172 rigs as of the week of November 23.

Lower-48 States oil production is expected to post an increase by 7,000 barrels per day (to a rate of 4.86 million barrels per day) for all of 2001, followed by a decrease of 72,000 barrels per day in 2002. Shell started production from their Ursa field in 1999, with peak production occurring in 2001. Shell's Brutus platform is expected to start production in the third quarter of 2001, with peak oil production at 100,000 barrels per day in 2002. Oil production from the Mars, Troika, Ursa, Dianna-Hoover and Brutus Federal Offshore fields is expected to account for about 10 percent of the lower-48 oil production by the 4th quarter of 2002.

Alaska is expected to account for 16.5 percent of the total U.S. oil production in 2002. Alaska oil production is expected to increase by 11,000 barrels per day in 2001, followed by a 35,000 barrels per day decline in 2002. Alaska oil production increased slightly in 2001 as the result of adding two new North Slope satellite fields, Colville River (Alpine) and Prudhoe Bay (Aurora). Another satellite field, North Star, is expected to come on line in early to mid-2002 and will peak at a rate of 65,000 barrels per day later that year. Production from the Kuparuk River field plus like production from West Sak, Tabasco and Tarn fields is expected to stay at an average of 217,000 barrels per day. Drilling at a new satellite, Meltwater, is underway and it is expected to begin production in the first quarter of 2002. Despite the new activity in 2002, unless incremental production increases in these areas turns out to be more robust than currently estimated, they will not be sufficient to offset declines from existing production.

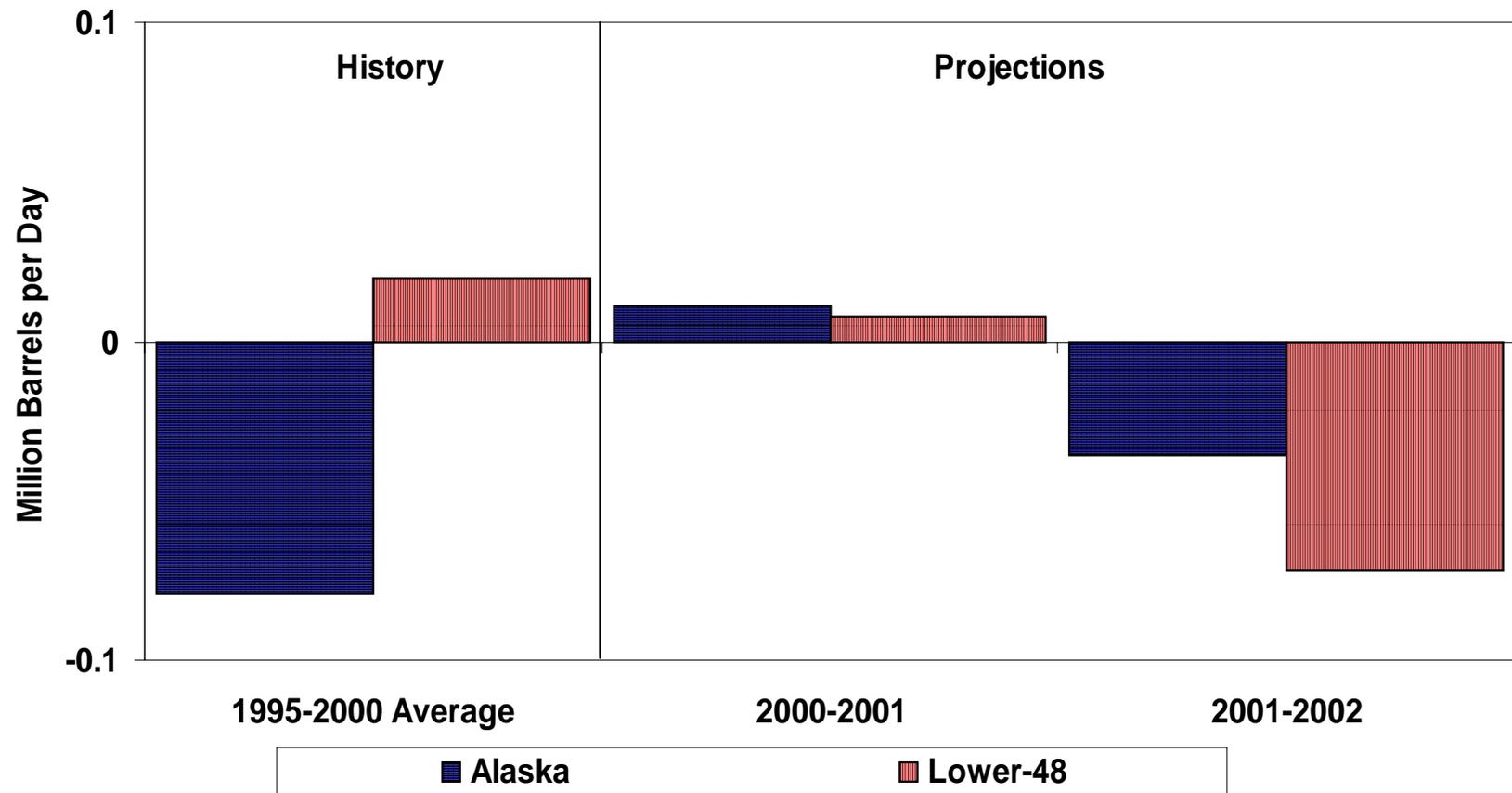
Natural Gas Demand and Supply

With two months of below-normal heating demand so far this season, the radical transformation of natural gas market conditions, from an upwardly explosive price situation last winter to a price-cratering supply overhang this season, is nearly complete. The sharp downturn in domestic gas-directed drilling rates since July ([Figure 14](#)), which will probably have important implications for market prices by 2003, will probably not reduce natural gas productive capacity enough to prevent relatively low prices this winter and through most of 2002. The (quite robust) amount of demand growth we are currently projecting for 2002 (an increase of 1.36 trillion cubic feet, or 6.3 percent) will probably do little more than return natural gas inventories to normal. Thus, pressure on domestic wellhead prices to remain near (and at times below) \$2 per thousand cubic feet will be strong through much of 2002.

Although price conditions now favor using natural gas, this is a result of depressed natural gas demand, a situation that is not expected to improve appreciatively until the second quarter of 2002 due to assumptions about economic growth. For all of 2001, natural gas demand is expected to exhibit a decline of 4.4 percent. Although we now expect residential demand to actually show a decline for 2001 (based on the expected weak heating-related demand developing in the current quarter), the overall decline this year has mainly been the result of the downturn in gas-intensive industrial production. Industrial sector gas demand (not including gas for nonutility electric output) is expected to be nearly 20 percent lower than the level reported for 2000 ([Figure 15](#)).

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

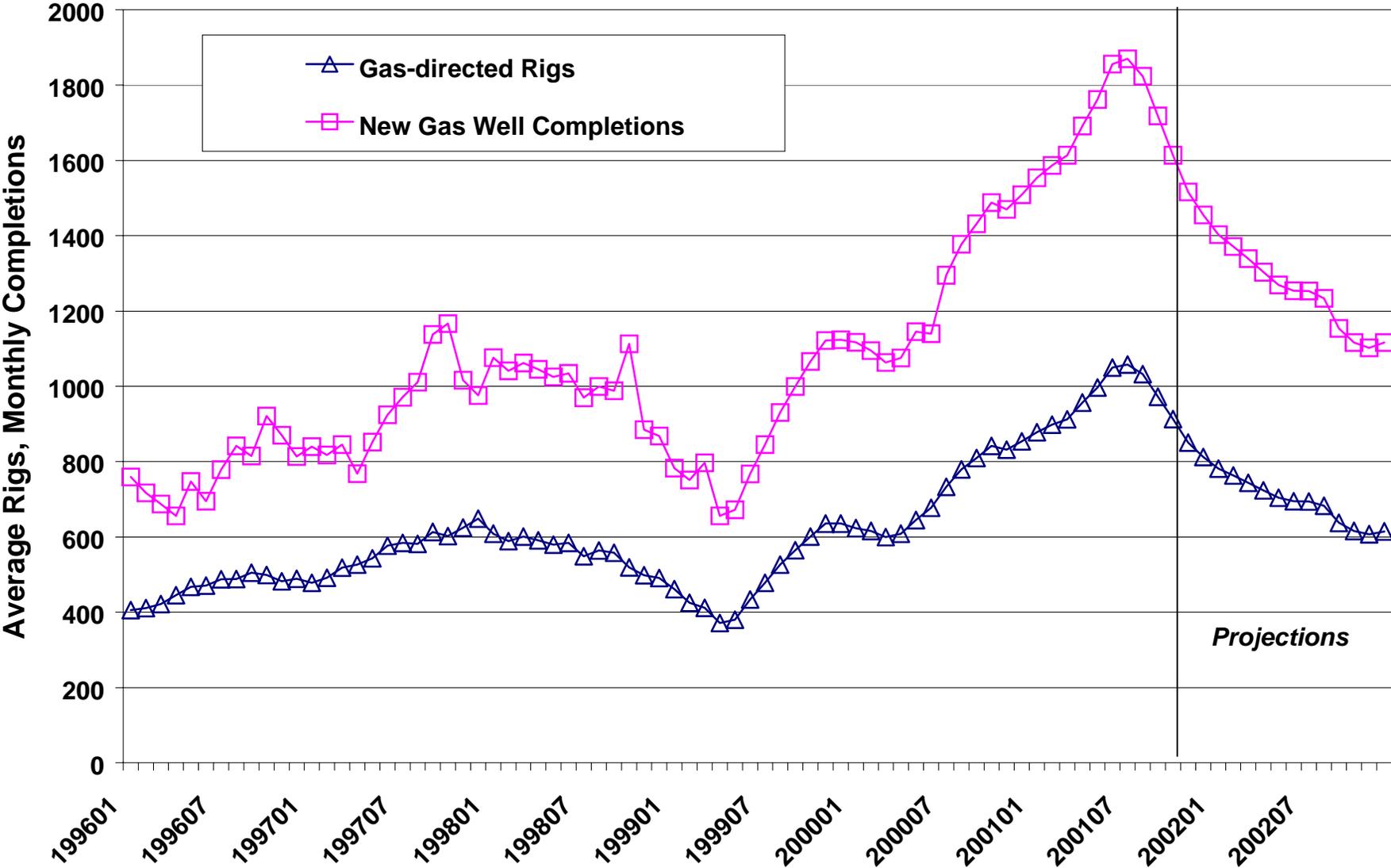
Figure 13. U.S. Crude Oil Production Growth (Change from Year Ago)



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.

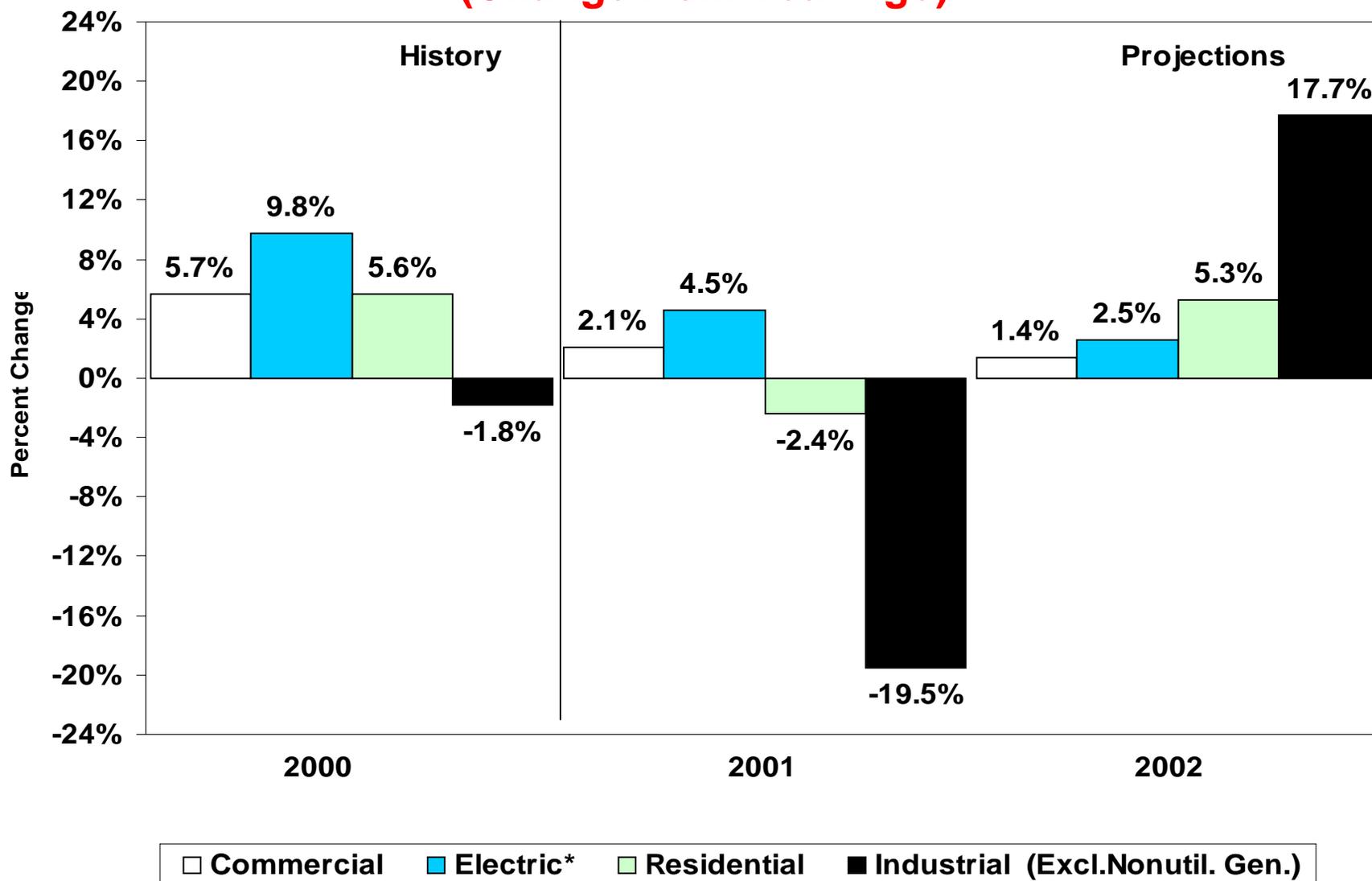


Figure 14. U.S. Gas-Directed Drilling Activity



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.

Figure 15. Natural Gas Demand Growth by Sector (Change from Year Ago)



* Includes gas to electric utilities and nonutility generators.

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



was 3,160 billion cubic feet. Storage is well above last year's level and also above the previous 6-year seasonal range ([Figure 16](#)). As storage levels have risen, spot natural gas prices have fallen. In November, spot natural gas prices averaged about \$2.33 per thousand cubic feet (mcf) in the major producing regions.

Heating season temperatures up to now have been above normal, causing withdrawals from storage to be delayed. If temperatures are assumed to be normal for the rest of this winter, then heating degree-days for the entire 2001-2002 season would be about 10.5 percent lower than last winter. As a consequence, winter demand for natural gas is projected to decline by 5.0 percent compared with growth of 6.7 percent last winter. Spot natural gas prices, which averaged \$6.48 per thousand cubic feet last winter, are expected to be two-thirds lower this winter at about \$2.15 per thousand cubic feet. Residential and commercial demands for natural gas are expected to be lower than last winter's levels by 10.3 and 6.0 percent, respectively. In the case of both the residential and commercial sectors, the fact that November heating degree-days (HDD) were about 30 percent below year-ago is a significant negative factor in the current demand picture. In the commercial sector the flat economy is an additional factor. Industrial gas demand, which has been under downward pressure all through 2001, is projected to begin to rise in the first quarter of 2002. This expectation is seen as the result of the reversal of significant fuel substitution away from natural gas that occurred last winter as gas markets were squeezed and, further into next year, of the gradually reviving economy.

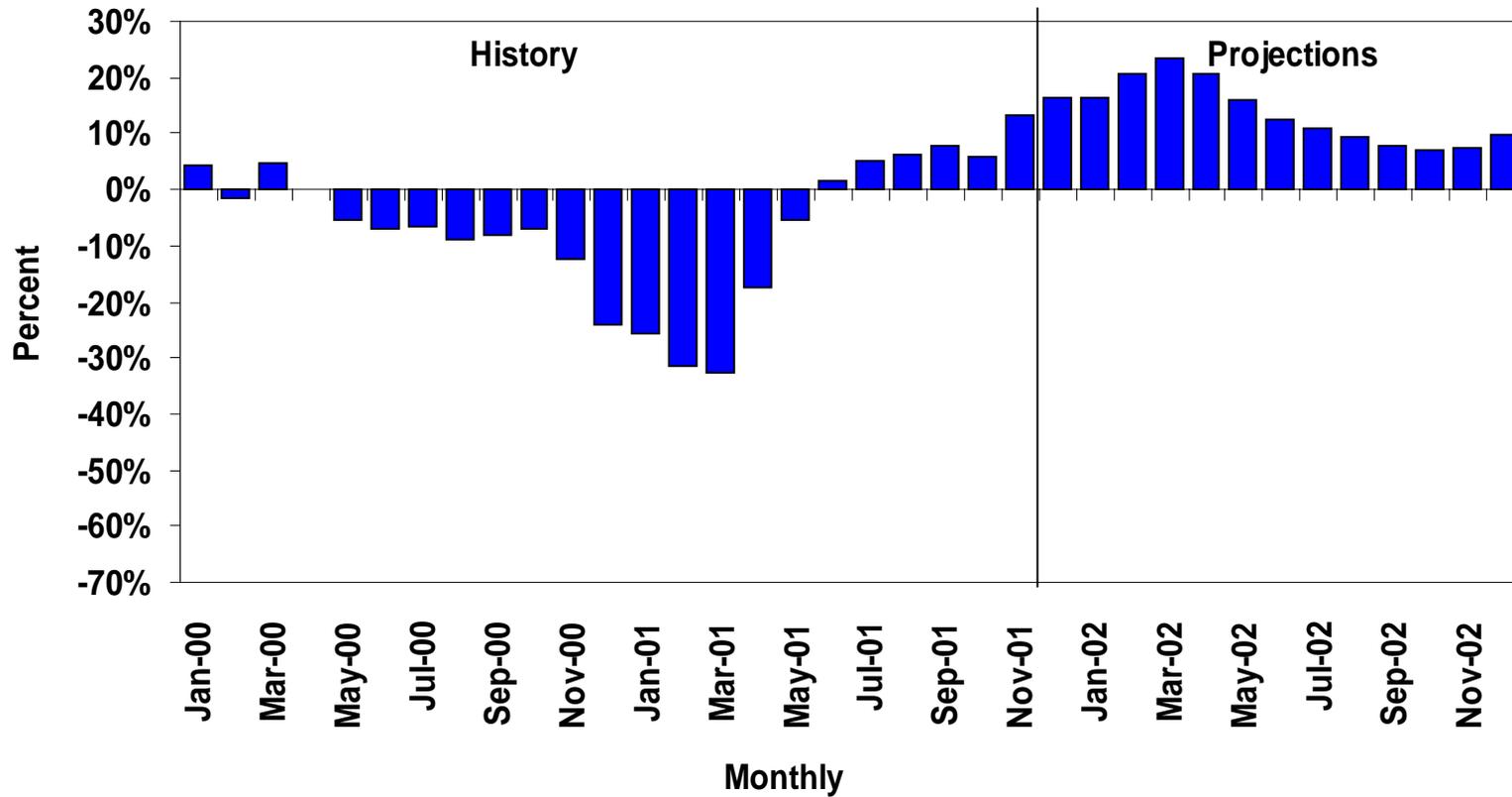
Domestic natural gas production is expected to grow by 2.7 percent in 2001, compared with 0.8 percent in 2000, then to be flat in 2002. After reaching a high of 1,058 rigs drilling during the month of July, the rig count has been falling since then due to the drop in natural gas prices and declining industrial demand. Net imports of natural gas are projected to rise by about 6.7 percent in 2001 and be flat in 2002. We assume that no further gains in domestic production and net imports are likely until inventories are adjusted to more normal levels.

Electricity Demand and Supply

Total annual electricity demand growth (retail sales plus industrial generation for own use and other direct sales) is projected to be flat in 2001, but to revive slightly to about 1.5 percent in 2002. This is compared with estimated demand growth in 2000 of 2.8 percent over 1999's level. Electricity demand growth is expected to be slower in the forecast years than it was in 2000 ([Figure 17](#)) mainly because the economy is growing much more slowly than it was in 2000.

Electricity demand in the industrial sector in 2001 has been adversely affected by the overall economic slowdown, particularly as illustrated by falling industrial output. Growth in industrial demand for electricity is expected to be negative compared to its 2000 level, falling by 72 billion kilowatt-hours (6.7 percent). Industrial demand is expected to stabilize in 2002 along with the economy. In 2001, growth in residential and commercial demand for electricity is expected to be 1.8 percent and 3.5 percent, respectively, due mainly to continued expansion of the customer base and fairly solid increases in commercial activity through the first half of the year. The commercial sector is expected to be weaker next year because of the very slow expected growth in commercial employment and output. This winter, total electricity demand growth is expected to be negative (down 2.6 percent) compared with last winter's demand growth of 4.6 percent due both to a weaker industrial economy and the likelihood that, assuming normal weather from here on out, heating demand will be down sharply.

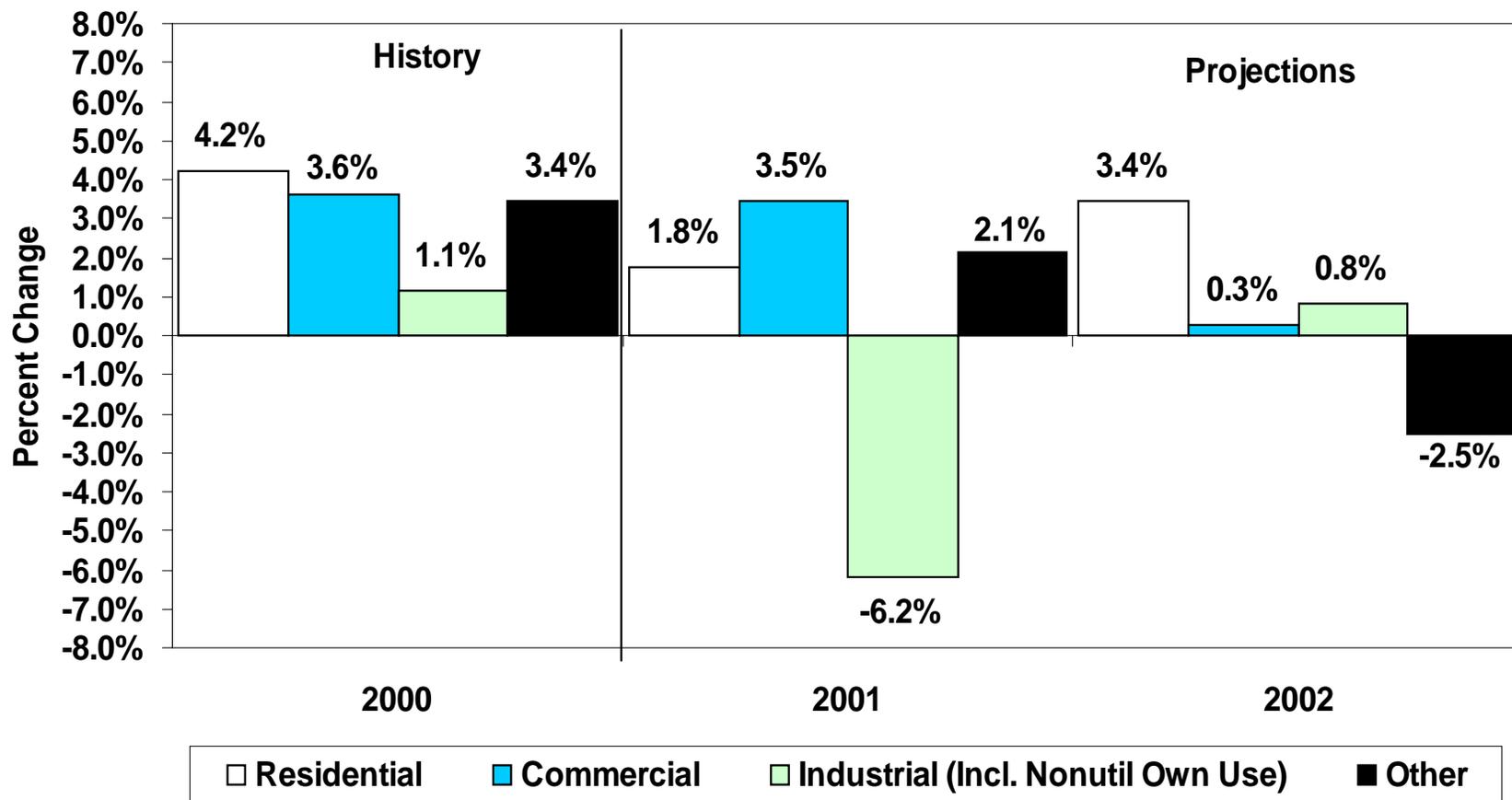
**Figure 16. Working Gas in Storage
(Difference from Previous 5-Year Average)**



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



Figure 17. U.S. Electricity Demand Growth by Sector (Change from Year Ago)



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2001.



Table HL1. U. S. Energy Supply and Demand

	Year				Annual Percentage Change		
	1999	2000	2001	2002	1999-2000	2000-2001	2001-2002
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	8857	9224	9326	9433	4.1	1.1	1.1
Imported Crude Oil Price ^a (nominal dollars per barrel).....	17.22	27.72	21.98	18.69	61.0	-20.7	-15.0
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.88	5.82	5.84	5.73	-1.0	0.3	-1.9
Total Petroleum Net Imports (including SPR)	9.91	10.42	10.63	10.76	5.1	2.0	1.2
Energy Demand							
World Petroleum (million barrels per day).....	75.0	75.5	75.7	76.5	0.7	0.3	1.1
Petroleum (million barrels per day).....	19.52	19.70	19.69	19.87	0.9	-0.1	0.9
Natural Gas (trillion cubic feet)	21.61	22.54	21.55	22.91	4.3	-4.4	6.3
Coal ^c (million short tons)	1045	1082	1088	1098	3.5	0.6	0.9
Electricity (billion kilowatthours)							
Retail Sales ^d	3312	3413	3400	3463	3.0	-0.4	1.9
Nonutility Use/Sales ^e	189	187	185	176	-1.1	-1.1	-4.9
Total	3501	3600	3585	3639	2.8	-0.4	1.5
Total Energy Demand ^f (quadrillion Btu).....	97.1	99.2	97.9	100.4	2.2	-1.4	2.6
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.96	10.76	10.49	10.64	-1.8	-2.5	1.4
Renewable Energy as Percent of Total ^g ...	7.2	6.9	6.4	7.0			

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

^bIncludes lease condensate.

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

^dTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's *Electric Power Monthly* and *Electric Power Annual*. Power marketers' sales for historical periods are reported in EIA's *Electric Sales and Revenue*, Appendix C. Data for 2000 are estimates.

^eDefined 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.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Monthly* DOE/EIA-0520; *Weekly Petroleum Status Report*, DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1101.

Table 1. U.S. Macroeconomic and Weather Assumptions

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Macroeconomic^a															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR).....	9103	9229	9260	9304	9334	9342	<i>9333</i>	<i>9295</i>	<i>9294</i>	<i>9379</i>	<i>9479</i>	<i>9581</i>	9224	<i>9326</i>	<i>9433</i>
Percentage Change from Prior Year	4.2	5.2	4.4	2.8	2.5	1.2	<i>0.8</i>	<i>-0.1</i>	<i>-0.4</i>	<i>0.4</i>	<i>1.6</i>	<i>3.1</i>	4.1	<i>1.1</i>	<i>1.1</i>
Annualized Percent Change from Prior Quarter.....	2.3	5.6	1.3	1.9	1.3	0.3	<i>-0.4</i>	<i>-1.6</i>	<i>-0.1</i>	<i>3.7</i>	<i>4.3</i>	<i>4.3</i>			
GDP Implicit Price Deflator (Index, 1996=1.000)	1.063	1.068	1.073	1.078	1.087	1.092	<i>1.098</i>	<i>1.099</i>	<i>1.103</i>	<i>1.105</i>	<i>1.109</i>	<i>1.115</i>	1.070	<i>1.094</i>	<i>1.108</i>
Percentage Change from Prior Year	2.1	2.3	2.4	2.4	2.3	2.2	<i>2.3</i>	<i>1.9</i>	<i>1.5</i>	<i>1.2</i>	<i>1.0</i>	<i>1.5</i>	2.3	<i>2.2</i>	<i>1.3</i>
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	6432	6524	6566	6635	6679	6719	<i>6924</i>	<i>6822</i>	<i>6915</i>	<i>6898</i>	<i>6940</i>	<i>7004</i>	6539	<i>6786</i>	<i>6939</i>
Percentage Change from Prior Year	2.6	3.6	3.7	4.0	3.8	3.0	<i>5.4</i>	<i>2.8</i>	<i>3.5</i>	<i>2.7</i>	<i>0.2</i>	<i>2.7</i>	3.5	<i>3.8</i>	<i>2.3</i>
Manufacturing Production (Index, 1996=1.000)	1.237	1.261	1.272	1.267	1.242	1.225	<i>1.205</i>	<i>1.179</i>	<i>1.175</i>	<i>1.179</i>	<i>1.196</i>	<i>1.223</i>	1.259	<i>1.213</i>	<i>1.193</i>
Percentage Change from Prior Year	6.3	7.0	6.4	4.2	0.4	-2.8	<i>-5.3</i>	<i>-7.0</i>	<i>-5.4</i>	<i>-3.8</i>	<i>-0.7</i>	<i>3.8</i>	6.0	<i>-3.7</i>	<i>-1.6</i>
OECD Economic Growth (percent) ^b													3.3	<i>0.9</i>	<i>1.3</i>
Weather^c															
Heating Degree-Days															
U.S.....	2023	485	93	1859	2329	444	<i>86</i>	<i>1488</i>	<i>2234</i>	<i>518</i>	<i>86</i>	<i>1622</i>	4460	<i>4347</i>	<i>4459</i>
New England	3007	909	196	2377	3268	850	<i>150</i>	<i>2110</i>	<i>3174</i>	<i>883</i>	<i>167</i>	<i>2237</i>	6489	<i>6378</i>	<i>6462</i>
Middle Atlantic.....	2713	692	129	2240	2950	630	<i>93</i>	<i>1808</i>	<i>2891</i>	<i>700</i>	<i>105</i>	<i>2002</i>	5774	<i>5481</i>	<i>5698</i>
U.S. Gas-Weighted.....	2115	512	100	1957	2417	473	<i>90</i>	<i>1562</i>	<i>2351</i>	<i>555</i>	<i>90</i>	<i>1714</i>	4684	<i>4542</i>	<i>4710</i>
Cooling Degree-Days (U.S.)	45	380	742	62	26	375	<i>784</i>	<i>80</i>	<i>33</i>	<i>347</i>	<i>782</i>	<i>76</i>	1229	<i>1265</i>	<i>1237</i>

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

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

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

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*. Projections of OECD growth are based on WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1101.

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

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Macroeconomic^a															
Real Fixed Investment															
(billion chained 1996 dollars-SAAR)	1683	1719	1730	1732	1740	1696	<i>1660</i>	<i>1605</i>	<i>1589</i>	<i>1593</i>	<i>1611</i>	<i>1623</i>	1716	<i>1675</i>	<i>1604</i>
Real Exchange Rate															
(index)	1.043	1.067	1.083	1.110	1.103	1.143	<i>1.130</i>	<i>1.130</i>	<i>1.120</i>	<i>1.113</i>	<i>1.103</i>	<i>1.090</i>	1.076	<i>1.127</i>	<i>1.107</i>
Business Inventory Change															
(billion chained 1996 dollars-SAAR)	5.3	22.0	12.0	12.9	-15.0	-35.6	<i>-45.7</i>	<i>-17.1</i>	<i>-19.5</i>	<i>-11.6</i>	<i>-1.4</i>	<i>5.8</i>	13.1	<i>-28.3</i>	<i>-6.7</i>
Producer Price Index															
(index, 1982=1.000)	1.303	1.321	1.333	1.353	1.385	1.364	<i>1.331</i>	<i>1.308</i>	<i>1.297</i>	<i>1.292</i>	<i>1.292</i>	<i>1.298</i>	1.328	<i>1.347</i>	<i>1.295</i>
Consumer Price Index															
(index, 1982-1984=1.000).....	1.703	1.715	1.730	1.743	1.761	1.774	<i>1.777</i>	<i>1.780</i>	<i>1.786</i>	<i>1.793</i>	<i>1.801</i>	<i>1.813</i>	1.723	<i>1.773</i>	<i>1.798</i>
Petroleum Product Price Index															
(index, 1982=1.000)	0.830	0.899	0.954	0.969	0.892	0.971	<i>0.888</i>	<i>0.744</i>	<i>0.686</i>	<i>0.701</i>	<i>0.685</i>	<i>0.712</i>	0.913	<i>0.874</i>	<i>0.696</i>
Non-Farm Employment															
(millions)	131.0	131.9	131.9	132.3	132.6	132.5	<i>132.4</i>	<i>131.6</i>	<i>131.8</i>	<i>132.1</i>	<i>132.5</i>	<i>132.7</i>	131.8	<i>132.3</i>	<i>132.3</i>
Commercial Employment															
(millions)	91.4	91.9	92.3	92.7	93.2	93.3	<i>93.2</i>	<i>93.0</i>	<i>93.5</i>	<i>93.9</i>	<i>94.4</i>	<i>94.6</i>	92.1	<i>93.2</i>	<i>94.1</i>
Total Industrial Production															
(index, 1996=1.000)	1.208	1.231	1.241	1.238	1.217	1.204	<i>1.184</i>	<i>1.161</i>	<i>1.156</i>	<i>1.161</i>	<i>1.177</i>	<i>1.202</i>	1.230	<i>1.191</i>	<i>1.174</i>
Housing Stock															
(millions)	115.7	115.9	116.4	117.0	117.6	117.8	<i>117.7</i>	<i>118.2</i>	<i>118.8</i>	<i>119.1</i>	<i>119.5</i>	<i>119.8</i>	116.2	<i>117.8</i>	<i>119.3</i>
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1996=1.000)	1.124	1.133	1.124	1.111	1.088	1.083	<i>1.070</i>	<i>1.058</i>	<i>1.061</i>	<i>1.070</i>	<i>1.082</i>	<i>1.095</i>	1.123	<i>1.075</i>	<i>1.077</i>
Vehicle Miles Traveled ^b															
(million miles/day).....	6838	7682	7671	7221	6949	7727	<i>7805</i>	<i>7357</i>	<i>7175</i>	<i>7881</i>	<i>8063</i>	<i>7609</i>	7354	<i>7462</i>	<i>7684</i>
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.995	1.010	0.982	0.984	0.989	1.010	<i>0.984</i>	<i>0.979</i>	<i>0.999</i>	<i>1.002</i>	<i>0.999</i>	<i>0.994</i>	0.992	<i>0.990</i>	<i>0.998</i>
Real Vehicle Fuel Cost															
(cents per mile).....	4.18	4.30	4.30	4.36	4.19	4.42	<i>3.99</i>	<i>3.45</i>	<i>3.35</i>	<i>3.47</i>	<i>3.41</i>	<i>3.49</i>	4.28	<i>4.01</i>	<i>3.43</i>
Air Travel Capacity															
(mill. available ton-miles/day).....	455.5	475.9	489.1	470.6	475.5	495.2	<i>467.3</i>	<i>394.5</i>	<i>424.2</i>	<i>442.8</i>	<i>460.7</i>	<i>452.5</i>	472.8	<i>457.9</i>	<i>445.2</i>
Aircraft Utilization															
(mill. revenue ton-miles/day).....	256.6	287.6	292.5	269.4	263.5	282.3	<i>267.3</i>	<i>229.9</i>	<i>237.2</i>	<i>262.3</i>	<i>284.0</i>	<i>271.4</i>	276.5	<i>260.7</i>	<i>263.8</i>
Airline Ticket Price Index															
(index, 1982-1984=1.000).....	2.309	2.419	2.474	2.375	2.399	2.408	<i>2.452</i>	<i>2.375</i>	<i>2.419</i>	<i>2.443</i>	<i>2.463</i>	<i>2.488</i>	2.394	<i>2.408</i>	<i>2.453</i>
Raw Steel Production															
(millions tons)	29.02	29.53	27.45	25.01	25.53	26.07	<i>25.15</i>	<i>24.72</i>	<i>25.25</i>	<i>25.91</i>	<i>25.62</i>	<i>25.61</i>	111.02	<i>101.47</i>	<i>102.39</i>

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

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

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

(Million Barrels per Day, Except OECD Commercial Stocks)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Demand ^a															
OECD															
U.S. (50 States)	19.3	19.5	20.0	20.0	19.9	19.6	19.7	19.6	19.8	19.6	20.0	20.1	19.7	19.7	19.9
U.S. Territories	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
Canada	2.0	2.0	2.1	2.2	2.0	2.0	2.1	2.2	2.1	2.0	2.2	2.2	2.1	2.1	2.1
Europe	15.2	14.7	15.2	15.4	15.2	14.8	15.3	15.4	15.5	14.6	15.1	15.8	15.1	15.2	15.2
Japan	6.0	5.0	5.4	5.6	6.1	5.0	5.4	5.6	6.2	5.0	5.3	5.7	5.5	5.5	5.5
Other OECD	5.4	5.1	5.0	5.2	5.3	4.9	5.0	5.2	5.1	5.0	5.3	5.3	5.1	5.1	5.2
Total OECD	48.3	46.6	48.0	48.7	48.9	46.6	47.9	48.5	49.0	46.6	48.3	49.5	47.9	48.0	48.4
Non-OECD															
Former Soviet Union	3.7	3.6	3.6	3.6	3.7	3.5	3.5	3.5	3.7	3.5	3.5	3.5	3.6	3.6	3.6
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.8
China	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.6	4.8	4.7	4.7	4.7	4.6	4.6	4.7
Other Asia	6.9	6.9	6.7	7.0	7.0	7.0	6.7	7.0	7.0	7.0	6.8	7.1	6.9	6.9	7.0
Other Non-OECD	11.6	11.9	11.9	11.8	11.8	12.0	12.1	11.9	11.9	12.1	12.2	12.1	11.8	12.0	12.0
Total Non-OECD	27.6	27.7	27.5	27.7	27.8	27.9	27.6	27.8	28.1	28.2	27.9	28.2	27.6	27.7	28.1
Total World Demand	75.9	74.3	75.5	76.4	76.7	74.5	75.5	76.2	77.2	74.8	76.2	77.7	75.5	75.7	76.5
Supply ^b															
OECD															
U.S. (50 States)	9.1	9.1	9.0	9.0	8.8	9.1	9.1	9.1	9.0	9.0	9.0	9.0	9.1	9.0	9.0
Canada	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.8	3.0	3.0	3.1	3.1	2.7	2.8	3.0
Mexico	3.5	3.5	3.5	3.4	3.6	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.5	3.6	3.6
North Sea ^c	6.3	5.9	5.9	6.1	5.9	5.6	5.8	6.5	6.2	5.9	6.0	6.3	6.0	6.0	6.1
Other OECD	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Total OECD	23.7	23.3	23.3	23.3	23.3	23.0	23.3	24.0	23.9	23.6	23.7	24.0	23.4	23.4	23.8
Non-OECD															
OPEC	29.3	30.8	31.6	31.7	31.1	30.0	30.2	29.5	28.3	28.3	28.8	28.6	30.9	30.2	28.5
Former Soviet Union	7.9	8.0	8.2	8.5	8.6	8.7	8.9	8.9	8.9	9.0	9.2	9.2	8.1	8.8	9.1
China	3.3	3.3	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.2	3.3	3.4
Other Non-OECD	11.0	11.1	11.2	11.4	11.3	11.1	11.3	11.2	11.3	11.4	11.6	11.7	11.2	11.2	11.5
Total Non-OECD	51.5	53.1	54.3	54.8	54.4	53.2	53.7	52.9	51.8	52.0	53.0	53.0	53.4	53.5	52.5
Total World Supply	75.2	76.4	77.6	78.2	77.6	76.2	77.0	77.0	75.6	75.6	76.8	77.1	76.8	76.9	76.3
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	0.2	-0.5	0.0	0.6	-0.1	-0.9	-0.2	0.4	0.2	-0.7	-0.3	0.3	0.1	-0.2	-0.1
Other	0.5	-1.5	-2.1	-2.4	-0.8	-0.9	-1.3	-1.1	1.3	-0.1	-0.3	0.4	-1.4	-1.0	0.3
Total Stock Withdrawals	0.6	-2.1	-2.1	-1.7	-0.9	-1.7	-1.5	-0.8	1.5	-0.8	-0.5	0.7	-1.3	-1.2	0.2
OECD Comm. Stocks, End (bill. bbls.) ...	2.4	2.5	2.6	2.5	2.5	2.6	2.7	2.7	2.6	2.6	2.7	2.6	2.5	2.7	2.6
Non-OPEC Supply	45.9	45.6	45.9	46.4	46.5	46.2	46.8	47.5	47.3	47.3	47.9	48.4	46.0	46.7	47.7
Net Exports from Former Soviet Union ...	4.2	4.4	4.6	4.9	5.0	5.2	5.4	5.4	5.2	5.4	5.6	5.7	4.5	5.2	5.5

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U. S. Energy Prices

(Nominal Dollars)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	26.84	26.55	29.12	28.26	24.12	23.85	23.05	16.72	17.00	18.67	19.00	20.00	27.72	21.98	18.69
WTI ^b Spot Average	28.82	28.78	31.61	31.96	28.82	27.92	26.66	20.08	20.24	21.78	22.07	23.06	30.29	25.87	21.79
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	2.26	3.06	3.87	5.19	6.37	4.56	3.06	2.38	2.08	1.84	1.82	2.11	3.60	4.09	1.96
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.44	1.57	1.56	1.54	1.47	1.66	1.49	1.24	1.21	1.31	1.31	1.29	1.53	1.47	1.28
Regular Unleaded.....	1.40	1.53	1.52	1.50	1.43	1.62	1.45	1.20	1.17	1.28	1.28	1.26	1.49	1.43	1.25
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.43	1.42	1.51	1.61	1.47	1.47	1.42	1.28	1.24	1.27	1.26	1.32	1.49	1.41	1.27
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.86	0.78	0.91	0.97	0.83	0.80	0.76	0.60	0.59	0.62	0.62	0.67	0.89	0.75	0.62
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.31	1.17	1.23	1.40	1.35	1.25	1.15	1.11	1.09	1.04	0.98	1.09	1.31	1.24	1.05
No. 6 Residual Fuel Oil, Retail ^d															
(dollars per barrel)	23.75	24.47	25.10	27.41	25.13	22.29	21.77	20.76	20.20	19.13	18.96	20.73	25.34	22.56	19.76
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.21	1.21	1.18	1.20	1.23	1.24	1.22	1.20	1.19	1.19	1.17	1.16	1.20	1.22	1.18
Heavy Fuel Oil ^e															
(dollars per million Btu).....	3.74	4.16	4.34	4.52	4.22	3.82	3.59	3.29	3.16	3.15	3.17	3.32	4.26	3.79	3.19
Natural Gas															
(dollars per million Btu).....	2.85	3.78	4.46	6.33	7.26	4.96	3.53	3.00	2.77	2.43	2.38	2.77	4.33	4.47	2.54
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	6.53	7.82	10.11	8.71	10.08	10.63	10.52	7.18	6.47	7.13	8.40	6.49	7.73	9.46	6.73
Electricity															
(cents per kilowatthour).....	7.77	8.37	8.59	8.12	7.96	8.62	8.86	8.22	7.80	8.39	8.61	8.15	8.23	8.42	8.25

^aRefiner acquisition cost (RAC) of imported crude oil.^bWest Texas Intermediate.^cAverage self-service cash prices.^dAverage for all sulfur contents.^eIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Crude Oil Supply															
Domestic Production ^a	5.85	5.84	5.76	5.83	5.85	5.84	<i>5.82</i>	<i>5.85</i>	<i>5.78</i>	<i>5.75</i>	<i>5.69</i>	<i>5.70</i>	5.82	<i>5.84</i>	<i>5.73</i>
Alaska.....	1.02	0.97	0.91	0.99	0.99	0.96	<i>0.95</i>	<i>1.03</i>	<i>0.96</i>	<i>0.94</i>	<i>0.92</i>	<i>0.97</i>	0.97	<i>0.98</i>	<i>0.95</i>
Lower 48.....	4.83	4.87	4.86	4.85	4.86	4.88	<i>4.87</i>	<i>4.83</i>	<i>4.82</i>	<i>4.82</i>	<i>4.78</i>	<i>4.73</i>	4.85	<i>4.86</i>	<i>4.79</i>
Net Imports (including SPR) ^b	8.19	9.26	9.59	9.03	8.95	9.48	<i>9.10</i>	<i>8.85</i>	<i>8.91</i>	<i>9.70</i>	<i>9.74</i>	<i>9.38</i>	9.02	<i>9.09</i>	<i>9.43</i>
Other SPR Supply	0.02	0.00	0.02	0.00	0.02	0.01	<i>0.01</i>	<i>0.01</i>	<i>0.03</i>	<i>0.13</i>	<i>0.13</i>	<i>0.16</i>	0.01	<i>0.01</i>	<i>0.12</i>
SPR Stock Withdrawn or Added (-)	-0.02	0.01	-0.02	0.32	-0.02	-0.01	<i>-0.02</i>	<i>-0.04</i>	<i>-0.03</i>	<i>-0.13</i>	<i>-0.13</i>	<i>-0.16</i>	0.07	<i>-0.02</i>	<i>-0.12</i>
Other Stock Withdrawn or Added (-) ..	-0.14	0.07	0.14	-0.08	-0.22	-0.01	<i>-0.02</i>	<i>0.09</i>	<i>-0.19</i>	<i>-0.01</i>	<i>0.17</i>	<i>0.03</i>	0.00	<i>-0.04</i>	<i>0.00</i>
Product Supplied and Losses.....	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Unaccounted-for Crude Oil.....	0.26	0.22	0.15	-0.01	0.18	0.36	<i>0.34</i>	<i>0.16</i>	<i>0.21</i>	<i>0.22</i>	<i>0.22</i>	<i>0.21</i>	0.15	<i>0.26</i>	<i>0.21</i>
Total Crude Oil Supply	14.14	15.40	15.62	15.10	14.75	15.65	<i>15.23</i>	<i>14.91</i>	<i>14.68</i>	<i>15.53</i>	<i>15.69</i>	<i>15.16</i>	15.07	<i>15.14</i>	<i>15.27</i>
Other Supply															
NGL Production.....	1.98	1.94	1.93	1.79	1.64	1.89	<i>1.95</i>	<i>1.96</i>	<i>1.91</i>	<i>1.95</i>	<i>1.93</i>	<i>1.94</i>	1.91	<i>1.86</i>	<i>1.93</i>
Other Inputs	0.36	0.39	0.38	0.37	0.37	0.39	<i>0.40</i>	<i>0.40</i>	<i>0.41</i>	<i>0.41</i>	<i>0.43</i>	<i>0.43</i>	0.38	<i>0.39</i>	<i>0.42</i>
Crude Oil Product Supplied.....	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Processing Gain	0.94	0.95	0.94	0.96	0.93	0.93	<i>0.90</i>	<i>0.91</i>	<i>0.91</i>	<i>0.94</i>	<i>0.93</i>	<i>0.91</i>	0.95	<i>0.92</i>	<i>0.92</i>
Net Product Imports ^c	1.52	1.43	1.29	1.36	2.06	1.58	<i>1.36</i>	<i>1.15</i>	<i>1.48</i>	<i>1.30</i>	<i>1.32</i>	<i>1.21</i>	1.40	<i>1.54</i>	<i>1.33</i>
Product Stock Withdrawn or Added (-).....	0.35	-0.62	-0.13	0.41	0.11	-0.86	<i>-0.15</i>	<i>0.29</i>	<i>0.41</i>	<i>-0.52</i>	<i>-0.28</i>	<i>0.42</i>	0.00	<i>-0.15</i>	<i>0.01</i>
Total Supply	19.29	19.49	20.03	19.99	19.88	19.58	<i>19.69</i>	<i>19.63</i>	<i>19.81</i>	<i>19.60</i>	<i>20.01</i>	<i>20.08</i>	19.70	<i>19.69</i>	<i>19.87</i>
Demand															
Motor Gasoline.....	8.08	8.62	8.70	8.49	8.27	8.67	<i>8.83</i>	<i>8.70</i>	<i>8.45</i>	<i>8.91</i>	<i>8.98</i>	<i>8.86</i>	8.47	<i>8.62</i>	<i>8.80</i>
Jet Fuel	1.65	1.69	1.79	1.77	1.73	1.71	<i>1.67</i>	<i>1.57</i>	<i>1.68</i>	<i>1.65</i>	<i>1.71</i>	<i>1.73</i>	1.73	<i>1.67</i>	<i>1.69</i>
Distillate Fuel Oil.....	3.77	3.56	3.63	3.93	4.21	3.72	<i>3.65</i>	<i>3.80</i>	<i>4.01</i>	<i>3.59</i>	<i>3.56</i>	<i>3.83</i>	3.72	<i>3.84</i>	<i>3.75</i>
Residual Fuel Oil	0.79	0.82	0.98	1.05	1.03	1.00	<i>0.95</i>	<i>0.87</i>	<i>0.93</i>	<i>0.76</i>	<i>0.83</i>	<i>0.75</i>	0.91	<i>0.96</i>	<i>0.81</i>
Other Oils ^d	5.00	4.81	4.94	4.75	4.63	4.49	<i>4.59</i>	<i>4.69</i>	<i>4.74</i>	<i>4.69</i>	<i>4.93</i>	<i>4.91</i>	4.87	<i>4.60</i>	<i>4.82</i>
Total Demand.....	19.29	19.49	20.03	19.99	19.87	19.59	<i>19.69</i>	<i>19.63</i>	<i>19.81</i>	<i>19.60</i>	<i>20.01</i>	<i>20.08</i>	19.70	<i>19.69</i>	<i>19.87</i>
Total Petroleum Net Imports	9.71	10.70	10.88	10.39	11.02	11.06	<i>10.46</i>	<i>10.00</i>	<i>10.39</i>	<i>11.00</i>	<i>11.06</i>	<i>10.59</i>	10.42	<i>10.63</i>	<i>10.76</i>
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	297	291	278	286	305	306	<i>307</i>	<i>299</i>	<i>315</i>	<i>316</i>	<i>301</i>	<i>297</i>	286	<i>299</i>	<i>297</i>
Total Motor Gasoline.....	204	210	197	196	194	220	<i>206</i>	<i>212</i>	<i>215</i>	<i>214</i>	<i>205</i>	<i>208</i>	196	<i>212</i>	<i>208</i>
Finished Motor Gasoline	157	165	154	153	145	169	<i>158</i>	<i>164</i>	<i>163</i>	<i>168</i>	<i>161</i>	<i>164</i>	153	<i>164</i>	<i>164</i>
Blending Components	47	45	43	43	49	51	<i>48</i>	<i>48</i>	<i>52</i>	<i>47</i>	<i>44</i>	<i>44</i>	43	<i>48</i>	<i>44</i>
Jet Fuel	40	44	42	45	40	43	<i>43</i>	<i>41</i>	<i>38</i>	<i>39</i>	<i>40</i>	<i>41</i>	45	<i>41</i>	<i>41</i>
Distillate Fuel Oil.....	96	106	115	118	105	114	<i>127</i>	<i>135</i>	<i>105</i>	<i>116</i>	<i>134</i>	<i>136</i>	118	<i>135</i>	<i>136</i>
Residual Fuel Oil	36	37	38	36	39	43	<i>37</i>	<i>39</i>	<i>37</i>	<i>38</i>	<i>39</i>	<i>39</i>	36	<i>39</i>	<i>39</i>
Other Oils ^e	233	270	287	247	253	289	<i>311</i>	<i>270</i>	<i>265</i>	<i>300</i>	<i>314</i>	<i>271</i>	247	<i>270</i>	<i>271</i>
Total Stocks (excluding SPR)	907	957	957	927	936	1015	<i>1031</i>	<i>995</i>	<i>975</i>	<i>1023</i>	<i>1034</i>	<i>992</i>	927	<i>995</i>	<i>992</i>
Crude Oil in SPR.....	569	569	570	541	542	543	<i>545</i>	<i>548</i>	<i>551</i>	<i>563</i>	<i>575</i>	<i>591</i>	541	<i>548</i>	<i>591</i>
Heating Oil Reserve.....	0	0	0	2	2	2	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	2	<i>2</i>	<i>2</i>
Total Stocks (including SPR).....	1476	1526	1527	1468	1479	1559	<i>1575</i>	<i>1544</i>	<i>1526</i>	<i>1586</i>	<i>1609</i>	<i>1583</i>	1468	<i>1544</i>	<i>1583</i>

^aIncludes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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

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

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

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

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

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	5.94	5.47	0.47	0.07	0.39
Lower 48 States.....	4.95	4.51	0.44	0.06	0.38
Alaska.....	0.99	0.96	0.03	0.02	0.02

Note: Components provided are for the fourth quarter 2002. Totals may not add to sum of components due to independent rounding.

Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

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

(Trillion Cubic Feet)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Total Dry Gas Production	4.73	4.70	4.79	4.76	4.84	4.88	<i>4.86</i>	<i>4.91</i>	<i>4.80</i>	<i>4.83</i>	<i>4.87</i>	<i>4.98</i>	18.99	<i>19.49</i>	<i>19.49</i>
Net Imports	0.87	0.82	0.88	0.96	0.97	0.89	<i>0.96</i>	<i>0.95</i>	<i>1.00</i>	<i>0.88</i>	<i>0.92</i>	<i>0.98</i>	3.54	<i>3.77</i>	<i>3.77</i>
Supplemental Gaseous Fuels.....	0.02	0.02	0.02	0.02	0.03	0.02	<i>0.02</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	0.09	<i>0.10</i>	<i>0.12</i>
Total New Supply	5.63	5.54	5.70	5.74	5.84	5.79	<i>5.84</i>	<i>5.90</i>	<i>5.83</i>	<i>5.74</i>	<i>5.82</i>	<i>5.99</i>	22.61	<i>23.37</i>	<i>23.38</i>
Working Gas in Storage															
Opening.....	2.51	1.15	1.71	2.47	1.72	0.74	<i>1.88</i>	<i>2.94</i>	<i>2.64</i>	<i>1.36</i>	<i>2.09</i>	<i>2.94</i>	2.51	<i>1.72</i>	<i>2.64</i>
Closing.....	1.15	1.71	2.47	1.72	0.74	1.88	<i>2.94</i>	<i>2.64</i>	<i>1.36</i>	<i>2.09</i>	<i>2.94</i>	<i>2.49</i>	1.72	<i>2.64</i>	<i>2.49</i>
Net Withdrawals.....	1.36	-0.56	-0.77	0.75	0.98	-1.14	<i>-1.06</i>	<i>0.31</i>	<i>1.27</i>	<i>-0.73</i>	<i>-0.86</i>	<i>0.46</i>	0.79	<i>-0.92</i>	<i>0.15</i>
Total Supply.....	6.99	4.99	4.93	6.49	6.81	4.65	<i>4.78</i>	<i>6.20</i>	<i>7.11</i>	<i>5.01</i>	<i>4.97</i>	<i>6.45</i>	23.40	<i>22.45</i>	<i>23.53</i>
Balancing Item ^a	-0.10	-0.06	-0.28	-0.43	0.35	-0.03	<i>-0.33</i>	<i>-0.89</i>	<i>0.15</i>	<i>0.00</i>	<i>-0.19</i>	<i>-0.57</i>	-0.86	<i>-0.90</i>	<i>-0.62</i>
Total Primary Supply.....	6.89	4.93	4.65	6.06	7.17	4.62	<i>4.44</i>	<i>5.32</i>	<i>7.25</i>	<i>5.01</i>	<i>4.78</i>	<i>5.87</i>	22.54	<i>21.55</i>	<i>22.91</i>
Demand															
Lease and Plant Fuel.....	0.28	0.28	0.28	0.28	0.28	0.28	<i>0.28</i>	<i>0.29</i>	<i>0.28</i>	<i>0.28</i>	<i>0.28</i>	<i>0.29</i>	1.13	<i>1.13</i>	<i>1.12</i>
Pipeline Use.....	0.20	0.14	0.13	0.17	0.23	0.13	<i>0.14</i>	<i>0.17</i>	<i>0.21</i>	<i>0.14</i>	<i>0.13</i>	<i>0.17</i>	0.64	<i>0.67</i>	<i>0.66</i>
Residential.....	2.19	0.78	0.39	1.63	2.47	0.78	<i>0.38</i>	<i>1.25</i>	<i>2.43</i>	<i>0.85</i>	<i>0.39</i>	<i>1.47</i>	4.99	<i>4.87</i>	<i>5.13</i>
Commercial.....	1.23	0.59	0.44	0.95	1.38	0.64	<i>0.46</i>	<i>0.81</i>	<i>1.38</i>	<i>0.63</i>	<i>0.44</i>	<i>0.89</i>	3.22	<i>3.29</i>	<i>3.33</i>
Industrial (Incl. Nonutility Use).....	2.43	2.30	2.34	2.44	2.34	2.08	<i>2.21</i>	<i>2.30</i>	<i>2.48</i>	<i>2.36</i>	<i>2.55</i>	<i>2.54</i>	9.51	<i>8.93</i>	<i>9.93</i>
Electric Utilities.....	0.56	0.83	1.07	0.58	0.47	0.71	<i>0.98</i>	<i>0.50</i>	<i>0.47</i>	<i>0.75</i>	<i>0.98</i>	<i>0.52</i>	3.04	<i>2.66</i>	<i>2.73</i>
Total Demand.....	6.89	4.93	4.65	6.06	7.17	4.62	<i>4.44</i>	<i>5.32</i>	<i>7.25</i>	<i>5.01</i>	<i>4.78</i>	<i>5.87</i>	22.54	<i>21.55</i>	<i>22.91</i>

^aThe balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.
Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Million Short Tons)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Production	274.3	261.3	270.6	267.4	283.6	278.3	<i>279.8</i>	<i>294.6</i>	<i>274.0</i>	<i>270.8</i>	<i>281.6</i>	<i>296.1</i>	1073.6	<i>1136.4</i>	<i>1122.4</i>
Appalachia	109.7	105.9	101.6	102.2	110.8	109.0	<i>107.3</i>	<i>108.3</i>	<i>105.7</i>	<i>106.4</i>	<i>100.7</i>	<i>108.3</i>	419.4	<i>435.4</i>	<i>421.1</i>
Interior	36.2	35.3	36.9	35.1	37.5	37.0	<i>40.9</i>	<i>38.9</i>	<i>32.6</i>	<i>33.1</i>	<i>35.6</i>	<i>35.7</i>	143.5	<i>154.4</i>	<i>137.1</i>
Western.....	128.5	120.0	132.1	130.1	135.3	132.3	<i>135.5</i>	<i>147.4</i>	<i>135.6</i>	<i>131.3</i>	<i>145.3</i>	<i>152.0</i>	510.7	<i>550.5</i>	<i>564.2</i>
Primary Stock Levels ^a															
Opening.....	39.5	44.4	40.4	37.1	34.2	38.5	<i>41.9</i>	<i>35.5</i>	<i>34.6</i>	<i>33.0</i>	<i>36.9</i>	<i>32.3</i>	39.5	<i>34.2</i>	<i>34.6</i>
Closing.....	44.4	40.4	37.1	34.2	38.5	41.9	<i>35.5</i>	<i>34.6</i>	<i>33.0</i>	<i>36.9</i>	<i>32.3</i>	<i>34.6</i>	34.2	<i>34.6</i>	<i>34.6</i>
Net Withdrawals.....	-4.9	4.0	3.3	2.9	-4.3	-3.4	<i>6.4</i>	<i>0.9</i>	<i>1.6</i>	<i>-3.8</i>	<i>4.6</i>	<i>-2.4</i>	5.3	<i>-0.4</i>	<i>(S)</i>
Imports.....	2.8	2.7	3.6	3.4	3.9	4.1	<i>5.5</i>	<i>4.3</i>	<i>4.8</i>	<i>4.8</i>	<i>4.8</i>	<i>4.9</i>	12.5	<i>17.8</i>	<i>19.3</i>
Exports	13.6	14.4	15.8	14.7	11.8	13.1	<i>12.3</i>	<i>15.1</i>	<i>13.3</i>	<i>13.5</i>	<i>13.7</i>	<i>13.6</i>	58.5	<i>52.4</i>	<i>54.1</i>
Total Net Domestic Supply.....	258.6	253.6	261.6	259.1	271.4	265.9	<i>279.4</i>	<i>284.6</i>	<i>267.1</i>	<i>258.3</i>	<i>277.3</i>	<i>284.9</i>	1032.9	<i>1101.4</i>	<i>1087.6</i>
Secondary Stock Levels ^b															
Opening.....	144.0	141.2	137.2	120.3	108.1	113.9	<i>128.6</i>	<i>114.8</i>	<i>120.3</i>	<i>128.1</i>	<i>131.8</i>	<i>116.1</i>	144.0	<i>108.1</i>	<i>120.3</i>
Closing.....	141.2	137.2	120.3	108.1	113.9	128.6	<i>114.8</i>	<i>120.3</i>	<i>128.1</i>	<i>131.8</i>	<i>116.1</i>	<i>121.1</i>	108.1	<i>120.3</i>	<i>121.1</i>
Net Withdrawals.....	2.9	3.9	16.9	12.2	-5.8	-14.7	<i>13.8</i>	<i>-5.5</i>	<i>-7.8</i>	<i>-3.6</i>	<i>15.7</i>	<i>-5.0</i>	35.9	<i>-12.2</i>	<i>-0.7</i>
Waste Coal Supplied to IPPs ^c	2.5	2.5	2.5	2.5	2.6	2.6	<i>2.6</i>	<i>2.6</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	10.1	<i>10.6</i>	<i>11.1</i>
Total Supply.....	264.0	260.0	281.1	273.8	268.2	253.9	<i>295.8</i>	<i>281.7</i>	<i>262.1</i>	<i>257.4</i>	<i>295.7</i>	<i>282.8</i>	1078.9	<i>1099.7</i>	<i>1098.0</i>
Demand															
Coke Plants.....	7.3	7.4	7.3	6.9	6.8	7.0	<i>6.8</i>	<i>6.3</i>	<i>6.6</i>	<i>6.4</i>	<i>6.6</i>	<i>6.3</i>	28.9	<i>26.9</i>	<i>25.9</i>
Electricity Production															
Electric Utilities.....	214.5	202.6	227.8	214.5	203.9	196.1	<i>228.9</i>	<i>213.8</i>	<i>199.7</i>	<i>199.6</i>	<i>231.9</i>	<i>218.9</i>	859.3	<i>842.8</i>	<i>850.1</i>
Nonutilities (Excl. Cogen.) ^d	25.6	27.6	35.1	35.0	36.7	34.7	<i>40.8</i>	<i>38.5</i>	<i>37.7</i>	<i>35.7</i>	<i>41.5</i>	<i>39.2</i>	123.3	<i>150.6</i>	<i>154.1</i>
Retail and General Industry.....	18.3	16.4	16.8	18.6	17.8	15.4	<i>15.7</i>	<i>18.5</i>	<i>18.1</i>	<i>15.8</i>	<i>15.7</i>	<i>18.4</i>	70.0	<i>67.4</i>	<i>67.9</i>
Total Demand ^e	265.6	254.0	287.0	275.0	265.3	253.2	<i>292.2</i>	<i>277.0</i>	<i>262.1</i>	<i>257.4</i>	<i>295.7</i>	<i>282.8</i>	1081.5	<i>1087.7</i>	<i>1098.0</i>
Discrepancy ^f	-1.6	6.1	-5.9	-1.2	3.0	0.7	<i>3.7</i>	<i>4.7</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	-2.6	<i>12.0</i>	<i>0.0</i>

^aPrimary stocks are held at the mines, preparation plants, and distribution points.^bSecondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.^cEstimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.^dEstimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA).

Quarterly coal consumption estimates for 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).

^eTotal Demand includes estimated IPP consumption.^fThe discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

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

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

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

(Billion Kilowatt-hours)

	2000				2001				2002				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Net Utility Generation															
Coal.....	426.7	402.3	447.1	420.5	399.8	383.2	<i>439.0</i>	<i>399.5</i>	<i>379.3</i>	<i>381.1</i>	<i>441.8</i>	<i>419.0</i>	1696.6	<i>1621.4</i>	<i>1621.2</i>
Petroleum.....	10.9	16.2	23.2	21.8	24.2	21.8	<i>21.0</i>	<i>12.5</i>	<i>16.7</i>	<i>12.2</i>	<i>20.8</i>	<i>10.9</i>	72.2	<i>79.5</i>	<i>60.5</i>
Natural Gas.....	54.5	79.3	100.8	56.1	45.7	69.1	<i>95.1</i>	<i>47.7</i>	<i>45.1</i>	<i>71.4</i>	<i>93.4</i>	<i>49.4</i>	290.7	<i>257.6</i>	<i>259.3</i>
Nuclear.....	185.0	177.4	182.0	161.1	135.8	130.1	<i>139.9</i>	<i>127.1</i>	<i>131.7</i>	<i>122.9</i>	<i>140.1</i>	<i>128.6</i>	705.4	<i>532.9</i>	<i>523.3</i>
Hydroelectric.....	67.1	73.2	57.6	50.3	50.4	50.8	<i>47.0</i>	<i>53.5</i>	<i>65.0</i>	<i>70.5</i>	<i>60.9</i>	<i>61.2</i>	248.2	<i>201.7</i>	<i>257.7</i>
Geothermal and Other ^a	0.6	0.6	0.6	0.5	0.6	0.6	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	<i>0.6</i>	2.2	<i>2.4</i>	<i>2.3</i>
Subtotal.....	744.7	749.0	811.2	710.4	656.5	655.5	<i>742.6</i>	<i>640.9</i>	<i>638.4</i>	<i>658.7</i>	<i>757.6</i>	<i>669.7</i>	3015.4	<i>2695.4</i>	<i>2724.3</i>
Nonutility Generation ^b															
Coal.....	55.4	58.3	79.4	77.9	93.5	81.1	<i>92.4</i>	<i>67.1</i>	<i>95.7</i>	<i>82.9</i>	<i>94.6</i>	<i>68.6</i>	271.1	<i>334.1</i>	<i>341.8</i>
Petroleum.....	8.0	6.6	8.9	13.2	17.0	12.0	<i>12.1</i>	<i>9.2</i>	<i>12.1</i>	<i>7.3</i>	<i>11.1</i>	<i>8.0</i>	36.6	<i>50.3</i>	<i>38.6</i>
Natural Gas.....	65.2	71.8	90.6	78.4	78.4	83.9	<i>110.7</i>	<i>86.2</i>	<i>83.7</i>	<i>88.9</i>	<i>108.9</i>	<i>89.3</i>	305.9	<i>359.2</i>	<i>370.9</i>
Other Gaseous Fuels ^c	3.4	3.7	4.7	4.0	4.0	4.3	<i>5.6</i>	<i>4.7</i>	<i>4.4</i>	<i>4.5</i>	<i>5.5</i>	<i>4.7</i>	15.8	<i>18.7</i>	<i>19.0</i>
Nuclear.....	5.2	5.0	16.7	21.6	56.2	55.3	<i>60.5</i>	<i>57.8</i>	<i>59.9</i>	<i>55.9</i>	<i>63.7</i>	<i>58.4</i>	48.5	<i>229.9</i>	<i>237.9</i>
Hydroelectric.....	6.3	6.7	6.3	5.6	5.3	6.4	<i>4.3</i>	<i>5.9</i>	<i>6.9</i>	<i>9.0</i>	<i>5.6</i>	<i>6.8</i>	24.9	<i>22.0</i>	<i>28.2</i>
Geothermal and Other ^d	20.2	20.1	20.9	20.7	20.4	21.5	<i>22.4</i>	<i>20.6</i>	<i>20.5</i>	<i>21.2</i>	<i>22.4</i>	<i>20.7</i>	81.8	<i>85.0</i>	<i>84.8</i>
Subtotal.....	163.6	172.2	227.5	221.3	275.0	264.5	<i>308.1</i>	<i>251.5</i>	<i>283.1</i>	<i>269.8</i>	<i>311.8</i>	<i>256.6</i>	784.6	<i>1099.2</i>	<i>1121.4</i>
Total Generation.....	908.3	921.2	1038.7	931.7	931.4	920.0	<i>1050.8</i>	<i>892.4</i>	<i>921.5</i>	<i>928.4</i>	<i>1069.4</i>	<i>926.3</i>	3799.9	<i>3794.6</i>	<i>3845.6</i>
Net Imports ^e	9.2	8.7	13.1	4.6	3.8	7.5	<i>12.8</i>	<i>7.9</i>	<i>6.3</i>	<i>7.9</i>	<i>12.3</i>	<i>7.3</i>	35.6	<i>32.1</i>	<i>33.7</i>
Total Supply.....	917.5	929.9	1051.8	936.3	936.4	928.0	<i>1063.6</i>	<i>900.3</i>	<i>927.8</i>	<i>936.3</i>	<i>1081.7</i>	<i>933.6</i>	3835.5	<i>3828.3</i>	<i>3879.3</i>
Losses and Unaccounted for ^f	54.8	70.8	50.7	59.7	39.1	76.6	<i>69.6</i>	<i>58.0</i>	<i>41.5</i>	<i>69.6</i>	<i>66.5</i>	<i>63.0</i>	236.0	<i>243.2</i>	<i>240.6</i>
Demand															
Retail Sales ^g															
Residential.....	291.2	264.1	353.4	284.7	322.0	264.1	<i>355.8</i>	<i>272.4</i>	<i>319.9</i>	<i>281.0</i>	<i>367.7</i>	<i>287.4</i>	1193.4	<i>1214.3</i>	<i>1256.0</i>
Commercial.....	239.5	254.2	291.6	252.7	253.1	264.6	<i>304.0</i>	<i>252.2</i>	<i>252.9</i>	<i>261.7</i>	<i>304.3</i>	<i>258.0</i>	1037.9	<i>1074.0</i>	<i>1076.9</i>
Industrial.....	260.0	267.3	277.4	266.1	248.5	248.9	<i>253.4</i>	<i>247.9</i>	<i>244.0</i>	<i>254.9</i>	<i>265.8</i>	<i>255.4</i>	1070.8	<i>998.8</i>	<i>1020.1</i>
Other.....	26.3	26.9	30.1	27.4	26.4	28.0	<i>31.5</i>	<i>27.1</i>	<i>26.5</i>	<i>26.7</i>	<i>29.9</i>	<i>27.1</i>	110.6	<i>113.0</i>	<i>110.1</i>
Subtotal.....	817.0	812.4	952.5	830.9	850.1	805.6	<i>944.7</i>	<i>799.7</i>	<i>843.2</i>	<i>824.3</i>	<i>967.7</i>	<i>827.9</i>	3412.8	<i>3400.0</i>	<i>3463.1</i>
Nonutility Use/Sales ^h	45.7	46.7	48.6	45.8	47.3	45.8	<i>49.3</i>	<i>42.7</i>	<i>43.1</i>	<i>42.4</i>	<i>47.4</i>	<i>42.6</i>	186.8	<i>185.0</i>	<i>175.6</i>
Total Demand.....	862.7	859.1	1001.1	876.6	897.3	851.4	<i>993.9</i>	<i>842.4</i>	<i>886.3</i>	<i>866.7</i>	<i>1015.2</i>	<i>870.5</i>	3599.5	<i>3585.1</i>	<i>3638.7</i>
Memo:															
Nonutility Sales to															
Electric Utilities ^b	117.9	125.5	178.9	175.5	227.7	218.7	<i>258.9</i>	<i>208.9</i>	<i>240.1</i>	<i>227.3</i>	<i>264.4</i>	<i>214.0</i>	597.8	<i>914.1</i>	<i>945.8</i>

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

^bElectricity (net Generation) from nonutility sources, including cogenerators and small power producers.

^cIncludes refinery still gas and other process or waste gases and liquefied petroleum gases.

^dIncludes geothermal, solar, wind, wood, waste, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

^eData for 2000 are estimates.

^fBalancing item, mainly transmission and distribution losses.

^gTotal 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.

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

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

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

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

	Year				Annual Percentage Change		
	1999	2000	2001	2002	1999-2000	2000-2001	2001-2002
Electric Utilities							
Hydroelectric Power ^a	3.079	2.600	2.113	2.700	-15.6	-18.7	27.8
Geothermal, Solar and Wind Energy ^b	0.036	0.004	0.004	0.004	-88.9	0.0	0.0
Biofuels ^c	0.021	0.021	0.023	0.021	0.0	9.5	-8.7
Total	3.136	2.625	2.140	2.725	-16.3	-18.5	27.3
Nonutility Power Generators							
Hydroelectric Power ^a	0.149	0.257	0.227	0.292	72.5	-11.7	28.6
Geothermal, Solar and Wind Energy ^b	0.335	0.355	0.375	0.380	6.0	5.6	1.3
Biofuels ^c	0.523	0.642	0.655	0.651	22.8	2.0	-0.6
Total.....	1.007	1.254	1.257	1.323	24.5	0.2	5.3
Total Power Generation.....	4.142	3.879	3.397	4.049	-6.3	-12.4	19.2
Other Sectors ^d							
Residential and Commercial ^e	0.553	0.576	0.547	0.577	4.2	-5.0	5.5
Industrial ^f	1.942	2.003	2.008	2.058	3.1	0.2	2.5
Transportation ^g	0.100	0.114	0.116	0.117	14.0	1.8	0.9
Total.....	2.595	2.692	2.671	2.751	3.7	-0.8	3.0
Net Imported Electricity ^h	0.219	0.255	0.230	0.242	16.4	-9.8	5.2
Total Renewable Energy Demand	6.956	6.826	6.297	7.042	-1.9	-7.7	11.8

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

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

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

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

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

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

^gEthanol blended into gasoline.

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

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

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

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	6368	6592	6708	6676	6880	7063	7348	7544	7813	8159	8509	8857	9224	<i>9326</i>	<i>9433</i>
Imported Crude Oil Price ^a (nominal dollars per barrel)	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.22	27.72	<i>21.98</i>	<i>18.69</i>
Petroleum Supply															
Crude Oil Production ^b (million barrels per day)	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	<i>5.84</i>	<i>5.73</i>
Total Petroleum Net Imports (including SPR) (million barrels per day)	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	<i>10.63</i>	<i>10.76</i>
Energy Demand															
World Petroleum (million barrels per day)	64.8	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	75.5	<i>75.7</i>	<i>76.5</i>
U.S. Petroleum (million barrels per day)	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	<i>19.69</i>	<i>19.87</i>
Natural Gas (trillion cubic feet)	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.61	22.54	<i>21.55</i>	<i>22.91</i>
Coal (million short tons).....	877	895	903	899	907	943	950	962	1006	1030	1038	1045	1082	<i>1088</i>	<i>1098</i>
Electricity (billion kilowatthours)															
Retail Sales ^c	2578	2647	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3413	<i>3400</i>	<i>3463</i>
Nonutility Own Use ^d	NA	100	104	111	122	127	141	149	149	149	160	189	187	<i>185</i>	<i>176</i>
Total	2578	2747	2817	2873	2885	2988	3075	3162	3250	3295	3424	3501	3600	<i>3585</i>	<i>3639</i>
Total Energy Demand ^e (quadrillion Btu)	NA	84.2	84.2	84.5	85.6	87.4	89.2	90.9	93.9	94.2	95.2	97.1	99.2	<i>97.9</i>	<i>100.4</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).....	NA	12.77	12.55	12.66	12.44	12.37	12.14	12.07	12.02	11.54	11.19	10.96	10.76	<i>10.49</i>	<i>10.64</i>

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

^bIncludes lease condensate.

^cTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's *Electric Power Monthly* and *Electric Power Annual*. Power marketers' sales for historical periods are reported in EIA's *Electric Sales and Revenue*, Appendix C. Data for 2000 are estimates.

^dDefined 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 comprehensive 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 CONTROL1101.

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

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars)	6368	6592	6708	6676	6880	7063	7348	7544	7813	8159	8509	8857	9224	<i>9326</i>	<i>9433</i>
GDP Implicit Price Deflator (Index, 1996=1.000).....	0.802	0.833	0.865	0.897	0.919	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.070	<i>1.094</i>	<i>1.108</i>
Real Disposable Personal Income (billion chained 1996 Dollars).....	4784	4907	5014	5033	5189	5261	5397	5539	5678	5854	6169	6320	6539	<i>6786</i>	<i>6939</i>
Manufacturing Production (Index, 1996=1.000).....	0.800	0.816	0.812	0.792	0.824	0.854	0.906	0.953	1.000	1.076	1.134	1.188	1.259	<i>1.213</i>	<i>1.193</i>
Real Fixed Investment (billion chained 1996 dollars)	887	911	895	833	886	958	1046	1109	1213	1329	1480	1595	1716	<i>1675</i>	<i>1604</i>
Real Exchange Rate (Index, 1996=1.000).....	NA	NA	0.913	0.915	0.923	0.958	0.938	0.875	0.920	0.990	1.040	1.039	1.076	<i>1.127</i>	<i>1.107</i>
Business Inventory Change (billion chained 1996 dollars)	17.0	14.2	8.9	-6.8	-4.7	3.6	12.1	14.1	10.1	14.8	27.2	13.3	13.1	<i>-28.3</i>	<i>-6.7</i>
Producer Price Index (index, 1982=1.000).....	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.255	1.328	<i>1.347</i>	<i>1.295</i>
Consumer Price Index (index, 1982-1984=1.000)	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.631	1.667	1.723	<i>1.773</i>	<i>1.798</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	<i>0.874</i>	<i>0.696</i>
Non-Farm Employment (millions).....	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	128.9	131.8	<i>132.3</i>	<i>132.3</i>
Commercial Employment (millions).....	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.6	92.1	<i>93.2</i>	<i>94.1</i>
Total Industrial Production (index, 1996=1.000).....	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	<i>1.2</i>	<i>1.2</i>
Housing Stock (millions).....	101.4	102.8	103.4	104.4	105.4	106.7	108.0	109.6	110.9	112.3	114.1	115.7	116.2	<i>117.8</i>	<i>119.3</i>
Weather ^a															
Heating Degree-Days															
U.S.	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	<i>4347</i>	<i>4459</i>
New England.....	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6489	<i>6378</i>	<i>6462</i>
Middle Atlantic	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5774	<i>5481</i>	<i>5698</i>
U.S. Gas-Weighted	4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4684	<i>4542</i>	<i>4710</i>
Cooling Degree-Days (U.S.).....	1283.0	1156.0	1260.0	1331.0	1040.0	1218.0	1220.0	1293.0	1180.0	1156.0	1410.0	1297.0	1229.0	<i>1264.7</i>	<i>1236.7</i>

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*; U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL1101.

Table A3. Annual International Petroleum Supply and Demand Balance
(Millions Barrels per Day, Except OECD Commercial Stocks)

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Demand ^a															
OECD															
U.S. (50 States).....	17.3	17.3	17.0	16.7	17.0	17.2	17.7	17.7	18.3	18.6	18.9	19.5	19.7	19.7	19.9
Europe ^b	13.2	13.3	13.3	14.0	14.2	14.1	14.2	14.8	15.0	15.0	15.3	15.2	15.1	15.2	15.2
Japan.....	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.6	5.5	5.5	5.5
Other OECD.....	4.9	5.2	5.4	5.6	5.9	6.2	6.6	6.8	6.9	7.3	7.1	7.4	7.6	7.6	7.7
Total OECD.....	40.1	40.8	40.8	41.6	42.6	43.0	44.2	45.0	46.1	46.6	46.9	47.7	47.9	48.0	48.4
Non-OECD															
Former Soviet Union.....	8.9	8.7	8.4	8.4	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.7	3.6	3.6	3.6
Europe.....	1.4	1.3	1.0	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8
China.....	2.3	2.4	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.6	4.6	4.7
Other Asia.....	3.7	4.0	4.3	4.5	4.7	5.1	5.5	5.9	6.3	6.6	6.7	6.9	6.9	6.9	7.0
Other Non-OECD.....	8.4	8.6	8.9	8.9	9.3	9.7	10.0	10.4	10.7	11.1	11.4	11.6	11.8	12.0	12.0
Total Non-OECD.....	24.7	25.1	24.9	25.0	24.2	24.0	24.1	24.9	25.3	26.2	26.7	27.3	27.6	27.7	28.1
Total World Demand.....	64.8	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	75.5	75.7	76.5
Supply ^c															
OECD															
U.S. (50 States).....	10.5	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	9.0
Canada.....	2.0	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
Mexico.....	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.5	3.6	3.6
North Sea ^d	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	5.9	5.8	6.0	6.0	6.0	6.0	6.1
Other OECD.....	1.5	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.8	2.1	1.9	2.1	2.1	2.1
Total OECD.....	20.8	20.0	20.2	20.8	21.1	21.2	21.9	22.4	22.7	23.1	23.6	22.9	23.4	23.4	23.8
Non-OECD															
OPEC.....	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.3	30.9	30.2	28.5
Former Soviet Union.....	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.6	8.1	8.8	9.1
China.....	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3	3.4
Other Non-OECD.....	7.3	7.7	7.9	8.1	8.3	8.7	9.1	9.8	10.2	10.4	10.7	11.2	11.2	11.2	11.5
Total Non-OECD.....	44.0	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	52.5
Total World Supply.....	64.8	65.9	66.8	66.7	67.0	67.4	68.2	69.9	71.4	73.7	75.2	74.2	76.8	76.9	76.3
Total Stock Withdrawals.....	-2.8	0.0	-0.8	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.2	-1.3	0.8	-1.3	-1.2	0.2
OECD Comm. Stocks, End (bill. bbls.).....	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.5	2.5	2.7	2.6
Net Exports from Former Soviet Union.....	3.6	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

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

^bOECD Europe includes the former East Germany.

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table A4. Annual Average U. S. Energy Prices

(Nominal Dollars)

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.22	27.72	21.98	18.69
WTI ^b Spot Average.....	15.98	19.78	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.87	21.79
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.95	2.17	3.60	4.09	1.96
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades	0.92	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	1.28
Regular Unleaded.....	0.91	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	1.25
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	0.92	0.99	1.16	1.13	1.11	1.11	1.11	1.11	1.24	1.20	1.04	1.12	1.49	1.41	1.27
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.51	0.89	0.75	0.62
No. 2 Heating Oil, Retail															
(dollars per gallon).....	0.81	0.90	1.06	1.02	0.93	0.91	0.88	0.87	0.99	0.99	0.85	0.88	1.31	1.24	1.05
No. 6 Residual Fuel Oil, Retail ^c															
(dollars per barrel)	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.56	19.76
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.22	1.18
Heavy Fuel Oil ^d															
(dollars per million Btu).....	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.26	3.79	3.19
Natural Gas															
(dollars per million Btu).....	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.33	4.47	2.54
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.73	9.46	6.73
Electricity															
(cents per kilowatthour)	7.49	7.64	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.23	8.42	8.25

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

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

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

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

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

(Million Barrels per Day, Except Closing Stocks)

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Crude Oil Supply															
Domestic Production ^a	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.84	5.73
Alaska	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.98	0.95
Lower 48	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.86	4.79
Net Imports (including SPR) ^b	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.60	8.61	9.02	9.09	9.43
Other SPR Supply	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.12
Stock Draw (Including SPR)	0.00	-0.09	0.02	-0.01	0.00	-0.08	-0.02	0.09	0.05	-0.06	-0.07	0.09	-0.01	-0.04	0.00
Product Supplied and Losses	-0.04	-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
Unaccounted-for Crude Oil	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.26	0.21
Total Crude Oil Supply	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.14	15.27
Other Supply															
NGL Production	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.86	1.93
Other Inputs	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.39	0.42
Crude Oil Product Supplied	0.04	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
Processing Gain	0.66	0.66	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.92	0.92
Net Product Imports ^c	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.54	1.33
Product Stock Withdrawn	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.15	0.01
Total Supply	17.33	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.70	19.87
Demand															
Motor Gasoline ^d	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.62	8.80
Jet Fuel	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.67	1.69
Distillate Fuel Oil	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.84	3.75
Residual Fuel Oil	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.96	0.81
Other Oils ^e	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.60	4.82
Total Demand	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.69	19.87
Total Petroleum Net Imports	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.63	10.76
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	330	341	323	325	318	335	337	303	284	305	324	284	286	299	297
Total Motor Gasoline	228	213	220	219	216	226	215	202	195	210	216	193	196	212	208
Jet Fuel	44	41	52	49	43	40	47	40	40	44	45	41	45	41	41
Distillate Fuel Oil	124	106	132	144	141	141	145	130	127	138	156	125	118	135	136
Residual Fuel Oil	45	44	49	50	43	44	42	37	46	40	45	36	36	39	39
Other Oils	267	257	261	267	263	273	275	258	250	259	291	246	247	270	271

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

Special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's *Petroleum Supply Monthly*, Table C1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109, and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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

(Trillion Cubic Feet)

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Total Dry Gas Production	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	18.71	18.83	18.99	<i>19.49</i>	<i>19.49</i>
Net Imports	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	<i>3.77</i>	<i>3.77</i>
Supplemental Gaseous Fuels.....	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.09	<i>0.10</i>	<i>0.12</i>
Total New Supply	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.75	21.84	21.80	22.35	22.61	<i>23.37</i>	<i>23.38</i>
Working Gas in Storage															
Opening.....	2.76	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.51	<i>1.72</i>	<i>2.64</i>
Closing.....	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.51	1.72	<i>2.64</i>	<i>2.49</i>
Net Withdrawals.....	-0.09	0.34	-0.56	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.22	0.79	<i>-0.92</i>	<i>0.15</i>
Total Supply.....	18.33	19.03	18.82	19.70	20.11	20.70	21.11	21.85	21.73	21.84	21.25	22.57	23.40	<i>22.45</i>	<i>23.53</i>
Balancing Item ^a	-0.30	-0.23	-0.11	-0.66	-0.56	-0.42	-0.40	-0.27	0.24	0.11	0.01	-0.96	-0.86	<i>-0.90</i>	<i>-0.62</i>
Total Primary Supply.....	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.61	22.54	<i>21.55</i>	<i>22.91</i>
Demand															
Lease and Plant Fuel.....	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.16	1.08	1.13	<i>1.13</i>	<i>1.12</i>
Pipeline Use.....	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	<i>0.67</i>	<i>0.66</i>
Residential.....	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	<i>4.87</i>	<i>5.13</i>
Commercial.....	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	<i>3.29</i>	<i>3.33</i>
Industrial (Incl. Nonutilities).....	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	8.69	9.01	9.51	<i>8.93</i>	<i>9.93</i>
Electric Utilities.....	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.11	3.04	<i>2.66</i>	<i>2.73</i>
Total Demand.....	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.61	22.54	<i>21.55</i>	<i>22.91</i>

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

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

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

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

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Production.....	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	<i>1136.4</i>	<i>1122.4</i>
Appalachia.....	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	<i>435.4</i>	<i>421.1</i>
Interior.....	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	<i>154.4</i>	<i>137.1</i>
Western.....	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	<i>550.5</i>	<i>564.2</i>
Primary Stock Levels ^a															
Opening.....	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	<i>34.2</i>	<i>34.6</i>
Closing.....	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	34.2	<i>34.6</i>	<i>34.6</i>
Net Withdrawals.....	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	5.3	<i>-0.4</i>	<i>S</i>
Imports.....	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	<i>17.8</i>	<i>19.3</i>
Exports.....	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	<i>52.4</i>	<i>54.1</i>
Total Net Domestic Supply.....	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1032.9	<i>1101.4</i>	<i>1087.6</i>
Secondary Stock Levels ^b															
Opening.....	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	<i>108.1</i>	<i>120.3</i>
Closing.....	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	<i>120.3</i>	<i>121.1</i>
Net Withdrawals.....	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.0	-14.6	35.9	<i>-12.2</i>	<i>-0.7</i>
Waste Coal Supplied to IPPs ^c	0.0	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	<i>10.6</i>	<i>11.1</i>
Total Supply.....	882.3	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.6	1043.1	1078.9	<i>1099.7</i>	<i>1098.0</i>
Demand															
Coke Plants.....	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	<i>26.9</i>	<i>25.9</i>
Electricity Production															
Electric Utilities.....	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	894.1	859.3	<i>842.8</i>	<i>850.1</i>
Nonutilities (Excl. CoGen.) ^d	NA	5.7	7.4	11.4	15.0	17.5	19.9	21.2	22.2	21.6	26.9	52.7	123.3	<i>150.6</i>	<i>154.1</i>
Retail and General Industry.....	76.3	82.3	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	70.0	<i>67.4</i>	<i>67.9</i>
Total Demand ^e	876.5	895.4	902.9	899.1	907.4	943.5	950.1	962.0	1006.3	1030.1	1038.3	1044.5	1081.5	<i>1087.7</i>	<i>1098.0</i>
Discrepancy ^f	5.8	1.1	-3.5	-7.7	0.5	-7.0	3.9	-1.6	0.4	3.1	-6.7	-1.5	-2.6	<i>12.0</i>	<i>0.0</i>

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

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

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

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

^eTotal Demand includes estimated IPP consumption.

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

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

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

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

	Year														
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Net Utility Generation															
Coal.....	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1787.8	1807.5	1767.7	1696.6	<i>1621.4</i>	<i>1621.2</i>
Petroleum.....	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	77.8	110.2	86.9	72.2	<i>79.5</i>	<i>60.5</i>
Natural Gas.....	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	283.6	309.2	296.4	290.7	<i>257.6</i>	<i>259.3</i>
Nuclear.....	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	725.0	705.4	<i>532.9</i>	<i>523.3</i>
Hydroelectric.....	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	304.4	293.9	248.2	<i>201.7</i>	<i>257.7</i>
Geothermal and Other ^a	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.2	3.7	2.2	<i>2.4</i>	<i>2.3</i>
Subtotal.....	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3173.7	3015.4	<i>2695.4</i>	<i>2724.3</i>
Nonutility Generation ^b	NA	187.6	216.7	246.3	286.1	314.4	343.1	363.3	369.6	371.7	405.7	530.9	784.6	<i>1099.2</i>	<i>1121.4</i>
Total Generation.....	2704.3	2971.9	3024.9	3071.3	3083.4	3196.9	3253.8	3357.8	3447.0	3494.2	3617.9	3704.5	3799.9	<i>3794.6</i>	<i>3845.6</i>
Net Imports ^c	31.8	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	30.6	35.6	<i>32.1</i>	<i>33.7</i>
Total Supply.....	2736.0	2982.8	3027.2	3091.0	3108.8	3198.0	3298.6	3397.1	3485.0	3530.8	3645.5	3735.1	3835.5	<i>3828.3</i>	<i>3879.3</i>
Losses and Unaccounted for ^d	NA	<i>NA</i>	<i>NA</i>												
Demand															
Retail Sales ^e															
Residential.....	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1193.4	<i>1214.3</i>	<i>1256.0</i>
Commercial.....	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1037.9	<i>1074.0</i>	<i>1076.9</i>
Industrial.....	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1070.8	<i>998.8</i>	<i>1020.1</i>
Other.....	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	110.6	<i>113.0</i>	<i>110.1</i>
Subtotal.....	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3412.8	<i>3400.0</i>	<i>3463.1</i>
Nonutility Use/Sales ^f	NA	100.4	104.2	111.0	121.8	126.9	140.9	149.2	148.9	149.0	159.8	188.8	186.8	<i>185.0</i>	<i>175.6</i>
Total Demand.....	2578.1	2747.2	2816.7	2873.0	2885.1	2988.4	3075.5	3162.4	3250.1	3294.6	3424.0	3500.9	3599.5	<i>3585.1</i>	<i>3638.7</i>
Memo:															
Nonutility Sales															
to Electric Utilities.....	NA	87.1	112.5	135.3	164.4	187.5	202.2	214.2	220.6	222.7	245.9	342.0	597.8	<i>914.1</i>	<i>945.8</i>

^aOther includes generation from wind, wood, waste, and solar sources.

^bNet generation.

^cData for 2000 are estimates.

^dBalancing item, mainly transmission and distribution losses.

^eTotal 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.

^fDefined 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.