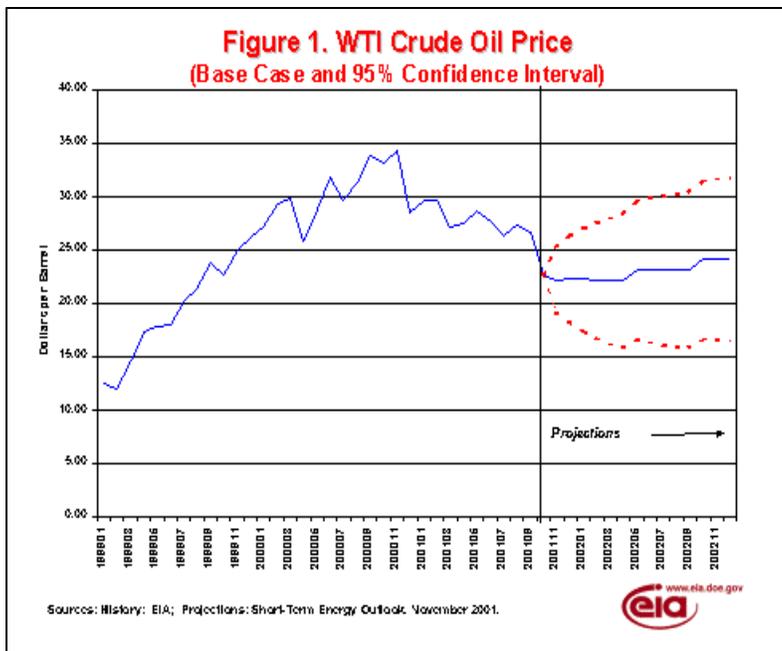


Short-Term Energy Outlook

November 2001



Overview

The precarious worldwide economic situation has generally dampened expectations for strong energy demand growth in the near term. Energy prices have (with the exception of natural gas) drifted lower over the last month. We expect monthly average crude oil prices to stabilize near current levels until next spring with some upward drift in the second half of 2002 if U.S. and world oil demand growth recovers.

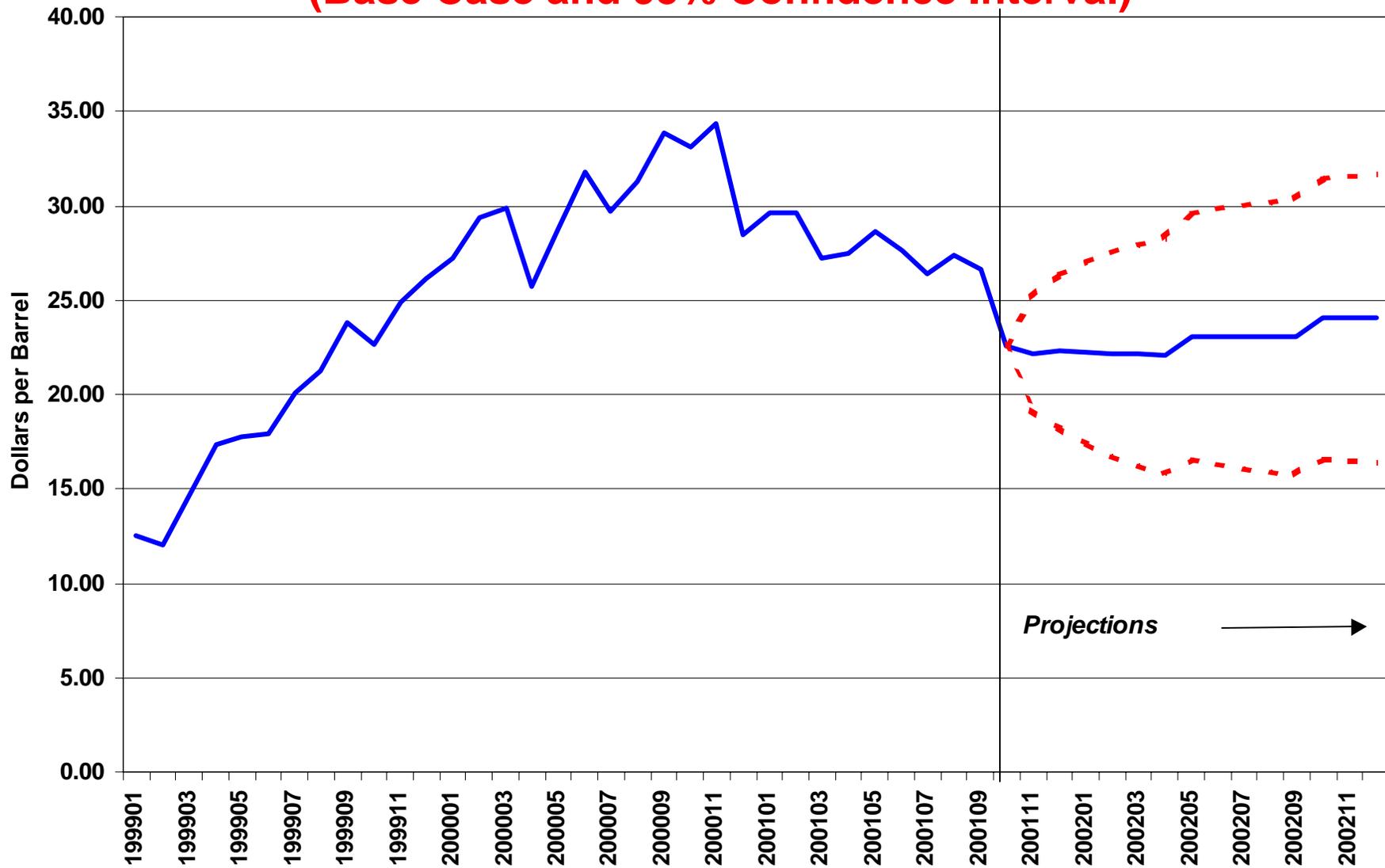
World Oil Markets. The West Texas Intermediate (WTI) crude oil spot price averaged \$22.60 per barrel in October, \$4 below the September average and nearly \$11 below the estimated average for October 2000 (Figure 1).

Although we believe that the downward momentum of oil prices (enhanced lately by weakening world oil demand) is likely to be arrested by efforts by OPEC to restrain output, average prices are expected to be about \$2 per barrel lower through the forecast period than anticipated last month. World oil demand is now expected to average 75.7 million barrels per day in 2001, up only 400,000 barrels per day from the revised 2000 average of 75.3 million barrels per day. Demand growth in 2002 is currently expected to be about 800,000 barrels per day, slightly less growth than anticipated in last month's Outlook. Commercial oil stocks in OECD countries are expected to fall well within the average range throughout the forecast.

U.S. Natural Gas Markets. U.S. natural gas spot prices, having fallen to lows near \$1.90 per thousand cubic feet (mcf) during the first week of October, have rallied to above \$3 in late October and early November. Relatively low storage injections in recent weeks, steady reductions in drilling activity since July and intimations about below-normal temperatures this fall from the Weather Service have apparently engendered a generally bullish sentiment among gas market participants. It is our view that, assuming normal weather and taking into account the very weak condition of the U.S. industrial manufacturing sector, fundamental rationale for prices above \$3 per mcf is lacking. Therefore, we believe that some correction is likely and that prices over the next 5 months should remain in the \$2-\$3 range, with prices easing toward the lower end of that range during the off-season in 2002. Continued steady reductions in drilling effort, however, are likely to produce conditions favorable to substantial strengthening of natural gas prices going into 2003, especially if the U.S. economy stages a solid economic recovery beginning by mid 2002.

Home Heating Costs Update. Some rearrangement of relative price expectations since last month has shifted the winter home heating cost calculations slightly. In terms of total winter (October-March) 2001-2002 heating expenditures for households, the updated breakdown is as follows (Figure 2): Natural Gas: \$626, down 32 percent from last winter; Heating Oil: \$786, down 21 percent from year ago; Propane: \$1,002,

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



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



Figure 2. Illustrative Winter Consumer Prices* and 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	89.7
Avg. Price (\$/mcf)	6.29	6.67	9.49	6.98
Expenditures (\$)	532	545	923	626
Heating Oil (Northeast)				
Consumption (gals)	650	644	727	678
Avg. Price (\$/gal)	0.80	1.18	1.37	1.16
Expenditures (\$)	520	760	996	786
Propane (Midwest)				
Consumption (gals)	835	807	961	886
Avg. Price (\$/gal)	0.85	1.02	1.36	1.13
Expenditures (\$)	710	825	1,309	1,002

* National average prices.

** Based on typical per-household consumption by region.

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



down 23% from 2000-2001. In the important case of electric-heated homes, relatively little change is expected for the national average, as power requirements for heating should fall slightly while average residential electricity prices are expected to rise by about 2 percent.

International Oil Markets

Crude Oil Prices. World oil prices fell on average by \$4-\$5 per barrel in October, depending upon the particular oil price being tracked. The U.S. average imported crude oil price in October was estimated at \$19 per barrel, while the U.S. benchmark West Texas Intermediate crude oil price fell by \$4 per barrel in "October to about \$22 per barrel ([Figure 1](#)). The OPEC "basket price", which generally tracks closely with the average imported crude oil price, averaged about \$19.50 per barrel. World oil prices are expected to firm in the fourth quarter with the onset of seasonal increases in world oil demand and expected OPEC production quota reduction.

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. EIA estimates that OPEC overproduced by 900,00 barrels per day in October. Statements by OPEC that compliance with existing quotas has been improving have been insufficient to prevent prices from sliding. As a result, EIA's Outlook assumes that OPEC will agree to some sort of production cut when they meet this month to reassure markets and reduce supply. History suggests that OPEC generally achieves 60% - 70% of its agreed quota reductions in the months following the decision to cut, and EIA's Outlook assumes a real production cut of over 600,000 barrels per day, consistent with a quota cut of about 1 million barrels per day. It is assumed that OPEC will make a further cut in output in spring of 2002.

OPEC has requested that non-OPEC members join in its efforts to support world oil prices by cutting back on production. However, two key countries - Mexico and Norway - have indicated that they would not be cutting back, while Russia has indicated that it would support OPEC when it determined that it was in its own national interests. As a result, EIA's Outlook assumes that, while there may be some public statements of support from non-OPEC members, no substantial cutbacks from non-OPEC members will occur.

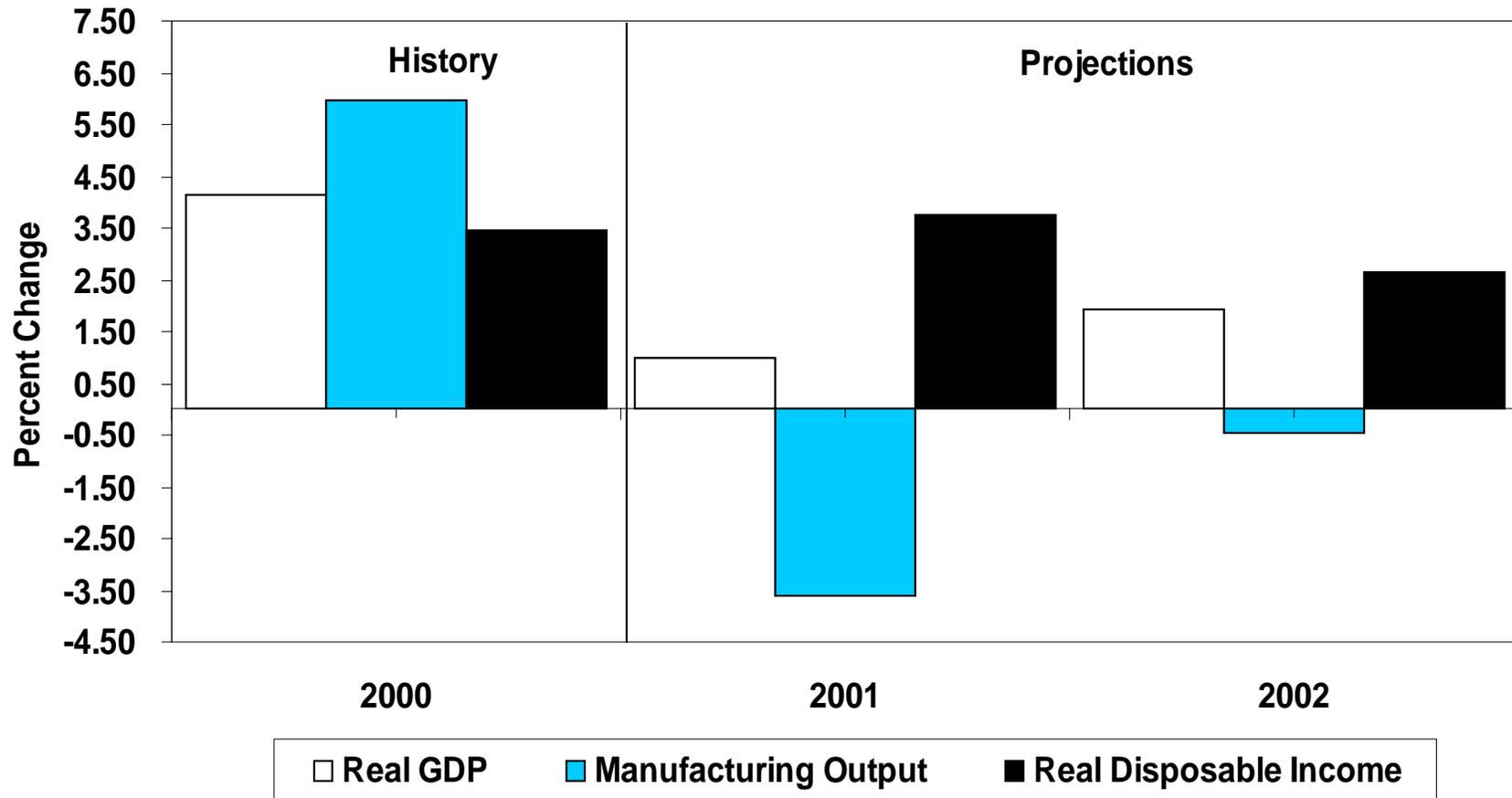
Non-OPEC production is expected to increase by about 1.1 million barrels per day in 2002, greater than the projected growth in demand. Russian oil production is expected to rise again as well workovers continue, although the projected growth of 300,000 barrels per day is less than the 500,000 barrels per day growth seen in 2001. Other large production increases are expected to result from new developments in Angola and Canada. As a result, the call on OPEC oil is expected to decline.

International Oil Demand. Economic forecasts for the United States, viewed as the engine for global economic and oil market growth, have been revised downwards again ([Figure 3](#)). As a result, global economic and oil market projections have been lowered. EIA's global oil demand growth projections for 2002 declined to 800,000 barrels per day, down from 1 million barrels per day in its previous Outlook ([Figure 4](#)).

The Outlook assumes that global jet fuel demand will decline by 10 percent during fourth quarter 2001. Following the initial stages of the terrorist crisis, commercial jet fuel use is projected to recover somewhat, with global jet fuel demand down by roughly 5 percent in 2002.

World Oil Inventories. OECD commercial oil stocks rose in August and September to the middle of their normal range, ending about 70 million barrels higher than last year's extremely low levels. The recent high level of OPEC above quota production, as well as the further decline in world oil demand following the events of September 11, are expected to result in continued increases in inventory levels relative to historical norms during fourth quarter 2001. With the expected cutbacks in OPEC production and seasonal

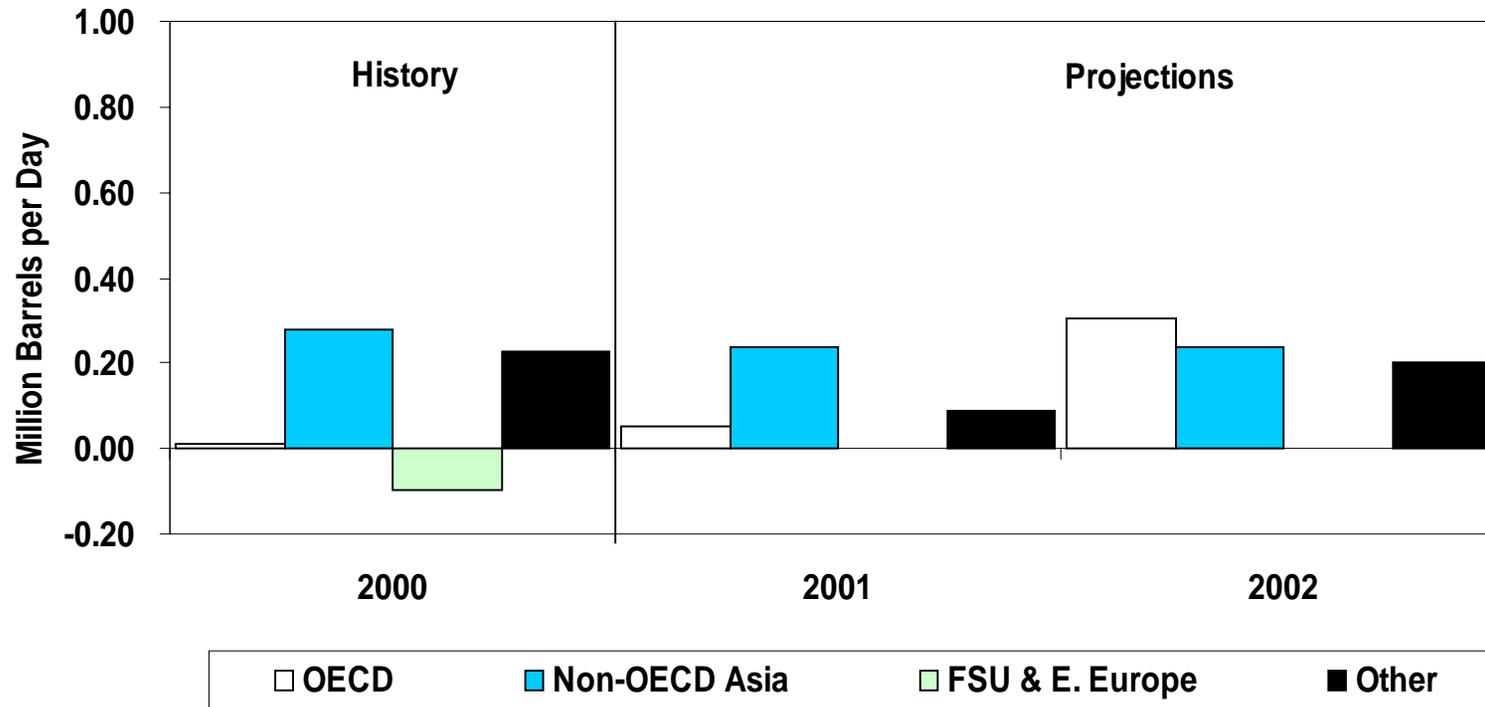
Figure 3. Macroeconomic Indicators



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



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



* FSU = Former Soviet Union

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



increases in oil demand, OECD commercial stocks are projected to move back through the middle of their historical range by mid-2002, and slide toward the lower end of the range toward the end of 2002 ([Figure 5](#)).

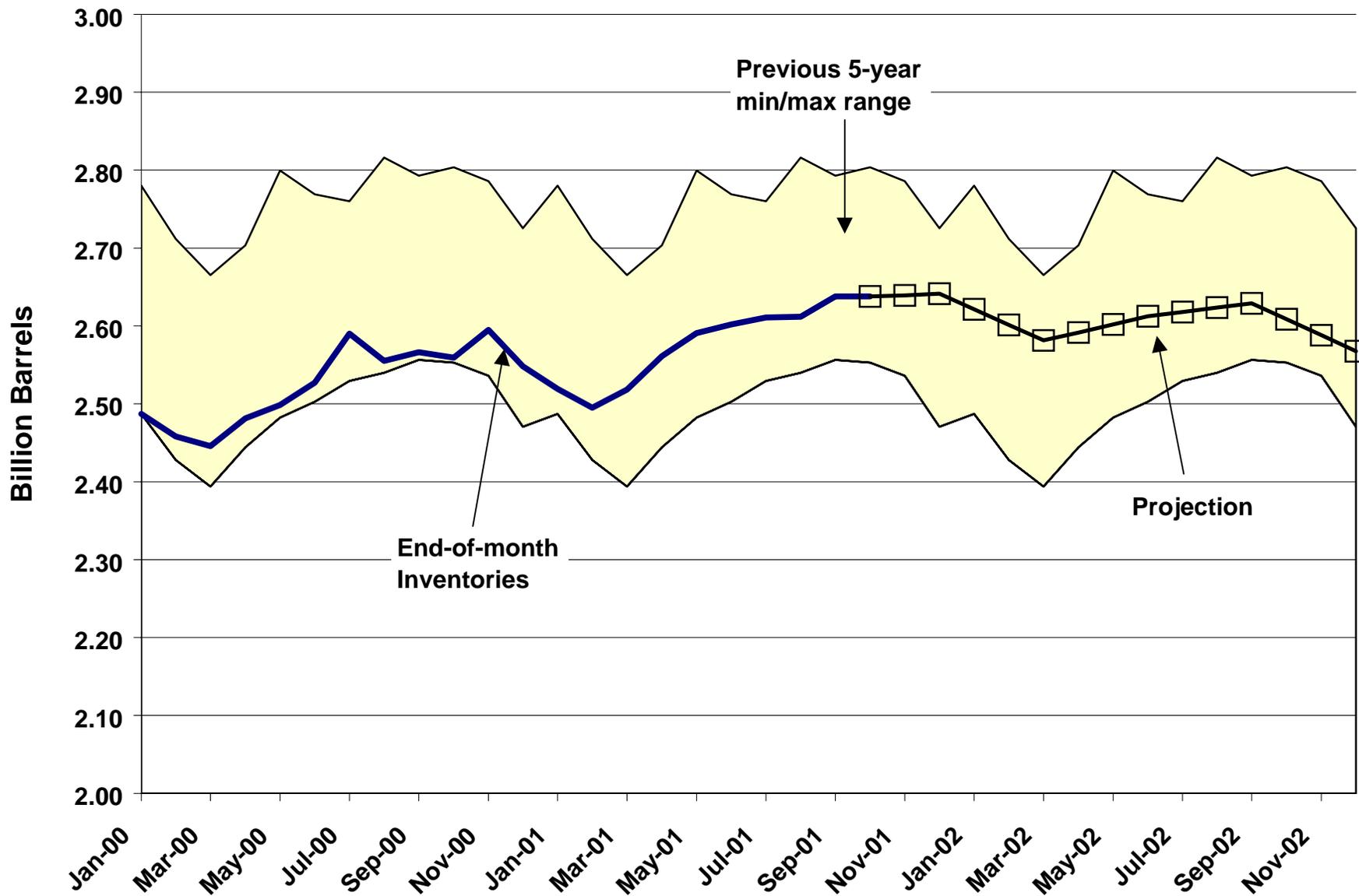
U. S. Energy Prices

Gasoline Prices: Retail motor gasoline prices have fallen 6 weeks in a row since September 17. The pump price of regular gasoline averaged about \$1.53 per gallon in the period immediately preceding and after the terrorist attack of September 11. Since then, the price of gasoline has dropped an average of 29 cents per gallon. From September to October, the average monthly price fell by 20 cents per gallon ([Figure 6](#)). About 12 cents of this loss can be attributed to the drop in crude oil prices that transpired over the same period. An additional portion can be explained by the normal seasonal price dip that occurs with the end of the summer driving season. Finally, we are seeing the effects of rising gasoline inventories ([Figure 7](#)) and a slowing economy on refiner spreads (the difference between refiner price of gasoline and the price of crude oil). These spreads, which were fairly robust until recently, are starting to ease. With lower crude oil prices and a slowing economy, we expect prices to continue their decline through December, ending the year at \$1.15 per gallon. However, by next spring, prices should commence their usual seasonal rebound as the driving season begins. Assuming our base crude oil price paths holds without major production problems or other disruptions, we can expect to see pump prices gain about 22 cents per gallon from December to next June. Much of this gain will be due to the increase in gasoline demand that occurs during the driving season. An estimated additional 4-5 cents per gallon price increase will be the result of the seasonal transition to reformulated gasoline. Nevertheless, assuming no major gasoline supply problems the projected retail price of gasoline during the next driving season is expected to be about 20 cents per gallon lower than last year's driving season prices.

Distillate Fuel Oil (Diesel and Heating Oil): Diesel fuel oil prices, like the price of gasoline, have also tumbled from September to October, falling by an average of 15 cents per gallon ([Figure 8](#)). Many of the same conditions that have lowered gasoline prices, namely lower crude costs and a relatively weak economy, have also lowered the price of the distillate fuels. Compared to the last winter, diesel prices are projected to be about 25 cents per gallon lower. Home heating oil prices are projected to be 21 cents per gallon lower during this quarter compared to the fourth quarter of last year. Much of this is due to the fact that U.S. crude oil costs are expected to be much lower this winter--around \$7.70 per barrel (about 30 percent) less than a year ago. Normally, around this time of year, diesel prices rise as overall demand for total distillate fuel oil increases during the heating season. However, with these reduced crude oil prices, an economic decline along with adequate distillate inventories, diesel prices are projected to dip over the next few months.

The first month (October) of the heating season has been completed with distillate stocks 11 million barrels above last year's levels ([Figure 9](#)). Most of this year-to-year gain has occurred on the East Coast, where 75 percent of the nation's residential heating oil is consumed. By the end of November, when distillate stocks normally peak, we expect total U.S. inventories to be over 132 million barrels, a number that lies within the "normal" range and is about 10 percent above last year's level. (However, this is still about 3 percent below 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 and above average inventories of natural gas will tend to keep pressure on distillate markets from fuel-switching activity to a minimum. Last winter, very high natural gas prices resulted in significant fuel switching, which caused upward pressure on all distillate product prices.

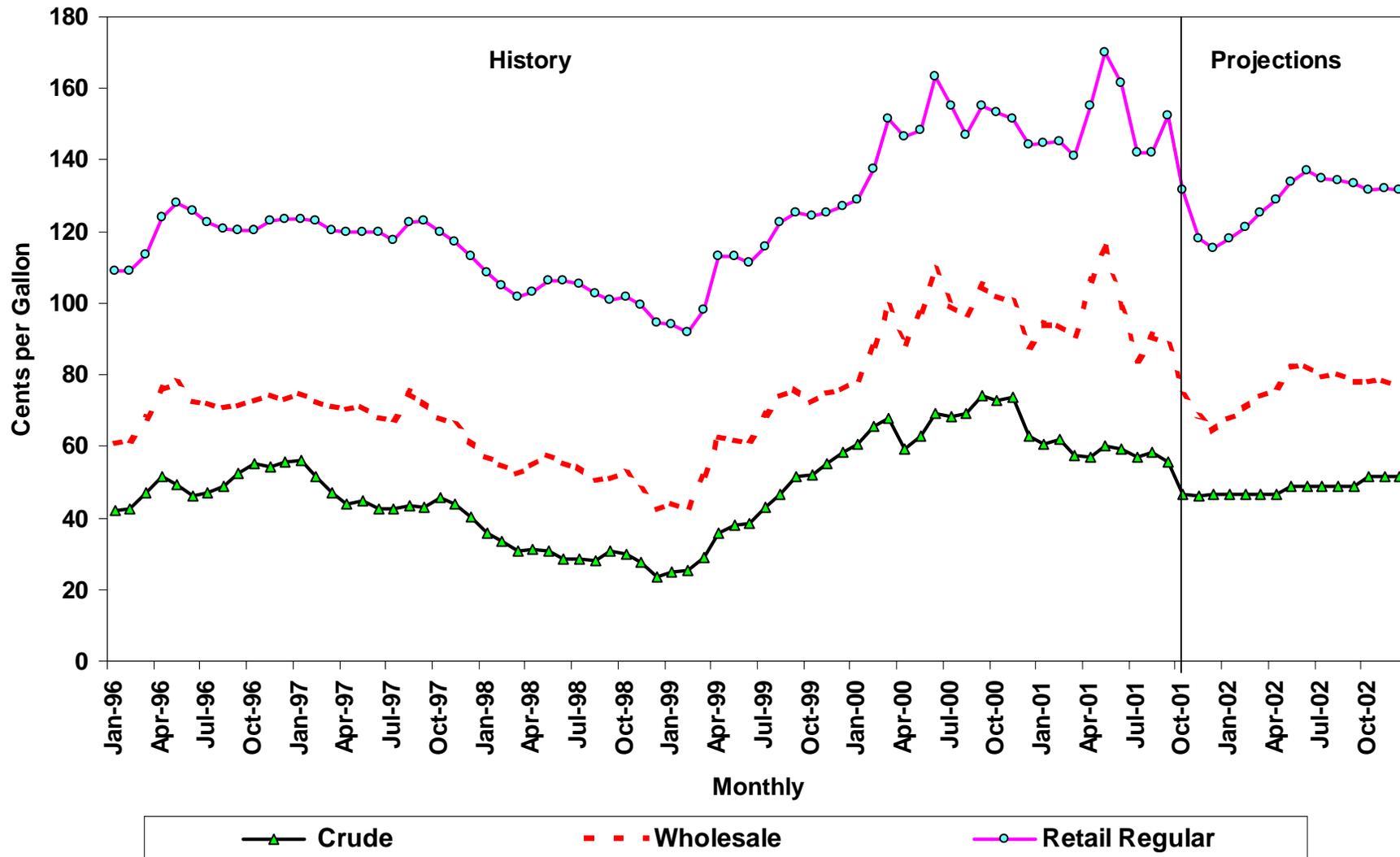
Figure 5. OECD Commercial Oil Stocks



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

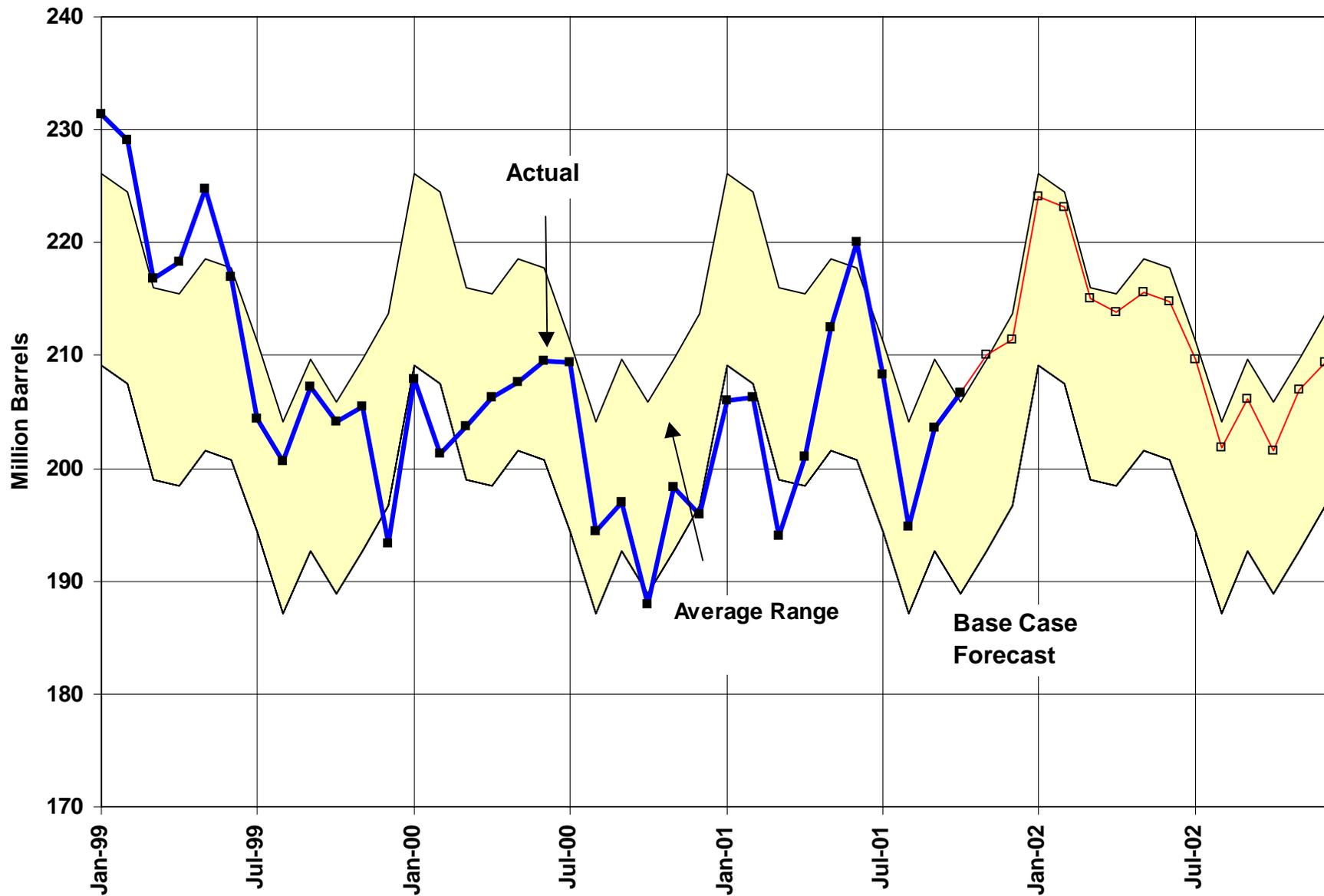


Figure 6. Motor Gasoline Prices



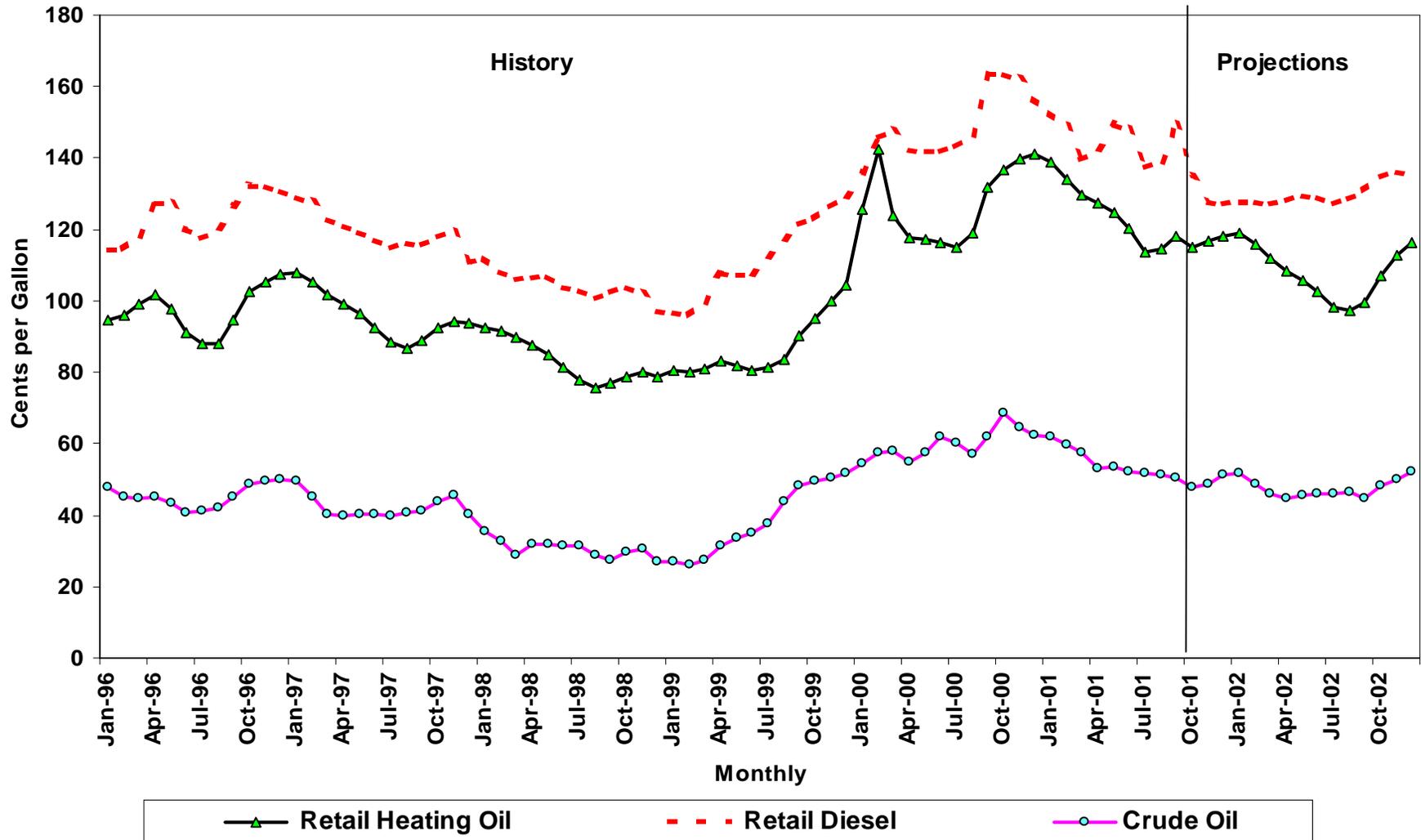
Sources: History: EIA; Projections: Short-Term Energy Outlook November 2001.

Figure 7. U.S. Gasoline Inventories



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

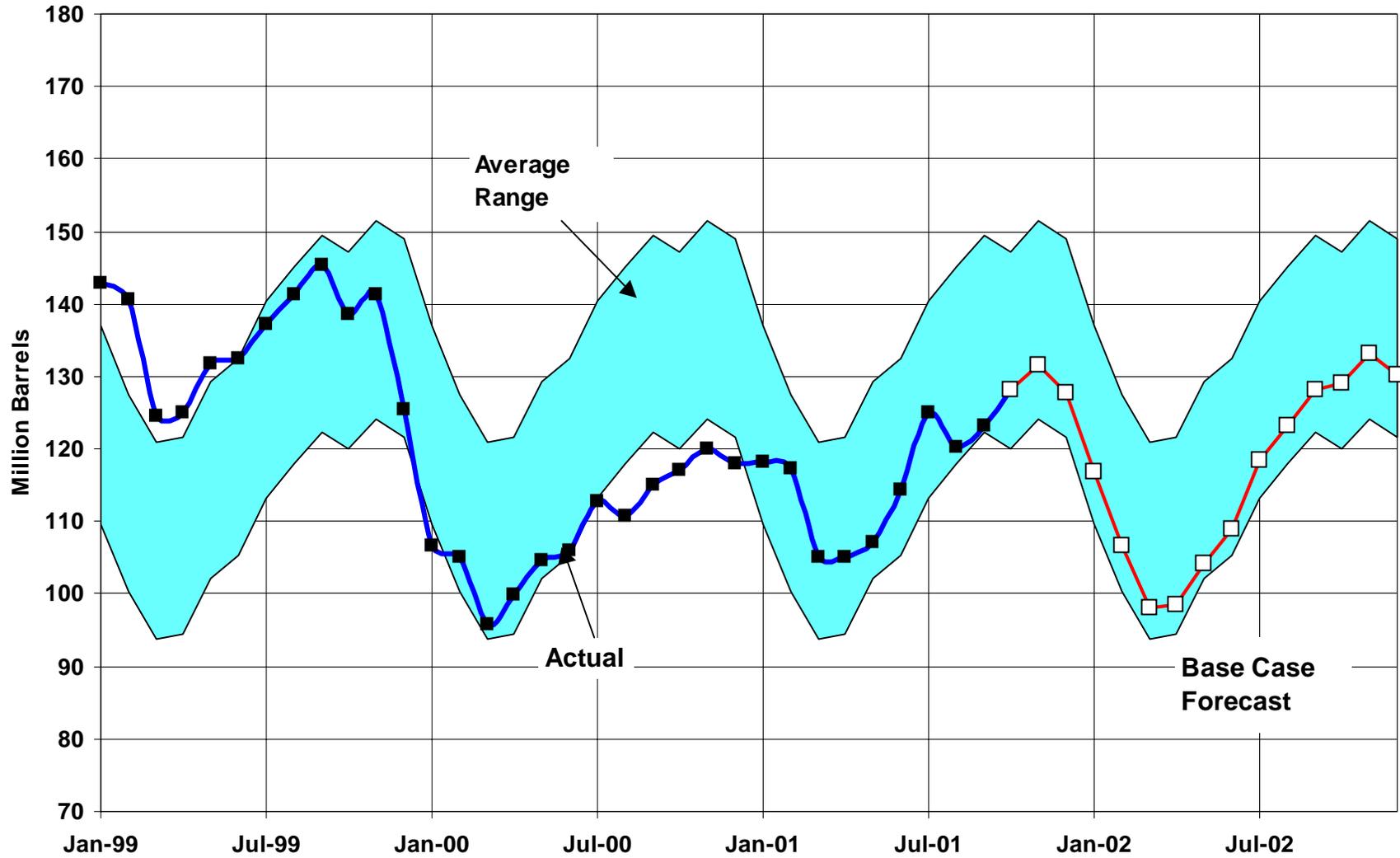
Figure 8. Distillate Fuel Prices



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



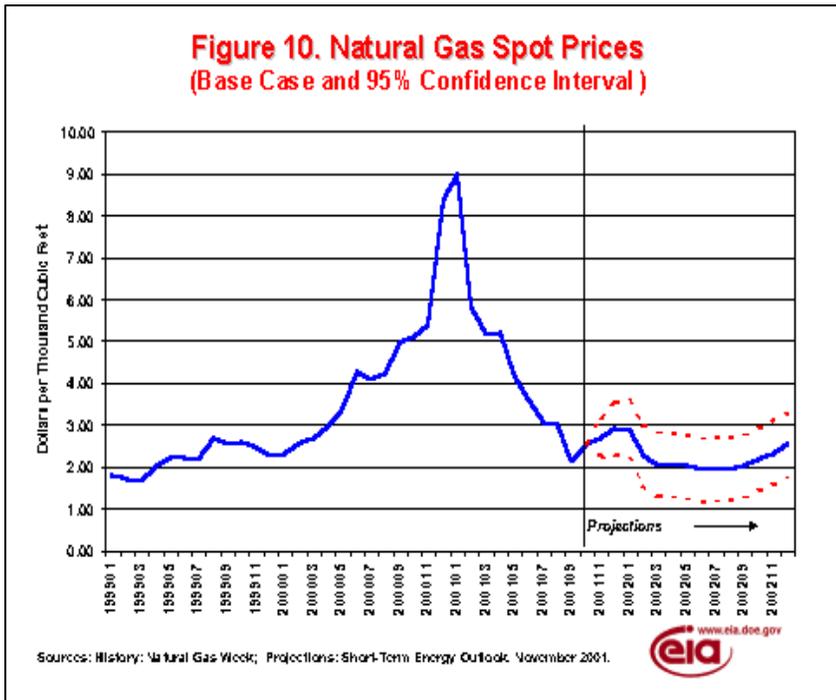
Figure 9. Distillate Fuel Inventories



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



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

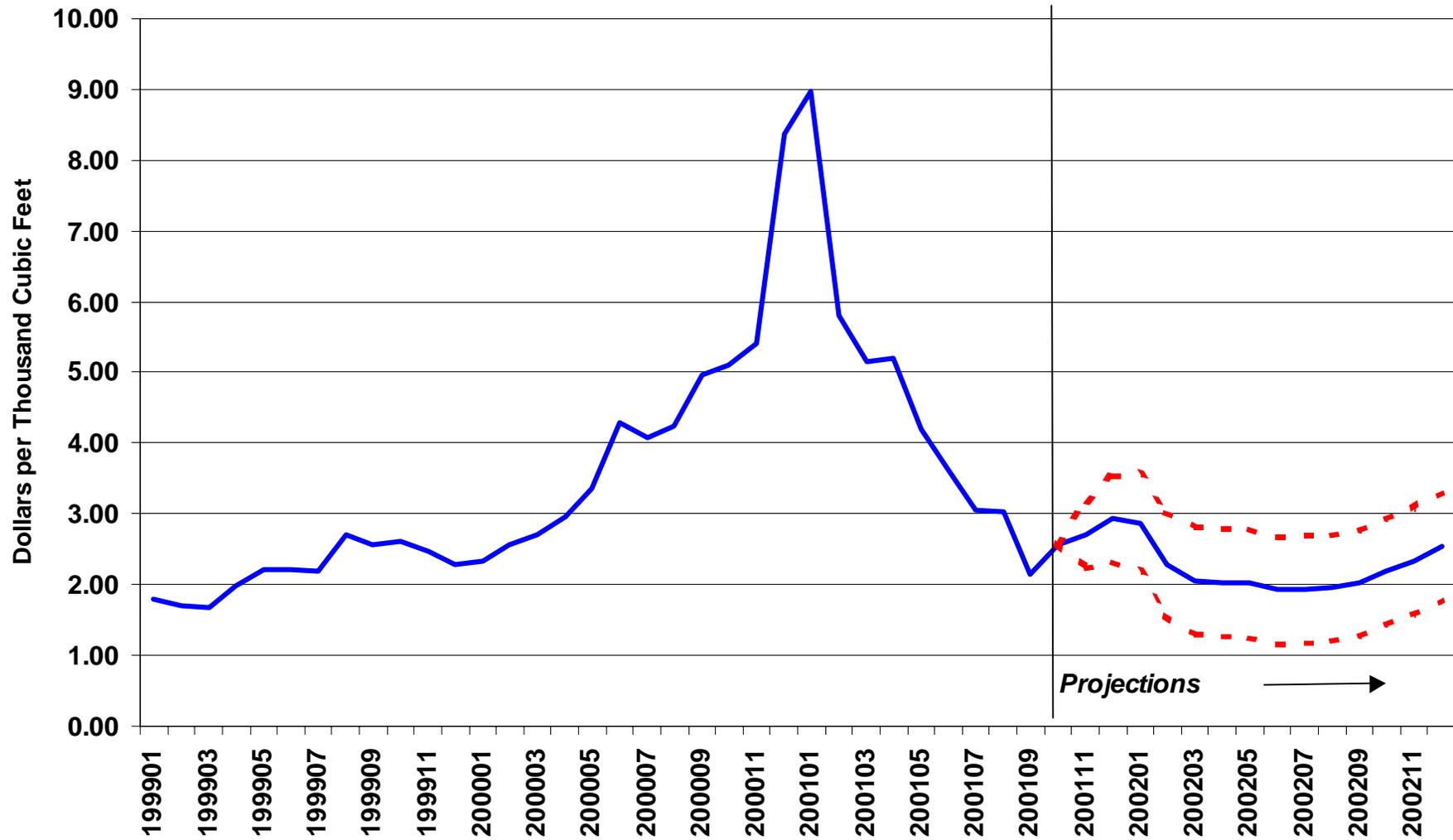


Natural Gas: Several weeks ago, for the first time since the spring of 1999, the spot price of natural gas actually dropped below \$2.00 per thousand cubic feet. A weakening economy, moderate summer weather, ample underground natural gas storage, and low world oil prices have all led to conditions that reduce natural gas prices. Interestingly, the spot prices have recently risen to over \$3.00 per thousand cubic feet. Concern within the industry about possible lagging production, coupled with regional spells of cold weather and perhaps a general skittishness that resulted from the terrorist attacks in September, have caused uncertainty and price volatility within the spot and futures natural gas markets. However, the fundamentals

are simply not there for a significant sustained rebound in prices, as indicated by prices bid in the recent futures market. Although our current price projection for natural gas is a little higher than our previous month's projection, we continue to believe that natural gas wellhead prices will generally stay below \$3.00 per thousand cubic feet through 2002 (Figure 10). These relatively low natural gas prices should persist throughout the forecast period due to weak industrial demand and relatively high inventories that are likely to continue throughout the winter, assuming normal weather and barring any major supply disruptions. At the end of October, working gas in underground storage is estimated to have been about 17 percent above last year's level. This year-to-year percent difference is projected to grow (again, assuming normal weather) throughout the heating season. By the end of February 2002, working gas in underground storage is projected to be over 60 percent above the level experienced last February. Wellhead prices this winter are still projected to be less than half the price they were last winter. The average for 2001 is now projected to be about \$4.16 per thousand cubic feet. In 2002, we expect inventories to remain at relatively high levels and, therefore, we expect the average annual wellhead price to about \$2.20 per thousand cubic feet.

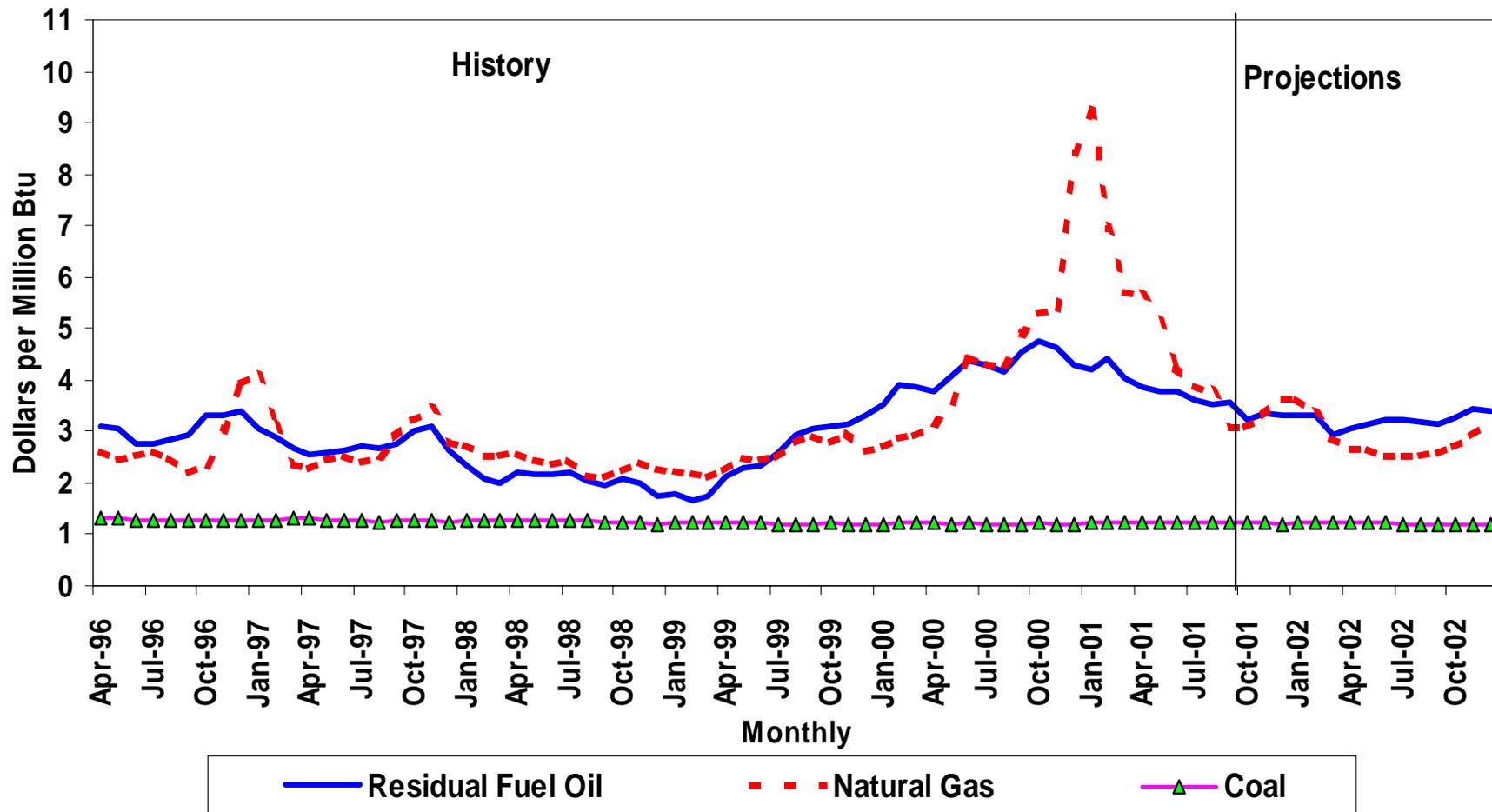
Electric Utility Fuels: In August, the delivered (to electric utilities) prices of natural gas and heavy oil had achieved parity on an average Btu basis, after a year-long situation of gas being the more expensive fuel. The following month, the price of delivered natural gas to electric utilities dropped to about 13 percent below the heavy fuel oil price. However, when the heating season began, the price differences once again narrowed. During this winter, it is expected that natural gas prices will experience a more pronounced uptick than oil prices (Figure 11). Thus, natural gas is not expected to return to its historical price advantage until the heating season is over. By next spring, natural gas prices are expected to once more decline, while oil prices gain slightly. In the first half of this year, the spot price of coal to electric utilities increased noticeably, because of pressures for coal substitution for expensive gas and also because of the very tight storage situation for coal at power generating stations. During this period, the composite price of coal to electric utilities also increased but to a lesser extent, as the composite price also includes long-term contracts. As the year ends, we see coal stocks rebounding. In addition, gas prices have moderated, particularly with respect to the prices seen last winter. Thus, coal prices have been retreating. Nevertheless, coal prices are expected to increase slightly this year, after years of annual price declines. Next year, coal prices should continue to recede as coal stocks gain and natural gas prices remain relatively low.

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



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

Figure 11. Fossil Fuel Prices to Electric Utilities



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



U.S. Oil Demand

In this, our second Outlook issued after the September 11 terrorist attacks, we find it necessary to once again reduce the level of petroleum demand expected over the next few quarters. Obviously the attacks themselves have had profound general effects on economic activity and consumption patterns (due to lower consumer and business confidence levels, for example) as well as some very specific impacts on oil demand (particularly the reductions in airline travel and consumption of jet fuel). It is impossible to attribute specific proportions of change in activity levels to particular events, such as September 11, but it is of interest to recap where we think the U.S. demand picture is now compared to the view we presented just prior to the attacks.

It has become clear that the near-term weaknesses in petroleum demand are likely to be even more significant than those posited in the previous Outlook. The third quarter turned out to be weaker than previously estimated, and the current quarter is now likely to witness a year-over-year decline of over 300,000 barrels per day and substantial year-to-year declines during the first half of 2002. Summarized below is a comparison of current projections of total petroleum demand in million barrels per day with Outlooks preceding the events of September 11:

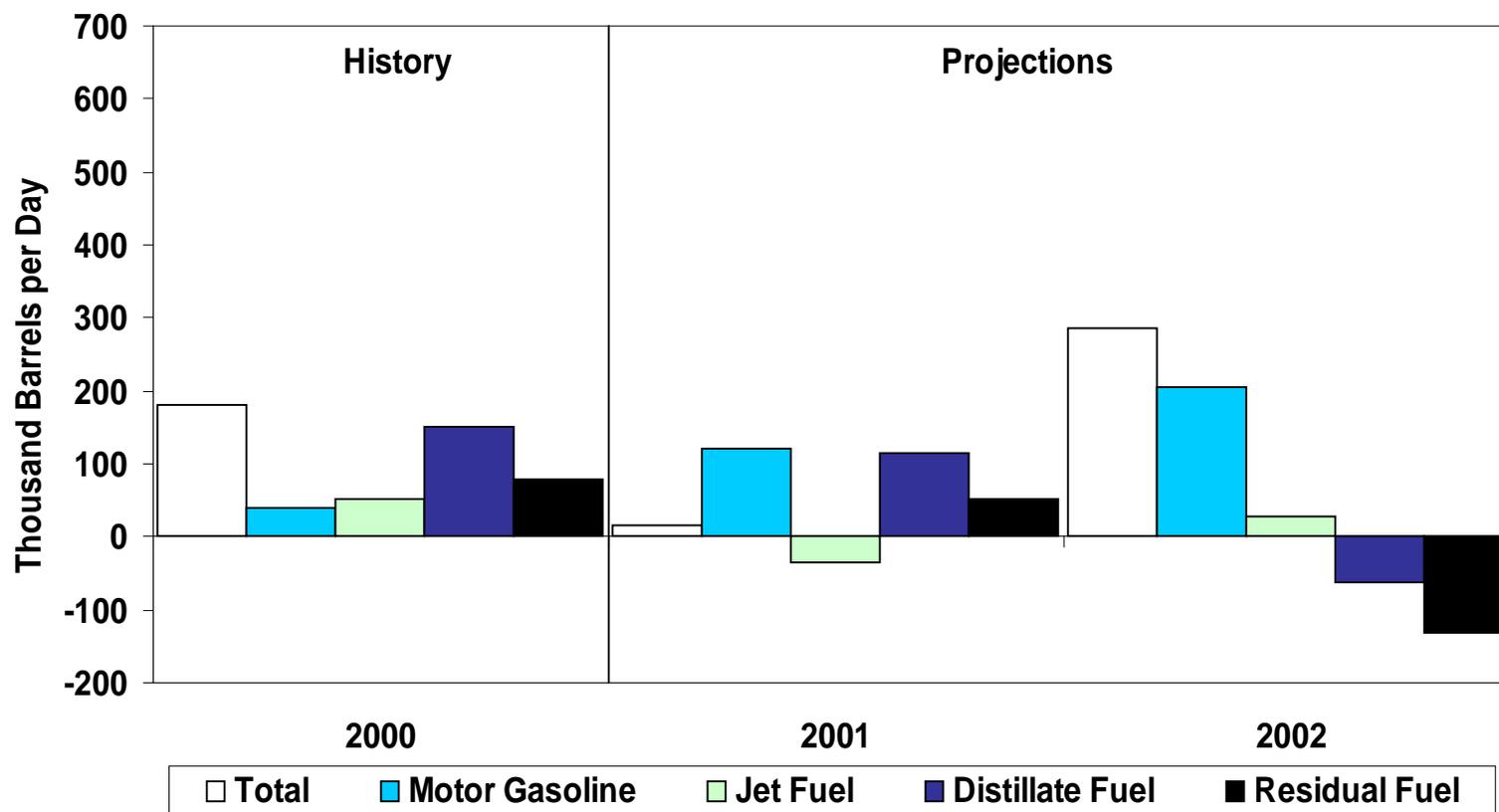
	Current	September	Change
2001Q3	19.721	20.059	-0.338
2001Q4	19.691	19.975	-0.284
2002Q1	19.900	20.142	-0.242
2002Q2	19.703	20.002	-0.269
2002Q3	20.158	20.451	-0.293
2002Q4	20.249	20.539	-0.290

For the current year, total petroleum demand is projected to average 19.717 million barrels per day, up just 16,000 barrels per day, or less than 0.1 percent, from the previous year ([Figure 12](#)). (The year-to-year change, in the absence of strong weather-related demand in the first quarter, would have been slightly negative, even if the events of September 11 had not occurred). In the year 2002, demand is projected to average 20.004 million barrels per day, up 287,000 barrels per day, or 1.5 percent, above the 2000 average.

Weakness in petroleum demand is most evident in the jet fuel and distillate fuel oil markets. Jet fuel demand is projected to decline in response to the substantial reduction in revenue ton-miles, which precipitated announcements by air carriers of almost immediate capacity curtailments ranging from 15 to 30 percent. The reduction in capacity is estimated to be 20 percent in October. Although air activity is expected to recover gradually during the forecast interval, both capacity and utilization are still expected to be 5 percent less than what was projected prior to the events of September 11. As a result, commercial jet fuel demand is projected to decline more than 3 percent in 2001 and remain flat in 2002. Partly offsetting the decline in commercial jet fuel demand, however, is a slight increase in military jet fuel demand. Nonetheless, jet fuel accounts for more than one quarter of the terrorist-related decline in petroleum products demand in the above table.

Distillate fuel oil demand is also expected to shrink in response to the projected decline in industrial production throughout the forecast interval. It accounts for half of the decline in petroleum products demand summarized above. Nonetheless, total distillate demand in 2001 is projected to climb 3.0 percent, largely as a result of heating-oil demand in the first quarter of the year and continued, but slower, growth in transportation diesel. In 2002, total demand is projected to decline 1.6 percent, due to weak industrial

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



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



and commercial activity levels. The assumption of normal weather is also expected to contribute to the demand shrinkage.

Motor gasoline demand is also expected to show the effects of the weakened economic outlook, but that fuel accounts for about only 10 percent of the total change in demand outlook that has developed over the last two months. The effects of slowing personal disposable income growth are expected to be mitigated by a preference for automobile travel over passenger aircraft and a continued reduction in retail pump prices. For 2001, motor gasoline demand is projected to increase 1.4 percent followed by a 2.4-percent increase in 2002.

U.S. Oil Supply

Average domestic oil production is expected to increase by 11,000 barrels per day or 0.2 percent in 2001, to a level of 5.83 million barrels of oil per day. For 2002, a 1.6 percent decrease is expected and results in a production rate of 5.74 million barrels of oil per day average for the year [\(Figure 13\)](#).

Lower-48 States oil production is expected to increase by 8,000 barrels per day to a rate of 4.86 million barrels per day in 2001, followed by a decrease of 66,000 barrels per day in 2002. Shell's Brutus platform started production in the third quarter of 2001 with peak oil production expected at 100,000 in 2002. Oil production from the Mars, Troika, Ursa, Diana-Hoover, and Brutus Federal Offshore fields is expected to account for about 10.0 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 0.4 percent in 2001 and again decrease by 2.9 percent in 2002. The increase in 2001 is the result of adding two new satellite fields, Colville River (Alpine) and Prudhoe Bay (Aurora), which contributed to the Alaska North Slope production. The initial rate from Alpine averaged 74,000 barrels per day during March 2000, increasing to an average 97,000 barrels per day in September 2000. Another satellite field, North Star, is expected to come on in early to mid 2002 and will peak at a rate of 65,000 barrels per day later 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 in the 2001 and 2002 forecast periods.

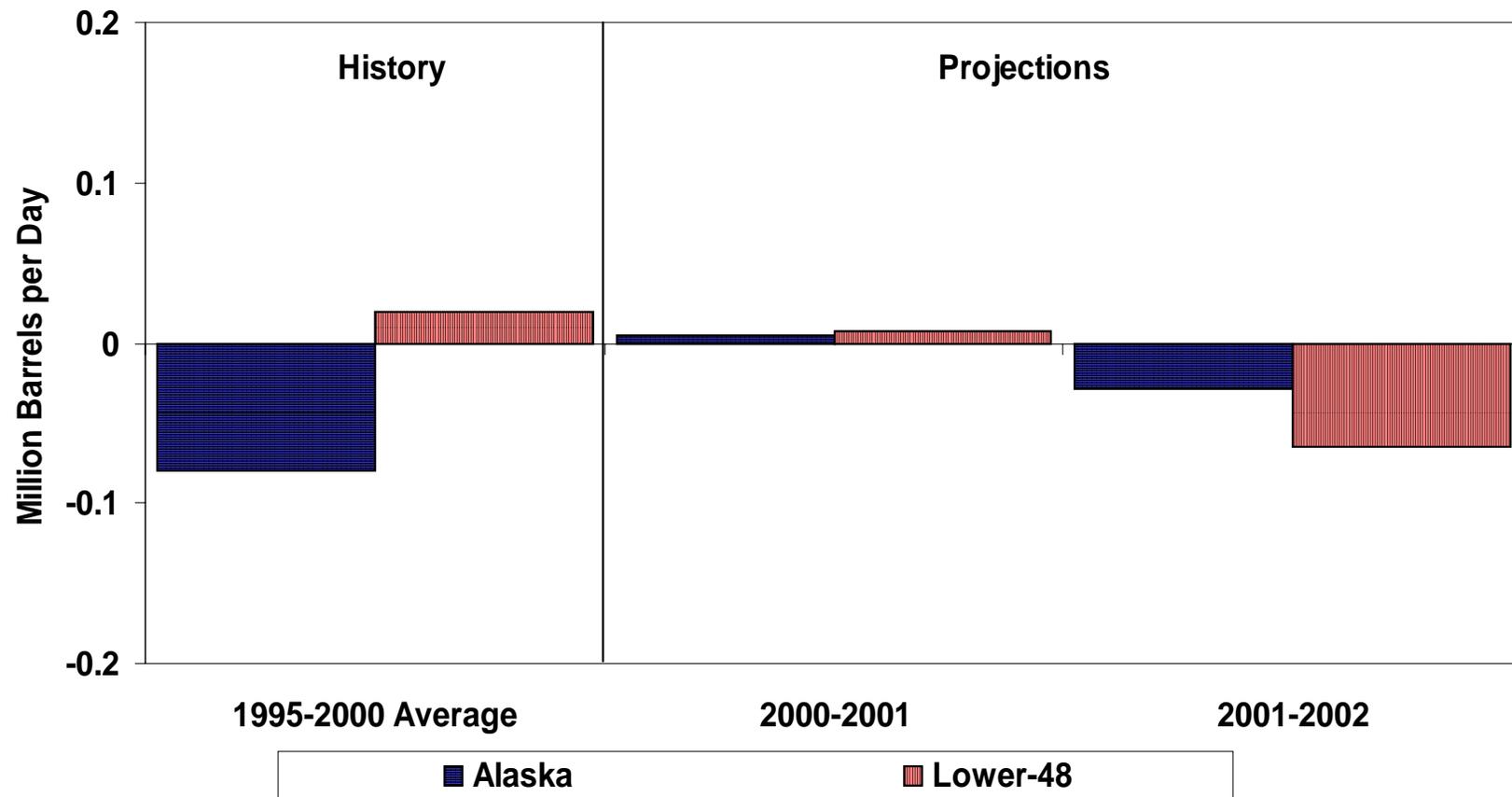
Natural Gas Demand and Supply

While price conditions have now swung back in favor of using natural gas as a result of lower demand, the depressed natural gas demand situation is not expected to improve appreciatively until 2002 due to lowered assumptions about economic growth for this year. Natural gas demand in 2001 is expected to fall by 3.3 percent as the economic outlook has been revised downward since October. This drop in natural gas demand in 2001 is based on lower projections of demand by the industrial and utility sectors, which are projected to fall by 3.8 and 13.5 percent, respectively, compared with 2000 [\(Figure 14\)](#).

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 October was 3,143 billion cubic feet. Storage is well above last year's level and also above the previous 6-year seasonal range [\(Figure 15\)](#). As storage levels have risen, spot natural gas prices have fallen. In October, spot wellhead gas prices averaged about \$2.58 per thousand cubic feet (mcf).

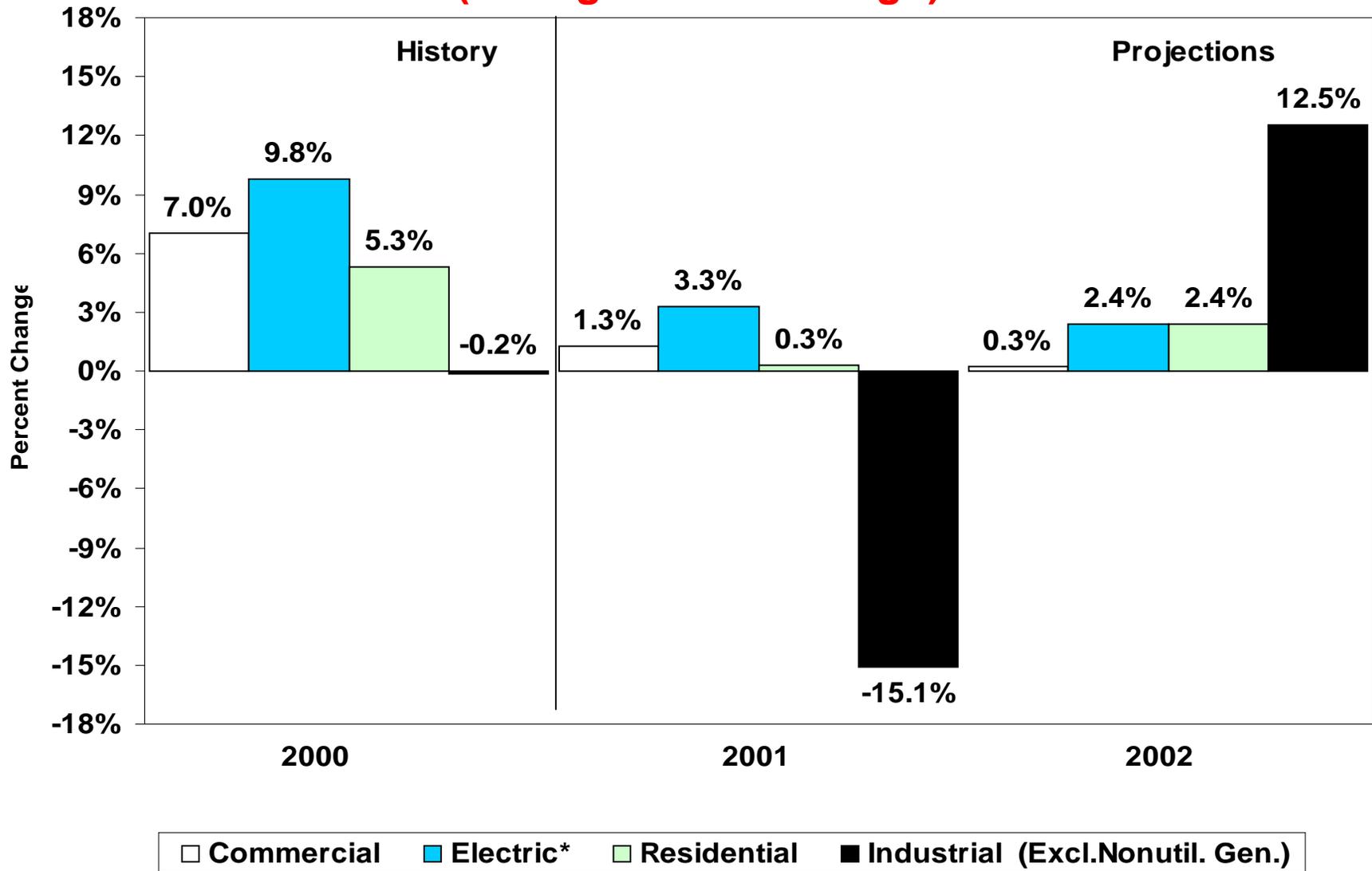
Heating degree-days this winter are assumed to be normal, or 7.8 percent lower than last winter. Thus, winter demand for natural gas is projected to decline by 2.9 percent compared with growth of 6.3 percent last winter. Residential and commercial demand for natural gas is expected to be 6.6 and 5.5 percent, respectively, lower than last winter. In the case of the residential sector, the assumption of normal weather is the primary factor, while in the commercial sector the flat economy is an additional factor. Electric utility

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



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

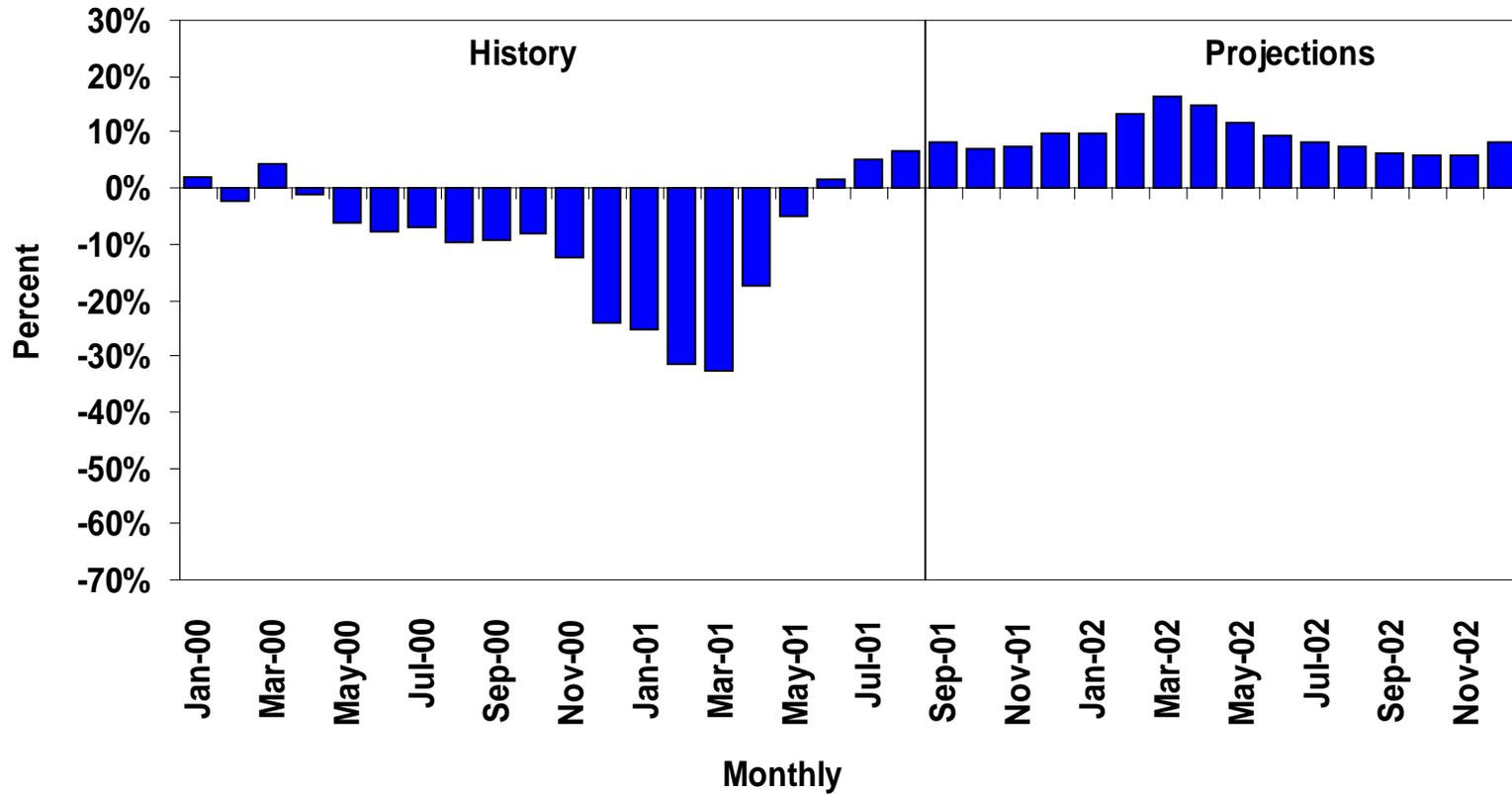
Figure 14. Natural Gas Demand Growth by Sector (Change from Year Ago)



* Includes gas to electric utilities and nonutility generators.

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

**Figure 15. Working Gas in Storage
(Difference from Previous 5-Year Average)**



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



demand for natural gas is expected to be down this winter, as is industrial gas demand in the fourth quarter of 2001. In the first quarter of 2002, industrial demand is projected to begin to rise as a result of the gradually reviving economy and also the reversal of significant fuel substitution away from natural gas that occurred as a result of the gas market squeeze that developed last winter. Thus, spot wellhead prices, which averaged \$6.49 per thousand cubic feet last winter, are expected to be almost two-thirds lower this winter at about \$2.58 per thousand cubic feet.

Domestic natural gas production is expected to grow by 1.4 percent in 2001 and by 1.3 percent 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 falling industrial demand. Net imports of natural gas are projected to rise by about 3.1 percent in 2001 and by 3.3 percent in 2002.

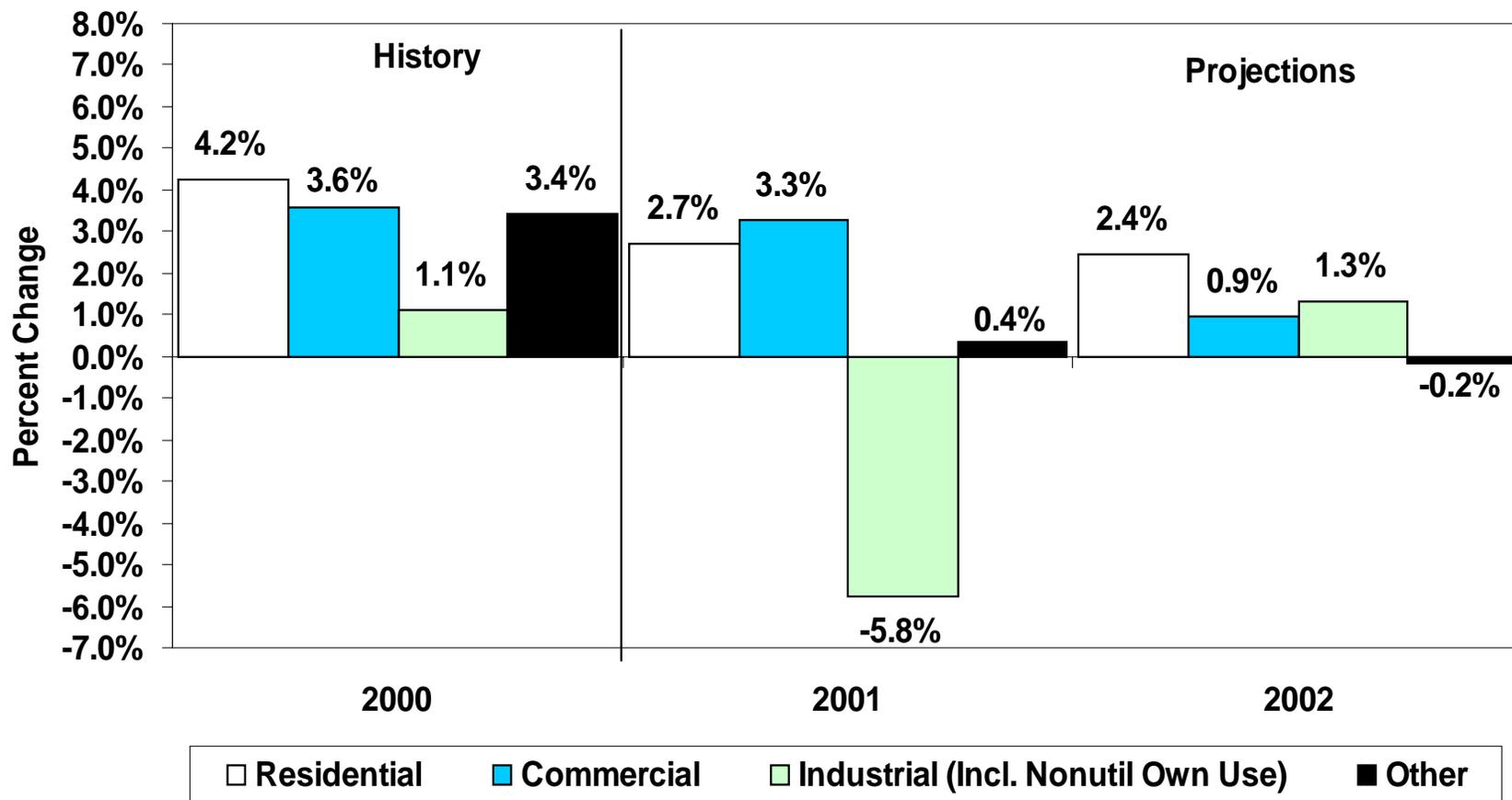
Electricity Demand and Supply

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 somewhat to 1.6 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 16](#)) mainly because the economy is growing much more slowly than it was in 2000.

Electricity demand in the industrial sector has been adversely affected by the overall economic slowdown. Growth in the demand for electricity in the industrial sector is expected to be negative in 2001 compared to its 2000 level, falling by 68 billion kilowatt hours (6.4 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 2.7 percent and 3.3 percent, respectively, due mainly to continued expansion of the customer base and weather effects. The commercial sector is expected to be weaker next year because of the lack of weather effects and very slow growth in commercial employment.

This winter, total electricity demand growth is expected to be negative (down 1.8 percent) compared with last winter's demand growth of 4.6 percent due both to a weaker industrial economy and the assumption of normal weather.

Figure 16. U.S. Electricity Demand Growth by Sector (Change from Year Ago)



Sources: History: EIA; Projections: Short-Term Energy Outlook, November 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	9315	9493	4.1	1.0	1.9
Imported Crude Oil Price ^a (nominal dollars per barrel).....	17.22	27.72	22.54	19.92	61.0	-18.7	-11.6
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.88	5.82	5.83	5.74	-1.0	0.2	-1.5
Total Petroleum Net Imports (including SPR)	9.91	10.42	10.60	10.94	5.1	1.7	3.2
Energy Demand							
World Petroleum (million barrels per day).....	74.9	75.3	75.7	76.5	0.5	0.5	0.9
Petroleum (million barrels per day).....	19.52	19.70	19.72	20.00	0.9	0.1	1.4
Natural Gas (trillion cubic feet)	21.70	22.76	22.02	23.00	4.9	-3.3	4.5
Coal ^c (million short tons)	1045	1082	1095	1111	3.5	1.2	1.5
Electricity (billion kilowatthours)							
Retail Sales ^d	3312	3413	3411	3476	3.0	-0.1	1.9
Nonutility Use/Sales ^e	189	187	187	179	-1.1	0.0	-4.3
Total	3501	3600	3597	3655	2.8	-0.1	1.6
Total Energy Demand ^f (quadrillion Btu).....	97.2	99.5	98.5	101.0	2.4	-1.0	2.5
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.97	10.79	10.58	10.64	-1.6	-1.9	0.6
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 Statistics Report* DOE/EIA-0520; *Weekly Petroleum Status Report*, DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1001.

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>9317</i>	<i>9268</i>	<i>9330</i>	<i>9435</i>	<i>9549</i>	<i>9658</i>	9224	<i>9315</i>	<i>9493</i>
Percentage Change from Prior Year	4.2	5.2	4.4	2.8	2.5	1.2	<i>0.6</i>	<i>-0.4</i>	<i>0.0</i>	<i>1.0</i>	<i>2.5</i>	<i>4.2</i>	4.1	<i>1.0</i>	<i>1.9</i>
Annualized Percent Change from Prior Quarter.....	2.3	5.6	1.3	1.9	1.3	0.3	<i>-1.1</i>	<i>-2.1</i>	<i>2.7</i>	<i>4.5</i>	<i>4.8</i>	<i>4.6</i>			
GDP Implicit Price Deflator (Index, 1996=1.000)	1.063	1.068	1.073	1.078	1.087	1.092	<i>1.095</i>	<i>1.098</i>	<i>1.102</i>	<i>1.105</i>	<i>1.109</i>	<i>1.116</i>	1.070	<i>1.093</i>	<i>1.108</i>
Percentage Change from Prior Year	2.1	2.3	2.4	2.4	2.3	2.3	<i>2.1</i>	<i>1.9</i>	<i>1.4</i>	<i>1.1</i>	<i>1.3</i>	<i>1.6</i>	2.3	<i>2.1</i>	<i>1.4</i>
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	6432	6524	6566	6635	6679	6719	<i>6918</i>	<i>6826</i>	<i>6919</i>	<i>6923</i>	<i>6977</i>	<i>7047</i>	6539	<i>6785</i>	<i>6966</i>
Percentage Change from Prior Year	2.6	3.6	3.7	4.0	3.8	3.0	<i>5.3</i>	<i>2.9</i>	<i>3.6</i>	<i>3.0</i>	<i>0.9</i>	<i>3.2</i>	3.5	<i>3.8</i>	<i>2.7</i>
Manufacturing Production (Index, 1996=1.000)	1.237	1.261	1.272	1.267	1.242	1.226	<i>1.203</i>	<i>1.186</i>	<i>1.186</i>	<i>1.194</i>	<i>1.214</i>	<i>1.240</i>	1.259	<i>1.214</i>	<i>1.209</i>
Percentage Change from Prior Year	6.3	7.0	6.4	4.2	0.4	-2.8	<i>-5.4</i>	<i>-6.4</i>	<i>-4.5</i>	<i>-2.6</i>	<i>0.9</i>	<i>4.6</i>	6.0	<i>-3.6</i>	<i>-0.4</i>
OECD Economic Growth (percent) ^b													3.3	<i>1.1</i>	<i>2.0</i>
Weather^c															
Heating Degree-Days															
U.S.....	2023	485	93	1859	2329	444	<i>86</i>	<i>1595</i>	<i>2234</i>	<i>518</i>	<i>86</i>	<i>1622</i>	4460	<i>4454</i>	<i>4459</i>
New England	3007	909	196	2377	3268	850	<i>150</i>	<i>2166</i>	<i>3174</i>	<i>883</i>	<i>167</i>	<i>2237</i>	6489	<i>6434</i>	<i>6462</i>
Middle Atlantic.....	2713	692	129	2240	2950	630	<i>93</i>	<i>1919</i>	<i>2891</i>	<i>700</i>	<i>105</i>	<i>2002</i>	5774	<i>5592</i>	<i>5698</i>
U.S. Gas-Weighted.....	2115	512	100	1957	2417	473	<i>90</i>	<i>1684</i>	<i>2351</i>	<i>555</i>	<i>90</i>	<i>1714</i>	4684	<i>4664</i>	<i>4710</i>
Cooling Degree-Days (U.S.)	45	380	742	62	26	375	<i>784</i>	<i>77</i>	<i>33</i>	<i>347</i>	<i>782</i>	<i>76</i>	1229	<i>1262</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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

^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/McGraw-Hill Forecast CONTROL1001.

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>1621</i>	<i>1585</i>	<i>1581</i>	<i>1588</i>	<i>1606</i>	<i>1630</i>	1716	<i>1661</i>	<i>1601</i>
Real Exchange Rate															
(index)	1.044	1.068	1.082	1.110	1.104	1.142	<i>1.143</i>	<i>1.141</i>	<i>1.121</i>	<i>1.110</i>	<i>1.096</i>	<i>1.082</i>	1.076	<i>1.132</i>	<i>1.102</i>
Business Inventory Change															
(billion chained 1996 dollars-SAAR)	5.3	22.0	12.0	12.9	-15.0	-35.6	<i>-28.1</i>	<i>-13.9</i>	<i>-7.8</i>	<i>-1.1</i>	<i>7.2</i>	<i>9.9</i>	13.1	<i>-23.1</i>	<i>2.0</i>
Producer Price Index															
(index, 1982=1.000)	1.303	1.321	1.333	1.353	1.385	1.364	<i>1.334</i>	<i>1.311</i>	<i>1.306</i>	<i>1.301</i>	<i>1.303</i>	<i>1.312</i>	1.328	<i>1.349</i>	<i>1.306</i>
Consumer Price Index															
(index, 1982-1984=1.000).....	1.703	1.715	1.730	1.743	1.761	1.774	<i>1.780</i>	<i>1.783</i>	<i>1.790</i>	<i>1.796</i>	<i>1.806</i>	<i>1.818</i>	1.723	<i>1.774</i>	<i>1.803</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>0.770</i>	<i>0.745</i>	<i>0.741</i>	<i>0.719</i>	<i>0.754</i>	0.913	<i>0.880</i>	<i>0.740</i>
Non-Farm Employment															
(millions)	131.0	131.9	131.9	132.3	132.6	132.5	<i>132.3</i>	<i>132.1</i>	<i>132.6</i>	<i>132.9</i>	<i>133.1</i>	<i>133.4</i>	131.8	<i>132.4</i>	<i>133.0</i>
Commercial Employment															
(millions)	91.4	91.9	92.3	92.7	93.1	93.3	<i>93.2</i>	<i>93.2</i>	<i>94.0</i>	<i>94.3</i>	<i>94.7</i>	<i>95.0</i>	92.1	<i>93.2</i>	<i>94.5</i>
Total Industrial Production															
(index, 1996=1.000)	1.208	1.231	1.241	1.238	1.217	1.203	<i>1.182</i>	<i>1.167</i>	<i>1.168</i>	<i>1.176</i>	<i>1.194</i>	<i>1.218</i>	1.230	<i>1.192</i>	<i>1.189</i>
Housing Stock															
(millions)	115.7	115.9	116.4	116.9	117.5	117.8	<i>118.0</i>	<i>118.4</i>	<i>118.7</i>	<i>119.1</i>	<i>119.4</i>	<i>119.7</i>	116.2	<i>117.9</i>	<i>119.2</i>
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1996=1.000)	1.124	1.133	1.124	1.111	1.089	1.081	<i>1.073</i>	<i>1.071</i>	<i>1.080</i>	<i>1.091</i>	<i>1.105</i>	<i>1.119</i>	1.123	<i>1.078</i>	<i>1.099</i>
Vehicle Miles Traveled ^b															
(million miles/day).....	6838	7682	7689	7221	6949	7717	<i>7862</i>	<i>7376</i>	<i>7173</i>	<i>7883</i>	<i>8066</i>	<i>7612</i>	7358	<i>7478</i>	<i>7686</i>
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.995	1.010	0.984	0.984	0.989	1.009	<i>0.995</i>	<i>0.988</i>	<i>0.999</i>	<i>1.003</i>	<i>0.999</i>	<i>0.995</i>	0.993	<i>0.995</i>	<i>0.999</i>
Real Vehicle Fuel Cost															
(cents per mile).....	4.18	4.30	4.29	4.36	4.19	4.42	<i>3.94</i>	<i>3.46</i>	<i>3.46</i>	<i>3.61</i>	<i>3.55</i>	<i>3.63</i>	4.28	<i>4.00</i>	<i>3.56</i>
Air Travel Capacity															
(mill. available ton-miles/day).....	455.5	475.9	489.1	470.6	475.5	494.7	<i>468.5</i>	<i>417.8</i>	<i>433.3</i>	<i>453.4</i>	<i>470.5</i>	<i>462.9</i>	472.8	<i>464.0</i>	<i>455.2</i>
Aircraft Utilization															
(mill. revenue ton-miles/day).....	256.6	287.6	292.5	269.4	263.5	286.5	<i>268.2</i>	<i>231.6</i>	<i>239.1</i>	<i>264.5</i>	<i>286.6</i>	<i>273.9</i>	276.5	<i>262.4</i>	<i>266.2</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>2.438</i>	<i>2.466</i>	<i>2.475</i>	<i>2.483</i>	<i>2.502</i>	2.394	<i>2.424</i>	<i>2.481</i>
Raw Steel Production															
(millions tons)	29.02	29.53	27.45	25.01	25.53	26.07	<i>25.11</i>	<i>24.59</i>	<i>25.39</i>	<i>26.08</i>	<i>25.74</i>	<i>25.74</i>	111.02	<i>101.29</i>	<i>102.96</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.

^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	<i>19.7</i>	<i>19.7</i>	<i>19.9</i>	<i>19.7</i>	<i>20.2</i>	<i>20.2</i>	19.7	<i>19.7</i>	<i>20.0</i>
U.S. Territories	0.4	0.3	0.3	0.4	0.4	0.4	<i>0.3</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	0.3	<i>0.4</i>	<i>0.4</i>
Canada.....	1.9	1.9	2.0	2.1	1.9	1.9	<i>2.0</i>	<i>2.1</i>	<i>2.0</i>	<i>1.9</i>	<i>2.1</i>	<i>2.1</i>	2.0	<i>2.0</i>	<i>2.0</i>
Europe.....	14.5	13.9	14.4	14.6	14.4	14.0	<i>14.4</i>	<i>14.5</i>	<i>14.6</i>	<i>13.7</i>	<i>14.2</i>	<i>14.8</i>	14.4	<i>14.3</i>	<i>14.3</i>
Japan	6.0	5.0	5.4	5.6	6.1	4.9	<i>5.4</i>	<i>5.6</i>	<i>6.1</i>	<i>5.0</i>	<i>5.2</i>	<i>5.7</i>	5.5	<i>5.5</i>	<i>5.5</i>
Australia and New Zealand.....	1.0	1.0	1.0	1.0	1.0	1.0	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>	1.0	<i>1.0</i>	<i>1.0</i>
Total OECD.....	43.1	41.6	43.1	43.6	43.7	41.8	<i>42.8</i>	<i>43.2</i>	<i>44.0</i>	<i>41.7</i>	<i>43.1</i>	<i>44.3</i>	42.8	<i>42.9</i>	<i>43.2</i>
Non-OECD															
Former Soviet Union.....	3.7	3.6	3.6	3.6	3.7	3.5	<i>3.5</i>	<i>3.5</i>	<i>3.7</i>	<i>3.5</i>	<i>3.5</i>	<i>3.5</i>	3.6	<i>3.6</i>	<i>3.6</i>
Europe.....	1.5	1.5	1.5	1.5	1.6	1.6	<i>1.5</i>	<i>1.5</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	1.5	<i>1.6</i>	<i>1.6</i>
China.....	4.6	4.6	4.6	4.6	4.8	4.8	<i>4.7</i>	<i>4.7</i>	<i>5.0</i>	<i>4.9</i>	<i>4.9</i>	<i>4.9</i>	4.6	<i>4.8</i>	<i>4.9</i>
Other Asia.....	8.9	9.0	8.8	9.1	9.1	9.1	<i>8.8</i>	<i>9.2</i>	<i>9.2</i>	<i>9.2</i>	<i>8.9</i>	<i>9.3</i>	9.0	<i>9.0</i>	<i>9.1</i>
Other Non-OECD.....	13.6	13.8	13.9	13.8	13.7	14.0	<i>14.0</i>	<i>13.9</i>	<i>13.8</i>	<i>14.0</i>	<i>14.1</i>	<i>14.0</i>	13.8	<i>13.9</i>	<i>14.0</i>
Total Non-OECD	32.4	32.5	32.3	32.7	32.8	32.9	<i>32.6</i>	<i>32.9</i>	<i>33.2</i>	<i>33.3</i>	<i>33.0</i>	<i>33.4</i>	32.5	<i>32.8</i>	<i>33.2</i>
Total World Demand.....	75.5	74.1	75.4	76.3	76.6	74.7	<i>75.4</i>	<i>76.1</i>	<i>77.2</i>	<i>75.0</i>	<i>76.1</i>	<i>77.7</i>	75.3	<i>75.7</i>	<i>76.5</i>
Supply ^b															
OECD															
U.S. (50 States)	9.1	9.1	9.0	9.0	8.8	9.1	<i>9.0</i>	<i>9.0</i>	<i>9.0</i>	<i>9.0</i>	<i>8.9</i>	<i>9.0</i>	9.1	<i>9.0</i>	<i>9.0</i>
Canada.....	2.7	2.7	2.7	2.8	2.8	2.8	<i>2.7</i>	<i>2.9</i>	<i>3.0</i>	<i>3.0</i>	<i>3.1</i>	<i>3.2</i>	2.7	<i>2.8</i>	<i>3.1</i>
North Sea ^c	6.3	5.9	5.9	6.1	5.9	5.6	<i>5.8</i>	<i>6.3</i>	<i>6.2</i>	<i>5.8</i>	<i>5.9</i>	<i>6.2</i>	6.0	<i>5.9</i>	<i>6.0</i>
Other OECD.....	2.0	2.0	1.9	1.9	2.0	1.9	<i>2.0</i>	<i>2.0</i>	<i>1.9</i>	<i>2.0</i>	<i>2.0</i>	<i>1.9</i>	2.0	<i>2.0</i>	<i>2.0</i>
Total OECD.....	20.1	19.7	19.6	19.8	19.6	19.4	<i>19.5</i>	<i>20.2</i>	<i>20.1</i>	<i>19.8</i>	<i>19.9</i>	<i>20.3</i>	19.8	<i>19.7</i>	<i>20.0</i>
Non-OECD															
OPEC.....	29.3	30.8	31.6	31.7	31.1	30.0	<i>30.3</i>	<i>29.0</i>	<i>28.9</i>	<i>28.5</i>	<i>28.7</i>	<i>28.3</i>	30.9	<i>30.1</i>	<i>28.6</i>
Former Soviet Union.....	7.9	8.0	8.2	8.5	8.6	8.7	<i>8.9</i>	<i>8.9</i>	<i>8.9</i>	<i>9.0</i>	<i>9.2</i>	<i>9.2</i>	8.1	<i>8.8</i>	<i>9.1</i>
China.....	3.3	3.3	3.2	3.2	3.3	3.3	<i>3.3</i>	<i>3.3</i>	<i>3.3</i>	<i>3.4</i>	<i>3.4</i>	<i>3.4</i>	3.2	<i>3.3</i>	<i>3.4</i>
Mexico.....	3.5	3.5	3.5	3.4	3.6	3.5	<i>3.6</i>	<i>3.6</i>	<i>3.6</i>	<i>3.6</i>	<i>3.7</i>	<i>3.6</i>	3.5	<i>3.6</i>	<i>3.6</i>
Other Non-OECD.....	11.2	11.2	11.4	11.6	11.4	11.3	<i>11.4</i>	<i>11.4</i>	<i>11.4</i>	<i>11.5</i>	<i>11.7</i>	<i>11.9</i>	11.3	<i>11.4</i>	<i>11.7</i>
Total Non-OECD	55.1	56.7	58.0	58.4	58.1	56.8	<i>57.5</i>	<i>56.2</i>	<i>56.1</i>	<i>56.0</i>	<i>56.7</i>	<i>56.4</i>	57.0	<i>57.1</i>	<i>56.3</i>
Total World Supply	75.2	76.4	77.6	78.2	77.6	76.2	<i>77.0</i>	<i>76.4</i>	<i>76.2</i>	<i>75.8</i>	<i>76.6</i>	<i>76.7</i>	76.8	<i>76.8</i>	<i>76.3</i>
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	<i>-0.1</i>	<i>0.5</i>	<i>0.2</i>	<i>-0.7</i>	<i>-0.3</i>	<i>0.3</i>	0.1	<i>-0.2</i>	<i>-0.1</i>
Other.....	0.0	-1.7	-2.2	-2.6	-0.9	-0.6	<i>-1.5</i>	<i>-0.7</i>	<i>0.8</i>	<i>-0.2</i>	<i>-0.3</i>	<i>0.7</i>	-1.6	<i>-1.0</i>	<i>0.3</i>
Total Stock Withdrawals	0.2	-2.2	-2.2	-1.9	-1.1	-1.5	<i>-1.6</i>	<i>-0.3</i>	<i>1.0</i>	<i>-0.8</i>	<i>-0.5</i>	<i>1.0</i>	-1.5	<i>-1.1</i>	<i>0.2</i>
OECD Comm. Stocks, End (bill. bbls.).....	2.4	2.5	2.6	2.5	2.5	2.6	<i>2.7</i>	<i>2.7</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	2.5	<i>2.7</i>	<i>2.6</i>
Non-OPEC Supply	45.9	45.6	45.9	46.4	46.5	46.2	<i>46.7</i>	<i>47.4</i>	<i>47.3</i>	<i>47.3</i>	<i>47.9</i>	<i>48.4</i>	46.0	<i>46.7</i>	<i>47.8</i>
Net Exports from Former Soviet Union...	4.2	4.4	4.6	4.9	5.0	5.2	<i>5.4</i>	<i>5.4</i>	<i>5.2</i>	<i>5.4</i>	<i>5.6</i>	<i>5.7</i>	4.5	<i>5.2</i>	<i>5.5</i>

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

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

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 Statistics Report*, 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	23.13	18.91	19.00	19.67	20.00	21.00	27.72	22.54	19.92
WTI ^b Spot Average	28.82	28.78	31.61	31.96	28.82	27.92	26.79	22.35	22.18	22.76	23.06	24.05	30.29	26.47	23.02
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	2.26	3.06	3.87	5.20	6.37	4.55	3.06	2.70	2.54	2.03	1.97	2.28	3.61	4.16	2.21
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.44	1.57	1.56	1.54	1.47	1.66	1.49	1.26	1.25	1.37	1.37	1.35	1.53	1.47	1.34
Regular Unleaded.....	1.40	1.53	1.52	1.50	1.43	1.62	1.45	1.22	1.22	1.33	1.34	1.32	1.49	1.43	1.30
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.43	1.42	1.51	1.61	1.47	1.47	1.42	1.30	1.28	1.29	1.29	1.35	1.49	1.41	1.30
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.86	0.78	0.91	0.97	0.83	0.80	0.77	0.69	0.68	0.64	0.63	0.71	0.89	0.78	0.67
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.31	1.17	1.23	1.40	1.35	1.25	1.16	1.17	1.16	1.06	0.98	1.12	1.31	1.26	1.09
No. 6 Residual Fuel Oil, Retail ^d															
(dollars per barrel)	23.75	24.47	25.10	27.41	25.13	22.29	21.46	20.73	20.55	19.11	19.18	21.14	25.34	22.48	20.00
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.21	1.21	1.18	1.20	1.23	1.24	1.24	1.23	1.22	1.22	1.20	1.19	1.20	1.23	1.21
Heavy Fuel Oil ^e															
(dollars per million Btu).....	3.74	4.16	4.34	4.52	4.22	3.82	3.56	3.30	3.22	3.16	3.20	3.37	4.26	3.78	3.22
Natural Gas															
(dollars per million Btu).....	2.85	3.78	4.46	6.33	7.26	4.96	3.65	3.34	3.27	2.64	2.55	2.95	4.33	4.59	2.77
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	6.53	7.82	10.11	8.71	10.07	10.64	10.69	7.29	6.80	7.46	8.64	6.69	7.72	9.44	7.01
Electricity															
(cents per kilowatthour).....	7.77	8.37	8.59	8.12	7.96	8.62	9.08	8.44	8.04	8.58	8.77	8.29	8.23	8.54	8.43

^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>5.81</i>	<i>5.84</i>	<i>5.78</i>	<i>5.76</i>	<i>5.71</i>	<i>5.72</i>	5.82	<i>5.83</i>	<i>5.74</i>
Alaska.....	1.02	0.97	0.91	0.99	0.99	0.96	<i>0.94</i>	<i>1.01</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>4.79</i>	<i>4.75</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>9.11</i>	<i>8.76</i>	<i>9.04</i>	<i>9.75</i>	<i>9.77</i>	<i>9.39</i>	9.02	<i>9.07</i>	<i>9.49</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>-0.01</i>	<i>-0.03</i>	<i>-0.13</i>	<i>-0.13</i>	<i>-0.16</i>	0.07	<i>-0.01</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>0.15</i>	<i>-0.19</i>	<i>-0.01</i>	<i>0.17</i>	<i>0.03</i>	0.00	<i>-0.02</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>0.37</i>	<i>0.25</i>	<i>0.21</i>	<i>0.22</i>	<i>0.22</i>	<i>0.21</i>	0.15	<i>0.29</i>	<i>0.21</i>
Total Crude Oil Supply	14.14	15.40	15.62	15.10	14.75	15.65	<i>15.25</i>	<i>14.99</i>	<i>14.80</i>	<i>15.59</i>	<i>15.74</i>	<i>15.19</i>	15.07	<i>15.16</i>	<i>15.33</i>
Other Supply															
NGL Production.....	1.98	1.94	1.93	1.79	1.64	1.89	<i>1.90</i>	<i>1.88</i>	<i>1.92</i>	<i>1.95</i>	<i>1.92</i>	<i>1.94</i>	1.91	<i>1.83</i>	<i>1.93</i>
Other Inputs	0.36	0.39	0.38	0.37	0.37	0.39	<i>0.38</i>	<i>0.39</i>	<i>0.37</i>	<i>0.37</i>	<i>0.37</i>	<i>0.38</i>	0.38	<i>0.39</i>	<i>0.37</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>0.91</i>	<i>0.93</i>	<i>0.92</i>	<i>0.94</i>	<i>0.93</i>	<i>0.91</i>	0.95	<i>0.93</i>	<i>0.92</i>
Net Product Imports ^c	1.52	1.43	1.29	1.36	2.06	1.58	<i>1.31</i>	<i>1.17</i>	<i>1.49</i>	<i>1.38</i>	<i>1.50</i>	<i>1.42</i>	1.40	<i>1.53</i>	<i>1.45</i>
Product Stock Withdrawn or Added (-).....	0.35	-0.62	-0.13	0.41	0.11	-0.86	<i>-0.03</i>	<i>0.32</i>	<i>0.40</i>	<i>-0.53</i>	<i>-0.30</i>	<i>0.41</i>	0.00	<i>-0.11</i>	<i>0.00</i>
Total Supply	19.29	19.49	20.03	19.99	19.88	19.58	<i>19.72</i>	<i>19.69</i>	<i>19.90</i>	<i>19.70</i>	<i>20.16</i>	<i>20.25</i>	19.70	<i>19.72</i>	<i>20.00</i>
Demand															
Motor Gasoline.....	8.08	8.62	8.70	8.49	8.27	8.67	<i>8.80</i>	<i>8.63</i>	<i>8.44</i>	<i>8.91</i>	<i>8.98</i>	<i>8.85</i>	8.47	<i>8.59</i>	<i>8.80</i>
Jet Fuel	1.65	1.69	1.79	1.77	1.73	1.71	<i>1.66</i>	<i>1.66</i>	<i>1.70</i>	<i>1.68</i>	<i>1.73</i>	<i>1.76</i>	1.73	<i>1.69</i>	<i>1.72</i>
Distillate Fuel Oil.....	3.77	3.56	3.63	3.93	4.21	3.72	<i>3.66</i>	<i>3.76</i>	<i>4.03</i>	<i>3.62</i>	<i>3.59</i>	<i>3.86</i>	3.72	<i>3.84</i>	<i>3.77</i>
Residual Fuel Oil	0.79	0.82	0.98	1.05	1.03	1.00	<i>0.94</i>	<i>0.87</i>	<i>0.94</i>	<i>0.77</i>	<i>0.85</i>	<i>0.76</i>	0.91	<i>0.96</i>	<i>0.83</i>
Other Oils ^d	5.00	4.81	4.94	4.75	4.63	4.49	<i>4.66</i>	<i>4.77</i>	<i>4.78</i>	<i>4.73</i>	<i>5.01</i>	<i>5.02</i>	4.87	<i>4.64</i>	<i>4.89</i>
Total Demand.....	19.29	19.49	20.03	19.99	19.87	19.59	<i>19.72</i>	<i>19.69</i>	<i>19.90</i>	<i>19.70</i>	<i>20.16</i>	<i>20.25</i>	19.70	<i>19.72</i>	<i>20.00</i>
Total Petroleum Net Imports	9.71	10.70	10.88	10.39	11.02	11.06	<i>10.41</i>	<i>9.94</i>	<i>10.52</i>	<i>11.13</i>	<i>11.27</i>	<i>10.81</i>	10.42	<i>10.60</i>	<i>10.94</i>
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	297	291	278	286	305	306	<i>307</i>	<i>294</i>	<i>311</i>	<i>312</i>	<i>296</i>	<i>293</i>	286	<i>294</i>	<i>293</i>
Total Motor Gasoline.....	204	210	197	196	194	220	<i>204</i>	<i>211</i>	<i>215</i>	<i>215</i>	<i>206</i>	<i>209</i>	196	<i>211</i>	<i>209</i>
Finished Motor Gasoline	157	165	154	153	145	169	<i>158</i>	<i>168</i>	<i>166</i>	<i>170</i>	<i>163</i>	<i>166</i>	153	<i>168</i>	<i>166</i>
Blending Components	47	45	43	43	49	51	<i>46</i>	<i>44</i>	<i>49</i>	<i>45</i>	<i>43</i>	<i>43</i>	43	<i>44</i>	<i>43</i>
Jet Fuel	40	44	42	45	40	43	<i>45</i>	<i>44</i>	<i>41</i>	<i>42</i>	<i>43</i>	<i>44</i>	45	<i>44</i>	<i>44</i>
Distillate Fuel Oil.....	96	106	115	118	105	114	<i>123</i>	<i>128</i>	<i>98</i>	<i>109</i>	<i>128</i>	<i>130</i>	118	<i>128</i>	<i>130</i>
Residual Fuel Oil	36	37	38	36	39	43	<i>38</i>	<i>38</i>	<i>36</i>	<i>37</i>	<i>38</i>	<i>38</i>	36	<i>38</i>	<i>38</i>
Other Oils ^e	233	270	287	247	253	289	<i>303</i>	<i>261</i>	<i>257</i>	<i>292</i>	<i>307</i>	<i>263</i>	247	<i>261</i>	<i>263</i>
Total Stocks (excluding SPR)	907	957	957	927	936	1015	<i>1020</i>	<i>977</i>	<i>957</i>	<i>1006</i>	<i>1018</i>	<i>977</i>	927	<i>977</i>	<i>977</i>
Crude Oil in SPR.....	569	569	570	541	542	543	<i>545</i>	<i>546</i>	<i>549</i>	<i>561</i>	<i>573</i>	<i>588</i>	541	<i>546</i>	<i>588</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>1565</i>	<i>1523</i>	<i>1506</i>	<i>1566</i>	<i>1591</i>	<i>1565</i>	1468	<i>1523</i>	<i>1565</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	5.96	5.49	0.47	0.07	0.39
Lower 48 States.....	4.97	4.53	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	4.71	4.73	4.80	4.83	4.75	4.86	<i>4.83</i>	<i>4.90</i>	<i>4.85</i>	<i>4.84</i>	<i>4.88</i>	<i>5.01</i>	19.08	<i>19.34</i>	<i>19.59</i>
Net Imports	0.87	0.82	0.88	0.95	0.97	0.85	<i>0.90</i>	<i>0.92</i>	<i>0.98</i>	<i>0.88</i>	<i>0.93</i>	<i>0.98</i>	3.53	<i>3.64</i>	<i>3.76</i>
Supplemental Gaseous Fuels.....	0.03	0.02	0.02	0.03	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>	0.10	<i>0.10</i>	<i>0.12</i>
Total New Supply	5.61	5.57	5.71	5.81	5.74	5.73	<i>5.76</i>	<i>5.85</i>	<i>5.87</i>	<i>5.75</i>	<i>5.83</i>	<i>6.02</i>	22.71	<i>23.09</i>	<i>23.47</i>
Working Gas in Storage															
Opening.....	2.51	1.15	1.71	2.47	1.72	0.74	<i>1.88</i>	<i>2.95</i>	<i>2.49</i>	<i>1.28</i>	<i>2.03</i>	<i>2.90</i>	2.51	<i>1.72</i>	<i>2.49</i>
Closing.....	1.15	1.71	2.47	1.72	0.74	1.88	<i>2.95</i>	<i>2.49</i>	<i>1.28</i>	<i>2.03</i>	<i>2.90</i>	<i>2.45</i>	1.72	<i>2.49</i>	<i>2.45</i>
Net Withdrawals.....	1.36	-0.56	-0.77	0.75	0.98	-1.14	<i>-1.06</i>	<i>0.46</i>	<i>1.21</i>	<i>-0.75</i>	<i>-0.87</i>	<i>0.45</i>	0.79	<i>-0.77</i>	<i>0.04</i>
Total Supply.....	6.97	5.02	4.94	6.56	6.72	4.59	<i>4.70</i>	<i>6.31</i>	<i>7.08</i>	<i>5.00</i>	<i>4.96</i>	<i>6.47</i>	23.50	<i>22.32</i>	<i>23.51</i>
Balancing Item ^a	-0.01	-0.04	-0.22	-0.46	0.45	0.06	<i>-0.13</i>	<i>-0.68</i>	<i>0.18</i>	<i>0.04</i>	<i>-0.16</i>	<i>-0.57</i>	-0.73	<i>-0.30</i>	<i>-0.51</i>
Total Primary Supply.....	6.96	4.98	4.72	6.10	7.17	4.65	<i>4.57</i>	<i>5.63</i>	<i>7.26</i>	<i>5.04</i>	<i>4.80</i>	<i>5.90</i>	22.76	<i>22.02</i>	<i>23.00</i>
Demand															
Lease and Plant Fuel.....	0.27	0.27	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>	1.11	<i>1.12</i>	<i>1.12</i>
Pipeline Use.....	0.24	0.17	0.16	0.21	0.24	0.16	<i>0.15</i>	<i>0.19</i>	<i>0.23</i>	<i>0.16</i>	<i>0.16</i>	<i>0.19</i>	0.77	<i>0.74</i>	<i>0.74</i>
Residential.....	2.19	0.78	0.39	1.62	2.47	0.77	<i>0.36</i>	<i>1.38</i>	<i>2.44</i>	<i>0.85</i>	<i>0.37</i>	<i>1.46</i>	4.98	<i>4.99</i>	<i>5.11</i>
Commercial.....	1.25	0.60	0.45	0.95	1.37	0.64	<i>0.44</i>	<i>0.84</i>	<i>1.36</i>	<i>0.63</i>	<i>0.45</i>	<i>0.87</i>	3.26	<i>3.30</i>	<i>3.31</i>
Industrial (Incl. Nonutility Use).....	2.45	2.33	2.38	2.46	2.33	2.09	<i>2.37</i>	<i>2.46</i>	<i>2.52</i>	<i>2.45</i>	<i>2.69</i>	<i>2.67</i>	9.61	<i>9.25</i>	<i>10.33</i>
Electric Utilities.....	0.56	0.83	1.07	0.58	0.47	0.71	<i>0.97</i>	<i>0.48</i>	<i>0.43</i>	<i>0.68</i>	<i>0.86</i>	<i>0.42</i>	3.04	<i>2.63</i>	<i>2.39</i>
Total Demand.....	6.96	4.98	4.72	6.10	7.17	4.65	<i>4.57</i>	<i>5.63</i>	<i>7.26</i>	<i>5.04</i>	<i>4.80</i>	<i>5.90</i>	22.76	<i>22.02</i>	<i>23.00</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	274.0	262.2	271.0	268.3	283.6	278.3	<i>289.4</i>	<i>289.3</i>	<i>279.7</i>	<i>275.8</i>	<i>290.1</i>	<i>293.8</i>	1075.5	<i>1140.6</i>	<i>1139.4</i>
Appalachia	109.5	107.0	101.8	102.6	110.8	108.0	<i>106.5</i>	<i>108.1</i>	<i>107.9</i>	<i>108.3</i>	<i>103.8</i>	<i>107.5</i>	420.9	<i>433.4</i>	<i>427.5</i>
Interior	36.1	35.2	37.6	35.8	37.5	37.0	<i>40.4</i>	<i>36.8</i>	<i>33.3</i>	<i>33.7</i>	<i>36.7</i>	<i>35.5</i>	144.7	<i>151.8</i>	<i>139.2</i>
Western.....	128.5	120.0	131.5	129.9	135.3	132.3	<i>142.4</i>	<i>144.4</i>	<i>138.4</i>	<i>133.8</i>	<i>149.7</i>	<i>150.9</i>	509.9	<i>554.4</i>	<i>572.7</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>4.5</i>	<i>4.3</i>	<i>4.5</i>	<i>4.5</i>	<i>4.5</i>	<i>4.6</i>	12.5	<i>16.8</i>	<i>18.1</i>
Exports	13.6	14.4	15.8	14.7	11.8	13.1	<i>15.2</i>	<i>15.1</i>	<i>14.0</i>	<i>14.2</i>	<i>14.4</i>	<i>14.4</i>	58.5	<i>55.3</i>	<i>57.0</i>
Total Net Domestic Supply.....	258.3	254.5	262.0	259.9	271.4	265.9	<i>285.0</i>	<i>279.3</i>	<i>271.8</i>	<i>262.3</i>	<i>284.8</i>	<i>281.6</i>	1034.8	<i>1101.6</i>	<i>1100.5</i>
Secondary Stock Levels ^b															
Opening.....	143.5	141.2	137.2	120.3	108.1	113.8	<i>127.2</i>	<i>114.8</i>	<i>120.6</i>	<i>127.2</i>	<i>130.6</i>	<i>116.1</i>	143.5	<i>108.1</i>	<i>120.6</i>
Closing.....	141.2	137.2	120.3	108.1	113.8	127.2	<i>114.8</i>	<i>120.6</i>	<i>127.2</i>	<i>130.6</i>	<i>116.1</i>	<i>121.6</i>	108.1	<i>120.6</i>	<i>121.6</i>
Net Withdrawals.....	2.3	3.9	16.9	12.2	-5.7	-13.4	<i>12.4</i>	<i>-5.8</i>	<i>-6.6</i>	<i>-3.4</i>	<i>14.4</i>	<i>-5.5</i>	35.4	<i>-12.5</i>	<i>-1.0</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.....	263.2	261.0	281.5	274.6	268.3	255.2	<i>300.1</i>	<i>276.2</i>	<i>267.9</i>	<i>261.7</i>	<i>302.0</i>	<i>279.0</i>	1080.3	<i>1099.8</i>	<i>1110.6</i>
Demand															
Coke Plants.....	7.3	7.4	7.3	6.9	6.8	6.8	<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>26.6</i>	<i>26.0</i>
Electricity Production															
Electric Utilities.....	214.5	202.6	227.8	214.5	203.9	196.1	<i>234.4</i>	<i>213.1</i>	<i>204.7</i>	<i>204.2</i>	<i>238.6</i>	<i>215.4</i>	859.3	<i>847.6</i>	<i>862.9</i>
Nonutilities (Excl. Cogen.) ^d	25.6	27.6	35.1	35.0	37.7	34.7	<i>40.4</i>	<i>38.1</i>	<i>38.4</i>	<i>35.4</i>	<i>41.2</i>	<i>38.8</i>	123.3	<i>151.0</i>	<i>153.8</i>
Retail and General Industry.....	18.3	16.4	16.8	18.6	17.8	16.5	<i>16.4</i>	<i>18.7</i>	<i>18.1</i>	<i>15.8</i>	<i>15.6</i>	<i>18.4</i>	70.0	<i>69.4</i>	<i>67.9</i>
Total Demand ^e	265.6	254.0	287.0	275.0	266.3	254.2	<i>297.9</i>	<i>276.2</i>	<i>267.9</i>	<i>261.7</i>	<i>302.0</i>	<i>279.0</i>	1081.5	<i>1094.6</i>	<i>1110.6</i>
Discrepancy ^f	-2.4	7.0	-5.5	-0.3	2.1	1.0	<i>2.1</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	-1.3	<i>5.2</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>446.1</i>	<i>397.9</i>	<i>390.5</i>	<i>391.2</i>	<i>456.6</i>	<i>411.3</i>	1696.6	<i>1626.9</i>	<i>1649.7</i>
Petroleum.....	10.9	16.2	23.2	21.8	24.2	21.8	<i>21.2</i>	<i>13.6</i>	<i>17.4</i>	<i>12.5</i>	<i>20.7</i>	<i>10.2</i>	72.2	<i>80.7</i>	<i>60.8</i>
Natural Gas.....	54.5	79.3	100.8	56.1	45.7	69.1	<i>93.2</i>	<i>45.8</i>	<i>40.9</i>	<i>64.3</i>	<i>81.7</i>	<i>39.4</i>	290.7	<i>253.8</i>	<i>226.4</i>
Nuclear.....	185.0	177.4	182.0	161.1	135.8	130.1	<i>139.0</i>	<i>127.1</i>	<i>131.7</i>	<i>122.9</i>	<i>140.1</i>	<i>128.6</i>	705.4	<i>531.9</i>	<i>523.3</i>
Hydroelectric.....	67.1	73.2	57.6	50.3	50.4	50.8	<i>45.6</i>	<i>53.5</i>	<i>65.0</i>	<i>70.5</i>	<i>60.9</i>	<i>61.2</i>	248.2	<i>200.2</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>745.6</i>	<i>638.4</i>	<i>646.1</i>	<i>662.1</i>	<i>760.7</i>	<i>651.3</i>	3015.4	<i>2695.9</i>	<i>2720.2</i>
Nonutility Generation ^b															
Coal.....	55.4	58.3	79.4	77.9	93.5	81.1	<i>87.3</i>	<i>77.3</i>	<i>87.8</i>	<i>75.6</i>	<i>81.9</i>	<i>79.1</i>	271.1	<i>339.2</i>	<i>324.5</i>
Petroleum.....	8.0	6.6	8.9	13.2	17.0	12.0	<i>11.1</i>	<i>10.4</i>	<i>13.6</i>	<i>8.6</i>	<i>12.9</i>	<i>9.4</i>	36.6	<i>50.5</i>	<i>44.5</i>
Natural Gas.....	65.2	71.8	90.6	78.4	78.4	83.9	<i>106.7</i>	<i>87.6</i>	<i>86.0</i>	<i>95.4</i>	<i>119.3</i>	<i>99.1</i>	305.9	<i>356.5</i>	<i>399.7</i>
Other Gaseous Fuels ^c	3.4	3.7	4.7	4.0	4.0	4.3	<i>5.4</i>	<i>4.8</i>	<i>4.6</i>	<i>5.0</i>	<i>6.0</i>	<i>5.5</i>	15.8	<i>18.6</i>	<i>21.1</i>
Nuclear.....	5.2	5.0	16.7	21.6	56.2	55.3	<i>61.9</i>	<i>57.8</i>	<i>59.9</i>	<i>55.9</i>	<i>63.7</i>	<i>58.4</i>	48.5	<i>231.3</i>	<i>237.9</i>
Hydroelectric.....	6.3	6.7	6.3	5.6	5.3	6.4	<i>4.9</i>	<i>5.9</i>	<i>6.9</i>	<i>9.0</i>	<i>6.5</i>	<i>6.8</i>	24.9	<i>22.6</i>	<i>29.1</i>
Geothermal and Other ^d	20.2	20.1	20.9	20.7	20.4	21.5	<i>22.4</i>	<i>20.7</i>	<i>20.6</i>	<i>21.4</i>	<i>22.7</i>	<i>21.2</i>	81.8	<i>85.0</i>	<i>85.9</i>
Subtotal.....	163.6	172.2	227.5	221.3	275.0	264.5	<i>299.7</i>	<i>264.5</i>	<i>279.4</i>	<i>271.0</i>	<i>313.1</i>	<i>279.4</i>	784.6	<i>1103.7</i>	<i>1142.8</i>
Total Generation.....	908.3	921.2	1038.7	931.7	931.4	920.0	<i>1045.3</i>	<i>902.9</i>	<i>925.5</i>	<i>933.0</i>	<i>1073.7</i>	<i>930.7</i>	3799.9	<i>3799.6</i>	<i>3863.0</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>1058.1</i>	<i>910.9</i>	<i>931.8</i>	<i>940.9</i>	<i>1086.0</i>	<i>938.0</i>	3835.5	<i>3833.4</i>	<i>3896.7</i>
Losses and Unaccounted for ^f	54.8	70.8	50.7	59.7	39.1	76.6	<i>61.6</i>	<i>58.7</i>	<i>41.7</i>	<i>70.0</i>	<i>66.8</i>	<i>63.3</i>	236.0	<i>236.0</i>	<i>241.8</i>
Demand															
Retail Sales ^g															
Residential.....	291.2	264.1	353.4	284.7	322.0	264.1	<i>360.6</i>	<i>278.8</i>	<i>319.8</i>	<i>280.9</i>	<i>367.5</i>	<i>287.3</i>	1193.4	<i>1225.5</i>	<i>1255.5</i>
Commercial.....	239.5	254.2	291.6	252.7	253.1	264.6	<i>300.6</i>	<i>253.5</i>	<i>254.2</i>	<i>263.1</i>	<i>305.5</i>	<i>259.2</i>	1037.9	<i>1071.9</i>	<i>1081.9</i>
Industrial.....	260.0	267.3	277.4	266.1	248.5	248.9	<i>255.7</i>	<i>249.3</i>	<i>245.7</i>	<i>256.7</i>	<i>267.7</i>	<i>257.3</i>	1070.8	<i>1002.4</i>	<i>1027.4</i>
Other.....	26.3	26.9	30.1	27.4	26.4	28.0	<i>29.9</i>	<i>26.8</i>	<i>26.5</i>	<i>26.8</i>	<i>30.1</i>	<i>27.3</i>	110.6	<i>111.0</i>	<i>110.8</i>
Subtotal.....	817.0	812.4	952.5	830.9	850.1	805.6	<i>946.8</i>	<i>808.3</i>	<i>846.1</i>	<i>827.6</i>	<i>970.8</i>	<i>831.1</i>	3412.8	<i>3410.8</i>	<i>3475.6</i>
Nonutility Use/Sales ^h	45.7	46.7	48.6	45.8	47.3	45.8	<i>49.7</i>	<i>43.8</i>	<i>44.0</i>	<i>43.4</i>	<i>48.4</i>	<i>43.6</i>	186.8	<i>186.6</i>	<i>179.3</i>
Total Demand.....	862.7	859.1	1001.1	876.6	897.3	851.4	<i>996.5</i>	<i>852.1</i>	<i>890.1</i>	<i>870.9</i>	<i>1019.2</i>	<i>874.7</i>	3599.5	<i>3597.4</i>	<i>3654.9</i>
Memo:															
Nonutility Sales to															
Electric Utilities ^b	117.9	125.5	178.9	175.5	227.7	218.7	<i>250.0</i>	<i>220.8</i>	<i>235.5</i>	<i>227.6</i>	<i>264.7</i>	<i>235.8</i>	597.8	<i>917.2</i>	<i>963.5</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	<i>2.098</i>	<i>2.700</i>	-15.6	<i>-19.3</i>	<i>28.7</i>
Geothermal, Solar and Wind Energy ^b	0.036	0.004	<i>0.004</i>	<i>0.004</i>	-88.9	<i>0.0</i>	<i>0.0</i>
Biofuels ^c	0.021	0.021	<i>0.023</i>	<i>0.021</i>	0.0	<i>9.5</i>	<i>-8.7</i>
Total	3.136	2.625	<i>2.124</i>	<i>2.725</i>	-16.3	<i>-19.1</i>	<i>28.3</i>
Nonutility Power Generators							
Hydroelectric Power ^a	0.149	0.257	<i>0.233</i>	<i>0.301</i>	72.5	<i>-9.3</i>	<i>29.2</i>
Geothermal, Solar and Wind Energy ^b	0.335	0.355	<i>0.380</i>	<i>0.392</i>	6.0	<i>7.0</i>	<i>3.2</i>
Biofuels ^c	0.523	0.642	<i>0.653</i>	<i>0.651</i>	22.8	<i>1.7</i>	<i>-0.3</i>
Total	1.007	1.254	<i>1.266</i>	<i>1.345</i>	24.5	<i>1.0</i>	<i>6.2</i>
Total Power Generation.....	4.142	3.879	<i>3.390</i>	<i>4.070</i>	-6.3	<i>-12.6</i>	<i>20.1</i>
Other Sectors ^d							
Residential and Commercial ^e	0.553	0.576	<i>0.547</i>	<i>0.577</i>	4.2	<i>-5.0</i>	<i>5.5</i>
Industrial ^f	1.942	2.003	<i>2.008</i>	<i>2.058</i>	3.1	<i>0.2</i>	<i>2.5</i>
Transportation ^g	0.100	0.114	<i>0.116</i>	<i>0.117</i>	14.0	<i>1.8</i>	<i>0.9</i>
Total	2.595	2.692	<i>2.671</i>	<i>2.751</i>	3.7	<i>-0.8</i>	<i>3.0</i>
Net Imported Electricity ^h	0.219	0.255	<i>0.230</i>	<i>0.242</i>	16.4	<i>-9.8</i>	<i>5.2</i>
Total Renewable Energy Demand	6.956	6.826	<i>6.291</i>	<i>7.063</i>	-1.9	<i>-7.8</i>	<i>12.3</i>

^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>9315</i>	<i>9493</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>22.54</i>	<i>19.92</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>5.83</i>	<i>5.74</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>10.60</i>	<i>10.94</i>
Energy Demand															
World Petroleum (million barrels per day)	64.8	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	73.0	73.6	74.9	75.3	<i>75.7</i>	<i>76.4</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>19.72</i>	<i>20.00</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	21.70	22.76	<i>22.02</i>	<i>23.00</i>
Coal (million short tons).....	877	895	903	899	907	943	950	962	1006	1030	1038	1045	1082	<i>1095</i>	<i>1111</i>
Electricity (billion kilowatthours)															
Retail Sales ^c	2578	2647	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3413	<i>3411</i>	<i>3476</i>
Nonutility Own Use ^d	NA	100	104	111	122	127	141	149	149	149	160	189	187	<i>187</i>	<i>179</i>
Total	2578	2747	2817	2873	2885	2988	3075	3162	3250	3295	3424	3501	3600	<i>3597</i>	<i>3655</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	97.2	99.5	<i>98.5</i>	<i>101.0</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	10.97	10.79	<i>10.58</i>	<i>10.64</i>

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

^b Includes lease condensate.

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

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

^e "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1999, DOE/EIA-0384(97) (AER), Table 1.1. Prior to 1990, some components of renewable energy consumption, particularly relating to consumption at nonutility electric generating facilities, were not available. For those years, a less 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 Statistics Report* DOE/EIA-520, and *Weekly Petroleum Status Report* DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1001.

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>9315</i>	<i>9493</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>1.093</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>6785</i>	<i>6966</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>1.214</i>	<i>1.209</i>
Real Fixed Investment (billion chained 1996 dollars)	887	911	895	833	886	958	1046	1109	1213	1329	1480	1595	1716	<i>1661</i>	<i>1601</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>1.132</i>	<i>1.102</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>-23.1</i>	<i>2.0</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>1.349</i>	<i>1.306</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>1.774</i>	<i>1.803</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>0.880</i>	<i>0.740</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>132.4</i>	<i>133.0</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>94.5</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>117.9</i>	<i>119.2</i>
Weather ^a															
Heating Degree-Days															
U.S.	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	<i>4454</i>	<i>4459</i>
New England.....	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6489	<i>6434</i>	<i>6462</i>
Middle Atlantic	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5774	<i>5592</i>	<i>5698</i>
U.S. Gas-Weighted	4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4684	<i>4664</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>1262.3</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/McGraw-Hill Forecast CONTROL1001.

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	20.0
Europe ^b	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.7	14.5	14.4	14.3	14.3
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	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2	3.3	3.3	3.4
Total OECD	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	42.3	42.8	42.8	42.9	43.2
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	2.2	2.1	1.7	1.4	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.6	1.6
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	4.8	4.9
Other Asia	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.5	9.0	8.7	9.0	9.0	9.0	9.1
Other Non-OECD.....	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.1	12.4	12.9	13.3	13.6	13.8	13.9	14.0
Total Non-OECD.....	27.7	28.3	28.2	28.5	28.0	28.0	28.4	29.3	30.0	31.2	31.4	32.1	32.5	32.8	33.2
Total World Demand.....	64.8	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	73.0	73.6	74.9	75.3	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	3.1
North Sea ^d	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.2	6.3	6.0	5.9	6.0
Other OECD	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.5	2.0	2.0	2.0
Total OECD	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	19.7	19.4	19.8	19.7	20.0
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	30.1	28.6
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
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
Other Non-OECD.....	7.3	12.0	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.5	10.8	11.3	11.3	11.4	11.7
Total Non-OECD.....	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	55.2	54.8	57.0	57.1	56.3
Total World Supply.....	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	74.9	74.2	76.8	76.8	76.3
Total Stock Withdrawals.....	0.1	0.0	-1.1	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.1	-1.3	0.7	-1.5	-1.1	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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

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 Statistics Report*, 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	22.54	19.92
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	26.47	23.02
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	3.61	4.16	2.21
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	1.34
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	1.30
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	1.30
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	0.78	0.67
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	1.26	1.09
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	22.48	20.00
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	1.23	1.21
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	3.78	3.22
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	4.59	2.77
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	7.72	9.44	7.01
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	8.54	8.43

^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	5.83	5.74
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	9.07	9.49
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	-0.02	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	0.29	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	15.16	15.33
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	1.83	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	0.37
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	0.93	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	1.53	1.45
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	-0.11	0.00
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	19.72	20.00
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	8.59	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	1.69	1.72
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	3.77
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	0.83
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	4.64	4.89
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	19.72	20.00
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	10.60	10.94
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	330	341	323	325	318	335	337	303	284	305	324	284	286	294	293
Total Motor Gasoline	228	213	220	219	216	226	215	202	195	210	216	193	196	211	209
Jet Fuel	44	41	52	49	43	40	47	40	40	44	45	41	45	44	44
Distillate Fuel Oil	124	106	132	144	141	141	145	130	127	138	156	125	118	128	130
Residual Fuel Oil	45	44	49	50	43	44	42	37	46	40	45	36	36	38	38
Other Oils	267	257	261	267	263	273	275	258	250	259	291	246	247	261	263

^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	18.62	19.08	<i>19.34</i>	<i>19.59</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	3.53	<i>3.64</i>	<i>3.76</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	0.10	<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	22.14	22.71	<i>23.09</i>	<i>23.47</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>2.49</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>2.49</i>	<i>2.45</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>-0.77</i>	<i>0.04</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	22.36	23.50	<i>22.32</i>	<i>23.51</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	-0.67	-0.73	<i>-0.30</i>	<i>-0.51</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	21.70	22.76	<i>22.02</i>	<i>23.00</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	1.11	<i>1.12</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	0.74	0.77	<i>0.74</i>	<i>0.74</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	4.98	<i>4.99</i>	<i>5.11</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	3.26	<i>3.30</i>	<i>3.31</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	9.00	9.61	<i>9.25</i>	<i>10.33</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>2.63</i>	<i>2.39</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	21.70	22.76	<i>22.02</i>	<i>23.00</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	1075.5	<i>1140.6</i>	<i>1139.4</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	420.9	<i>433.4</i>	<i>427.5</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	144.7	<i>151.8</i>	<i>139.2</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	509.9	<i>554.4</i>	<i>572.7</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>16.8</i>	<i>18.1</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>55.3</i>	<i>57.0</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	1034.8	<i>1101.6</i>	<i>1100.5</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	143.5	<i>108.1</i>	<i>120.6</i>
Closing.....	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	143.5	108.1	<i>120.6</i>	<i>121.6</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	-14.1	35.4	<i>-12.5</i>	<i>-1.0</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	1043.6	1080.3	<i>1099.8</i>	<i>1110.6</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>26.6</i>	<i>26.0</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>847.6</i>	<i>862.9</i>
Nonutilities (Excl. Co-gen.) ^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>151.0</i>	<i>153.8</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>69.4</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>1094.6</i>	<i>1110.6</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	-0.9	-1.3	<i>5.2</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>1626.9</i>	<i>1649.7</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>80.7</i>	<i>60.8</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>253.8</i>	<i>226.4</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>531.9</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>200.2</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>2695.9</i>	<i>2720.2</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>1103.7</i>	<i>1142.8</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>3799.6</i>	<i>3863.0</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>3833.4</i>	<i>3896.7</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>1225.5</i>	<i>1255.5</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>1071.9</i>	<i>1081.9</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>1002.4</i>	<i>1027.4</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>111.0</i>	<i>110.8</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>3410.8</i>	<i>3475.6</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>186.6</i>	<i>179.3</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>3597.4</i>	<i>3654.9</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>917.2</i>	<i>963.5</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.