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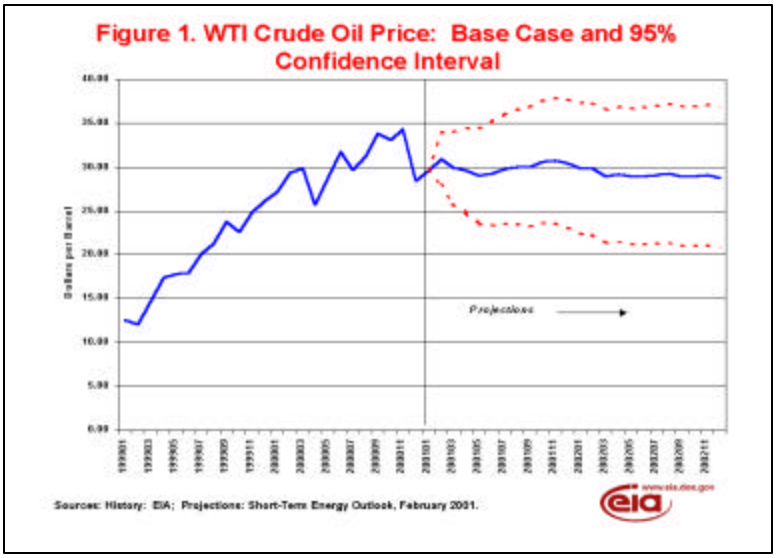
Energy Information Administration

Short-Term Energy Outlook

February 2001



Overview

Barring a sharp drop in world oil consumption below our current expectations, no compelling case for rapidly declining oil prices emerges from the world oil market outlook (Figure 1). We expect the WTI spot price average to remain near $30 per barrel for the rest of this year. Prices are likely to drift downward some next year, perhaps losing $1 per barrel between 2001 and 2002. The balance of world oil demand and supply suggests a continuation of the tight inventory situation in industrialized countries seen over the last year.

Expanded supply of heating oil in the United States and some comparatively warm weather in the Northeast of late has eased pressure on heating oil prices and improved storage levels relative to previous expectations. Although supplies may still be considered below normal, the market has come a long way toward resolving any potential heating oil shortfalls in the Northeast.

Natural gas storage was improved by end-January relative to what was expected previously. A combination of new supply, demand cutbacks due to fuel substitution and industrial slowdowns, as well as overall conservation saved about 140 billion cubic feet more than we anticipated last month. (Some of this change was due to revisions.) Consequently, very much lower spot gas prices developed in late January. Despite the improvement, gas prices remain quite sensitive to weather shifts and storage remains well below normal.

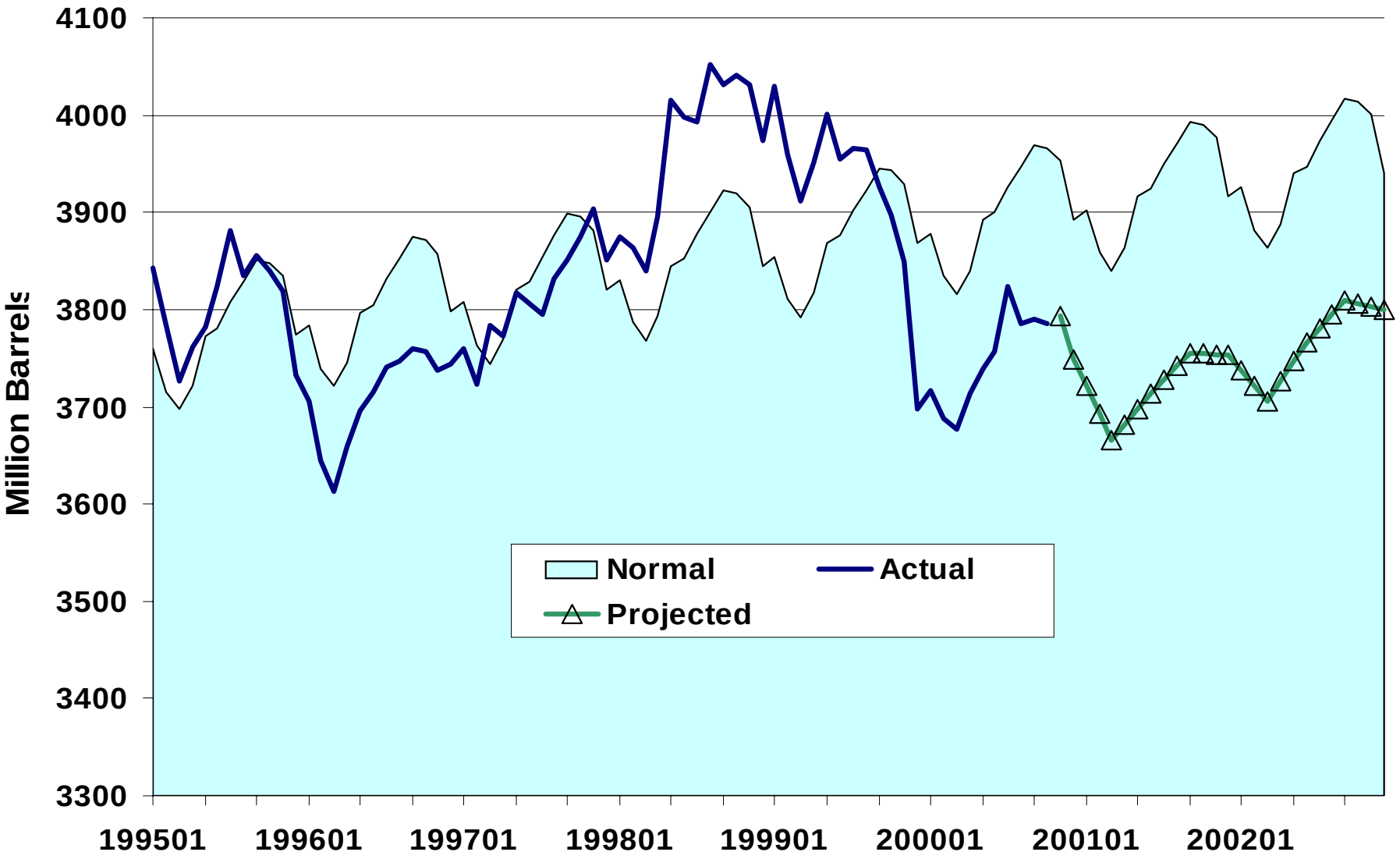
We have recast the way in which we present the electricity balance beginning with this month's report. A more complete definition of electricity demand that includes sales to end users by power marketers (instead of just electric utility sales plus nonutility own use) has been adopted (see footnote "g" to Table 10). On this basis, electricity demand grew by about 2.3 percent in 1999 and 3.6 percent in 2000. Growth over the next 2 years is expected to average about 2.3 percent.

International

Crude Oil Prices. The monthly average U.S. imported crude oil price in January was about $25.25 per barrel (almost $30 per barrel for West Texas Intermediate crude oil), slightly higher than the December price (Figure 1).

EIA expects that oil stocks in the OECD countries will continue to be tight compared to normal levels and provide enough support to prevent prices from falling significantly (Figure 2). EIA's evaluation of normal OECD stock levels factors in both historical averages and a trend related to increasing inventory requirements as world demand increases. For this reason, EIA's assessments of OECD stocks are more bullish for prices than those using just historical averages.

Figure 2. Total OECD Oil Stocks*



*Total includes commercial and government stocks

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

Price declines in December and January had indicated weakness in the near-term market. However, EIA believes that the OPEC 10's (OPEC excluding Iraq) decision to cut oil production quotas effective February 1 will provide enough support to maintain the OPEC basket oil price (roughly equivalent to the average U.S. imported crude oil price) within (and mostly toward the high end of) OPEC's target range of $22 - $28 per barrel in 2001 and 2002.

International Oil Supply OPEC members agreed to reduce production quotas at its January 17 meeting effective February 1, 2001. EIA assumes that as a result of this agreement, actual OPEC 10 production levels will decline by about 1 million barrels per day from December levels, with half of this decline coming from Saudi Arabia. That is about what we expected prior to the meeting for the OPEC 10. We have, however, lowered somewhat our estimate of Iraqi production such that total OPEC liquids output is about 0.3 million barrels per day lower, on average, than previously projected for the 2001-2002 period (Figure 3). Some OPEC members have suggested that further cuts will be needed to maintain world oil supplies in balance with demand, and that additional quota cuts would be discussed at its March meetings. EIA's assessment does not factor in any further cuts in 2001.

Iraqi efforts to end U.N. sanctions resulted in falling exports and production in December, and reduced exports in January that included a three-week halt in loadings at the Ceyhan terminal on the Iraq-Turkey pipeline. These efforts are assumed to continue in 2001 with negative consequences on Iraqi exports and production.

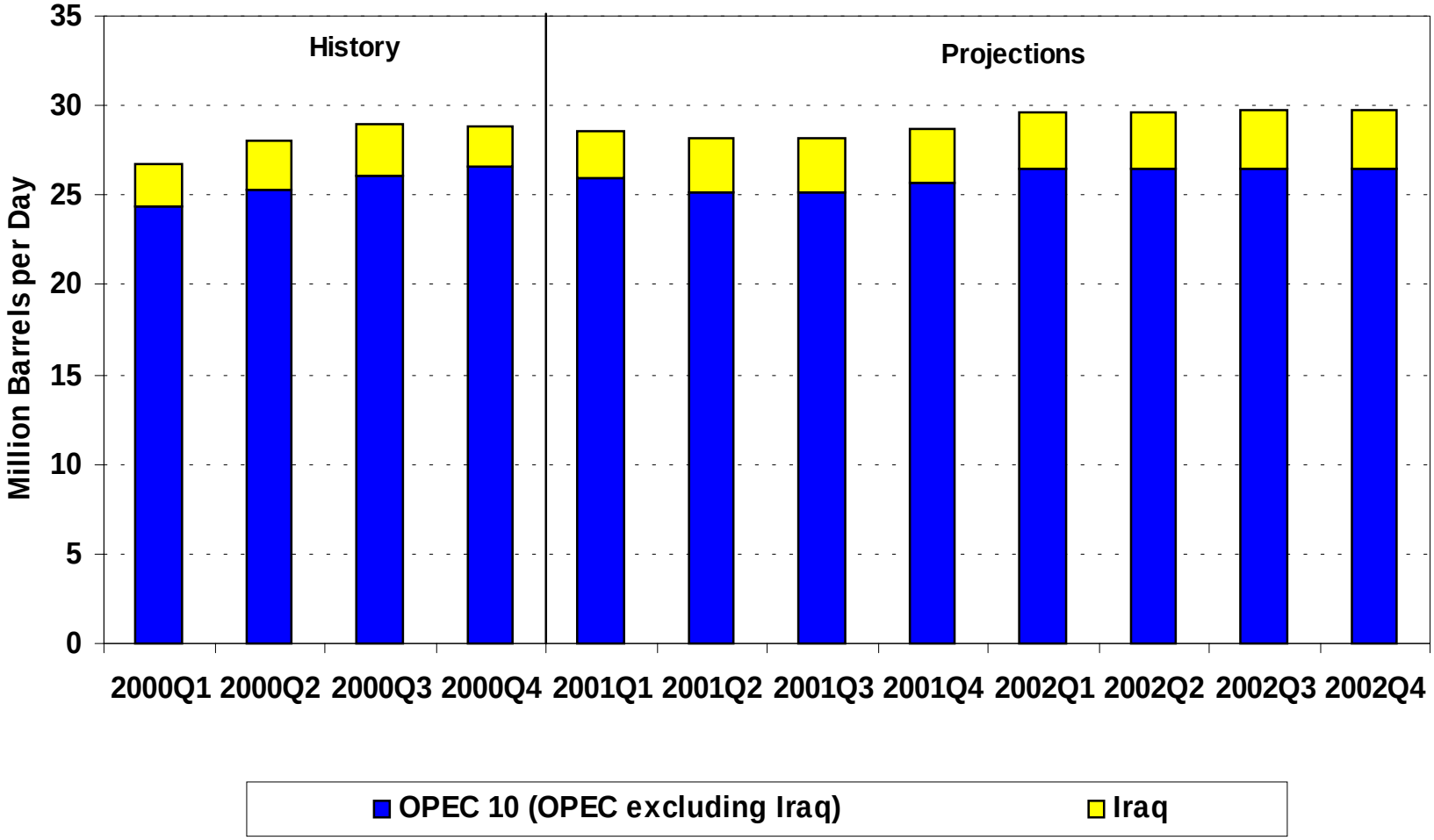
Non-OPEC production is expected to increase by another 0.6 million barrels per day in 2001, and another 0.8 million barrels per day in 2002. These increases are expected primarily from the former Soviet Union, with smaller increases from other regions (Table 3). No further increases are expected from the North Sea as output from new fields is not expected to outstrip declines in maturing fields.

International Oil Demand. World oil demand is expected to continue to grow despite concerns over a gradual economic slowdown in the industrialized countries (Figure 4). However, EIA has lowered its projections from the previous Outlook, with most of the reductions expected in the Asian countries. EIA's projected world oil demand in 2001 and 2002 is expected to be lower by 0.3 million barrels per day from the previous Outlook, reducing world oil demand growth to 1.6 million barrels per day. However, non-OECD Asia is still expected to be the leading region for oil demand growth over the next two years.

World Oil Inventories. EIA does not attempt to estimate oil inventory levels on a global basis; however, the direction global oil inventories are headed is discerned from EIA's world oil supply and demand estimates. These estimates provide only a rough guide because of what has come to be known as the "missing barrels problem". The available limited data for tracking inventories suggest that inventories have not been building as fast as any of the global supply/demand estimates (including EIA's) would indicate, and that the inventory estimates are being overstated.

The most reliable inventory data are from the OECD countries. The data indicates that there was very little stockbuild in 2000 for these countries, which account for a little more than half of total world oil demand. However, EIA's global supply/demand estimates suggest that OECD inventories should have been building by almost 400,000 barrels per day in 2000. EIA's projections for OECD inventories are adjusted to reflect the assumption that the "missing barrels problem" will continue in 2001, but will be diminished by 2002. With this adjustment, OECD inventories are projected to grow relatively slowly in 2001 and 2002. EIA believes that this stock growth will be small enough to provide continued price support because inventories will continue to be low compared to normal levels.

Figure 3. OPEC Crude Oil Production 2000-2002



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

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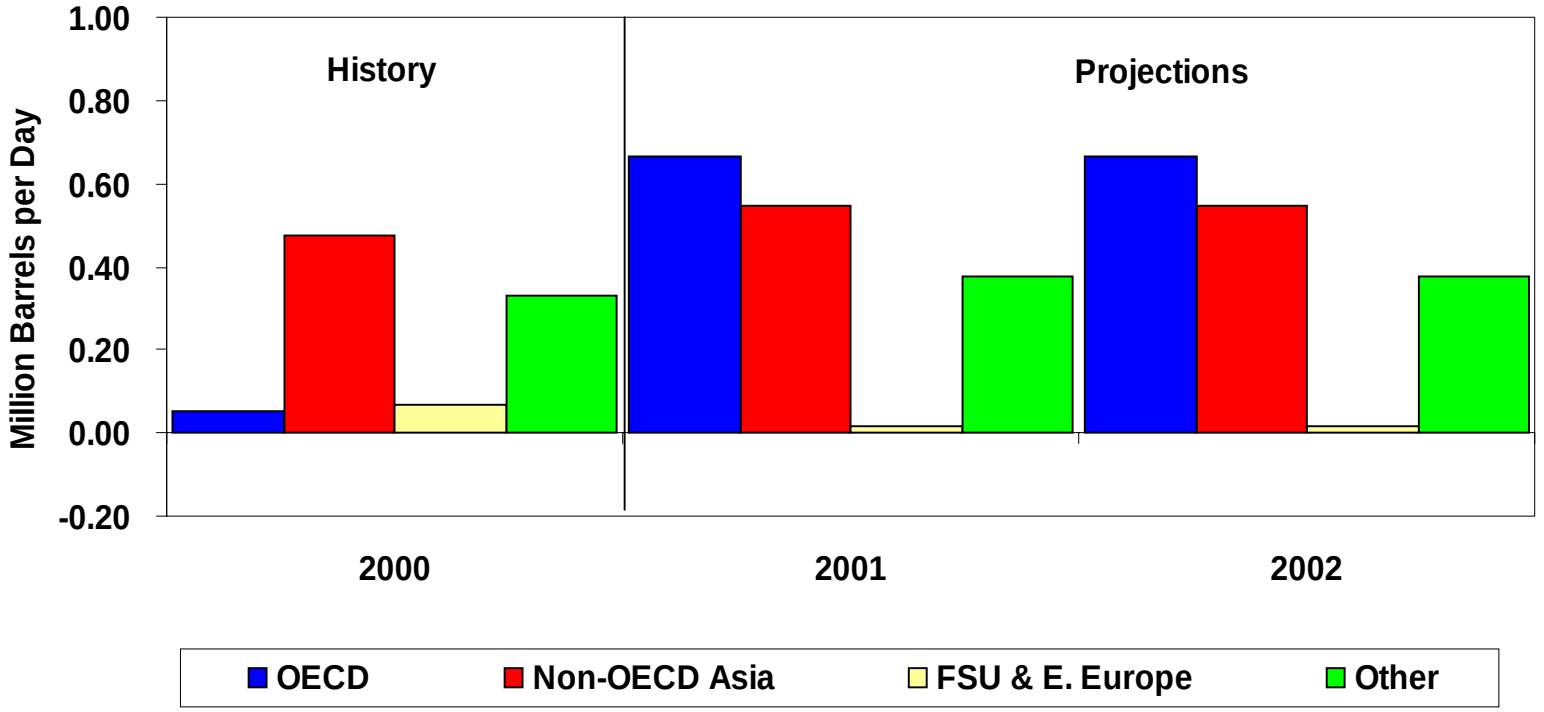
Figure 4. Annual World Oil Demand
(Changes from Previous Year)



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

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U. S. Energy Prices

Heating Oil. With the heating season (October-March) past the halfway point, we can be fairly confident that retail heating oil prices have seen their seasonal peak provided that no substantial deviations in heating demand above normal occur over the next two months. Warm spells last month and deteriorating crude oil prices in December (falling $5.50 dollars per barrel from November) and January, have helped ease heating oil prices. Over the past 6 weeks, spot heating oil prices have fallen by more than 20 cents per gallon. Because of the relatively balmy weather in the Northeast during the last half of January, heating oil stock levels have not weakened over the past month. Furthermore heating oil production has been unusually robust, running several hundred thousand barrels per day over last year's pace. Now, we project winter prices to average around $1.40 compared to $1.48 in our previous Outlook. Despite this, retail heating oil prices remain quite high in historical terms. The national average price last December was 38 cents per gallon above the December 1999 price (Figure 5). This month, the average price is not expected to be much different from the record high of $1.43 per gallon last December and $1.42 set last February.

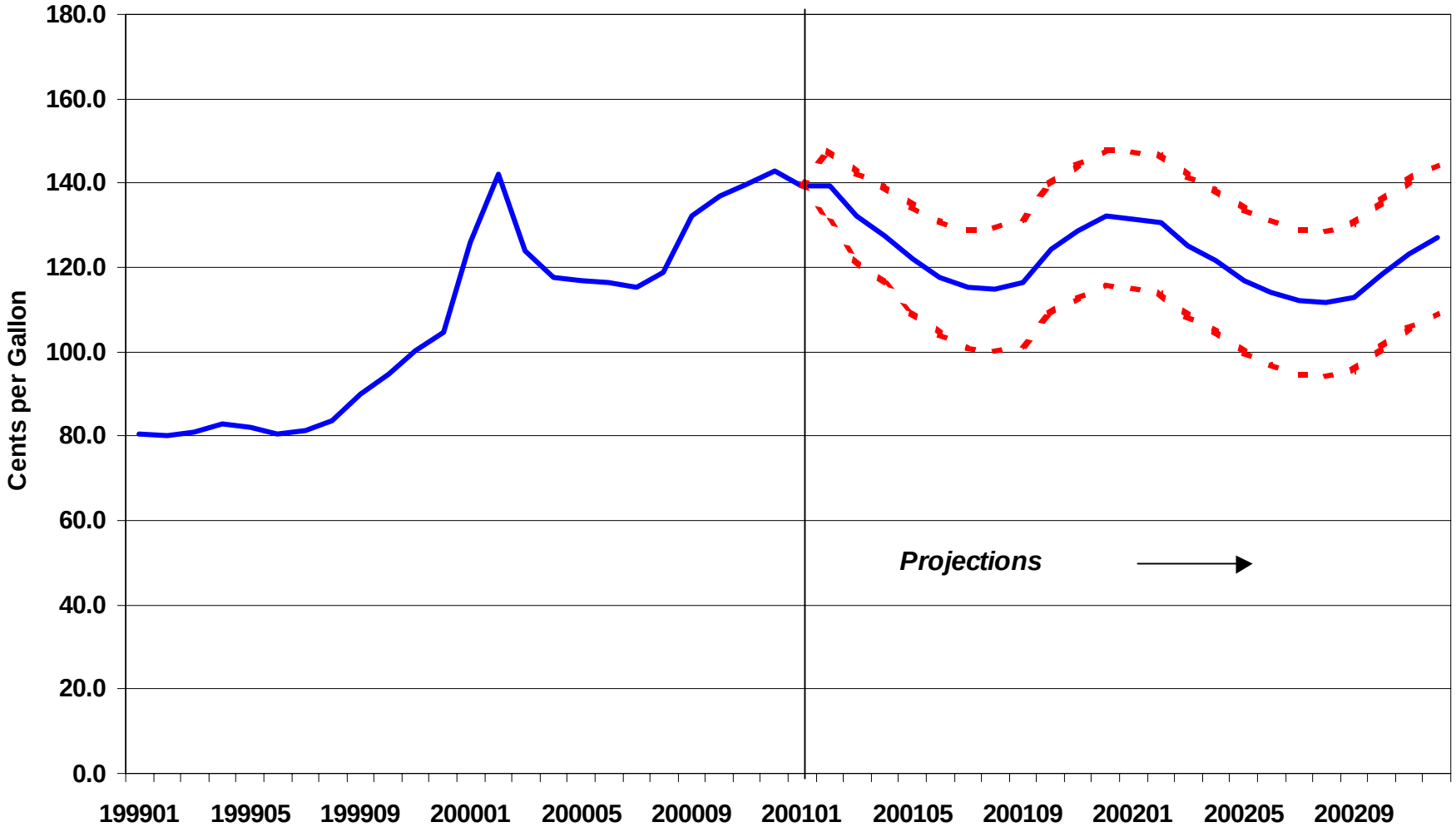
Despite the recent warm weather, a risk, though diminished, still continues this winter for abrupt price jumps similar to what happened last February, especially if the weather turns sharply cold in the Northeast. For the U.S., distillate stocks are currently about 9 million barrels below the low end of the normal range (Figure 6).

Motor Gasoline. Pump prices have backed down from the high prices experienced last fall. The retail price for regular unleaded motor gasoline fell 11 cents per gallon from September to December. However, with crude oil prices rebounding somewhat from their December lows combined with lower than normal stock levels, we project that prices at the pump will rise modestly as the 2001 driving season begins in the spring (Figure 7). For the summer of 2001, we expect only a little difference from the average price of $1.50 per gallon seen during the previous driving season, as motor gasoline stocks going into the driving season are projected to be slightly less than they were last year (Figure 8). The situation of relatively low inventories for gasoline could set the stage for some regional imbalances in supply that could once again bring about significant price volatility in the U.S. gasoline market.

High natural gas prices are contributing to higher prices, reduced domestic production, and higher imports of methyl tertiary butyl ether (MTBE), an oxygenated blending component for reformulated gasoline. The raw materials in MTBE production, methanol and butane, are primarily derived from natural gas. The increase in production cost and price of MTBE will lead to a higher price premium for reformulated gasoline, which represents about 1/3 of total U.S. gasoline demand, over conventional unleaded gasoline. For example, 10% of each gallon of reformulated gasoline is MTBE. Each 10 cent per gallon increase in the price of MTBE should increase the price premium for reformulated gasoline by about 1 cent per gallon, and increase the average U.S. price of gasoline by about 1/3 cent per gallon. The increase in cost of producing MTBE should also lead to greater demand for fuel ethanol as an alternative oxygenated blendstock for reformulated gasoline.

Natural Gas. Spot wellhead prices last summer averaged well over $4.00 per thousand cubic feet during a normally low-price season. During the fall, these prices stayed above $5.00 per thousand cubic feet, more than double the year-ago average price (Figure 9). In January, the spot wellhead price averaged a record $8.98 per thousand cubic feet. Spot prices at the wellhead have never been this high for such a prolonged period. The chief reason for these sustained high gas prices was, and still is, uneasiness about the supply situation. Concern about the adequacy of winter supplies loomed throughout most of the summer and fall as storage levels remained significantly depressed. Last December, the most severe assumptions about low storage levels became real, when the spot price closed for the day at over $10.00 per cubic feet on several occasions. The low levels of gas storage have put the spot market in an extremely volatile position.

Figure 5. Residential Heating Oil Prices: Base Case and 95% Confidence Interval



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

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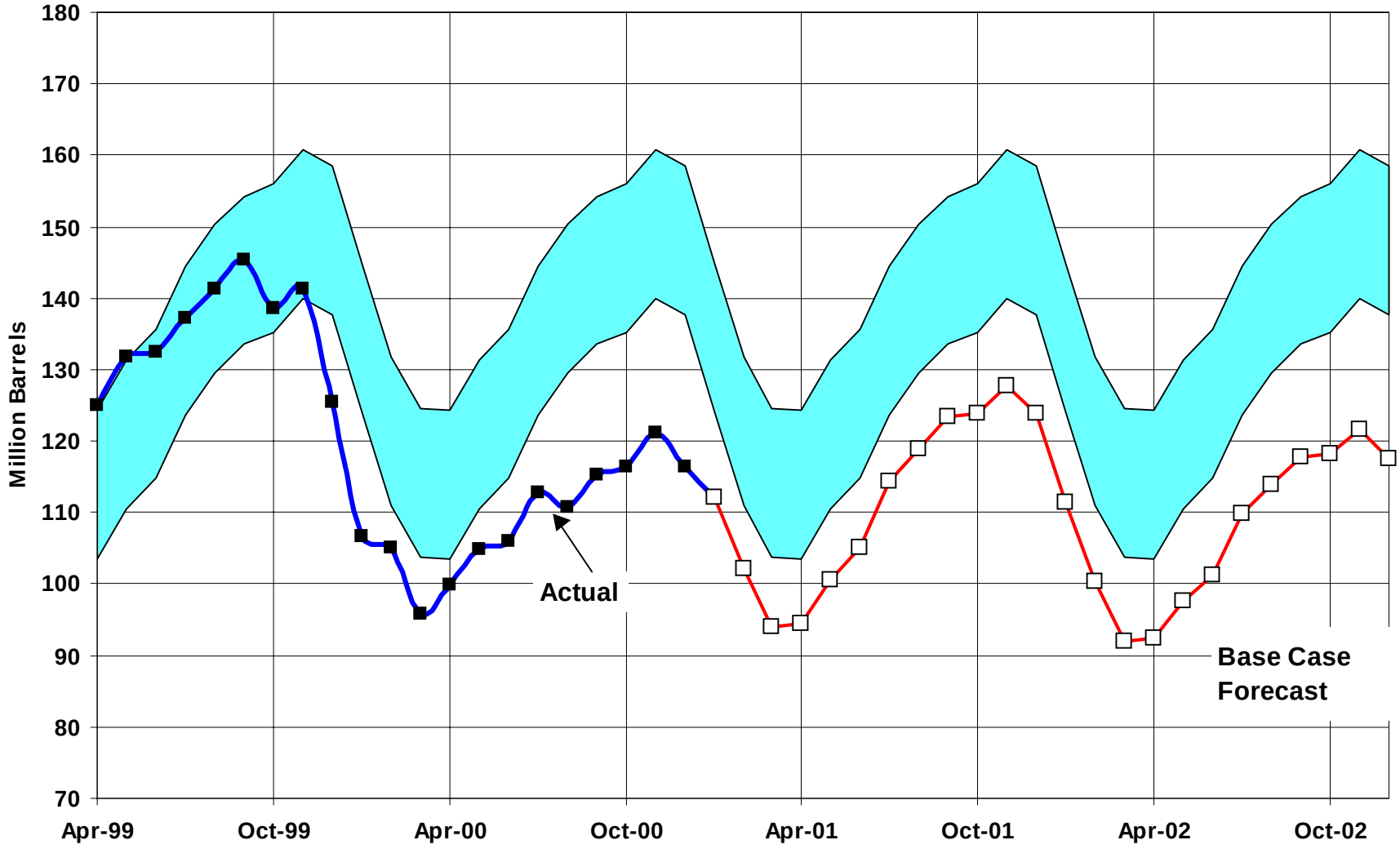
Figure 6. U.S. Total Distillate Fuel Stocks



NOTE: *Colored band is normal stock range*

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

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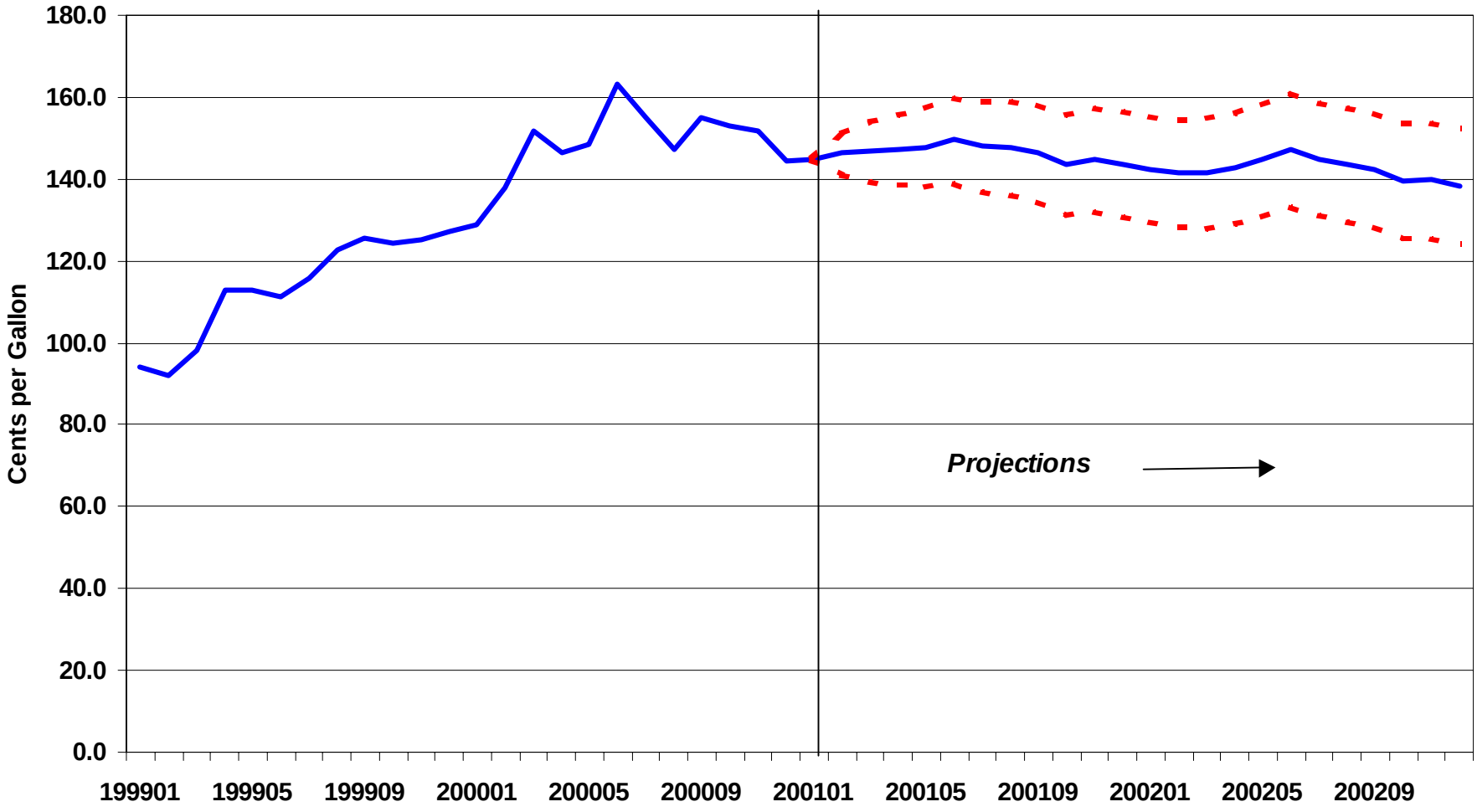
Figure 7. Retail Motor Gasoline Prices*: Base Case and 95% Confidence Interval



* Regular unleaded self-service

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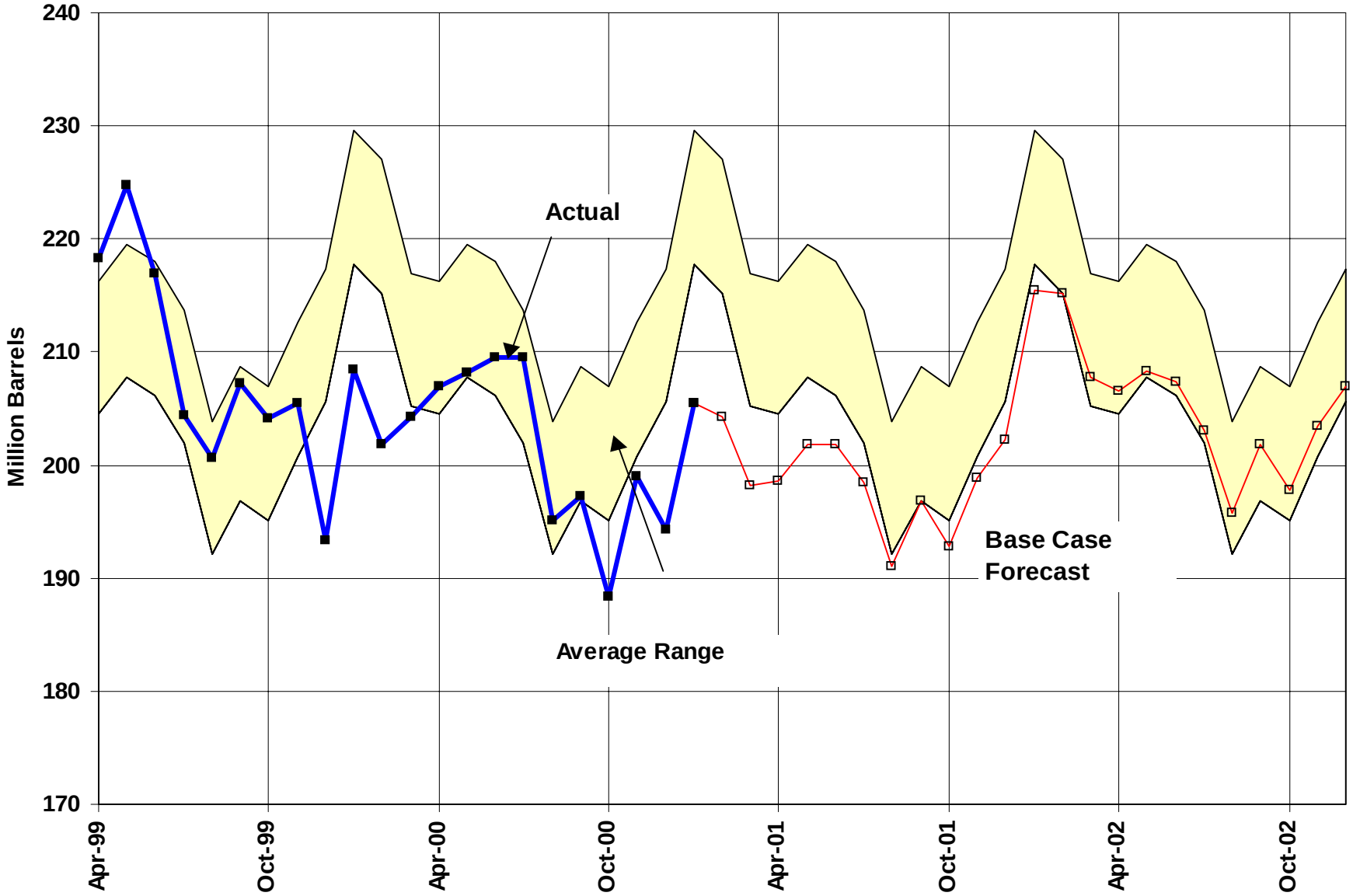
Sources: History: EIA; Projections: Short-Term Energy Outlook, February 2001.

Figure 8. Gasoline Stocks



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

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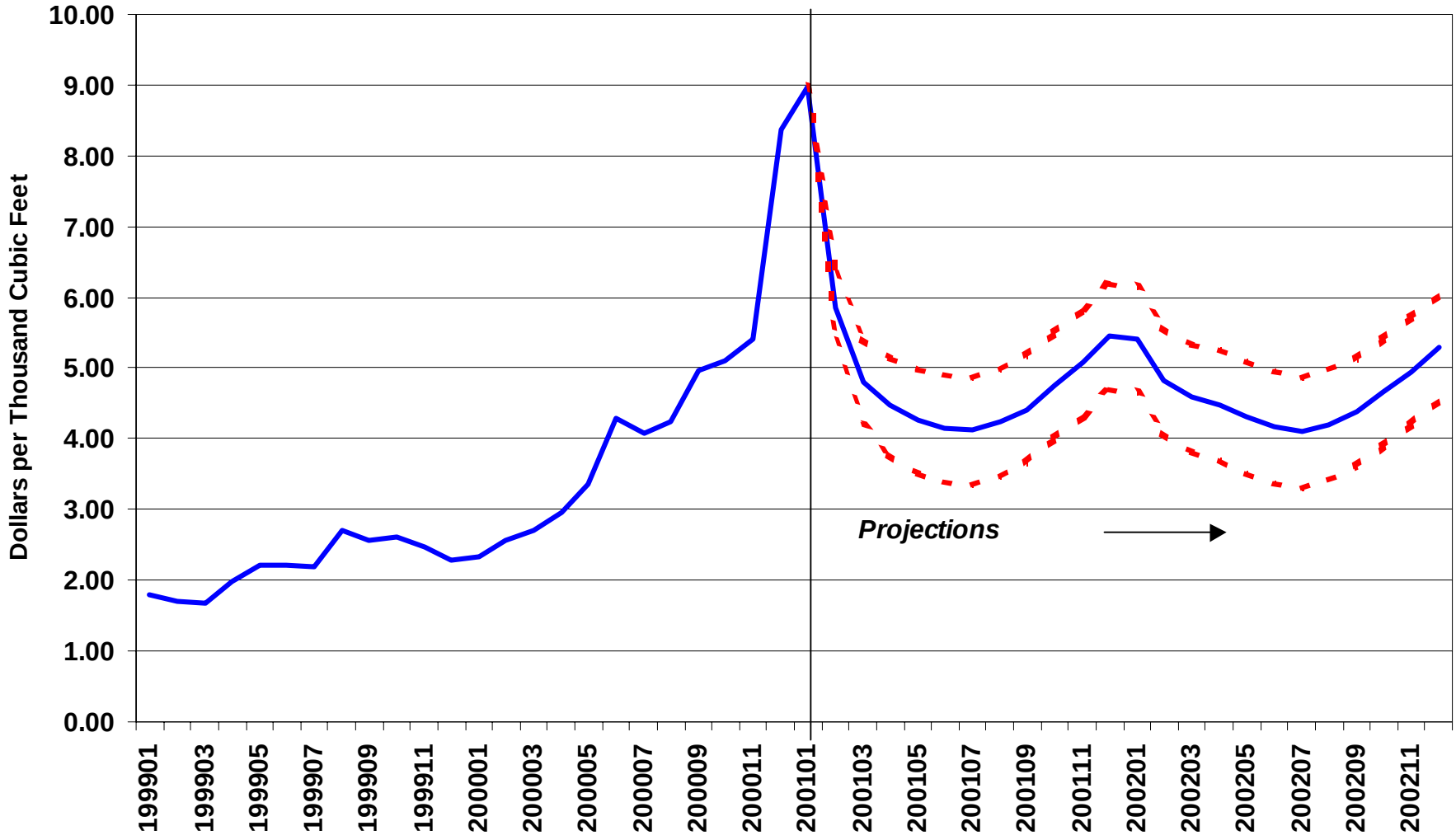
Figure 9. Natural Gas Spot Prices: Base Case and 95% Confidence Interval



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

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However, heating demand was eased by milder than normal weather during the latter part of January in much of the nation's gas consuming regions. This in turn led to spot prices plunging to less than $6.00 per thousand cubic feet. Nevertheless, spot prices and wellhead prices still remain quite high by historical standards.

We are projecting that winter (October 2000-March2001) natural gas prices at the wellhead will average about $6.14 per thousand cubic feet, more than two and one half times the price of the previous winter season. In our base case, residential prices for natural gas this winter would be about 50 percent higher than last year during that period. This spring and summer, monthly average wellhead prices should drop from the winter peak by about $4.00 per thousand cubic feet as the weather-related demand recedes. Still, for the year 2001, assuming normal weather and our projection of continued low underground storage levels, wellhead prices are not expected to dip much below $4.00 per thousand cubic feet. In 2001, the annual average wellhead price is projected to be close to $5.00 per thousand cubic feet. Next year, we expect the storage situation to improve modestly and with that, a decrease in the average annual wellhead price. Increases in production and imports of natural gas needed to keep pace with the rapidly growing demand for natural gas will be accompanied, for the time being, by relatively expensive supplies for gas due to rising production costs and capacity constraints on the pipelines.

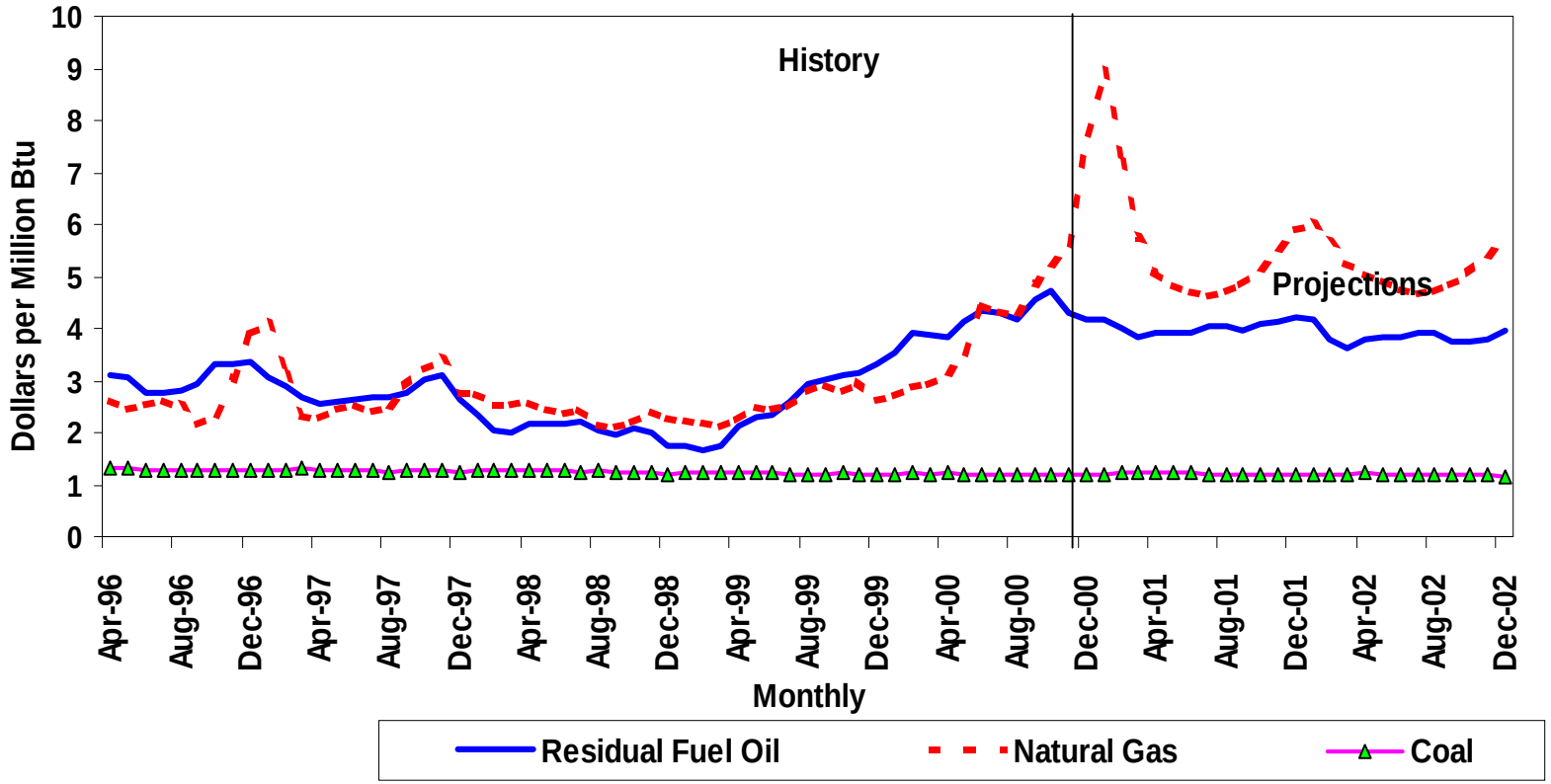
Electric Utility Fuels. The rapid rise in gas prices last summer and fall has pulled delivered gas prices above heavy fuel oil prices, on a cost per Btu basis (Figure 10). As this situation is likely to persist, we anticipate some recovery in the amount of oil used for power generation over the very low levels seen since late 1999. Interestingly, after years of gradual, but steady decline, the cost of coal to electric utilities is projected to increase slightly, on a quarterly year-over-year basis, as coal, like oil, is being used more intensively for electricity generation in lieu of expensive or unavailable natural gas.

U.S. Oil Demand

The most recent estimates for 2000 indicate that petroleum demand shrank by 14,000 barrels per day or 0.1 percent. Despite colder-than-normal fourth-quarter weather, first-quarter warm weather and continuing price increases throughout much of the year contributed to the contraction in demand. Motor gasoline demand declined an estimated 0.7 percent for the year in reaction to the substantial increase in pump prices--which reached records in nominal terms—and a moderation in real disposable income growth. Although prices have retreated somewhat, they are still well above those of a year ago. Total jet fuel growth in 2000 averaged 1.8 percent compared to 3.1 percent in 1999 (Figure 11). Led by growth in international air traffic, commercial jet fuel demand grew by 3.9-percent despite an almost 10-percent increase in ticket prices and a slowing in real income growth late in the year. But, jet fuel used in blending for diesel fuel declined as a result of first-quarter mild weather. Distillate fuel oil demand, however, grew 3.2 percent, led by growth in transportation demand. Space-heating demand, however, declined. Despite the combined effects of rising prices and warm weather that depressed demand in the first half of the year, residual fuel oil demand eked out an estimated 1.1-percent growth in 2000. Cold weather in the fourth quarter, a decline in prices from their mid-year peak, and the spike in natural gas prices contributed to the second-half recovery in industrial demand and the late surge in power-generation demand.

During the next 2 years, energy prices are projected to moderate somewhat (or at least not rise significantly), and real disposable income is expected to grow at relatively robust rates (*despite a slowing overall economy) due in part to expected reductions in taxes and interest rates. Weather patterns are assumed to be normal. Petroleum demand is therefore projected to exhibit strong growth throughout the forecast interval, averaging about 350,000 barrels per day, or 1.8 percent, per year. In 2002, petroleum demand is projected to exceed 20 million barrels per day for the first time. Reversing last year's decline, motor gasoline demand is projected to increase once again, although with growth averaging only 1.5 percent per year. Commercial jet fuel demand is projected to continue to increase steadily at a 2.3-percent

Figure 10. Fossil Fuel Prices to Electric Utilities



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

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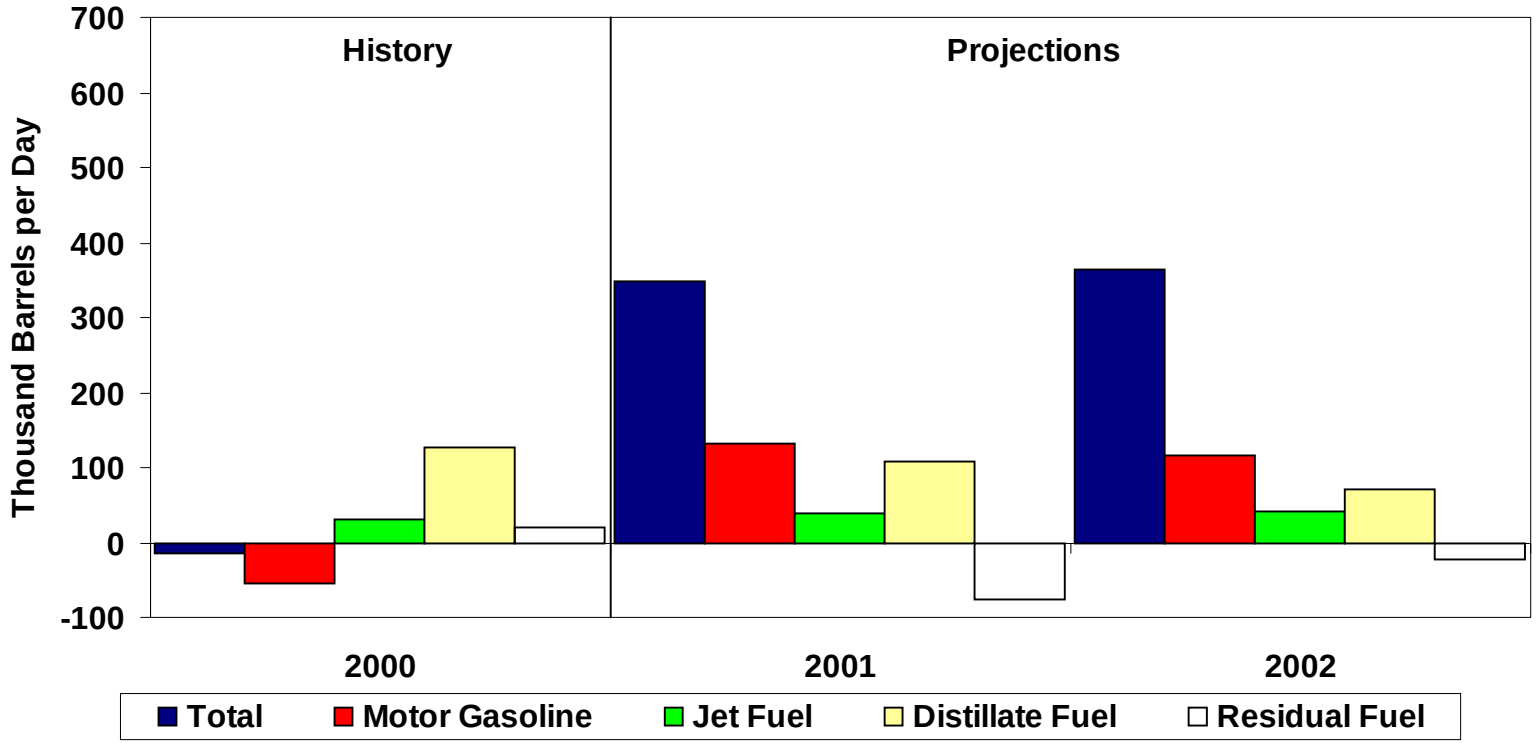
Figure 11. Petroleum Products Demand (Year-to-Year Change)



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

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average rate. That demand is bolstered by continued increases in disposable income and a taming of ticket-price inflation to 3 percent from the 8 percent of the previous 2 years. Total distillate fuel oil demand is projected to increase at a 2.4-percent rate. Transportation diesel fuel demand is projected to continue to expand, but space-heating fuel demand is not projected to exhibit any growth. Residual fuel oil demand, on the other hand, is expected to contract during the forecast interval. Despite the assumptions of normal weather, continued declines in natural gas prices from their recent records are expected to result in a displacement of fuel oil in the price-sensitive power-generation and industrial sectors.

U.S. Oil Supply

Average domestic oil production is expected to increase by 10 thousand barrels per day or 0.2 percent in 2001, to a level of 5.85 million barrels of oil per day (Figure 12). For 2002, a 0.5 percent decrease is expected and results in a production rate of 5.82 million barrels of oil per day average for the year.

Lower-48 States oil production is expected to decrease by 40 thousand barrels per day to a rate of 4.8 million barrels per day in 2001, and followed by an decrease of 55 thousand barrels per day in 2002. Shell started production in 1999 in their Ursa field and will peak in production in the year 2001. Shell's Brutus platform is expected to start production in the third quarter of 2001 with peak oil production at 100,000 barrels per day in 2002. Oil production from the Mars, Troika, Ursa, and Brutus Federal Offshore fields is expected to account for about 8.3 percent of the lower-48 oil production by the 4th quarter of 2002.

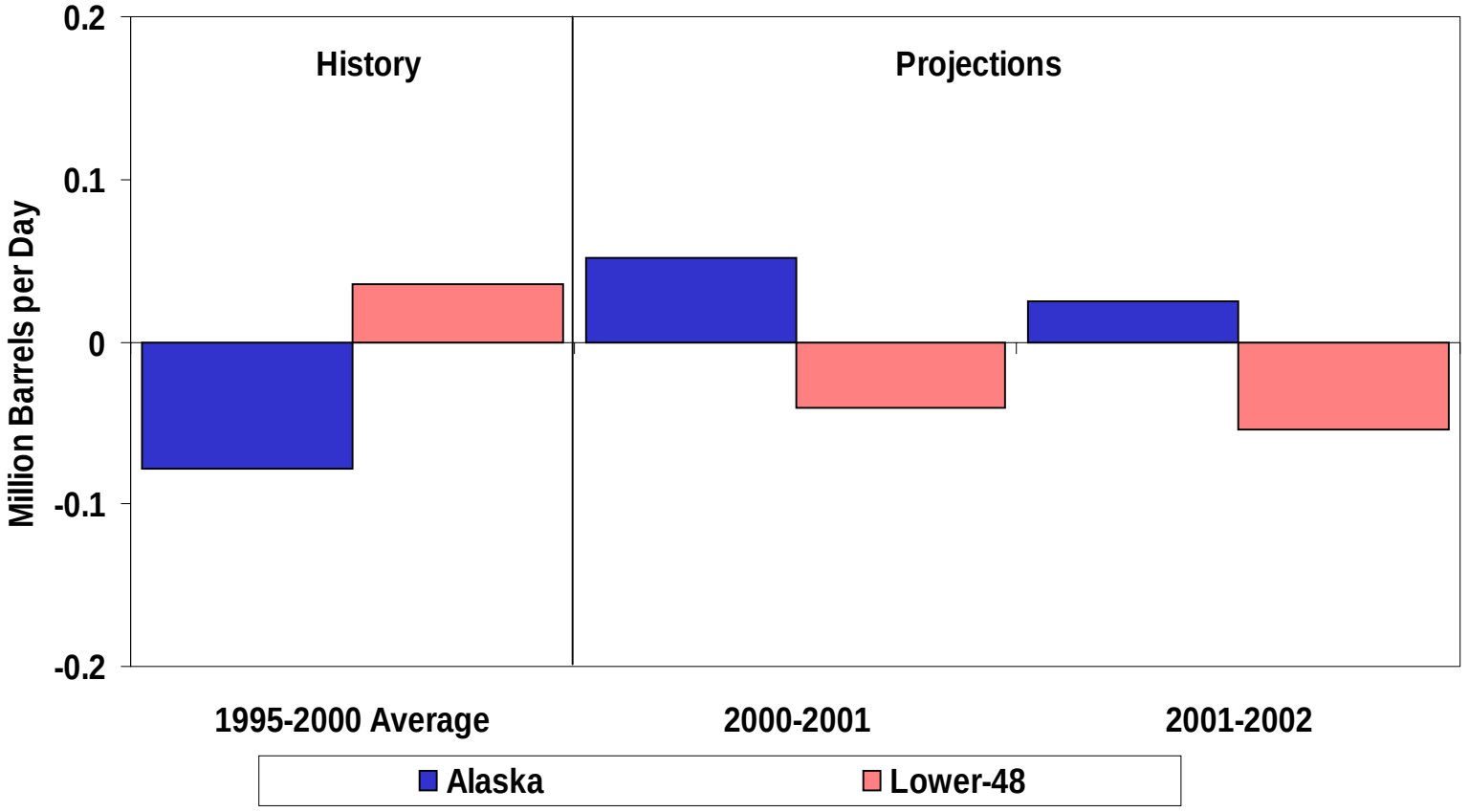
Alaska is expected to account for 18.0 percent of the total U.S. oil production in 2002. Its oil production is expected to increase by 5.6 percent in 2001 and again increase by 2.4 percent in 2002. The increase in 2001 is the result of adding two new satellite fields, Colville River (Alpine) and Prudhoe Bay (Aurora), which contribute to the Alaska North Slope production. The initial rate from Alpine averaged 18,000 barrels per day during November and it is expected to peak at 80,000 barrels per day in mid 2001. Aurora peak production should occur late this year. 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 236,000 barrels per day in 2001-2002 forecast period.

Natural Gas Demand and Supply

January natural gas demand is estimated to have increased by about 5-6 percent over year-ago, as heating degree-days (HDD) averaged 3-4 percent above year-ago levels. This was down considerably from the growth rates estimated for November and December 2000, when severe winter weather pushed natural gas demand in these months to levels averaging 13 percent higher than a year ago, led by the residential and commercial sectors. The jump in natural gas prices has served to dampen higher demand levels in the industrial and utility sectors as generating units able to switch to other fuels presumably did so. Assuming normal weather for the remainder of the forecast period, natural gas demand is projected to grow by 2.3 percent in 2001 and by 4.1 percent in 2002, compared with estimated demand growth of 4.3 percent in 2000 (Figure 13).

In 2001 and 2002, natural gas demand in the industrial sector is expected to increase by 3.1 percent and 7.5 percent, respectively. Natural gas demand for nonutility electricity generation in 2001 is expected to be up by about 7.0 percent. Electric utility gas demand is expected to remain about level with consumption rates seen in 2000. This distinction is due in part to sales of electric generating plants by electric utilities to unregulated generating companies, fuel consumption by which is currently recorded by EIA in the industrial sector. We assume, for the purposes of the forecast, that no additional sales of generating units to unregulated entities occur, but that assumption merely affects the label attached to the fuel demand source, not the overall demand trend.

Figure 12. U.S. Crude Oil Production (Year-to-Year Change)



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

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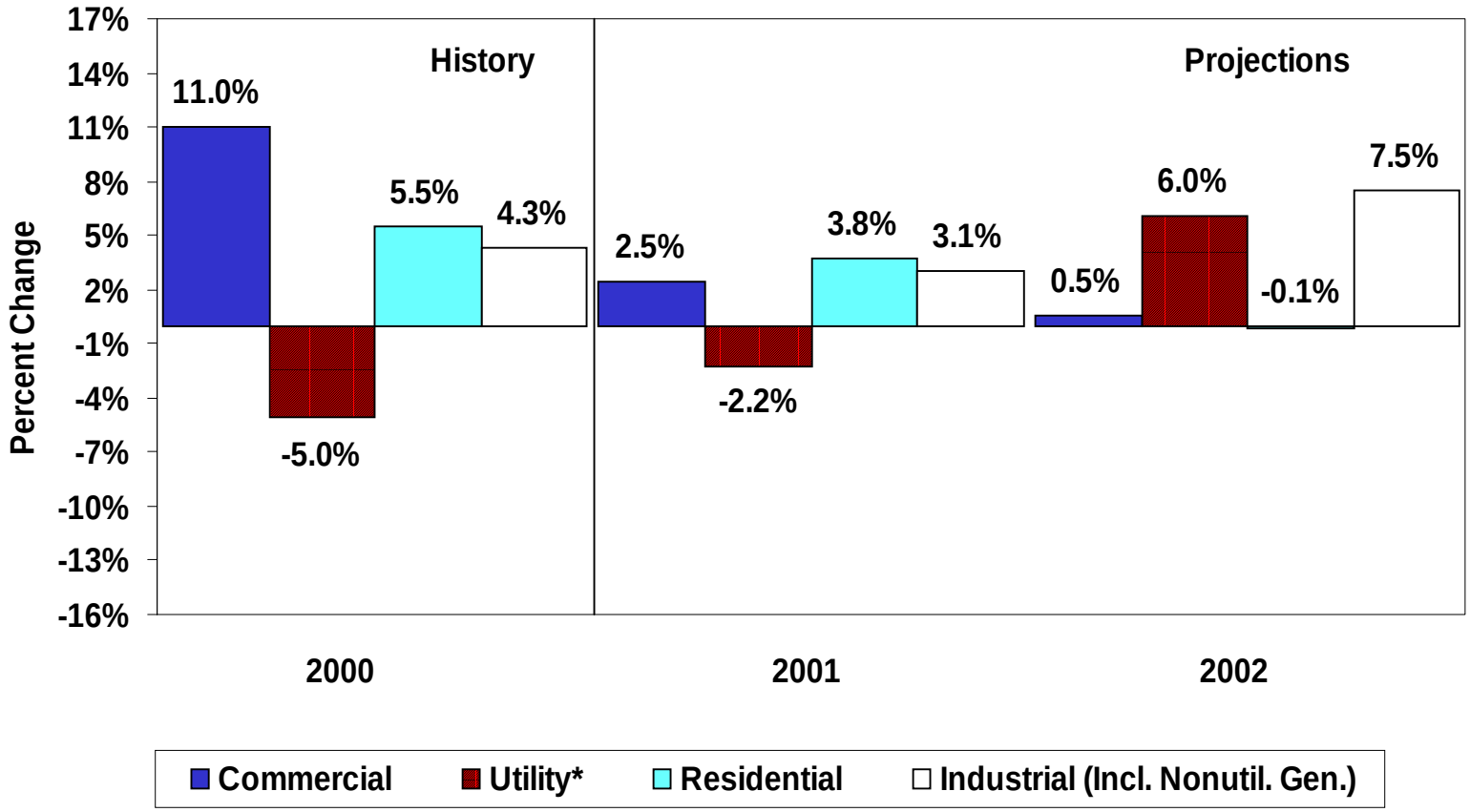
Figure 13. Annual Changes in Natural Gas Demand by Sector



* Electric utility gas demand changes in recent years in part reflect sale of assets to the nonutility sector

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

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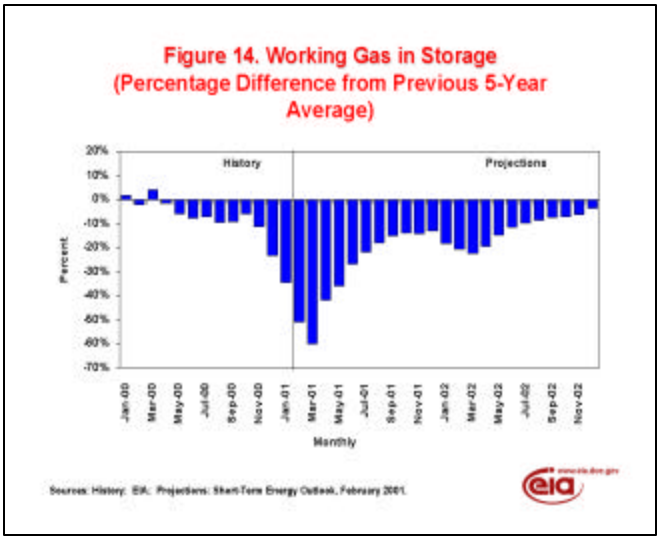
Domestic gas production for 2001 and 2002 is expected to rise as production responds to the high rates of drilling experienced over the past year. Production is estimated to have risen by 1.1 percent in 2000 and it is forecast to increase by significantly higher rates of 5.4 percent rate in 2001 and 2.5 percent in 2002.

According to the American Gas Association (AGA), during the week ending January 26, a total of 128 billion cubic feet was withdrawn from storage, bringing the total of working gas to 38 percent full, or 1,241 bcf. EIA estimates that gas stocks at the end of January were about one third below the previous 5-year average (Figure 14). Although this points to an improvement for end-January stocks over previous expectations, with almost two months of winter still to go, continuing fears about the domestic supply situation are helping to maintain relatively high spot and futures prices. Still, given recent spot price movements, a drop of about $3 per mcf is possible in February compared to the January average $8.98.



Net imports of natural gas are projected to rise by about 16 percent in 2001 and by another 4 percent in 2002. For this winter, we expect net imports to be 7.6 percent higher than last winter's imports. The Alliance Pipeline began carrying gas from western Canada to the Midwest on December 1, having been delayed from its original October 2 opening. A new report by Canada's National Energy Board predicts that gas deliverability from Western Canada will rise by 1.1 bcf/d by 2002, due to the ongoing drilling boom. Western Canada supplies 15 percent of the gas consumed in the United States.

The critical power situation in California highlights the inter-related tightness in both electricity and gas markets. As environmental regulations on coal and oil fired generation units have become more strict over the past few years, gas fired generators began to take on more of the baseload burden. And as power generation demand has increased, demand for gas has increased with it. California lacks the pipeline capacity to provide enough natural gas to all the new power plants in development, let alone its current supply demands. Also, the region is short on the electricity generating capacity and transmission wires to deliver enough power into a market that is growing at 4% annually. California had the highest gas prices in the nation during the month of December. The lack of adequate power reserves this winter has been a repeat of last summer's situation. The economic impact of high natural gas and electricity prices is that many manufacturers of various commodities have chosen to interrupt operations and resell contracted energy back into the regional market.

Electricity Demand and Supply

Total annual electricity demand growth (retail sales plus industrial generation for own use) is projected at about 2.3 percent in both 2001 and in 2002. This is compared with estimated demand in 2000 that was 3.6 percent higher than the previous year's level. Electricity demand growth is expected to be slower in the forecast years than it was in 2000 partly because economic growth is also slowing from its higher 2000 level.

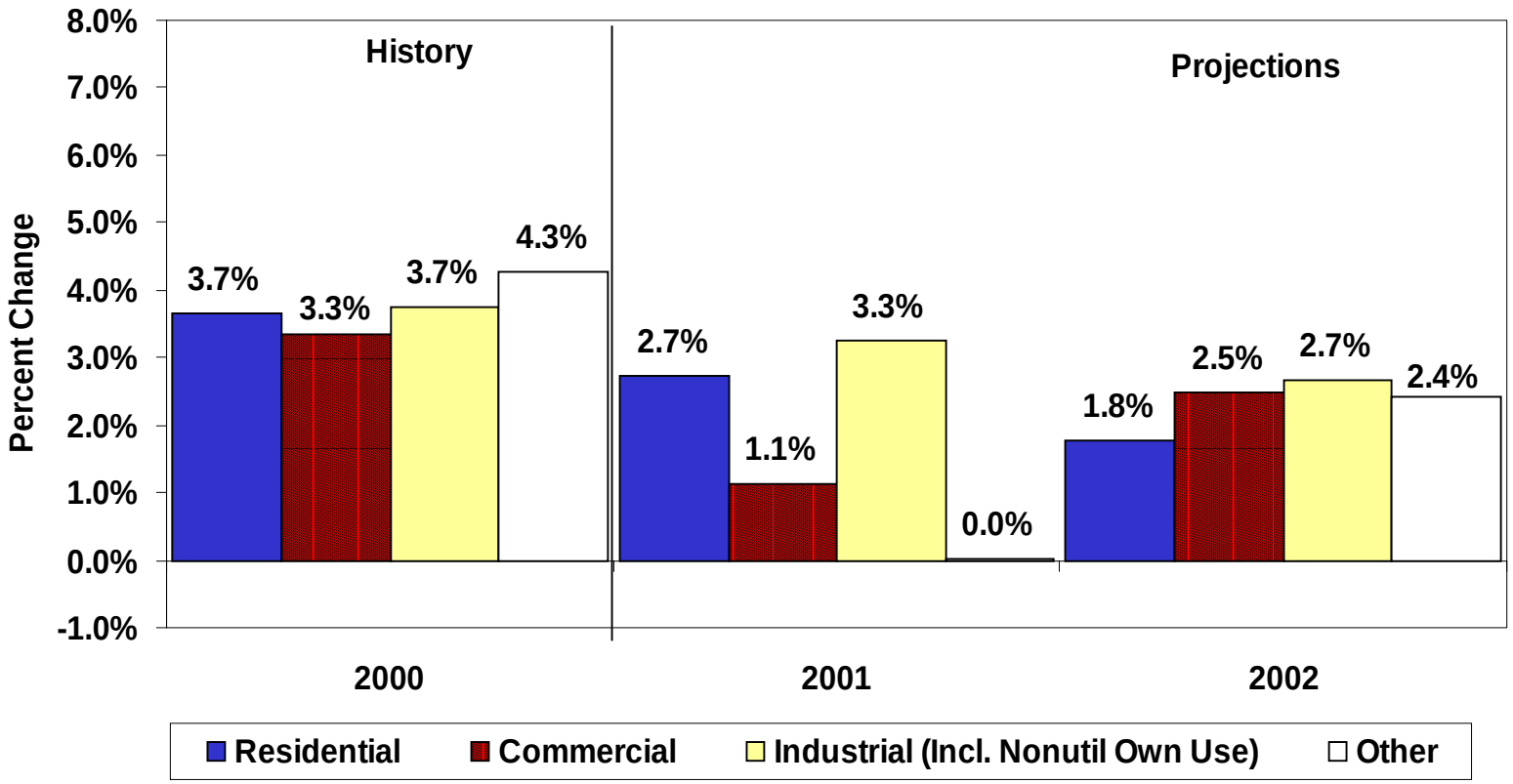
This winter's overall heating degree-days (HDD) are assumed to be almost 18 percent above last winter's HDD, which were well below normal. This is based on the very cold temperatures seen in November and December, as well as on the assumption that the remainder of the winter will be normal. This winter, total electricity demand is expected to be up by 4.5 percent over last winter's level, driven by increased demand

in the residential and commercial sectors, which are expected to be up by 6.8 and 3.7 percent, respectively (Figure 15 and Table 10).

In the fourth quarter of 2000, previously falling demand for oil-fired generation began to turn around as the price differential between natural gas and oil in the electricity generating sector shifted to favor oil, prompting those plants which can switch to oil to do so. The favorable price differential for oil relative to gas is expected to continue through the forecast period. Growth in coal-fired generation also turned positive in the fourth quarter of 2000. Nevertheless, by the second half of 2001, expected increases in gas-fired capacity are expected to keep gas demand for power generation growing.

Supply problems in California for gas-fired electricity generation have helped to boost gas prices and have frequently caused interruptible customers to be cut off in that state. The situation in California is characterized by low gas storage, gas pipeline bottlenecks, high demand and low hydro and nuclear electric power availability. These supply problems are following on last summer's supply problems with no obvious end visible over the next two years. Average California gas prices dramatically outstripped prices elsewhere in the country through December but have since been coming down as weather-related demand has eased up somewhat (Figure 16).

Figure 15. Annual Changes in U.S. Electricity Demand



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

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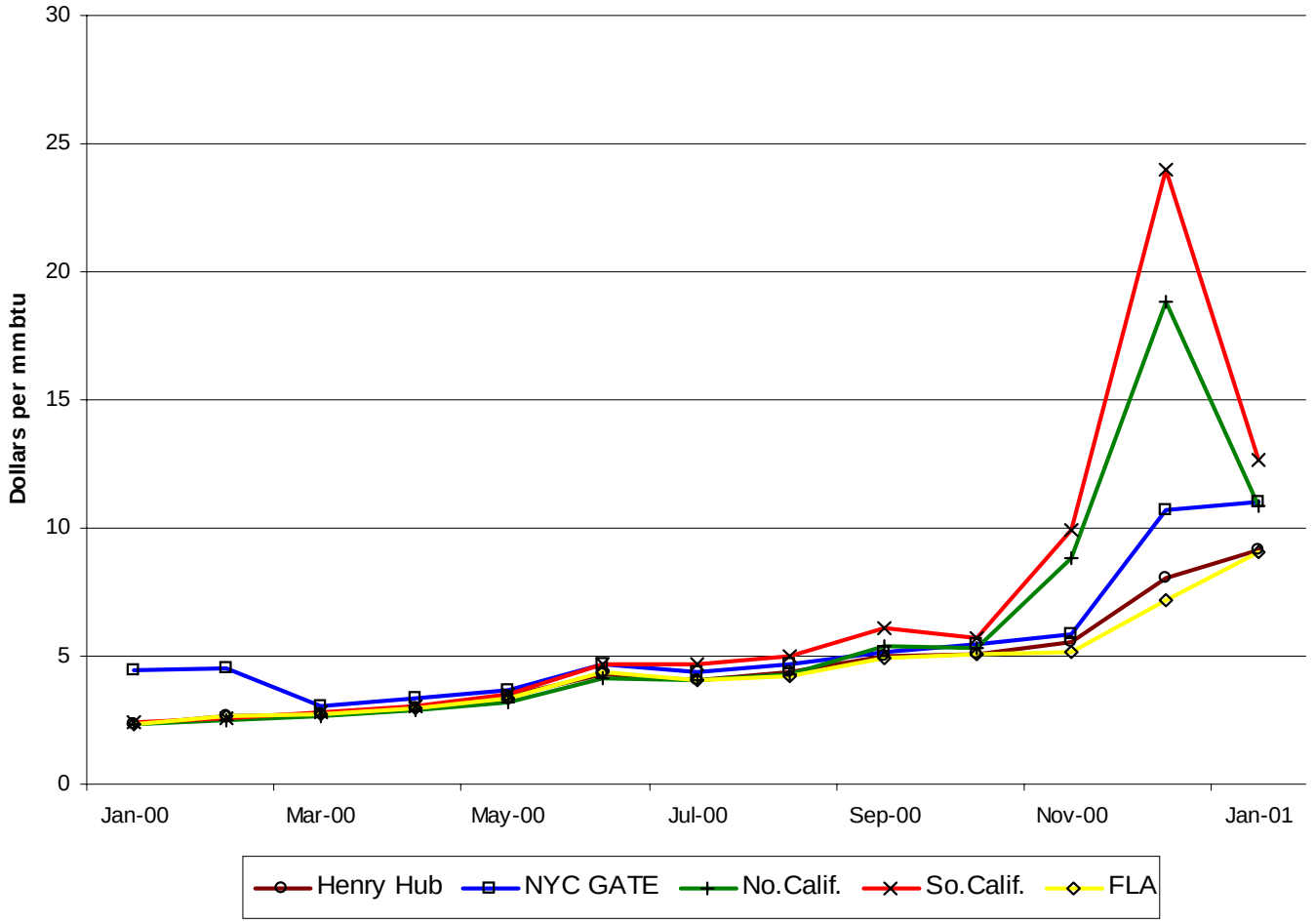
Figure 16.Comparison of Key Natural Gas Prices: Monthly Average Delivered to Pipeline Prices in 2000



Source: Natural Gas Week

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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)	**8876**	*9326*	*9569*	*9986*	*5.1*	*2.6*	*4.4*
Imported Crude Oil Price [a] (nominal dollars per barrel)	**17.22**	*27.66*	*26.75*	*26.17*	*60.6*	*-3.3*	*-2.2*
Petroleum Supply (million barrels per day)							
Crude Oil Production [b]	**5.88**	*5.84*	*5.85*	*5.82*	*-0.7*	*0.2*	*-0.5*
Total Petroleum Net Imports (including SPR)	**9.91**	*10.08*	*10.67*	*10.97*	*1.7*	*5.9*	*2.8*
Energy Demand							
World Petroleum (million barrels per day)	**74.9**	*75.8*	*77.5*	*79.1*	*1.2*	*2.2*	*2.1*
Petroleum (million barrels per day)	**19.52**	*19.51*	*19.85*	*20.22*	*-0.1*	*1.7*	*1.9*
Natural Gas (trillion cubic feet)	**21.70**	*22.63*	*23.14*	*24.08*	*4.3*	*2.3*	*4.1*
Coal [c] (million short tons)	**1044**	*1077*	*1089*	*1097*	*3.2*	*1.1*	*0.7*
Electricity (billion kilowatthours)							
Retail Sales [d]	**3312**	*3413*	*3472*	*3547*	*3.0*	*1.7*	*2.2*
Nonutility/Sales [e]	**185**	*210*	*236*	*247*	*13.5*	*12.4*	*4.7*
Total	**3497**	*3623*	*3708*	*3794*	*3.6*	*2.3*	*2.3*
Total Energy Demand [f] (quadrillion Btu)	**97.1**	*98.4*	*99.4*	*101.3*	*1.4*	*1.0*	*1.9*
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	**10.94**	*10.56*	*10.39*	*10.14*	*-3.5*	*-1.6*	*-2.4*
Renewable Energy as Percent of Total [g]	**7.2**	*7.1*	*7.0*	*7.0*			

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

[b] Includes lease condensate.

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

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

[e] Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 2000 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Statistics Report* DOE/EIA-0520; *Weekly Petroleum Status Report,* DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0101.

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)	**9192**	**9319**	**9374**	*9420*	*9464*	*9522*	*9601*	*9687*	*9804*	*9918*	*10048*	*10176*	*9326*	*9569*	*9986*
Percentage Change from Prior Year	**5.3**	**6.1**	**5.3**	*3.7*	*3.0*	*2.2*	*2.4*	*2.8*	*3.6*	*4.2*	*4.6*	*5.0*	*5.1*	*2.6*	*4.4*
Annualized Percent Change from Prior Quarter	**4.7**	**5.5**	**2.3**	*2.0*	*1.9*	*2.4*	*3.3*	*3.6*	*4.8*	*4.7*	*5.2*	*5.1*			
GDP Implicit Price Deflator (Index, 1996=1.000)	**1.062**	**1.068**	**1.073**	*1.079*	*1.086*	*1.090*	*1.095*	*1.100*	*1.105*	*1.109*	*1.114*	*1.118*	*1.070*	*1.093*	*1.112*
Percentage Change from Prior Year	**1.8**	**2.1**	**2.3**	*2.5*	*2.3*	*2.1*	*2.0*	*1.9*	*1.8*	*1.7*	*1.7*	*1.7*	*2.2*	*2.1*	*1.7*
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR)	**6443**	**6502**	**6541**	*6551*	*6623*	*6687*	*6754*	*6812*	*6908*	*6999*	*7091*	*7182*	*6509*	*6719*	*7045*
Percentage Change from Prior Year	**2.9**	**3.1**	**3.1**	*2.2*	*2.8*	*2.8*	*3.3*	*4.0*	*4.3*	*4.7*	*5.0*	*5.4*	*2.8*	*3.2*	*4.8*
Manufacturing Production (Index, 1996=1.000)	**1.216**	**1.239**	**1.251**	*1.274*	*1.274*	*1.279*	*1.288*	*1.300*	*1.312*	*1.325*	*1.344*	*1.360*	*1.245*	*1.285*	*1.335*
Percentage Change from Prior Year	**4.5**	**5.1**	**6.5**	*6.6*	*4.8*	*3.3*	*3.0*	*2.0*	*3.0*	*3.6*	*4.3*	*4.6*	*5.7*	*3.3*	*3.9*
OECD Economic Growth (percent) [b]													3.7	*3.1*	*3.3*
Weather [c]															
Heating Degree-Days															
U.S.	**2023**	**485**	**96**	*1854*	*2239*	*519*	*86*	*1622*	*2234*	*518*	*86*	*1622*	*4458*	*4466*	*4459*
New England	**3007**	**909**	**200**	*2383*	*3184*	*885*	*167*	*2238*	*3174*	*883*	*167*	*2237*	*6499*	*6473*	*6462*
Middle Atlantic	**2713**	**692**	**126**	*2194*	*2870*	*701*	*105*	*2003*	*2891*	*700*	*105*	*2002*	*5725*	*5679*	*5698*
U.S. Gas-Weighted	**2115**	**512**	**100**	*1956*	*2347*	*555*	*90*	*1714*	*2351*	*555*	*90*	*1714*	*4683*	*4707*	*4710*
Cooling Degree-Days (U.S.)	**45**	**380**	**759**	*68*	*26*	*346*	*781*	*76*	*33*	*347*	*782*	*76*	*1252*	*1228*	*1237*

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

[b] 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.

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

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*. Projections of OECD growth are based on WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0101.

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)	**1731**	**1779**	**1792**	*1789*	*1794*	*1803*	*1824*	*1846*	*1871*	*1905*	*1948*	*1987*	*1773*	*1817*	*1928*
Real Exchange Rate (index)	**1.163**	**1.210**	**1.247**	*1.283*	*1.277*	*1.257*	*1.250*	*1.237*	*1.213*	*1.203*	*1.193*	*1.170*	*1.226*	*1.255*	*1.195*
Business Inventory Change (billion chained 1996 dollars-SAAR)	**10.3**	**17.6**	**21.0**	*15.6*	*4.2*	*1.9*	*2.3*	*1.5*	*3.9*	*6.0*	*9.2*	*10.9*	*16.1*	*2.5*	*7.5*
Producer Price Index (index, 1982=1.000)	**1.301**	**1.321**	**1.334**	*1.349*	*1.362*	*1.352*	*1.346*	*1.344*	*1.345*	*1.342*	*1.340*	*1.341*	*1.326*	*1.351*	*1.342*
Consumer Price Index (index, 1982-1984=1.000)	**1.702**	**1.717**	**1.730**	*1.746*	*1.756*	*1.764*	*1.771*	*1.779*	*1.788*	*1.793*	*1.799*	*1.807*	*1.724*	*1.768*	*1.797*
Petroleum Product Price Index (index, 1982=1.000)	**0.833**	**0.911**	**0.931**	*0.943*	*0.902*	*0.870*	*0.848*	*0.883*	*0.886*	*0.850*	*0.823*	*0.839*	*0.905*	*0.876*	*0.849*
Non-Farm Employment (millions)	**130.6**	**131.6**	**131.6**	*131.9*	*131.7*	*131.6*	*131.6*	*131.8*	*132.2*	*132.6*	*133.3*	*133.9*	*131.4*	*131.7*	*133.0*
Commercial Employment (millions)	**91.2**	**91.7**	**92.1**	*92.5*	*92.5*	*92.5*	*92.7*	*93.0*	*93.4*	*93.9*	*94.6*	*95.2*	*91.9*	*92.7*	*94.3*
Total Industrial Production (index, 1996=1.000)	**1.187**	**1.210**	**1.221**	*1.245*	*1.246*	*1.251*	*1.259*	*1.268*	*1.278*	*1.289*	*1.305*	*1.321*	*1.216*	*1.256*	*1.299*
Housing Stock (millions)	**115.7**	**115.8**	**116.2**	*116.6*	*116.9*	*117.2*	*117.5*	*117.7*	*118.0*	*118.3*	*118.6*	*118.9*	*116.1*	*117.3*	*118.5*
Miscellaneous															
Gas Weighted Industrial Production (index, 1996=1.000)	**1.096**	**1.096**	**1.091**	*1.125*	*1.126*	*1.135*	*1.144*	*1.154*	*1.166*	*1.177*	*1.188*	*1.199*	*1.102*	*1.140*	*1.183*
Vehicle Miles Traveled [b] (million miles/day)	**6820**	**7596**	**7649**	*7248*	*7028*	*7728*	*7751*	*7295*	*7038*	*7777*	*7992*	*7556*	*7329*	*7452*	*7593*
Vehicle Fuel Efficiency (index, 1999=1.000)	**1.003**	**1.018**	**0.996**	*1.004*	*1.016*	*1.019*	*0.998*	*0.992*	*1.009*	*1.014*	*1.013*	*1.009*	*1.005*	*1.006*	*1.011*
Real Vehicle Fuel Cost (cents per mile)	**4.17**	**4.28**	**4.26**	*4.28*	*4.17*	*4.03*	*4.00*	*4.09*	*4.01*	*3.90*	*3.78*	*3.82*	*4.25*	*4.07*	*3.88*
Air Travel Capacity (mill. available ton-miles/day)	**455.0**	**474.7**	**485.4**	*484.3*	*485.3*	*505.6*	*520.7*	*513.2*	*506.8*	*526.9*	*545.5*	*536.3*	*474.9*	*506.3*	*529.0*
Aircraft Utilization (mill. revenue ton-miles/day)	**256.3**	**287.1**	**291.4**	*284.9*	*278.4*	*295.6*	*309.8*	*295.3*	*290.5*	*309.7*	*325.2*	*311.8*	*280.0*	*294.9*	*309.4*
Airline Ticket Price Index (index, 1982-1984=1.000)	**2.309**	**2.419**	**2.474**	*2.375*	*2.429*	*2.458*	*2.471*	*2.505*	*2.548*	*2.560*	*2.562*	*2.587*	*2.394*	*2.466*	*2.564*
Raw Steel Production (millions tons)	**29.02**	**29.53**	**27.45**	*26.69*	*27.60*	*28.12*	*27.80*	*28.35*	*28.76*	*28.94*	*29.07*	*29.32*	*112.69*	*111.88*	*116.09*

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

[b] Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

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 CONTROL0101.

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)	**19.1**	**19.3**	**19.8**	*19.8*	*19.7*	*19.6*	*19.9*	*20.1*	*20.0*	*20.0*	*20.4*	*20.4*	*19.5*	*19.9*	*20.2*
U.S. Territories	**0.4**	**0.3**	**0.3**	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.4*	*0.3*	*0.4*	*0.4*
Canada	**2.0**	**2.0**	**2.0**	*2.0*	*2.0*	*1.9*	*2.1*	*2.1*	*2.0*	*2.0*	*2.1*	*2.1*	*2.0*	*2.0*	*2.1*
Europe	**14.6**	**14.0**	**14.4**	*15.2*	*15.0*	*14.0*	*14.6*	*15.2*	*15.1*	*14.2*	*14.7*	*15.4*	*14.5*	*14.7*	*14.8*
Japan	**6.0**	**5.0**	**5.4**	*5.9*	*6.2*	*5.1*	*5.3*	*5.8*	*6.3*	*5.1*	*5.3*	*5.8*	*5.6*	*5.6*	*5.6*
Australia and New Zealand	**1.0**	**1.0**	**1.0**	*1.1*	*1.0*	*1.0*	*1.0*	*1.1*	*1.1*	*1.1*	*1.0*	*1.1*	*1.0*	*1.0*	*1.1*
Total OECD	**43.0**	**41.5**	**42.9**	*44.2*	*44.3*	*42.1*	*43.3*	*44.6*	*44.9*	*42.8*	*44.1*	*45.2*	*42.9*	*43.6*	*44.2*
Non-OECD															
Former Soviet Union	**3.9**	**3.7**	**3.7**	*3.7*	*3.8*	*3.7*	*3.7*	*3.7*	*3.9*	*3.7*	*3.7*	*3.7*	*3.7*	*3.7*	*3.8*
Europe	**1.5**	**1.5**	**1.5**	*1.5*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	*1.5*	*1.6*	*1.6*
China	**4.6**	**4.5**	**4.5**	*4.5*	*4.8*	*4.7*	*4.7*	*4.7*	*5.0*	*5.0*	*4.9*	*5.0*	*4.5*	*4.7*	*5.0*
Other Asia	**9.2**	**9.3**	**9.0**	*9.4*	*9.6*	*9.6*	*9.3*	*9.7*	*9.9*	*9.9*	*9.6*	*10.1*	*9.2*	*9.6*	*9.9*
Other Non-OECD	**13.7**	**14.0**	**14.0**	*14.0*	*14.1*	*14.3*	*14.4*	*14.3*	*14.4*	*14.7*	*14.8*	*14.7*	*13.9*	*14.3*	*14.6*
Total Non-OECD	**32.8**	**33.0**	**32.8**	*33.1*	*33.9*	*33.9*	*33.6*	*34.1*	*34.8*	*34.9*	*34.6*	*35.1*	*32.9*	*33.9*	*34.9*
Total World Demand	**75.8**	**74.5**	**75.7**	*77.4*	*78.2*	*76.0*	*76.9*	*78.7*	*79.7*	*77.7*	*78.7*	*80.3*	*75.8*	*77.4*	*79.1*
Supply [b]															
OECD															
U.S. (50 States)	**9.1**	**9.1**	**9.1**	*9.1*	*9.1*	*9.1*	*9.0*	*9.1*	*9.1*	*9.1*	*9.0*	*9.1*	*9.1*	*9.1*	*9.1*
Canada	**2.7**	**2.7**	**2.7**	*2.8*	*2.8*	*2.8*	*2.9*	*2.9*	*2.8*	*2.8*	*3.0*	*3.0*	*2.7*	*2.8*	*2.9*
North Sea [c]	**6.6**	**6.2**	**6.2**	*6.4*	*6.4*	*6.2*	*6.3*	*6.7*	*6.4*	*6.1*	*6.2*	*6.7*	*6.4*	*6.4*	*6.4*
Other OECD	**1.7**	**1.7**	**1.6**	*1.7*	*1.7*	*1.7*	*1.8*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
Total OECD	**20.2**	**19.7**	**19.6**	*20.1*	*20.0*	*19.8*	*19.9*	*20.5*	*19.9*	*19.8*	*19.9*	*20.5*	*19.9*	*20.1*	*20.0*
Non-OECD															
OPEC	**29.3**	**30.7**	**31.6**	*31.6*	*30.9*	*31.1*	*31.3*	*31.4*	*32.0*	*32.0*	*32.1*	*32.1*	*30.8*	*31.2*	*32.1*
Former Soviet Union	**7.6**	**7.7**	**7.9**	*8.0*	*7.9*	*8.0*	*8.2*	*8.2*	*8.3*	*8.5*	*8.6*	*8.6*	*7.8*	*8.1*	*8.5*
China	**3.3**	**3.3**	**3.2**	*3.3*	*3.2*	*3.2*	*3.2*	*3.2*	*3.1*	*3.1*	*3.1*	*3.1*	*3.3*	*3.2*	*3.1*
Mexico	**3.5**	**3.5**	**3.5**	*3.6*	*3.8*	*3.8*	*3.8*	*3.7*	*4.0*	*4.0*	*4.0*	*3.9*	*3.5*	*3.8*	*4.0*
Other Non-OECD	**11.2**	**11.2**	**11.4**	*11.4*	*11.1*	*11.2*	*11.4*	*11.5*	*11.4*	*11.5*	*11.7*	*11.8*	*11.3*	*11.3*	*11.6*
Total Non-OECD	**54.8**	**56.4**	**57.7**	*57.8*	*56.8*	*57.4*	*57.9*	*58.1*	*58.8*	*59.1*	*59.6*	*59.6*	*56.7*	*57.6*	*59.3*
Total World Supply	**75.0**	**76.1**	**77.3**	*77.9*	*76.8*	*77.2*	*77.8*	*78.6*	*78.8*	*78.9*	*79.5*	*80.1*	*76.6*	*77.6*	*79.3*
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	**0.2**	**-0.6**	**0.0**	*0.6*	*0.1*	*-0.6*	*-0.4*	*0.2*	*0.2*	*-0.6*	*-0.2*	*0.4*	*0.1*	*-0.2*	*0.0*
Other	**0.6**	**-1.1**	**-1.6**	*-1.2*	*1.2*	*-0.5*	*-0.5*	*-0.2*	*0.8*	*-0.7*	*-0.7*	*-0.2*	*-0.8*	*0.0*	*-0.2*
Total Stock Withdrawals	**0.8**	**-1.6**	**-1.6**	*-0.6*	*1.4*	*-1.2*	*-0.9*	*0.0*	*0.9*	*-1.2*	*-0.9*	*0.2*	*-0.8*	*-0.2*	*-0.2*
OECD Comm. Stocks, End (bill. bbls.)	**2.6**	**2.6**	**2.6**	*2.6*	*2.6*	*2.7*	*2.7*	*2.7*	*2.7*	*2.8*	*2.8*	*2.8*	*2.6*	*2.7*	*2.8*
Non-OPEC Supply	**45.7**	**45.4**	**45.7**	*46.4*	*45.9*	*46.0*	*46.5*	*47.2*	*46.7*	*46.9*	*47.4*	*48.0*	*45.8*	*46.4*	*47.2*
Net Exports from Former Soviet Union	**3.8**	**4.0**	**4.2**	*4.3*	*4.1*	*4.4*	*4.5*	*4.5*	*4.5*	*4.7*	*4.9*	*4.9*	*4.1*	*4.4*	*4.7*

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

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, 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
Imported Crude Oil Prices															
Imported Average[a]	**26.84**	**26.55**	**29.11**	*28.04*	*26.34*	*26.06*	*26.96*	*27.62*	*26.55*	*26.04*	*26.14*	*25.97*	*27.66*	*26.75*	*26.17*
WTI[b] Spot Average	**28.82**	**28.78**	**31.61**	*31.96*	*30.15*	*29.31*	*29.97*	*30.62*	*29.55*	*29.04*	*29.14*	*28.97*	*30.29*	*30.01*	*29.18*
Natural Gas Wellhead															
(dollars per thousand cubic feet)	**2.26**	**3.06**	**3.87**	*5.61*	*6.61*	*4.23*	*4.11*	*4.86*	*4.92*	*4.28*	*4.12*	*4.77*	*3.73*	*4.95*	*4.52*
Petroleum Products															
Gasoline Retail[c] (dollars per gallon)															
All Grades	**1.44**	**1.57**	**1.56**	*1.54*	*1.50*	*1.52*	*1.51*	*1.48*	*1.46*	*1.48*	*1.47*	*1.43*	*1.53*	*1.50*	*1.46*
Regular Unleaded	**1.40**	**1.53**	**1.52**	*1.50*	*1.46*	*1.48*	*1.47*	*1.44*	*1.42*	*1.45*	*1.44*	*1.39*	*1.49*	*1.46*	*1.42*
No. 2 Diesel Oil, Retail (dollars per gallon)	**1.42**	**1.41**	**1.50**	*1.59*	*1.53*	*1.48*	*1.46*	*1.49*	*1.45*	*1.43*	*1.42*	*1.45*	*1.48*	*1.49*	*1.44*
No. 2 Heating Oil, Wholesale (dollars per gallon)	**0.85**	**0.78**	**0.91**	*0.94*	*0.86*	*0.80*	*0.80*	*0.88*	*0.84*	*0.77*	*0.77*	*0.83*	*0.87*	*0.84*	*0.81*
No. 2 Heating Oil, Retail (dollars per gallon)	**1.31**	**1.17**	**1.23**	*1.41*	*1.37*	*1.24*	*1.16*	*1.30*	*1.30*	*1.19*	*1.12*	*1.24*	*1.31*	*1.31*	*1.25*
No. 6 Residual Fuel Oil, Retail[d] (dollars per barrel)	**23.64**	**24.55**	**25.10**	*27.34*	*26.02*	*24.00*	*24.20*	*25.84*	*25.04*	*23.40*	*23.30*	*23.94*	*25.33*	*25.07*	*23.91*
Electric Utility Fuels															
Coal (dollars per million Btu)	**1.21**	**1.21**	**1.18**	*1.19*	*1.21*	*1.22*	*1.20*	*1.19*	*1.20*	*1.21*	*1.19*	*1.18*	*1.20*	*1.20*	*1.19*
Heavy Fuel Oil[e] (dollars per million Btu)	**3.74**	**4.18**	**4.34**	*4.36*	*4.05*	*3.92*	*4.02*	*4.15*	*3.88*	*3.83*	*3.88*	*3.86*	*4.22*	*4.03*	*3.87*
Natural Gas (dollars per million Btu)	**2.85**	**3.78**	**4.46**	*5.97*	*7.02*	*4.85*	*4.73*	*5.48*	*5.63*	*4.89*	*4.73*	*5.38*	*4.22*	*5.22*	*5.02*
Other Residential															
Natural Gas (dollars per thousand cubic feet)	**6.43**	**7.68**	**9.93**	*9.07*	*10.42*	*10.89*	*10.89*	*8.77*	*9.04*	*9.82*	*10.87*	*9.17*	*7.75*	*10.07*	*9.34*
Electricity (cents per kilowatthour)	**7.76**	**8.34**	**8.56**	*8.12*	*7.82*	*8.44*	*8.70*	*8.22*	*7.91*	*8.49*	*8.78*	*8.31*	*8.21*	*8.31*	*8.39*

[a] Refiner acquisition cost (RAC) of imported crude oil.

[b] West Texas Intermediate.

[c] Average self-service cash prices.

[d] Average for all sulfur contents.

[e] Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first 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]	**5.86**	**5.84**	**5.79**	*5.86*	*5.90*	*5.86*	*5.78*	*5.85*	*5.85*	*5.85*	*5.81*	*5.77*	*5.84*	*5.85*	*5.82*
Alaska	**1.02**	**0.97**	**0.91**	*0.99*	*1.02*	*1.01*	*0.98*	*1.08*	*1.06*	*1.05*	*1.04*	*1.05*	*0.97*	*1.02*	*1.05*
Lower 48	**4.84**	**4.87**	**4.88**	*4.87*	*4.88*	*4.85*	*4.80*	*4.78*	*4.79*	*4.80*	*4.77*	*4.72*	*4.87*	*4.83*	*4.77*
Net Imports (including SPR) [b]	**8.15**	**9.22**	**9.51**	*8.70*	*8.80*	*9.52*	*9.71*	*9.13*	*9.13*	*9.77*	*9.86*	*9.27*	*8.90*	*9.29*	*9.51*
Other SPR Supply	**0.02**	**0.17**	**0.07**	*0.07*	*0.00*	*0.00*	*0.17*	*0.17*	*0.00*	*0.00*	*0.00*	*0.00*	*0.08*	*0.09*	*0.00*
SPR Stock Withdrawn or Added (-)	**-0.02**	**0.01**	**-0.02**	*0.32*	*0.00*	*0.00*	*-0.17*	*-0.17*	*0.00*	*0.00*	*0.00*	*0.00*	*0.07*	*-0.08*	*0.00*
Other Stock Withdrawn or Added (-)	**-0.13**	**0.04**	**0.13**	*-0.09*	*-0.15*	*-0.03*	*0.15*	*0.02*	*-0.22*	*-0.04*	*0.15*	*0.01*	*-0.01*	*0.00*	*-0.02*
Product Supplied and Losses	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Unaccounted-for Crude Oil	**0.28**	**0.32**	**0.20**	*0.30*	*0.32*	*0.22*	*0.22*	*0.21*	*0.21*	*0.22*	*0.22*	*0.21*	*0.27*	*0.24*	*0.22*
Total Crude Oil Supply	**14.16**	**15.41**	**15.63**	*15.07*	*14.87*	*15.57*	*15.69*	*15.04*	*14.97*	*15.80*	*16.03*	*15.26*	*15.07*	*15.29*	*15.52*
Other Supply															
NGL Production	**1.97**	**1.94**	**1.93**	*1.90*	*1.91*	*1.94*	*1.92*	*2.00*	*2.00*	*1.99*	*1.96*	*2.03*	*1.94*	*1.95*	*2.00*
Other Inputs	**0.37**	**0.40**	**0.39**	*0.40*	*0.38*	*0.37*	*0.37*	*0.39*	*0.35*	*0.34*	*0.34*	*0.36*	*0.39*	*0.38*	*0.35*
Crude Oil Product Supplied	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Processing Gain	**0.94**	**0.94**	**0.95**	*0.97*	*0.91*	*0.94*	*0.94*	*0.90*	*0.87*	*0.93*	*0.94*	*0.90*	*0.95*	*0.92*	*0.91*
Net Product Imports [c]	**1.36**	**1.22**	**1.10**	*1.04*	*1.36*	*1.38*	*1.38*	*1.41*	*1.39*	*1.47*	*1.48*	*1.50*	*1.18*	*1.38*	*1.46*
Product Stock Withdrawn or Added (-)	**0.33**	**-0.62**	**-0.14**	*0.39*	*0.30*	*-0.58*	*-0.36*	*0.37*	*0.40*	*-0.52*	*-0.33*	*0.37*	*-0.01*	*-0.07*	*-0.02*
Total Supply	**19.12**	**19.30**	**19.85**	*19.77*	*19.73*	*19.63*	*19.94*	*20.11*	*19.98*	*20.02*	*20.42*	*20.44*	*19.51*	*19.85*	*20.22*
Demand															
Motor Gasoline	**8.03**	**8.49**	**8.58**	*8.39*	*8.17*	*8.63*	*8.68*	*8.55*	*8.24*	*8.73*	*8.82*	*8.70*	*8.38*	*8.51*	*8.62*
Jet Fuel	**1.64**	**1.67**	**1.78**	*1.72*	*1.70*	*1.71*	*1.76*	*1.79*	*1.77*	*1.74*	*1.80*	*1.82*	*1.70*	*1.74*	*1.78*
Distillate Fuel Oil	**3.76**	**3.56**	**3.61**	*3.86*	*4.06*	*3.69*	*3.62*	*3.87*	*4.09*	*3.76*	*3.71*	*3.96*	*3.70*	*3.81*	*3.88*
Residual Fuel Oil	**0.73**	**0.75**	**0.90**	*1.01*	*0.90*	*0.71*	*0.76*	*0.73*	*0.78*	*0.76*	*0.83*	*0.64*	*0.85*	*0.77*	*0.75*
Other Oils [d]	**4.96**	**4.82**	**4.97**	*4.78*	*4.91*	*4.89*	*5.12*	*5.17*	*5.11*	*5.04*	*5.27*	*5.32*	*4.88*	*5.02*	*5.18*
Total Demand	**19.12**	**19.29**	**19.85**	*19.75*	*19.73*	*19.63*	*19.94*	*20.11*	*19.98*	*20.02*	*20.42*	*20.44*	*19.51*	*19.85*	*20.22*
Total Petroleum Net Imports	**9.51**	**10.44**	**10.61**	*9.74*	*10.16*	*10.90*	*11.09*	*10.54*	*10.51*	*11.24*	*11.34*	*10.77*	*10.08*	*10.67*	*10.97*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**296**	**292**	**280**	*289*	*302*	*305*	*291*	*289*	*309*	*312*	*299*	*298*	*289*	*289*	*298*
Total Motor Gasoline	**204**	**209**	**197**	*194*	*198*	*202*	*197*	*202*	*208*	*207*	*202*	*207*	*194*	*202*	*207*
Finished Motor Gasoline	**158**	**165**	**154**	*153*	*152*	*160*	*156*	*161*	*161*	*166*	*161*	*166*	*153*	*161*	*166*
Blending Components	**47**	**45**	**43**	*41*	*46*	*42*	*41*	*41*	*46*	*42*	*41*	*41*	*41*	*41*	*41*
Jet Fuel	**41**	**44**	**42**	*44*	*43*	*44*	*45*	*46*	*43*	*43*	*45*	*45*	*44*	*46*	*45*
Distillate Fuel Oil	**96**	**106**	**115**	*116*	*94*	*105*	*123*	*124*	*92*	*101*	*118*	*118*	*116*	*124*	*118*
Residual Fuel Oil	**36**	**37**	**38**	*35*	*32*	*33*	*36*	*37*	*34*	*35*	*38*	*39*	*35*	*37*	*39*
Other Oils [e]	**235**	**272**	**288**	*255*	*251*	*287*	*303*	*261*	*258*	*295*	*310*	*269*	*255*	*261*	*269*
Total Stocks (excluding SPR)	**908**	**960**	**961**	*933*	*920*	*976*	*995*	*959*	*943*	*994*	*1011*	*976*	*933*	*959*	*976*
Crude Oil in SPR	**569**	**569**	**570**	*541*	*541*	*541*	*556*	*572*	*572*	*572*	*572*	*572*	*541*	*572*	*572*
Heating Oil Reserve	**0**	**0**	**0**	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*
Total Stocks (including SPR)	**1477**	**1529**	**1531**	*1474*	*1461*	*1517*	*1551*	*1531*	*1515*	*1566*	*1583*	*1548*	*1474*	*1531*	*1548*

[a] Includes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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

Table 6. Approximate Energy Demand Sensitivities[a] for the STIFS[b] 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%

[a]Percent change in demand quantity resulting from specified percent changes in model inputs.

[b]Short-Term Integrated Forecasting System.

[c]Refiner acquisitions cost of imported crude oil.

[d]Average unit value of marketed natural gas production reported by States.

[e]Refers to percent changes in degree-days.

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

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

(Million Barrels per Day)

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	*6.09*	*5.45*	*0.64*	*0.08*	*0.56*
Lower 48 States	*5.02*	*4.42*	*0.60*	*0.07*	*0.53*
Alaska	*1.07*	*1.03*	*0.04*	*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	**4.62**	**4.61**	**4.72**	*4.87*	*4.89*	*4.88*	*4.95*	*5.12*	*5.07*	*5.04*	*5.05*	*5.17*	*18.83*	*19.84*	*20.34*
Net Imports	**0.87**	**0.82**	**0.87**	*0.91*	*0.98*	*0.97*	*1.04*	*1.04*	*1.04*	*1.02*	*1.07*	*1.06*	*3.48*	*4.03*	*4.19*
Supplemental Gaseous Fuels	**0.03**	**0.02**	**0.02**	*0.03*	*0.03*	*0.03*	*0.03*	*0.03*	*0.04*	*0.03*	*0.03*	*0.03*	*0.10*	*0.12*	*0.13*
Total New Supply	**5.52**	**5.46**	**5.62**	*5.82*	*5.91*	*5.88*	*6.01*	*6.20*	*6.15*	*6.09*	*6.15*	*6.27*	*22.42*	*24.00*	*24.65*
Working Gas in Storage															
Opening	**2.51**	**1.15**	**1.71**	*2.47*	*1.76*	*0.57*	*1.52*	*2.52*	*2.17*	*0.96*	*1.74*	*2.64*	*2.51*	*1.76*	*2.17*
Closing	**1.15**	**1.71**	**2.47**	*1.76*	*0.57*	*1.52*	*2.52*	*2.17*	*0.96*	*1.74*	*2.64*	*2.27*	*1.76*	*2.17*	*2.27*
Net Withdrawals	**1.36**	**-0.56**	**-0.77**	*0.71*	*1.19*	*-0.95*	*-1.00*	*0.35*	*1.20*	*-0.77*	*-0.90*	*0.37*	*0.75*	*-0.41*	*-0.10*
Total Supply	**6.88**	**4.90**	**4.85**	*6.53*	*7.10*	*4.93*	*5.01*	*6.55*	*7.35*	*5.32*	*5.25*	*6.64*	*23.17*	*23.59*	*24.55*
Balancing Item [a]	**0.05**	**0.07**	**-0.18**	*-0.48*	*0.08*	*0.15*	*-0.07*	*-0.61*	*0.07*	*0.01*	*0.01*	*-0.57*	*-0.54*	*-0.45*	*-0.47*
Total Primary Supply	**6.93**	**4.98**	**4.67**	*6.05*	*7.18*	*5.08*	*4.94*	*5.94*	*7.42*	*5.33*	*5.26*	*6.07*	*22.63*	*23.14*	*24.08*
Demand															
Lease and Plant Fuel	**0.31**	**0.30**	**0.31**	*0.31*	*0.31*	*0.30*	*0.31*	*0.32*	*0.31*	*0.31*	*0.31*	*0.32*	*1.23*	*1.23*	*1.25*
Pipeline Use	**0.21**	**0.15**	**0.15**	*0.18*	*0.22*	*0.15*	*0.15*	*0.18*	*0.22*	*0.16*	*0.15*	*0.18*	*0.69*	*0.70*	*0.71*
Residential	**2.22**	**0.77**	**0.39**	*1.60*	*2.50*	*0.85*	*0.37*	*1.45*	*2.47*	*0.86*	*0.37*	*1.46*	*4.98*	*5.17*	*5.17*
Commercial	**1.29**	**0.64**	**0.48**	*0.98*	*1.43*	*0.66*	*0.48*	*0.90*	*1.41*	*0.66*	*0.49*	*0.92*	*3.38*	*3.46*	*3.48*
Industrial (Incl. Nonutility Use)	**2.35**	**2.29**	**2.27**	*2.48*	*2.35*	*2.33*	*2.53*	*2.47*	*2.54*	*2.50*	*2.73*	*2.64*	*9.39*	*9.68*	*10.40*
Electric Utilities	***0.56***	***0.83***	***1.06***	*0.50*	*0.38*	*0.79*	*1.11*	*0.62*	*0.47*	*0.85*	*1.21*	*0.54*	*2.96*	*2.89*	*3.06*
Total Demand	**6.93**	**4.98**	**4.67**	*6.05*	*7.18*	*5.08*	*4.94*	*5.94*	*7.42*	*5.33*	*5.26*	*6.07*	*22.63*	*23.14*	*24.08*

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

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

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

Table 9. U.S. Coal Supply and Demand: 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	**274.1**	**260.5**	**273.2**	*279.9*	*279.9*	*274.7*	*284.4*	*277.8*	*286.6*	*280.2*	*288.0*	*279.2*	*1087.7*	*1116.7*	*1134.1*
Appalachia	**109.5**	**105.3**	**104.0**	*104.1*	*110.0*	*108.9*	*101.4*	*100.2*	*110.7*	*108.8*	*100.4*	*98.6*	*422.9*	*420.6*	*418.5*
Interior	**36.1**	**35.2**	**37.6**	*38.0*	*35.1*	*35.5*	*40.3*	*35.6*	*34.1*	*34.5*	*39.1*	*34.0*	*146.8*	*146.5*	*141.7*
Western	**128.5**	**120.0**	**131.6**	*138.3*	*134.7*	*130.3*	*142.6*	*142.0*	*141.8*	*136.9*	*148.6*	*146.6*	*518.3*	*549.6*	*573.9*
Primary Stock Levels [a]															
Opening	**39.5**	**44.4**	**40.4**	*37.1*	*34.2*	*41.3*	*40.2*	*36.5*	*34.9*	*40.8*	*41.0*	*36.2*	*39.5*	*34.2*	*34.9*
Closing	**44.4**	**40.4**	**37.1**	*34.2*	*41.3*	*40.2*	*36.5*	*34.9*	*40.8*	*41.0*	*36.2*	*35.2*	*34.2*	*34.9*	*35.2*
Net Withdrawals	**-4.9**	**4.0**	**3.3**	*2.9*	*-7.1*	*1.1*	*3.7*	*1.6*	*-6.0*	*-0.2*	*4.8*	*1.0*	*5.3*	*-0.7*	*-0.3*
Imports	**2.8**	**2.7**	**3.6**	*3.2*	*3.0*	*2.9*	*2.9*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*12.3*	*11.8*	*12.0*
Exports	**13.6**	**14.4**	**15.8**	*15.6*	*14.9*	*15.1*	*15.3*	*15.2*	*15.3*	*15.4*	*15.7*	*15.6*	*59.4*	*60.5*	*62.0*
Total Net Domestic Supply	**258.3**	**252.8**	**264.3**	*270.4*	*260.9*	*263.6*	*275.8*	*267.1*	*268.4*	*267.6*	*280.2*	*267.6*	*1045.8*	*1067.4*	*1083.7*
Secondary Stock Levels [b]															
Opening	**143.5**	**139.9**	**135.6**	*118.5*	*123.9*	*116.0*	*126.9*	*115.1*	*114.9*	*112.5*	*122.1*	*108.8*	*143.5*	*123.9*	*114.9*
Closing	**139.9**	**135.6**	**118.5**	*123.9*	*116.0*	*126.9*	*115.1*	*114.9*	*112.5*	*122.1*	*108.8*	*113.6*	*123.9*	*114.9*	*113.6*
Net Withdrawals	**3.6**	**4.3**	**17.2**	*-5.4*	*7.9*	*-10.9*	*11.8*	*0.2*	*2.4*	*-9.7*	*13.4*	*-4.9*	*19.6*	*9.0*	*1.3*
Waste Coal Supplied to IPPs [c]	**3.1**	**3.1**	**3.1**	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*3.1*	*12.2*	*12.2*	*12.2*
Total Supply	**265.0**	**260.2**	**284.5**	*268.1*	*271.8*	*255.8*	*290.7*	*270.3*	*273.9*	*261.0*	*296.6*	*265.8*	*1077.7*	*1088.6*	*1097.2*
Demand															
Coke Plants	**7.3**	**7.4**	**7.5**	*6.8*	*7.1*	*7.0*	*7.2*	*6.9*	*7.2*	*7.1*	*7.4*	*7.0*	*29.0*	*28.3*	*28.7*
Electricity Production															
Electric Utilities	**214.1**	**202.1**	**227.3**	*216.3*	*212.0*	*199.6*	*229.7*	*208.5*	*212.2*	*203.0*	*233.6*	*202.1*	*859.8*	*849.8*	*850.9*
Nonutilities (Excl. Cogen.) [d]	**25.3**	**25.6**	**32.9**	*33.1*	*34.1*	*32.1*	*36.6*	*35.0*	*35.9*	*33.9*	*38.6*	*36.9*	*116.9*	*137.9*	*145.3*
Retail and General Industry	**18.1**	**16.7**	**17.1**	*19.8*	*18.6*	*17.1*	*17.1*	*19.9*	*18.5*	*17.0*	*17.0*	*19.8*	*71.7*	*72.7*	*72.4*
Total Demand [e]	**264.8**	**251.8**	**284.8**	*276.0*	*271.8*	*255.8*	*290.7*	*270.3*	*273.9*	*261.0*	*296.6*	*265.8*	*1077.4*	*1088.6*	*1097.2*
Discrepancy [f]	**0.2**	**8.4**	**-0.3**	*-8.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.0*

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

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

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

[d] Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 1999 and projections for 2000 and 2001 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1998 and 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

[e] Total Demand includes estimated IPP consumption.

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

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	**425.7**	**401.2**	**445.9**	*429.6*	*431.9*	*412.2*	*470.6*	*415.2*	*424.3*	*427.0*	*491.5*	*390.3*	*1702.3*	*1729.9*	*1733.2*
Petroleum	**11.0**	**16.4**	**23.3**	*20.1*	*23.6*	*15.7*	*22.7*	*15.4*	*17.5*	*19.5*	*27.0*	*11.1*	*70.8*	*77.5*	*75.1*
Natural Gas	**54.4**	**79.1**	**100.5**	*47.8*	*35.8*	*74.8*	*105.4*	*58.4*	*44.3*	*80.3*	*115.1*	*51.1*	*281.8*	*274.3*	*290.9*
Nuclear	**185.0**	**177.4**	**182.0**	*162.9*	*173.7*	*165.9*	*175.2*	*159.7*	*167.5*	*153.0*	*179.3*	*163.5*	*707.2*	*674.6*	*663.3*
Hydroelectric	**66.9**	**73.0**	**57.4**	*58.7*	*67.8*	*73.3*	*60.5*	*60.4*	*71.4*	*75.2*	*63.1*	*62.3*	*256.0*	*262.0*	*272.0*
Geothermal and Other [a]	**0.5**	**0.6**	**0.5**	*0.6*	*0.5*	*0.5*	*0.6*	*0.6*	*0.5*	*0.5*	*0.6*	*0.6*	*2.2*	*2.2*	*2.2*
Subtotal	**743.4**	**747.6**	**809.6**	*719.7*	*733.3*	*742.4*	*835.1*	*709.7*	*725.6*	*755.5*	*876.6*	*678.9*	*3020.3*	*3020.5*	*3036.6*
Nonutility Generation [b]															
Coal	**55.2**	**58.5**	**82.1**	*71.6*	*75.9*	*76.0*	*88.9*	*75.7*	*86.5*	*87.4*	*87.4*	*101.1*	*267.3*	*316.5*	*362.4*
Petroleum	**11.1**	**8.8**	**11.7**	*11.0*	*9.7*	*9.7*	*11.3*	*9.6*	*10.0*	*10.1*	*10.1*	*11.7*	*42.6*	*40.4*	*41.8*
Natural Gas	**66.9**	**76.0**	**98.0**	*80.0*	*73.0*	*83.5*	*114.4*	*90.1*	*84.1*	*83.5*	*95.2*	*128.9*	*320.9*	*361.1*	*391.7*
Other Gaseous Fuels [c]	**2.5**	**2.8**	**3.6**	*2.4*	*2.1*	*2.1*	*2.1*	*2.2*	*2.3*	*2.2*	*2.2*	*2.2*	*11.2*	*8.5*	*8.9*
Nuclear	**5.2**	**5.0**	**16.7**	*20.2*	*21.5*	*20.5*	*21.7*	*19.7*	*20.7*	*18.9*	*22.2*	*20.2*	*47.1*	*83.4*	*82.0*
Hydroelectric	**3.9**	**5.0**	**4.2**	*4.1*	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	*4.5*	*17.3*	*18.0*	*18.0*
Geothermal and Other [d]	**21.8**	**22.2**	**23.4**	*23.8*	*22.1*	*22.0*	*22.3*	*22.7*	*22.1*	*22.0*	*22.3*	*22.7*	*91.2*	*89.1*	*89.1*
Subtotal	**166.6**	**178.3**	**239.7**	*213.2*	*208.7*	*218.3*	*265.2*	*224.6*	*230.1*	*228.5*	*243.8*	*291.3*	*797.7*	*916.9*	*993.7*
Total Generation	**910.0**	**925.9**	**1049.2**	*932.8*	*942.0*	*960.7*	*1100.3*	*934.3*	*955.7*	*984.0*	*1120.4*	*970.1*	*3818.0*	*3937.3*	*4030.3*
Net Imports [e]	**9.2**	**8.7**	**13.1**	*8.3*	*7.7*	*8.8*	*12.0*	*8.6*	*7.3*	*8.3*	*11.7*	*8.6*	*39.3*	*37.2*	*35.9*
Total Supply	**919.2**	**934.6**	**1062.3**	*941.2*	*949.7*	*969.6*	*1112.3*	*942.9*	*963.0*	*992.3*	*1132.1*	*978.7*	*3857.3*	*3974.5*	*4066.2*
Losses and Unaccounted for [f]	**60.3**	**73.3**	**41.1**	*59.5*	*53.9*	*82.1*	*65.6*	*64.6*	*54.5*	*84.2*	*67.4*	*66.2*	*234.2*	*266.3*	*272.3*
Demand															
Retail Sales [g]															
Residential	**292.5**	**264.2**	**352.8**	*277.4*	*308.5*	*275.1*	*364.4*	*271.2*	*309.6*	*281.8*	*372.8*	*276.6*	*1186.9*	*1219.2*	*1240.8*
Commercial	**236.2**	**254.3**	**294.4**	*250.6*	*245.0*	*255.6*	*298.6*	*247.8*	*247.3*	*262.6*	*308.9*	*254.3*	*1035.5*	*1047.0*	*1073.1*
Industrial	**260.0**	**268.5**	**280.5**	*270.4*	*261.4*	*273.3*	*285.1*	*274.8*	*267.2*	*279.3*	*291.4*	*281.1*	*1079.4*	*1094.7*	*1119.0*
Other	**26.4**	**27.4**	**30.6**	*27.2*	*26.8*	*27.1*	*30.3*	*27.4*	*27.3*	*27.7*	*31.1*	*28.2*	*111.5*	*111.5*	*114.2*
Subtotal	**815.1**	**814.3**	**958.2**	*825.6*	*841.8*	*831.1*	*978.3*	*821.2*	*851.4*	*851.4*	*1004.2*	*840.2*	*3413.2*	*3472.4*	*3547.2*
Nonutility Use/Sales [h]	**43.8**	**46.9**	**63.1**	*56.1*	*54.0*	*56.3*	*68.3*	*57.1*	*57.1*	*56.7*	*60.5*	*72.3*	*209.9*	*235.8*	*246.7*
Total Demand	**858.9**	**861.2**	**1021.3**	*881.7*	*895.8*	*887.5*	*1046.6*	*878.3*	*908.5*	*908.1*	*1064.7*	*912.5*	*3623.1*	*3708.2*	*3794.0*
Memo:															
Nonutility Sales to Electric Utilities [b]	**122.8**	**131.4**	**176.6**	**157.1**	**154.7**	**162.0**	*196.9*	*167.4*	*173.0*	*171.8*	*183.3*	*218.9*	**587.8**	*681.1*	*747.0*

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

[b] Electricity(net Generation) from nonutility sources, including cogenerators and small power producers.

[c] Includes refinery still gas and other process or waste gases and liquefied petroleum gases.

[d] Includes geothermal, solar, wind, wood, waste, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

[e] Data for 2000 are estimates.

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

[g] Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S *Electric Power Monthly* and *Electric Power Annual.* Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2000 are estimated.

[h] Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA 860B, "Annual Electric Generator Report - Nonutility(1998 and 1999) and EIA-867, "Annual Nonutility Power Producer Report,"(prior to 1998). 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**	*2.682*	*2.745*	*2.849*	*-12.9*	*2.3*	*3.8*
Geothermal, Solar and Wind Energy [b]	**0.036**	*0.003*	*0.004*	*0.004*	*-91.7*	*33.3*	*0.0*
Biofuels [c]	**0.021**	*0.021*	*0.021*	*0.021*	*0.0*	*0.0*	*0.0*
Total	**3.136**	*2.706*	*2.769*	*2.874*	*-13.7*	*2.3*	*3.8*
Nonutility Power Generators							
Hydroelectric Power [a]	**0.149**	*0.179*	*0.186*	*0.186*	*20.1*	*3.9*	*0.0*
Geothermal, Solar and Wind Energy [b]	**0.373**	*0.341*	*0.333*	*0.333*	*-8.6*	*-2.3*	*0.0*
Biofuels [c]	**0.523**	*0.745*	*0.729*	*0.729*	*42.4*	*-2.1*	*0.0*
Total	**1.045**	*1.265*	*1.249*	*1.249*	*21.1*	*-1.3*	*0.0*
Total Power Generation	**4.180**	*3.971*	*4.018*	*4.122*	*-5.0*	*1.2*	*2.6*
Other Sectors [d]							
Residential and Commercial [e]	**0.553**	*0.576*	*0.547*	*0.577*	*4.2*	*-5.0*	*5.5*
Industrial [f]	**1.942**	*2.003*	*2.008*	*2.058*	*3.1*	*0.2*	*2.5*
Transportation [g]	**0.100**	*0.111*	*0.111*	*0.117*	*11.0*	*0.0*	*5.4*
Total	**2.595**	*2.689*	*2.666*	*2.751*	*3.6*	*-0.9*	*3.2*
Net Imported Electricity [h]	**0.219**	*0.282*	*0.267*	*0.258*	*28.8*	*-5.3*	*-3.4*
Total Renewable Energy Demand	**6.994**	*6.942*	*6.950*	*7.131*	*-0.7*	*0.1*	*2.6*

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

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

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

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

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

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

[g] Ethanol blended into gasoline.

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

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

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

	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**	**8516**	**8876**	*9326*	*9569*	*9986*
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**	*27.66*	*26.75*	*26.17*
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**	*5.84*	*5.85*	*5.82*
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**	*10.08*	*10.67*	*10.97*
Energy Demand															
World Petroleum															
(million barrels per day)	**64.8**	**65.9**	**66.0**	**66.6**	**66.8**	**67.0**	**68.3**	**69.9**	**71.4**	**73.1**	**73.6**	**74.9**	*74.9*	*75.9*	*77.6*
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**	*19.51*	*19.85*	*20.22*
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**	*22.63*	*23.14*	*24.08*
Coal															
(million short tons)	**877**	**891**	**897**	**898**	**907**	**943**	**950**	**962**	**1006**	**1029**	**1039**	**1044**	*1077*	*1089*	*1097*
Electricity (billion kilowatthours)															
Retail Sales [c]	**2578**	**2647**	**2713**	**2762**	**2763**	**2861**	**2935**	**3013**	**3098**	**3140**	**3240**	**3236**	*3335*	*3393*	*3466*
Nonutility Own Use [d]	**NA**	**91**	**113**	**119**	**122**	**127**	**138**	**145**	**145**	**148**	**156**	**185**	*210*	*236*	*247*
Total	**NA**	**2738**	**2826**	**2881**	**2885**	**2988**	**3073**	**3159**	**3243**	**3288**	**3396**	**3421**	*3545*	*3629*	*3713*
Total Energy Demand [e]															
(quadrillion Btu)	**NA**	**84.2**	**84.2**	**84.5**	**85.6**	**87.4**	**89.2**	**90.9**	**93.9**	**94.2**	**95.2**	**97.1**	*98.4*	*99.4*	*101.3*
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**	**11.18**	**10.94**	*10.56*	*10.39*	*10.14*

[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 difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 2000 are estimates.

[e] "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1997, 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 compehensive 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 CONTROL0101.

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**	**8516**	**8876**	*9326*	*9569*	*9986*
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**	**1.020**	**1.032**	**1.048**	*1.070*	*1.093*	*1.112*
Real Disposable Personal Income (billion chained 1996 Dollars)	**4784**	**4907**	**5014**	**5033**	**5189**	**5261**	**5397**	**5539**	**5678**	**5854**	**6134**	**6331**	*6509*	*6719*	*7045*
Manufacturing Production (Index, 1996=1.000)	**0.801**	**0.816**	**0.812**	**0.793**	**0.825**	**0.855**	**0.907**	**0.955**	**1.000**	**1.070**	**1.123**	**1.178**	*1.245*	*1.285*	*1.335*
Real Fixed Investment (billion chained 1996 dollars)	**887**	**911**	**895**	**833**	**886**	**958**	**1046**	**1109**	**1213**	**1329**	**1485**	**1621**	*1773*	*1817*	*1928*
Real Exchange Rate (Index, 1996=1.000)	**NA**	**NA**	**0.963**	**0.966**	**0.960**	**1.001**	**0.981**	**0.927**	**1.000**	**1.102**	**1.122**	**1.118**	*1.226*	*1.255*	*1.195*
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**	**15.2**	**25.6**	**0.1**	*16.1*	*2.5*	*7.5*
Producer Price Index (index, 1982=1.000)	**1.069**	**1.122**	**1.163**	**1.165**	**1.172**	**1.189**	**1.205**	**1.247**	**1.277**	**1.275**	**1.244**	**1.255**	*1.326*	*1.351*	*1.342*
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**	*1.724*	*1.768*	*1.797*
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**	*0.905*	*0.876*	*0.849*
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**	**128.8**	*131.4*	*131.7*	*133.0*
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**	**89.5**	*91.9*	*92.7*	*94.3*
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*	*1.3*	*1.3*
Housing Stock (millions)	**101.6**	**102.9**	**103.5**	**104.5**	**105.5**	**106.8**	**108.2**	**109.6**	**111.0**	**112.5**	**114.1**	**115.7**	*116.1*	*117.3*	*118.5*
Weather [a]															
Heating Degree-Days															
U.S.	**4653**	**4726**	**4016**	**4200**	**4441**	**4700**	**4483**	**4531**	**4713**	**4542**	**3951**	**4169**	*4458*	*4466*	*4459*
New England	**6715**	**6887**	**5848**	**5960**	**6844**	**6728**	**6672**	**6559**	**6679**	**6662**	**5680**	**5952**	*6499*	*6473*	*6462*
Middle Atlantic	**6088**	**6134**	**4998**	**5177**	**5964**	**5948**	**5934**	**5831**	**5986**	**5809**	**4812**	**5351**	*5725*	*5679*	*5698*
U.S. Gas-Weighted	**4804**	**4856**	**4139**	**4337**	**4458**	**4754**	**4659**	**4707**	**4980**	**4802**	**4183**	**4399**	*4683*	*4707*	*4710*
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**	*1252.0*	*1228.1*	*1236.7*

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

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0101.

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**	*19.5*	*19.9*	*20.2*
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**	*14.5*	*14.7*	*14.8*
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**	*5.6*	*5.6*	*5.6*
Other OECD	**2.6**	**2.7**	**2.7**	**2.7**	**2.7**	**2.8**	**2.9**	**3.0**	**3.0**	**3.1**	**3.1**	**3.3**	*3.3*	*3.4*	*3.5*
Total OECD	**37.1**	**37.6**	**37.5**	**38.1**	**38.8**	**39.0**	**39.9**	**40.6**	**41.4**	**41.8**	**42.3**	**42.9**	*42.9*	*43.6*	*44.2*
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**	*3.7*	*3.7*	*3.8*
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**	*4.5*	*4.7*	*5.0*
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**	*9.2*	*9.6*	*9.9*
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**	*13.9*	*14.3*	*14.6*
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**	*32.9*	*33.9*	*34.9*
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**	*75.8*	*77.4*	*79.1*
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*	*9.1*	*9.1*
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*	*2.9*
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**	*6.4*	*6.4*	*6.4*
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**	*1.7*	*1.7*	*1.7*
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**	*19.9*	*20.1*	*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**	*30.8*	*31.2*	*32.1*
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**	**7.4**	*7.8*	*8.1*	*8.5*
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**	*3.3*	*3.2*	*3.1*
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*	*3.8*	*4.0*
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**	**11.2**	*11.3*	*11.3*	*11.6*
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**	**54.5**	*56.7*	*57.6*	*59.3*
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**	**73.9**	*76.6*	*77.6*	*79.3*
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**	**1.0**	*-0.8*	*-0.2*	*-0.2*
OECD Comm. Stocks, End (bill. bbls.)	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	**2.8**	**2.8**	**2.7**	**2.7**	**2.7**	**2.8**	**2.6**	*2.6*	*2.7*	*2.8*
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**	**3.7**	*4.1*	*4.4*	*4.7*

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

[b] OECD Europe includes the former East Germany.

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

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, 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
Imported Crude Oil Prices															
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**	*27.66*	*26.75*	*26.17*
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*	*30.01*	*29.18*
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**	**2.08**	*3.73*	*4.95*	*4.52*
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*	*1.50*	*1.46*
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*	*1.46*	*1.42*
No. 2 Diesel Oil, Retail (dollars per gallon)	**0.91**	**0.99**	**1.16**	**1.12**	**1.10**	**1.11**	**1.11**	**1.10**	**1.22**	**1.19**	**1.04**	**1.12**	*1.48*	*1.49*	*1.44*
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**	*0.87*	*0.84*	*0.81*
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*	*1.31*	*1.25*
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**	*25.33*	*25.07*	*23.91*
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*	*1.20*	*1.19*
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**	**2.39**	*4.22*	*4.03*	*3.87*
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**	*4.22*	*5.22*	*5.02*
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**	*7.75*	*10.07*	*9.34*
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**	*8.21*	*8.31*	*8.39*

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

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

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

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

(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**	*5.84*	*5.85*	*5.82*
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*	*1.02*	*1.05*
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**	*4.87*	*4.83*	*4.77*
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**	*8.90*	*9.29*	*9.51*
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**	*0.08*	*0.09*	*0.00*
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**	*-0.02*	*0.00*	*-0.02*
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**	*0.27*	*0.24*	*0.22*
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*	*15.29*	*15.52*
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**	*1.94*	*1.95*	*2.00*
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**	*0.39*	*0.38*	*0.35*
Crude Oil Product Supplied	**0.04**	**0.03**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*
Processing Gain	**0.66**	**0.66**	**0.68**	**0.71**	**0.77**	**0.77**	**0.77**	**0.77**	**0.84**	**0.85**	**0.89**	**0.89**	*0.95*	*0.92*	*0.91*
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**	*1.18*	*1.38*	*1.46*
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**	*-0.01*	*-0.07*	*-0.02*
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**	*19.51*	*19.85*	*20.22*
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**	*8.38*	*8.51*	*8.62*
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**	*1.70*	*1.74*	*1.78*
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**	*3.70*	*3.81*	*3.88*
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**	*0.85*	*0.77*	*0.75*
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**	*4.88*	*5.02*	*5.18*
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**	*19.51*	*19.85*	*20.22*
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**	*10.08*	*10.67*	*10.97*
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	**330**	**341**	**323**	**325**	**318**	**335**	**337**	**303**	**284**	**305**	**324**	**284**	*289*	*289*	*298*
Total Motor Gasoline	**228**	**213**	**220**	**219**	**216**	**226**	**215**	**202**	**195**	**210**	**216**	**193**	*194*	*202*	*207*
Jet Fuel	**44**	**41**	**52**	**49**	**43**	**40**	**47**	**40**	**40**	**44**	**45**	**41**	*44*	*46*	*45*
Distillate Fuel Oil	**124**	**106**	**132**	**144**	**141**	**141**	**145**	**130**	**127**	**138**	**156**	**125**	*116*	*124*	*118*
Residual Fuel Oil	**45**	**44**	**49**	**50**	**43**	**44**	**42**	**37**	**46**	**40**	**45**	**36**	*35*	*37*	*39*
Other Oils [f]	**267**	**257**	**261**	**267**	**263**	**273**	**275**	**258**	**250**	**259**	**291**	**246**	*255*	*261*	*269*

[a] Includes lease condensate.

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

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

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

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

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

(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**	*18.83*	*19.84*	*20.34*
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**	*3.48*	*4.03*	*4.19*
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*	*0.12*	*0.13*
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**	*22.42*	*24.00*	*24.65*
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*	*1.76*	*2.17*
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**	*1.76*	*2.17*	*2.27*
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**	*0.75*	*-0.41*	*-0.10*
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**	*23.17*	*23.59*	*24.55*
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**	*-0.54*	*-0.45*	*-0.47*
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**	*22.63*	*23.14*	*24.08*
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**	*1.23*	*1.23*	*1.25*
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**	*0.69*	*0.70*	*0.71*
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*	*5.17*	*5.17*
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**	*3.38*	*3.46*	*3.48*
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**	*9.39*	*9.68*	*10.40*
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**	*2.96*	*2.89*	*3.06*
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**	*22.63*	*23.14*	*24.08*

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

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

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

Table A7. Annual U.S. Coal Supply and Demand

(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**	**1100.2**	*1087.7*	*1116.7*	*1134.1*
Appalachia	**NA**	**464.8**	**489.0**	**457.8**	**456.6**	**409.7**	**445.4**	**434.9**	**451.9**	**467.8**	**460.4**	**425.4**	*422.9*	*420.6*	*418.5*
Interior	**NA**	**198.1**	**205.8**	**195.4**	**195.7**	**167.2**	**179.9**	**168.5**	**172.8**	**170.9**	**168.4**	**162.5**	*146.8*	*146.5*	*141.7*
Western	**NA**	**317.9**	**334.3**	**342.8**	**345.3**	**368.5**	**408.3**	**429.6**	**439.1**	**451.3**	**488.8**	**512.3**	*518.3*	*549.6*	*573.9*
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*	*34.2*	*34.9*
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*	*34.9*	*35.2*
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*	*-0.7*	*-0.3*
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**	*12.3*	*11.8*	*12.0*
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**	*59.4*	*60.5*	*62.0*
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**	**1047.9**	*1045.8*	*1067.4*	*1083.7*
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*	*123.9*	*114.9*
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**	*123.9*	*114.9*	*113.6*
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**	*19.6*	*9.0*	*1.3*
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**	**8.6**	**12.0**	*12.2*	*12.2*	*12.2*
Total Supply	**882.3**	**896.5**	**899.4**	**891.4**	**907.8**	**936.5**	**954.0**	**960.4**	**1006.7**	**1033.2**	**1031.3**	**1045.8**	*1077.7*	*1088.6*	*1097.2*
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**	*29.0*	*28.3*	*28.7*
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**	*859.8*	*849.8*	*850.9*
Nonutilities (Excl. Cogen.) [d]	**NA**	**0.9**	**1.6**	**10.2**	**14.6**	**17.1**	**19.5**	**20.8**	**22.2**	**21.6**	**26.9**	**51.7**	*116.9*	*137.9*	*145.3*
Retail and General Industry	**76.3**	**82.3**	**83.1**	**81.5**	**80.2**	**81.1**	**81.2**	**78.9**	**76.9**	**77.1**	**73.0**	**70.3**	*71.7*	*72.7*	*72.4*
Total Demand [e]	**876.5**	**890.6**	**897.1**	**897.8**	**907.0**	**943.1**	**949.7**	**961.7**	**1005.6**	**1029.2**	**1039.0**	**1044.3**	*1077.4*	*1088.6*	*1097.2*
Discrepancy [f]	**5.8**	**5.9**	**2.4**	**-6.4**	**0.8**	**-6.6**	**4.3**	**-1.3**	**1.2**	**4.0**	**-7.7**	**1.6**	*0.3*	*0.0*	*0.0*

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

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

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

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

[e] Total Demand includes estimated IPP consumption.

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

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

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

Table A8. Annual U.S. Electricity Supply and Demand

(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**	*1702.3*	*1729.9*	*1733.2*
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**	*70.8*	*77.5*	*75.1*
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**	*281.8*	*274.3*	*290.9*
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**	*707.2*	*674.6*	*663.3*
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**	*256.0*	*262.0*	*272.0*
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*	*2.2*	*2.2*
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**	*3020.3*	*3020.5*	*3036.6*
Nonutility Generation [b]	**0.0**	**187.6**	**187.6**	**216.7**	**246.3**	**314.4**	**343.1**	**363.3**	**369.6**	**371.7**	**405.7**	**554.7**	*797.7*	*916.9*	*993.7*
Total Generation	**2704.3**	**2971.9**	**3024.9**	**3071.3**	**3083.4**	**3196.9**	**3253.8**	**3357.8**	**3447.0**	**3494.2**	**3617.9**	**3728.4**	*3818.0*	*3937.3*	*4030.3*
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**	*39.3*	*37.2*	*35.9*
Total Supply	**2736.0**	**2982.8**	**3027.2**	**3091.0**	**3108.8**	**3224.7**	**3298.6**	**3397.1**	**3485.0**	**3530.8**	**3645.5**	**3759.0**	*3857.3*	*3974.5*	*4066.2*
Losses and Unaccounted for [d]	**NA**	**243.2**	**207.3**	**215.0**	**223.6**	**236.4**	**225.7**	**238.4**	**239.0**	**237.0**	**225.0**	**261.5**	*234.2*	*266.3*	*272.3*
Demand															
Retail Sales															
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**	*1186.9*	*1219.2*	*1240.8*
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**	*1035.5*	*1047.0*	*1073.1*
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**	*1079.4*	*1094.7*	*1119.0*
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**	*111.5*	*111.5*	*114.2*
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**	*3413.2*	*3472.4*	*3547.2*
Nonutility Own Use [e]	**NA**	**92.9**	**94.7**	**101.5**	**108.0**	**126.9**	**138.4**	**145.4**	**144.9**	**148.2**	**156.2**	**185.3**	*209.9*	*235.8*	*246.7*
Total Demand	**NA**	**2739.7**	**2807.3**	**2863.5**	**2871.4**	**2988.4**	**3073.0**	**3158.7**	**3246.0**	**3293.8**	**3420.5**	**3497.4**	*3623.1*	*3708.2*	*3794.0*
Memo:															
Nonutility Sales															
to Electric Utilities	**NA**	**NA**	**92.9**	**115.2**	**138.3**	**187.5**	**204.7**	**217.9**	**224.7**	**223.5**	**249.5**	**369.4**	*587.8*	*681.1*	*747.0*

[a]Other includes generation from wind, wood, waste, and solar sources.

[b]Net generation.

[c]Data for 2000 are estimates.

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

[e]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.

[f]Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA 860B, "Annual Electric Generator Report - Nonutility"(1998 and 1999) and EIA-867, "Annual Nonutility Power Producer Report,"(prior to 1998). 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.