

STATEMENT OF
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before the
HOUSE COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEE ON OVERSIGHT
UNITED STATES HOUSE OF REPRESENTATIVES
HEARING ON FEDERAL TAX LAWS

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Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today to discuss the near-term outlook for energy markets in the United States.

The Energy Information Administration (EIA) is an autonomous statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other Government agencies, the U.S. Congress, and the public. We do not take positions on policy issues, but we do produce data and analysis reports that are meant to help policy makers determine energy policy. Because we have an element of statutory independence with respect to the analyses that we publish, our views are strictly those of EIA. We do not speak for the Department, nor for any particular point of view with respect to energy policy, and our views should not be construed as representing those of the Department or the Administration. However, EIA's baseline projections on energy trends are widely used by Government agencies, the private sector, and academia for their own energy analyses.

EIA produces both short-term and long-term energy projections. The projections through 2002 in this testimony are from the *Short-Term Energy Outlook February 2001 (STEO)*. Each month, EIA updates its *Short-Term Energy Outlook*, which contains quarterly projections through the next 2 calendar years, taking into account the latest developments in energy markets. The *Annual Energy Outlook* provides projections and analysis of domestic energy consumption, supply, and prices through 2020. These projections are not meant to be exact predictions of the future, but represent a likely energy future, given technological and demographic trends, current laws and regulations, and consumer behavior as derived from known data. EIA recognizes that projections of energy markets are highly uncertain and subject to many random events that cannot be foreseen, such as weather, political disruptions, strikes, and technological breakthroughs. In addition, long-term trends in technology development, demographics, economic growth, and energy resources may evolve along a different path than assumed in the *Annual Energy Outlook*. Many of these uncertainties are explored through alternative cases.

The Outlook to 2002

Energy markets in the United States today are characterized by high nominal prices for both petroleum and natural gas, due in large part to a tight balance between supply and demand for both fuels. Reductions in oil production by OPEC and weak production growth from several non-OPEC petroleum-exporting nations have contributed to low oil stocks. It should be noted, however, that current oil prices of around \$30 per barrel are far from the inflation-adjusted \$70-per-barrel historical high seen in 1981. It would seem then that rapid price changes may impact consumers more initially than such absolute levels since individuals and organizations generally budget and plan for small changes from recent history.

Crude Oil. At its January 17 meeting, OPEC members agreed to reduce production quotas effective February 1, 2001. This decision by OPEC 10 (OPEC, excluding Iraq) is expected to maintain the average U.S. imported crude oil price within and toward the high end of OPEC's target range of \$22 to \$28 per barrel in 2001 and 2002 (Figure 1). Average imported prices may

fall slightly from the estimated value of \$27.70 per barrel in 2000 to between \$26 and \$27 during the 2001 to 2002 period. These prices, as well as all other prices mentioned in this testimony, will be in nominal dollars. EIA expects that oil stocks in the OECD countries will continue to remain lower than normal, preventing prices from falling significantly (Figure 2). Some OPEC members have suggested that further cuts will be needed to maintain world oil supply in balance with demand. Any additional quota reductions will be discussed at the next OPEC ministerial meeting which will be held on March 16, 2001.

Motor Gasoline. The average monthly retail price for regular unleaded motor gasoline fell 11 cents per gallon from September to December. However, with crude oil prices increasing from their December lows combined with lower than normal stock levels, EIA projects that prices at the pump will rise modestly as the 2001 driving season begins in the spring. For the summer of 2001, we expect little difference from the average price of \$1.50 per gallon seen during the previous driving season. The annual average retail price of regular motor gasoline is projected to decline from \$1.49 per gallon in 2000 to \$1.46 per gallon in 2001 to \$1.42 per gallon in 2002. Gasoline inventories going into the driving season are projected to be about the same or even less than last year. Relatively low gasoline inventories could set the stage for regional supply problems that once again could bring about significant price volatility in gasoline markets. The prospect of regional supply problems is increased by the differing regional gasoline product requirements, arising from Federal and State air quality programs, which limit the distribution system's flexibility. Regional problems can also arise from temporary or permanent losses of refining capacity. However, it is expected that with a year's experience behind them, the refining industry's ability to make the new type of gasoline initially required last summer should be improved, thus mitigating any problems related to this latest change in gasoline specifications.

Distillate Fuel. The heating season of October through March is now nearing its end, so it is likely that retail heating oil prices have seen their seasonal peak provided no late seasonal surge in heating demand occurs. Warm spells in January and declining crude oil prices in December and January have helped ease heating oil prices. Spot heating oil prices (New York Harbor) fell from \$1.05 per gallon on December 6, 2000, to \$0.73 per gallon on February 28, 2001. Because of the relatively warm weather in the Northeast during the last half of January and the extremely high level of distillate fuel imports and refinery production so far in 2001, heating oil stock levels have not weakened over the past month or two as would normally occur. Thus, for the country as a whole, distillate stocks are now back within the normal range after being well below normal for most of the winter. However, although retail heating oil prices have come down some recently, they have remained relatively high as demand has continued to be strong. The national average price in December 2000 was about 40 cents per gallon above the December 1999 price. By February 2001, the average price is expected to be about \$1.34 per gallon, about 8 cents per gallon less than the record high set in February 2000.

The average bill for a consumer heating with oil in the Northeast States is expected to be nearly \$1,000 this winter compared to \$760 last winter and less than \$600 the previous two winters (Table 1). Of the 7.7 million households in the United States that use oil to heat their homes, 5.3 million households, or roughly 69 percent reside in the Northeast region, which includes New

England and the Central Atlantic States. Although consumers this winter have not faced the price spike they saw last winter, consumption is expected to be 11 percent more than last year, because of colder weather and high natural gas prices encouraging some customers to switch to distillate fuel oil. Higher consumption levels and higher crude oil prices relative to last winter have combined to push up the expected cost of a gallon of heating oil by 18 percent this winter. Together the increases in consumption and price are expected to raise winter oil heating bills by 31 percent.

Table 1. Winter Heating Oil Costs for an Average Northeast Household Heating with Oil

	1997-1998 Actual	1998-1999 Actual	1999-2000 Actual	2000-2001 Projected
Heating Oil Consumed (gallons)	636	650	644	715
Heating Oil Price (dollars per gallon)	0.92	0.80	1.18	1.39
Heating Oil Cost (dollars)	585	520	760	994

Natural Gas. Spot natural gas prices last summer averaged more than \$4 per thousand cubic feet during a normally low-priced season and remained above \$5 per thousand cubic feet in the fall, more than double the average price a year earlier (Figure 3). In January 2001, the spot price averaged a record \$8.98 per thousand cubic feet. These sustained high prices are largely due to high demand for natural gas in 2000, which exceeded 1999 demand by almost 1 trillion cubic feet, according to preliminary data, and was not matched by an increase in domestic production. U.S. production of natural gas is estimated to have increased by about 0.5 trillion cubic feet in 2000 over 1999 levels. Strong growth in the economy during the first half of the year, cold winter weather late in the year, and increased demand from natural gas-fired power plants throughout the year are the main reasons for high natural gas demand in 2000. Due to high demand for natural gas in the summer of 2000, smaller quantities of natural gas than usual were injected into storage for winter, which is the peak demand period for natural gas (Figure 4).

Demand for natural gas for heating was eased by milder than normal weather during the latter part of January in much of the Nation's gas-consuming regions, which led to a reduction in spot prices to less than \$6 per thousand cubic feet. By February 2001, the average spot price for natural gas was about \$5.80 per thousand cubic feet. However, spot prices and wellhead prices still remain high by historical standards. EIA projects that winter wellhead natural gas prices will average about \$6.10 per thousand cubic feet, more than two and one half times the price of the previous winter season. Assuming normal weather and projected continued low underground storage levels, the annual average wellhead price in 2001 is projected to be about \$5 per thousand cubic feet, an increase from the 2000 price of \$3.60 per thousand cubic feet. In 2002, we expect the storage situation to improve, leading to a decrease in the average annual wellhead price to \$4.50 per thousand cubic feet. Domestic natural gas production for 2001 and 2002 is expected to rise as production responds to the high rates of drilling experienced over the past year. In 2000, drilling for natural gas in the United States increased by 45 percent over the 1999 level of 10,500 wells, in response to a 66-percent increase in the average natural gas wellhead price from 1999 to

2000 (Figure 5). Production is estimated to have risen by 1.1 percent in 2000 and is projected to increase further in 2001 and 2002 as higher natural gas prices are expected to encourage a moderate growth in supply. In contrast, natural gas production declined slightly from 1997 to 1998 and from 1998 to 1999.

Of the 101.5 million U.S. households, 53 percent use natural gas for home heating. The highest concentration of households heating with natural gas—83 percent—is located in the Midwest. The average natural gas home heating bill in the Midwest is expected to approach \$1,000 this winter (Table 2). Compared to last winter, colder weather is expected to increase residential gas consumption by 18 percent in the Midwest. Residential gas prices are projected to be 50 percent higher than last winter because growing demand and lagging growth in supply resulted in reduced natural gas storage levels at the beginning of the heating season. Together, increased consumption and prices are expected to yield winter heating bills that are 77 percent above last winter. The sharp increase in natural gas and heating oil prices has a particularly severe impact on low-income consumers that use natural gas for heating. In recent months, 5 million consumers have applied for Federal and State governmental assistance to pay their heating bills, an increase of 1 million from last year.

Table 2. Winter Natural Gas Costs for an Average Midwest Household Heating with Natural Gas

	1997-1998 Actual	1998-1999 Actual	1999-2000 Actual	2000-2001 Projected
Natural Gas Consumed (thousand cubic feet)	82.4	84.5	81.7	96.7
Natural Gas Price (dollars per thousand cubic feet)	6.56	6.27	6.61	9.89
Natural Gas Cost (dollars)	541	530	540	956

Electricity. Demand for electricity increased an estimated 3.6 percent from 1999 to 2000. Growth of 2.4 and 2.3 percent is projected in 2001 and in 2002, respectively, slowing in part because of reduced projected economic growth. Electricity demand for this winter is expected to be 4.5 percent higher than the previous winter, due to higher residential and commercial demand and the cold temperatures in November and December. Natural gas deliverability problems in California have helped to increase natural gas prices and have frequently caused interruptible customers, including electricity generators, to have service curtailed in that State. In California, and in the West as a whole, capacity additions have not kept pace with demand growth over the past ten years, contributing to the current low electricity generation reserve margins. The current situation in California is characterized by low natural gas storage, natural gas pipeline bottlenecks, unexpected plant outages, low availability of hydropower resources, and electricity demand in excess of available supply. In addition, the San Onofre 3 nuclear unit is currently offline due to a fire in early February and may not return to service for several months. Typically California would export electricity in the winter season but has required net electricity imports from neighboring states this year. The average residential price of electricity in the United States is projected to increase from 8.2 cents per kilowatthour in 2000 to 8.3 and 8.4 cents per kilowatthour in 2001 and 2002, respectively.

Conclusion

In the near term, we expect crude oil and petroleum prices to remain about the same as their current levels throughout this year with natural gas prices declining further next year as production increases. Stock levels of both petroleum and natural gas are likely to remain low, and natural gas prices are projected to remain higher than normal largely due to high demand in 2000. Home heating oil and natural gas bills are expected to approach \$1,000 this winter, substantially higher than last winter.

Thank you, Mr. Chairman and members of the Subcommittee. I will be happy to answer any questions you may have.

Figure 1. Crude Oil Prices, 1998-2002
(dollars per barrel)

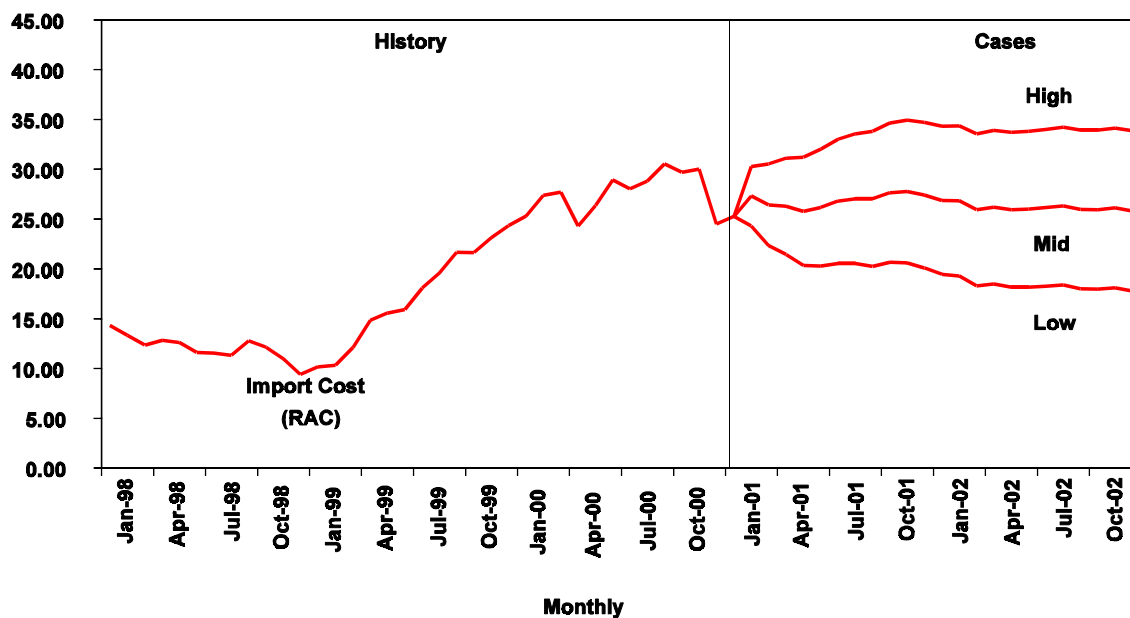


Figure 2. Total OECD Oil Stocks, Including Commercial and Government Stocks, 1995-2002
(million barrels)

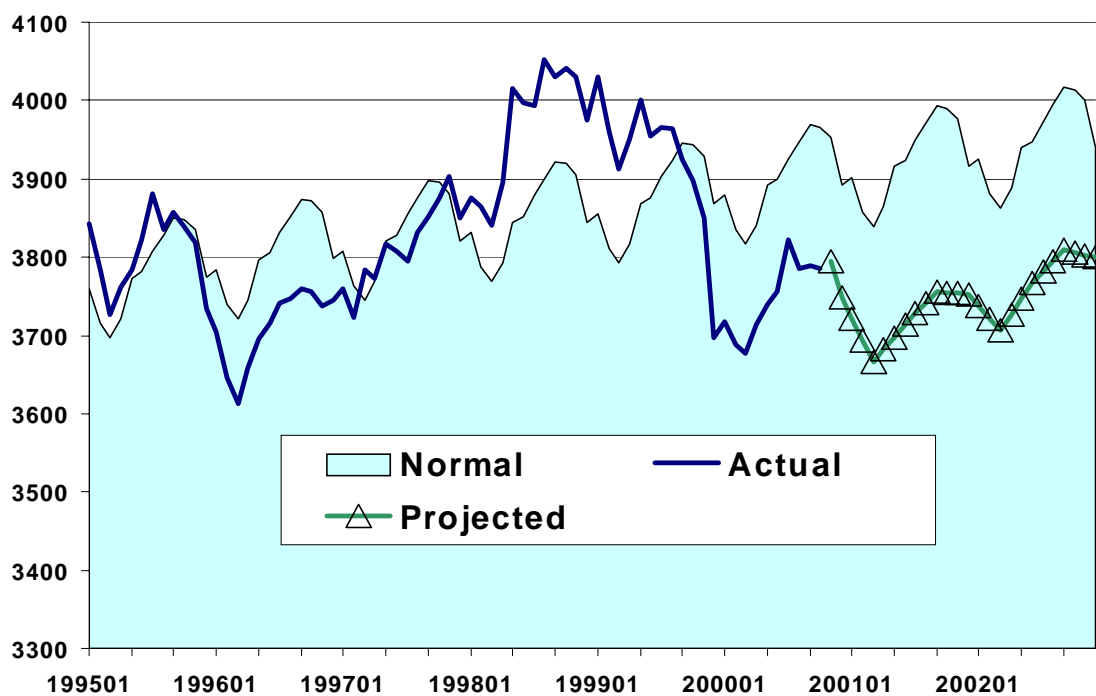


Figure 3. Wellhead Natural Gas Prices, 1999-2002
(dollars per thousand cubic feet)

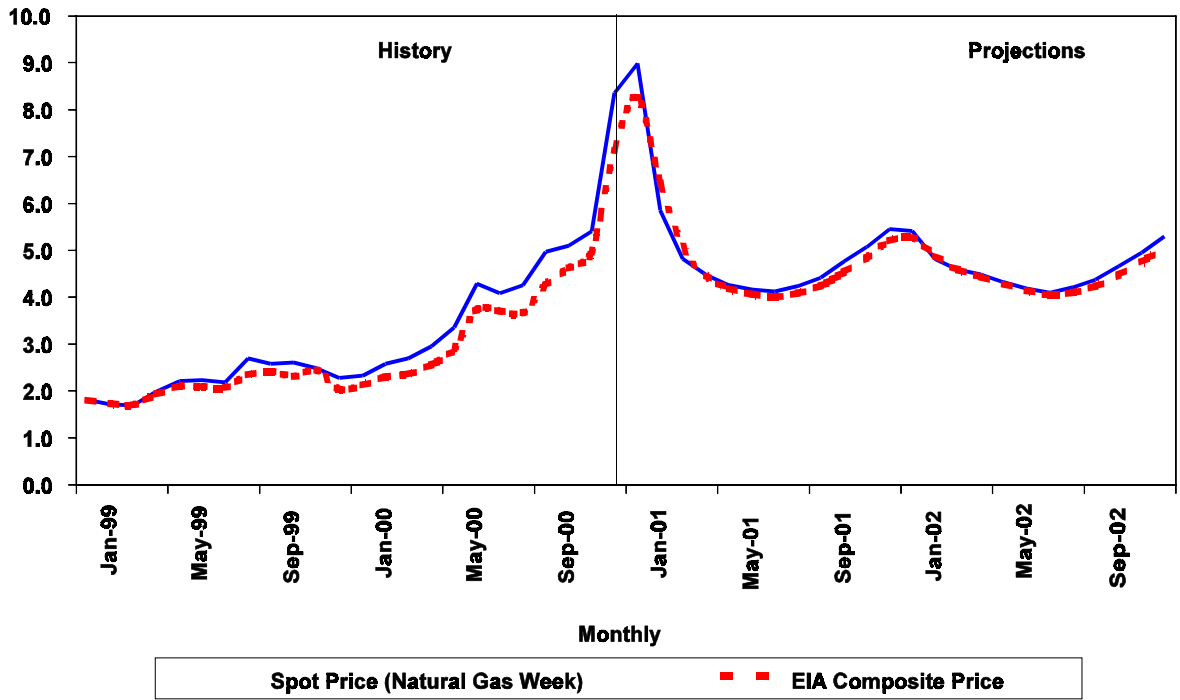


Figure 4. Working Gas in Storage, 1998-2002
(billion cubic feet)

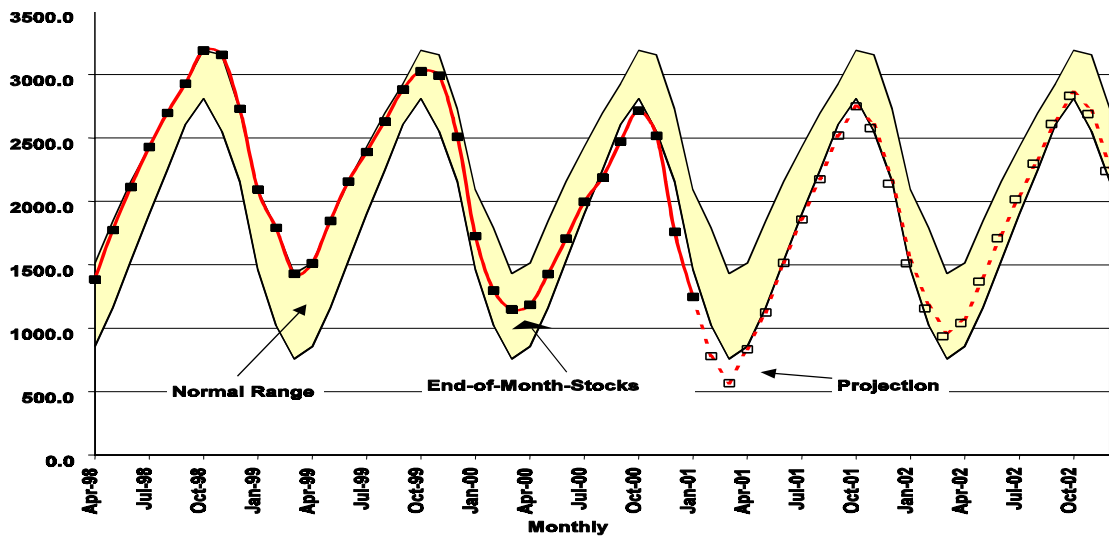


Figure 5. Lower 48 Natural Gas Wells Drilled and Average Wellhead Prices, 1985-2000

