

Short-Term Energy Outlook

December 2003

Heating fuel and gasoline costs this winter (Figures 1 to 3)

The outlook for winter 2003-2004 [household heating bills](#) remains mixed relative to 2002-2003: natural gas-heated homes: up 6 percent; heating oil users: down 4 percent; propane heated households: flat; and homes with electric heat: up about 2 percent. These projections are national average values - actual heating bill changes may vary widely by region due differences in weather and fuel price developments.

The November average motor gasoline price (regular unleaded gasoline) fell to \$1.51 per gallon. Motor gasoline prices have been drifting downward, as expected, following the late summer price surge. Due to the [tight inventory situation](#), [pump prices](#) may level off or decrease only slightly through the winter.

Oil Market Outlook (Figures 4 to 7)

Crude oil prices remained strong in November, varying between \$29 and \$33 per barrel for West Texas Intermediate. Prices for this winter are expected to average [\\$30.50 per barrel](#) (\$1.75 above last month's estimate) as higher demand estimates and tighter oil inventories prevail.

Our projected track for oil prices in 2004, while declining slightly, remains in the \$28-\$30 per barrel range. This reflects the relatively low [inventories in the industrialized countries](#) through 2004.

On Thursday, December 4, OPEC oil ministers met in Vienna, Austria and decided to keep their oil production quotas unchanged. For the OPEC-10 (the group excluding Iraq), crude oil production quotas will remain at 24.5 million barrels per day. In addition, the OPEC ministers announced that they would meet again on February 10, 2004, to reevaluate market conditions and may decide then to cut quotas.

[World oil demand](#) is projected to grow by about 1.3 million barrels per day in 2003 and 2004. Next year, world oil demand growth is expected to approximately match the projected growth in non-OPEC oil production. Russia and the countries in the Caspian Sea region are expected to account for more than one-half of the non-OPEC supply growth in 2004.

[U.S petroleum demand](#) in 2003 is expected to increase about 310,000 barrels per day (1.6 percent) above the 2002 average. In 2004, demand is expected to climb another 300,000 barrels per day, or 1.5 percent, to 20.4 million barrels per day.

Natural Gas Outlook (Figures 8 to 10)

[Natural gas prices](#) in the United States were lower in November than previously estimated but forward price expectations remain sensitive to weather conditions. Prices spiked sharply in futures trading at the end of the first week in December as some cold weather moved across the Eastern United States and gas storage levels declined faster than expected. Spot prices above \$5 per million Btu remain likely over the next few months if normal weather (or colder) prevails, especially with oil prices remaining at relatively high levels. Natural gas [storage levels](#) are still above average and hold the potential to push prices back down if warm temperatures and weak heating demand materialize later in the winter, just as upward spikes remain a strong possibility if the weather turns cold.

[Natural gas demand](#) is expected to exhibit a decline of 2.3 percent in 2003 largely due to high prices discouraging demand in the industrial and electric power sectors. However, expected growth in the economy, along with somewhat lower projected annual average prices, are expected to push 2004 demand up nearly 1 percent. Natural gas production is expected to show an increase of about 2.4 percent this year, but to fall back somewhat in 2004 as drilling intensity declines. In 2004, the projected supply gap that arises in the base case (with demand increasing while production falls) is offset by lower storage injection requirements than those seen in 2003.

Electricity and Coal Outlook (Figures 11 to 13)

[Electricity demand](#) in 2003 is expected to remain near its 2002 level. Following the relatively strong increase in demand in the first quarter due to cold weather, declines in demand occurred during the second and third quarters, also driven largely by weather factors, i.e., lower cooling demand this summer than last summer. In 2004, annual electricity demand is projected to grow by about 2 percent as economic expansion accelerates.

Electricity supply: Nuclear generation in 2003 is expected to be lower than last year by 1.8 percent. However, nuclear plants that experienced extended outages are expected to be back on line in 2004, when nuclear generation increases 2.4 percent over 2003 levels. Hydroelectric generation is also expected to increase in 2004 due to the somewhat recovered levels of precipitation this year. Other renewable sources for generation, lead principally by wind power, are expected to continue to expand through 2004.

[Electric sector coal consumption](#) is projected to grow by almost 1.0 percent in 2003. Coal-fired generation is expected to continue growing in 2004, with coal demand in the power sector growing by 1.2 percent. Total [U.S. coal production](#) is expected to decline by 0.4 percent in 2003, but growth in electric sector coal demand in 2004 is expected to lead to an increase in total coal production back to 2002 levels.

Figure 1. Winter Heating Bills

Illustrative Consumer Prices and Expenditures for Heating Fuels During the Winter				
	2000-2001	2001-2002	2002-2003	2003-2004
	Actual	Actual	Actual	Base Forecast
Natural Gas (Midwest)				
Consumption (mcf)	99.1	81.3	95.2	91.8
Avg. Price (\$/mcf)	9.53	7.38	8.39	9.24
Expenditures (\$)	944	600	799	848
Heating Oil (Northeast)				
Consumption (gals)	728	577	742	691
Avg. Price (\$/gal)	1.37	1.10	1.34	1.37
Expenditures (\$)	996	635	991	947
Propane (Midwest)				
Consumption (gals)	979	803	941	907
Avg. Price (\$/gal)	1.38	1.11	1.20	1.24
Expenditures (\$)	1349	888	1126	1125

Notes: Consumption based on typical per household use for regions noted.

Prices shown are national average delivered-to-household prices.

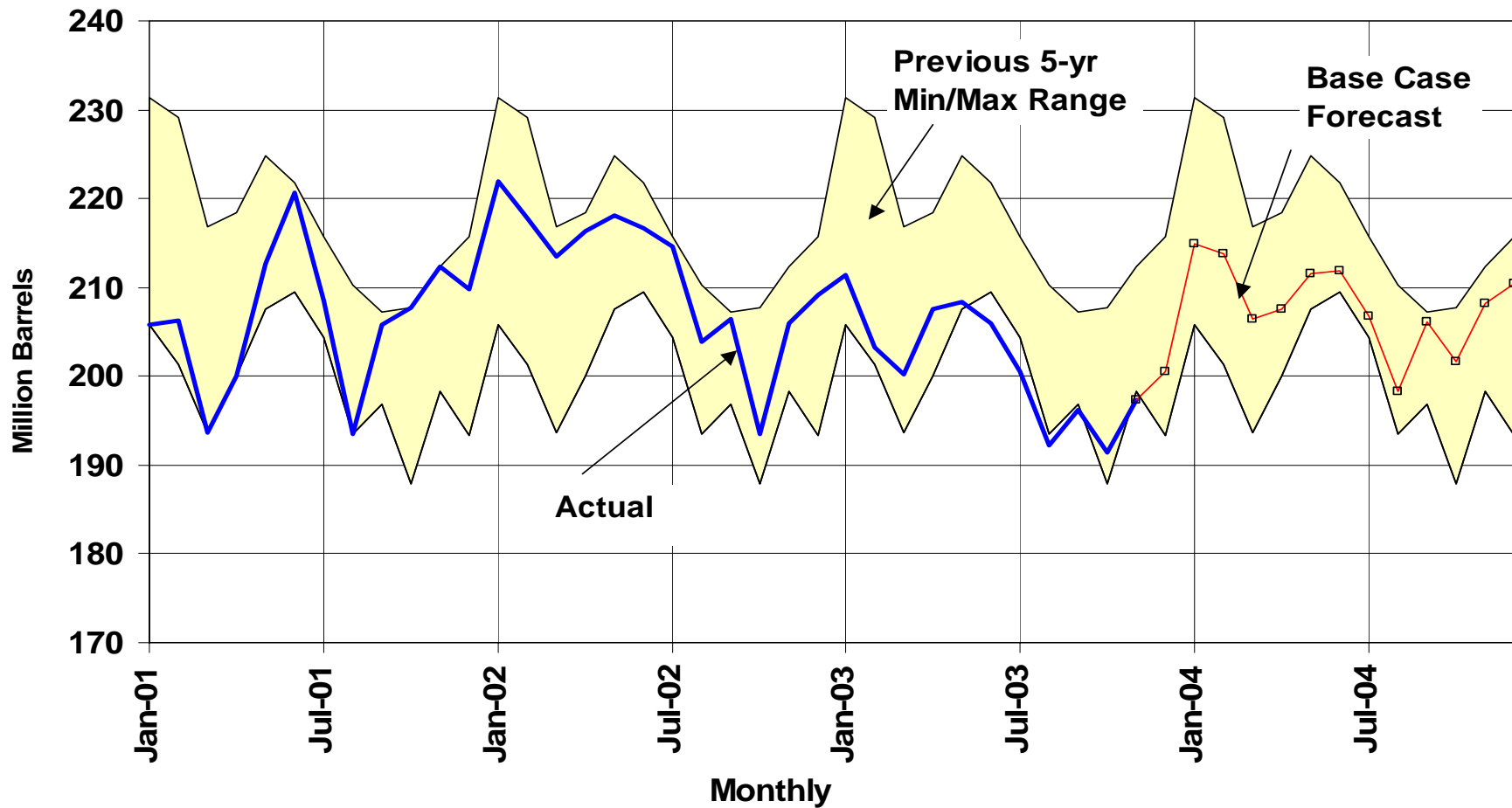
mcf = thousand cubic feet.

gal = gallon.

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.

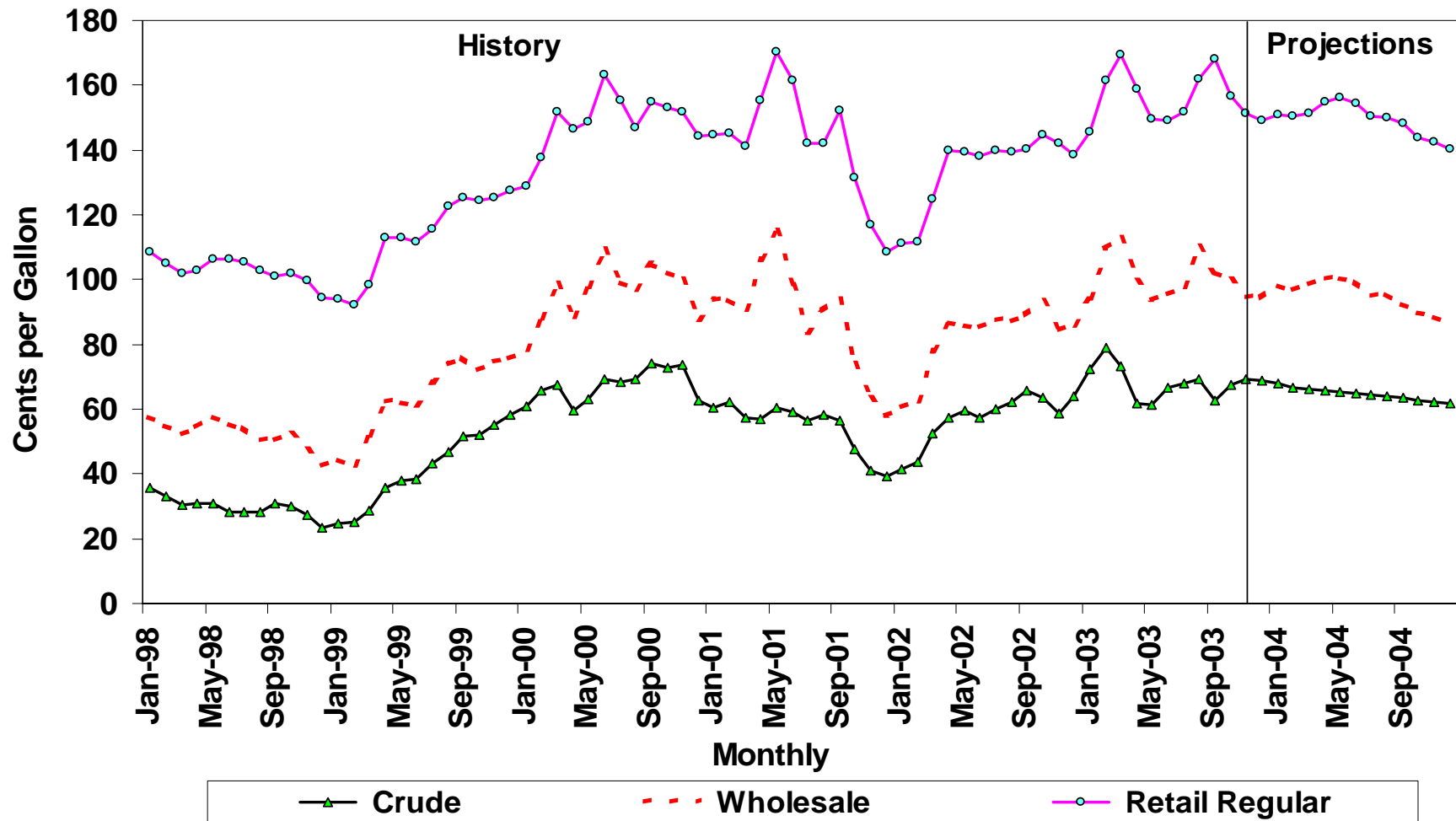


Figure 2. U.S. Gasoline Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.

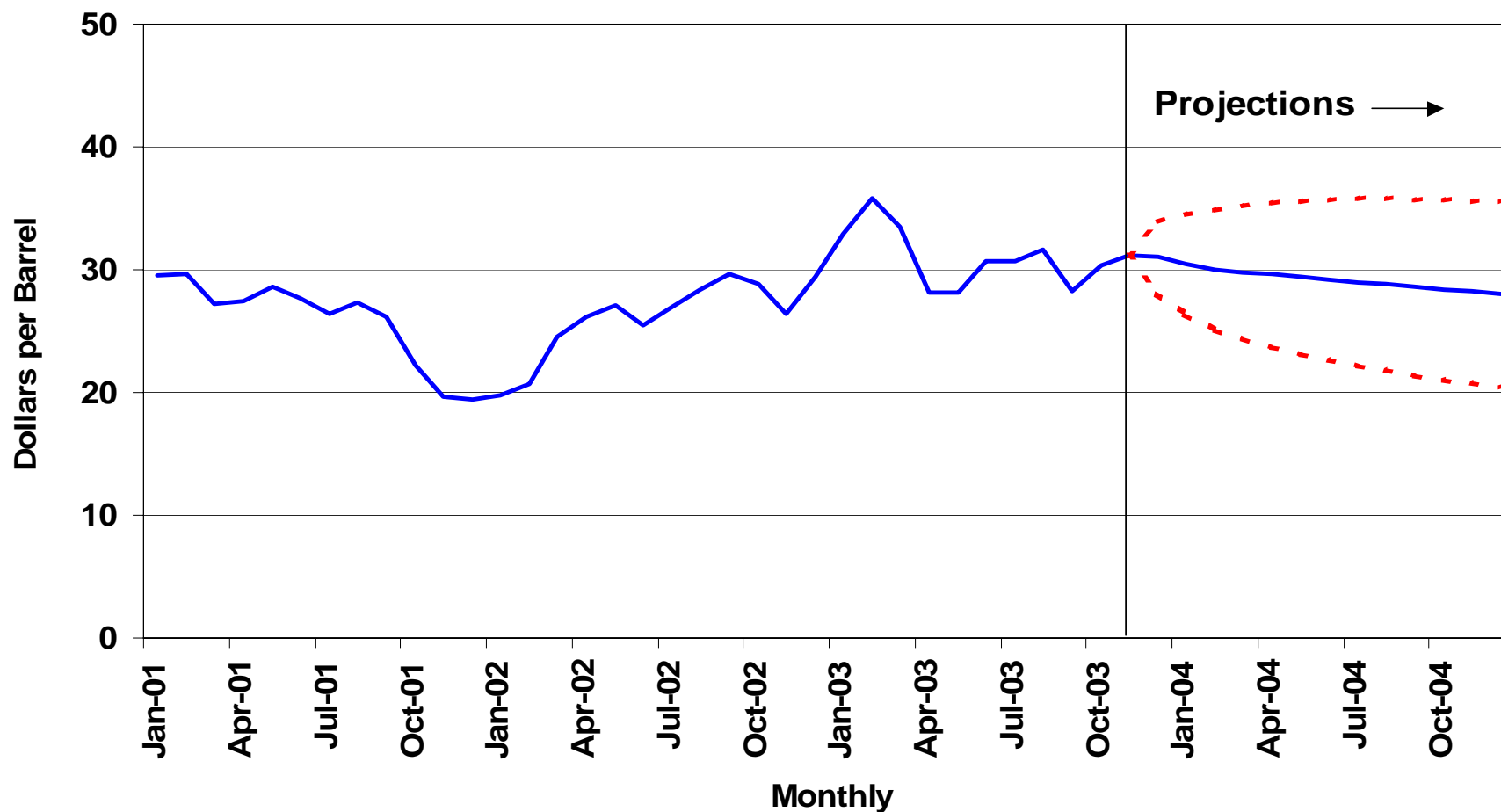
Figure 3. Gasoline Prices and Crude Oil Costs



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003



Figure 4. West Texas Intermediate Crude Oil Price (Base Case and 95% Confidence Interval*)

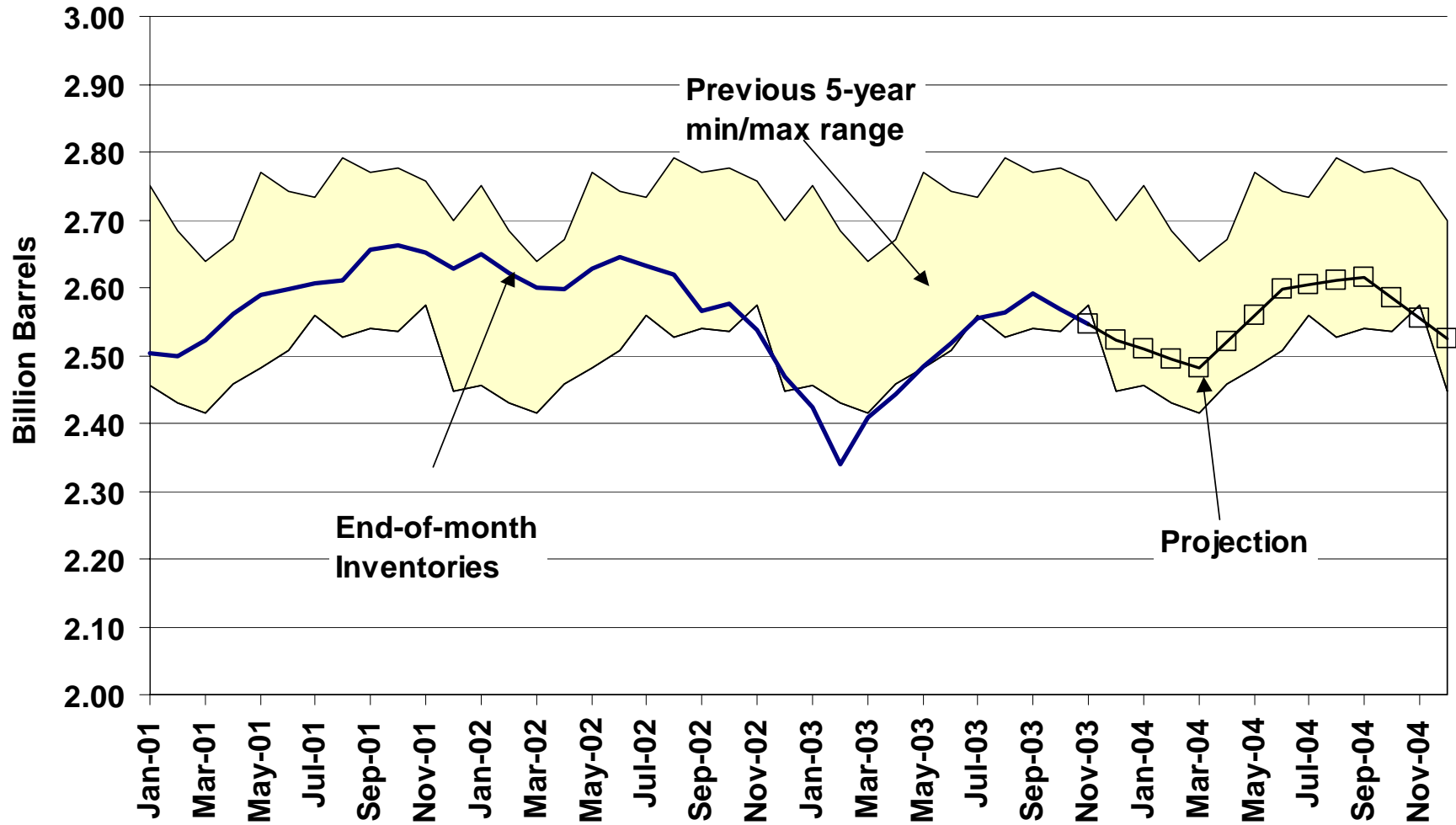


*The confidence intervals show ± 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



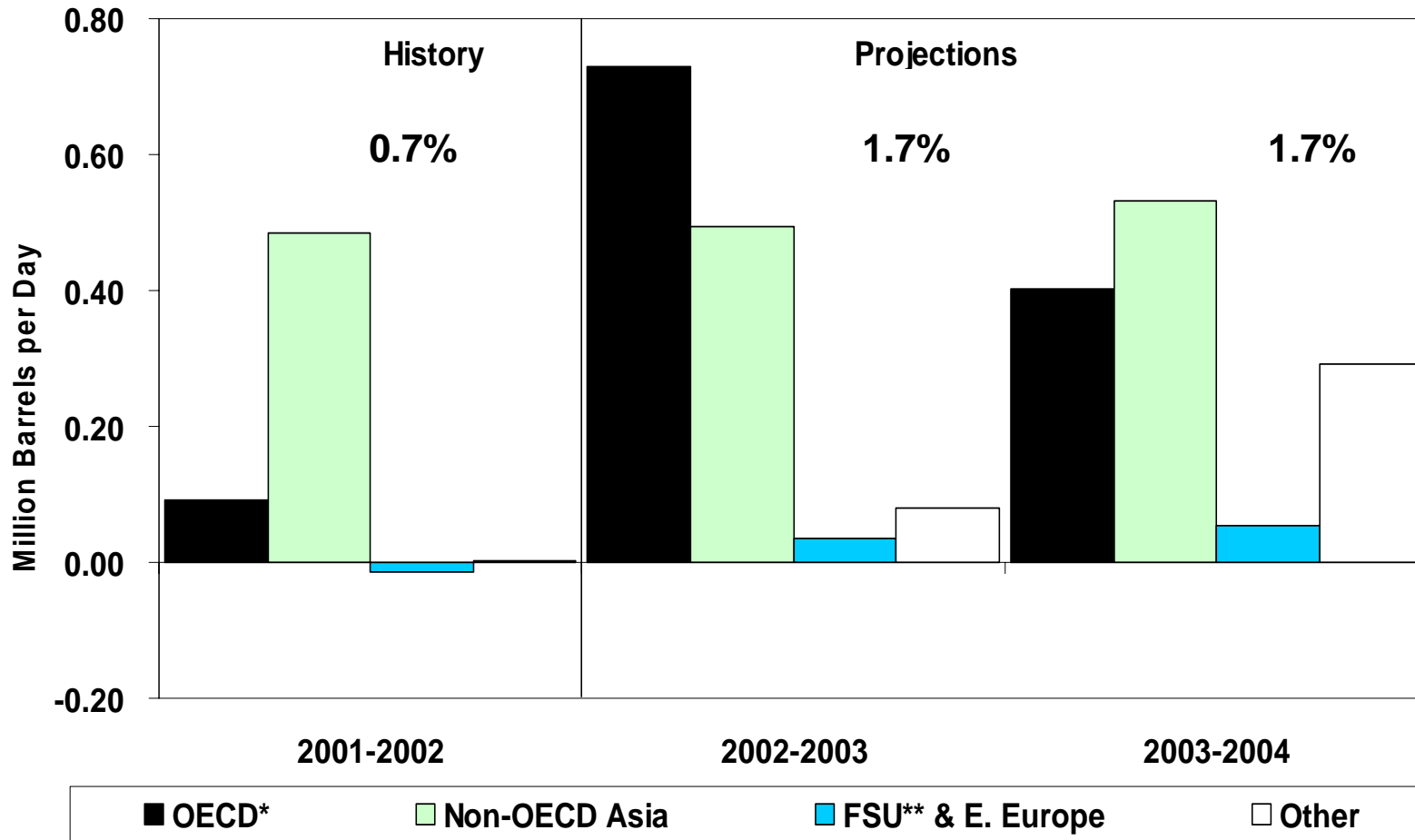
Figure 5. OECD Commercial Oil Stocks



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Figure 6. World Oil Demand Growth (Change from Year Ago)



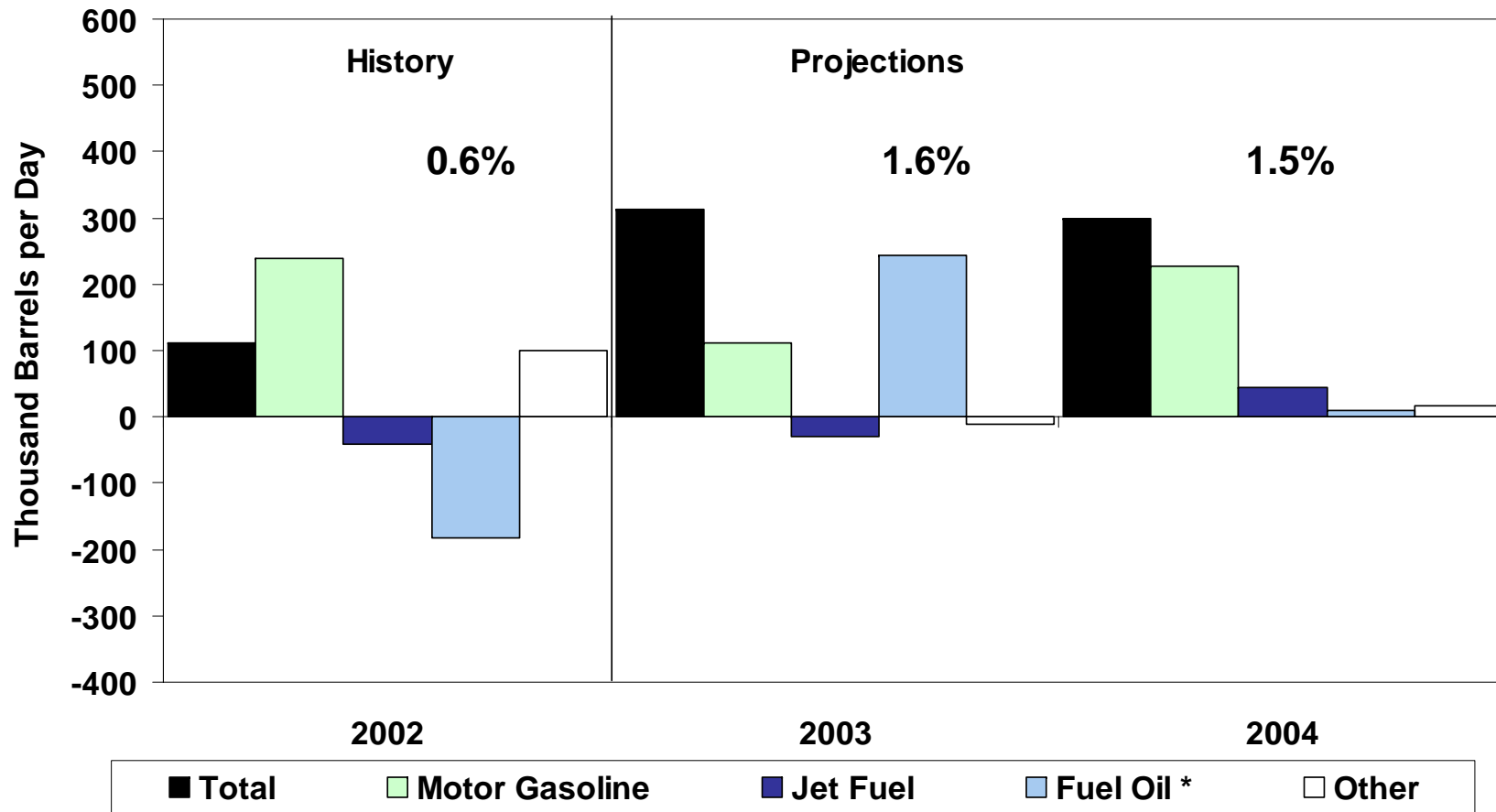
* Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.

** FSU = Former Soviet Union

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Figure 7. Petroleum Products Demand Growth (Change from Year Ago)

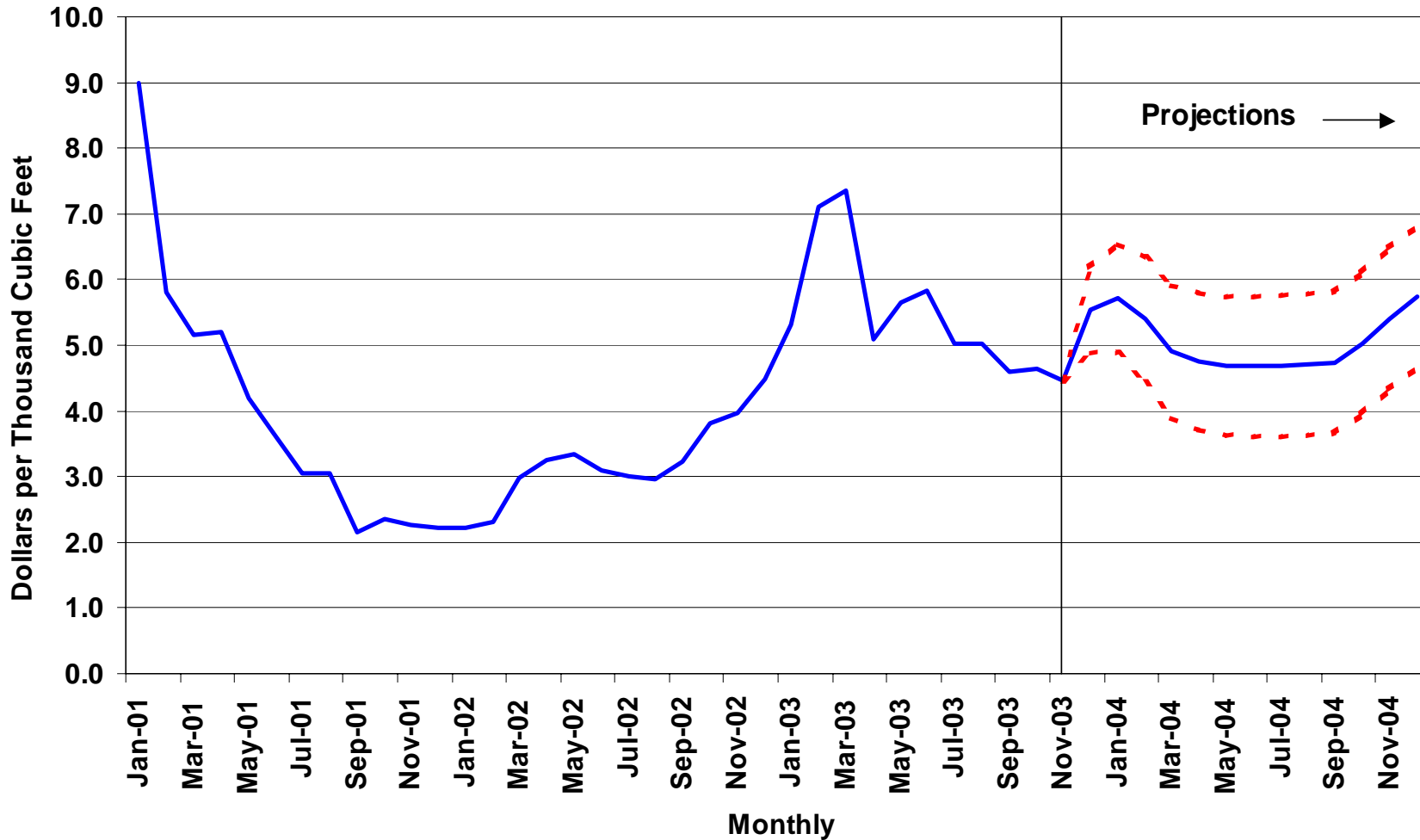


* Sum of distillate and residual fuel.

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



**Figure 8. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval*)**

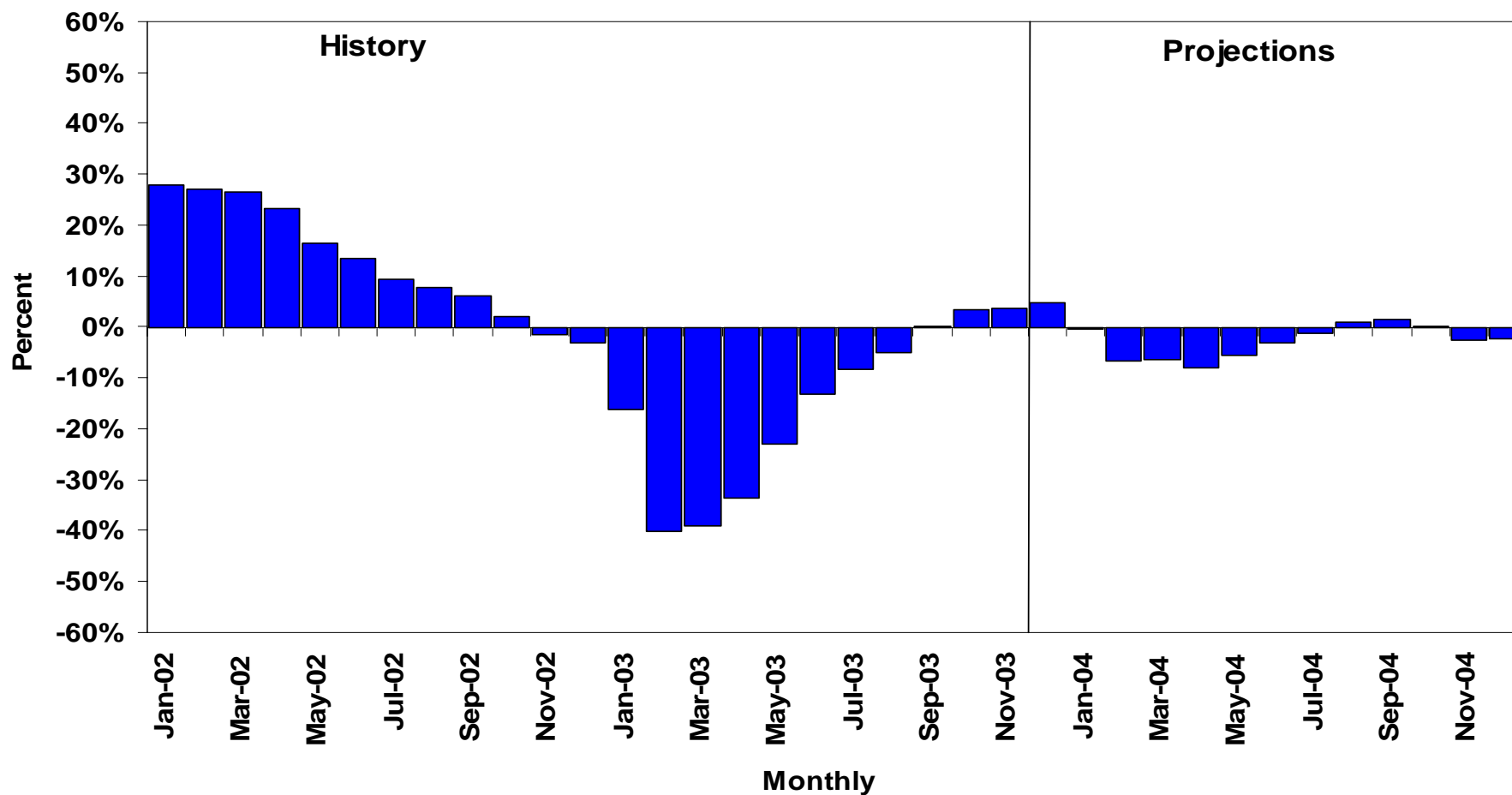


**The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.*

Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, December 2003.



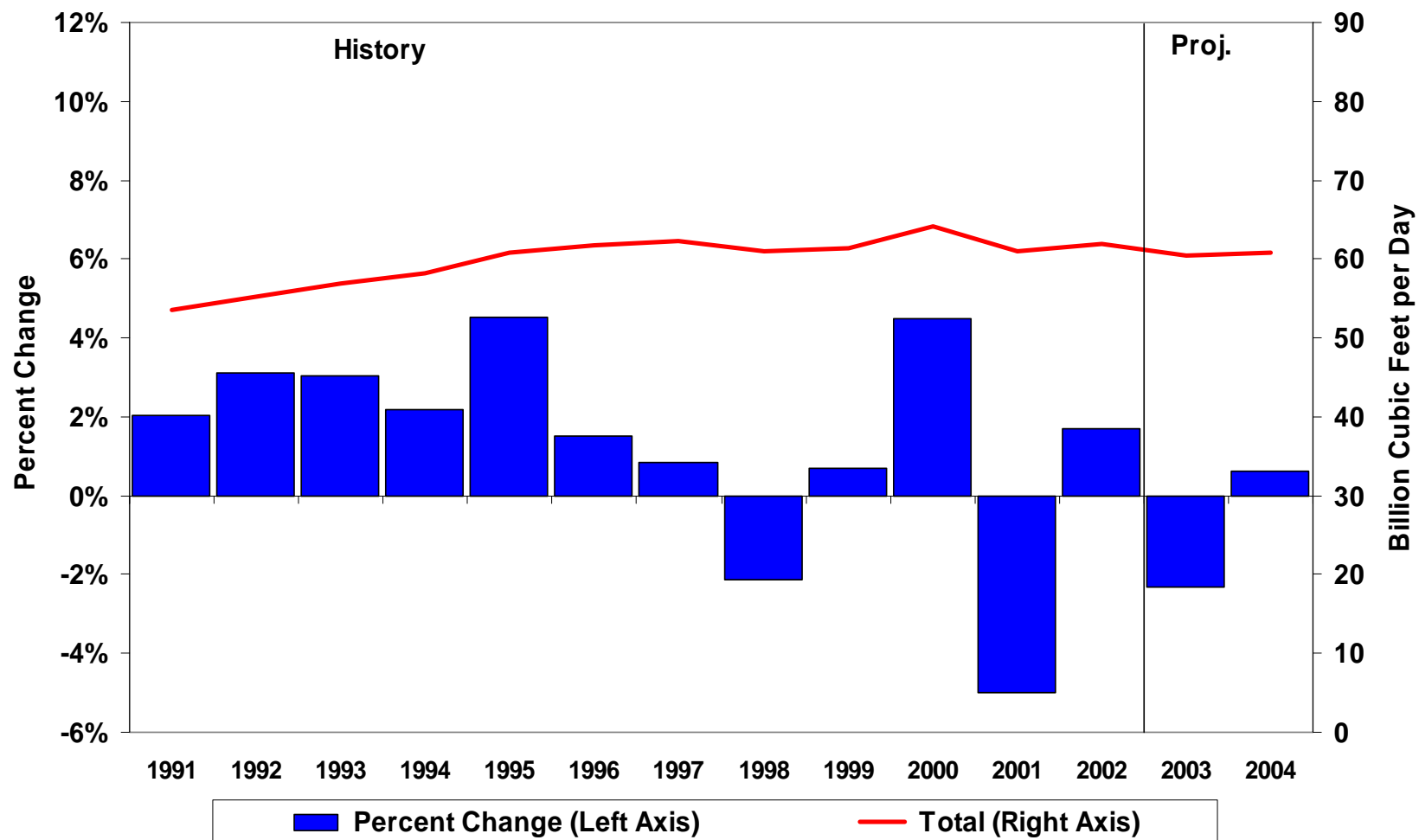
Figure 9. Working Gas in Storage (Difference from Previous 5-Year Average)



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Figure 10. Total Natural Gas Demand Growth Patterns

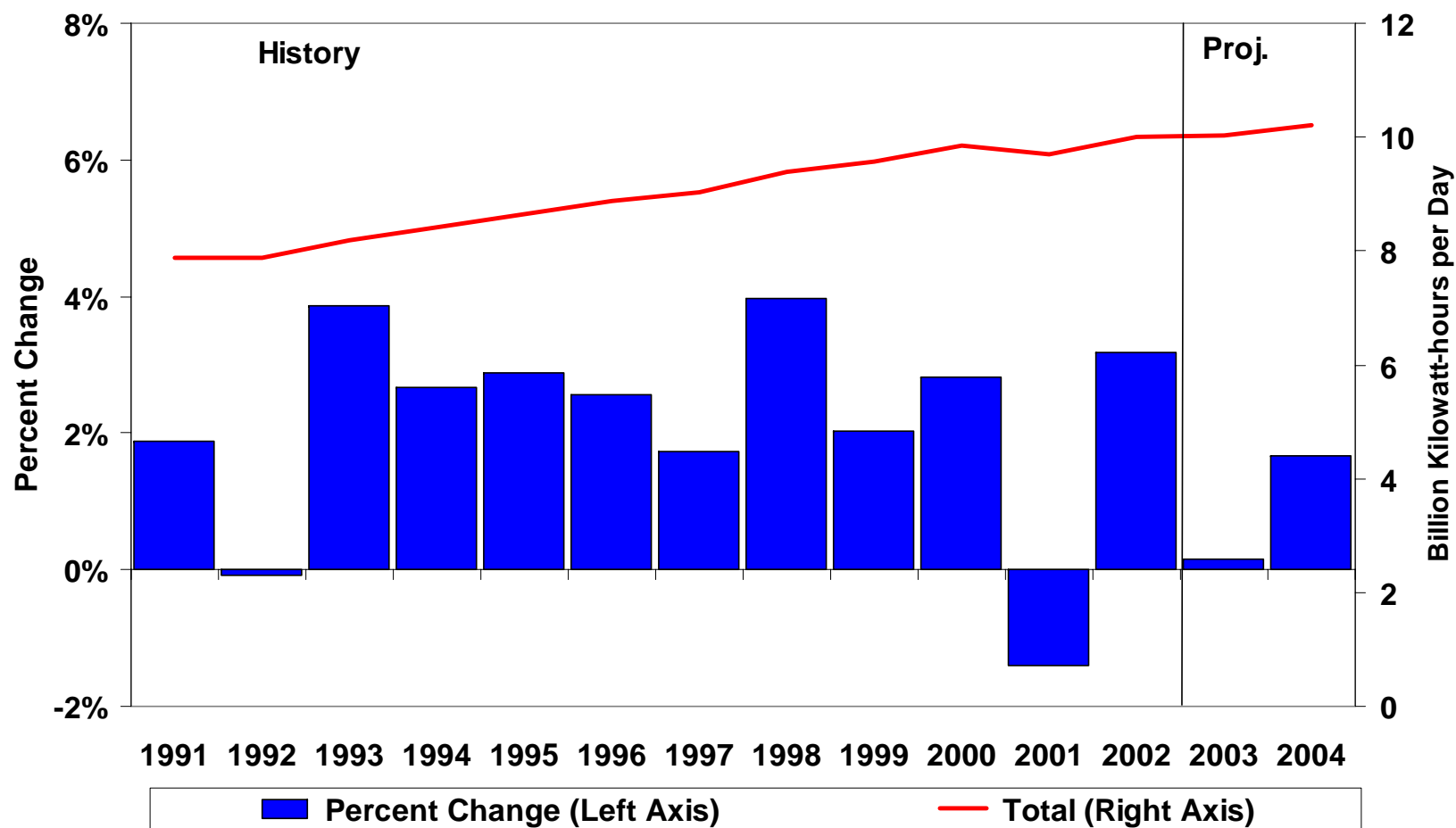


Note: This chart replaces a previous Figure 12 because of revised data for December 2003.

Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



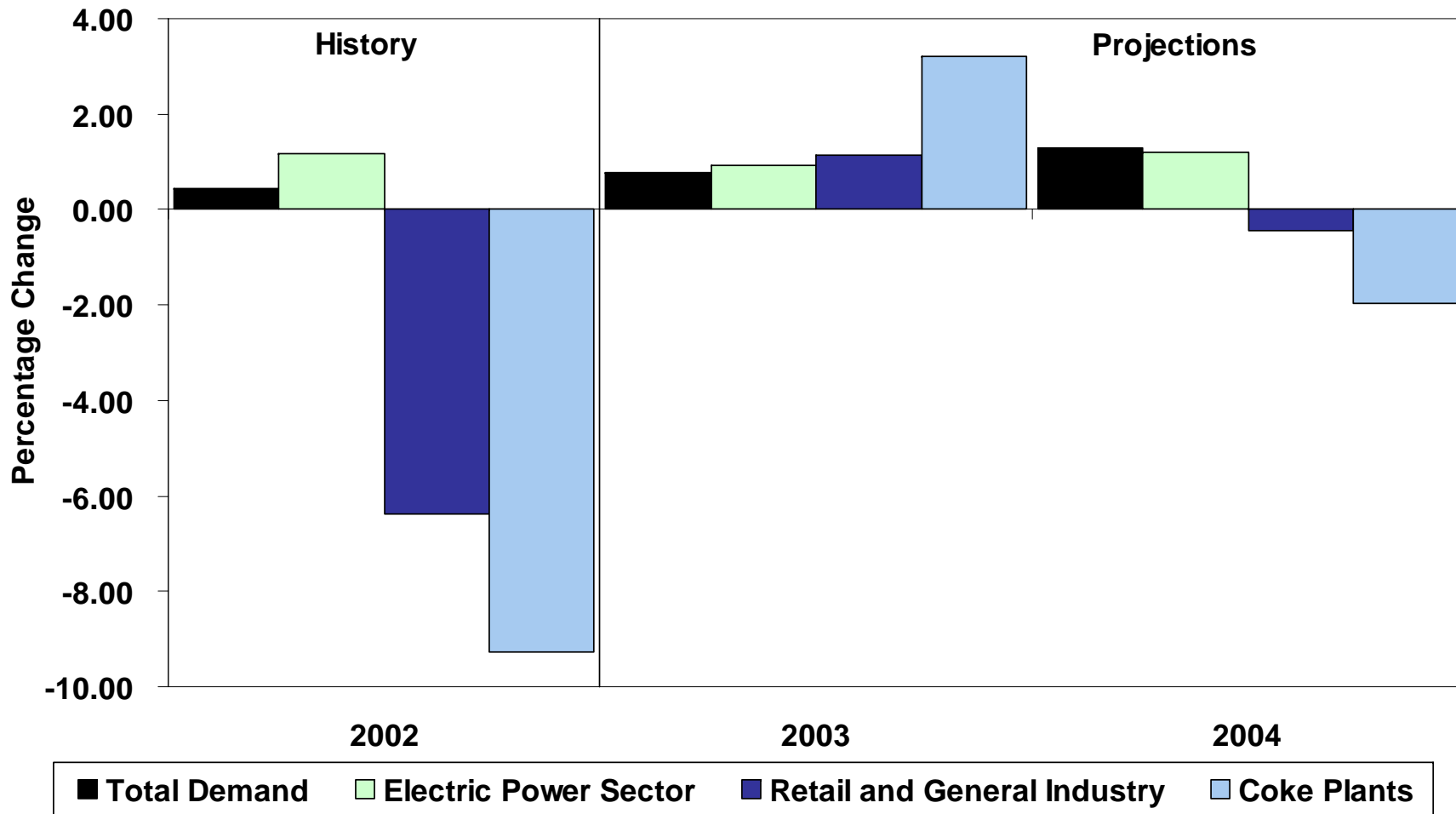
Figure 11. Total Electricity Demand Growth Patterns



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



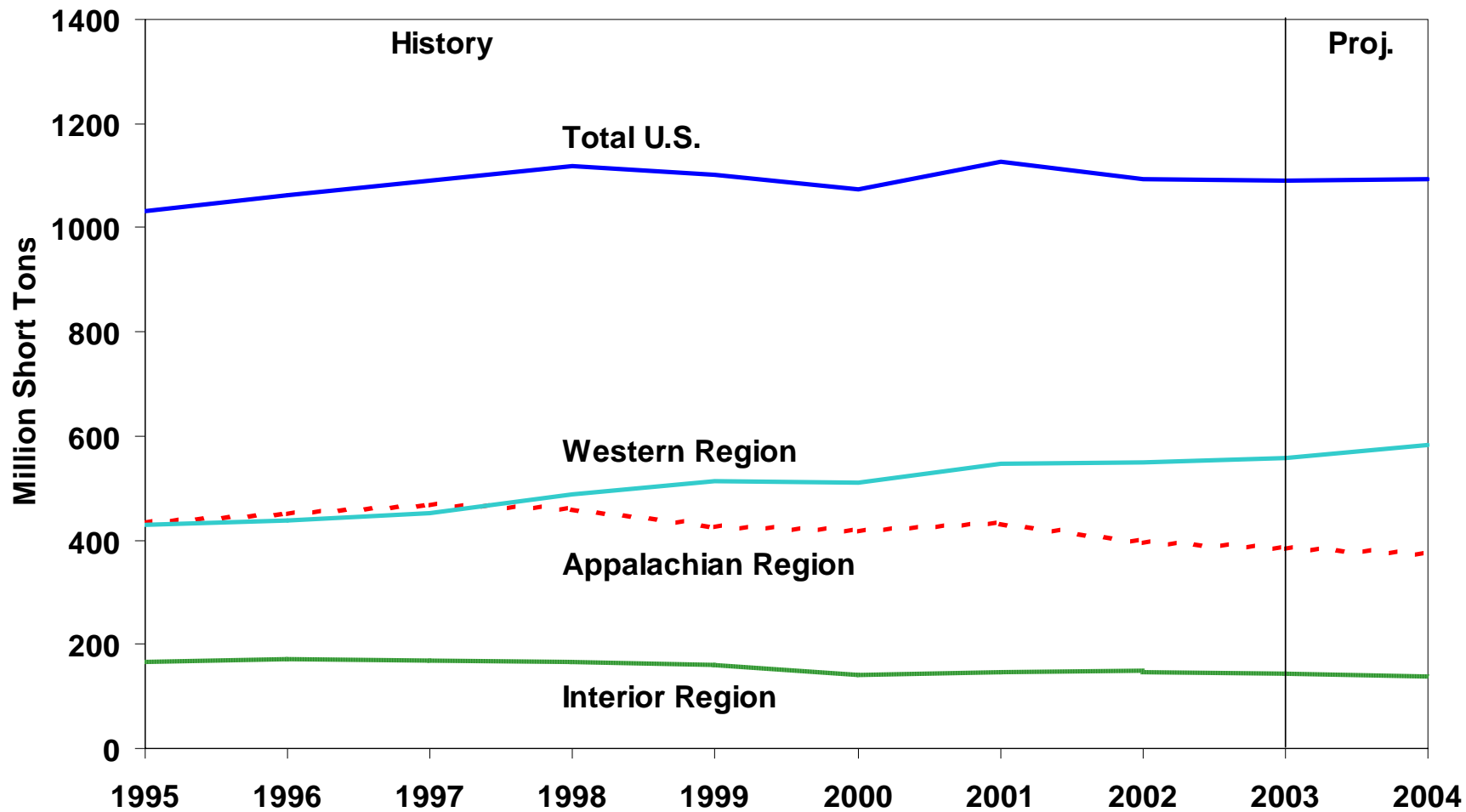
Figure 12. U.S. Coal Demand



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Figure 13. U.S. Coal Production

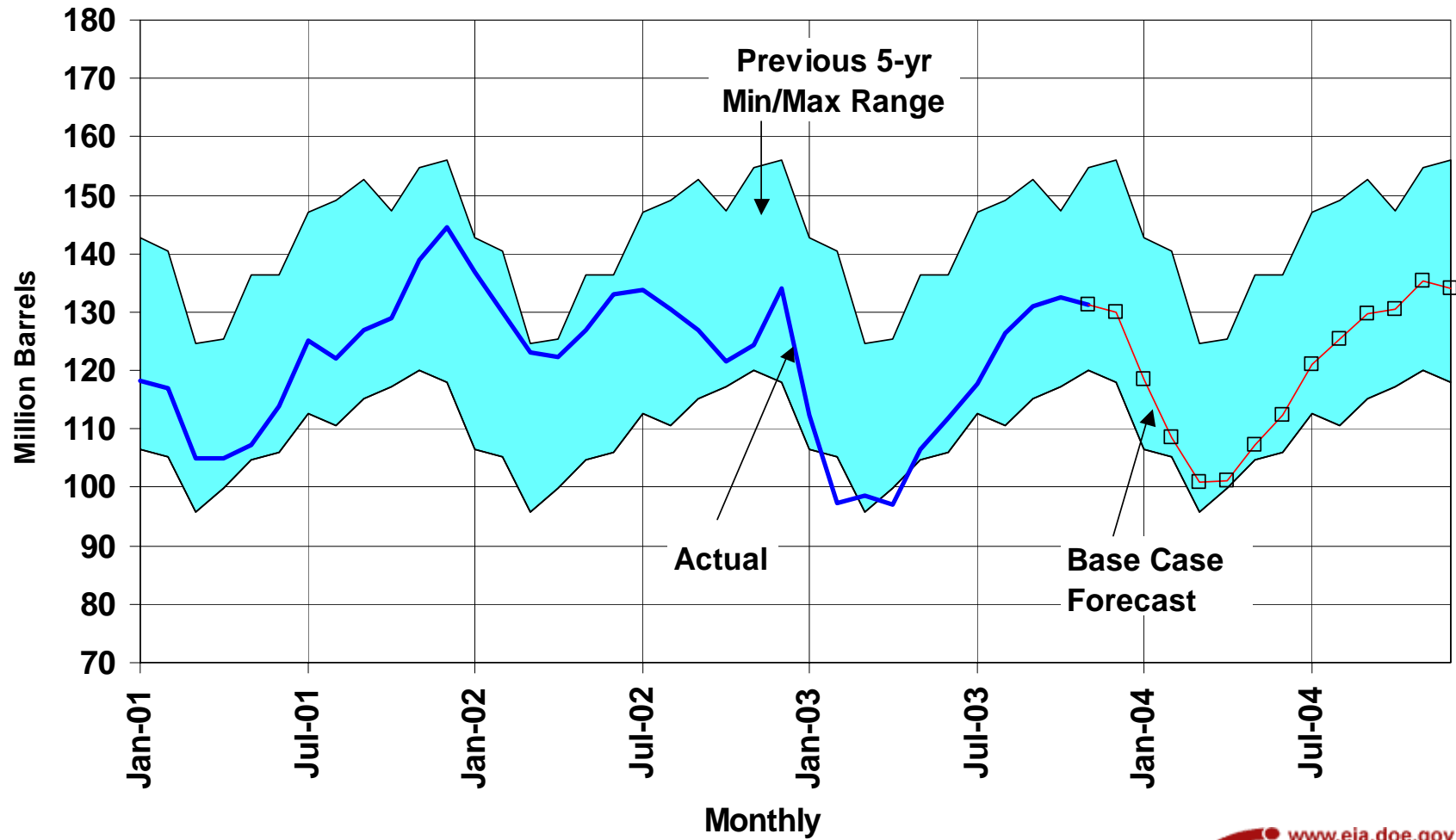


Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Additional Charts

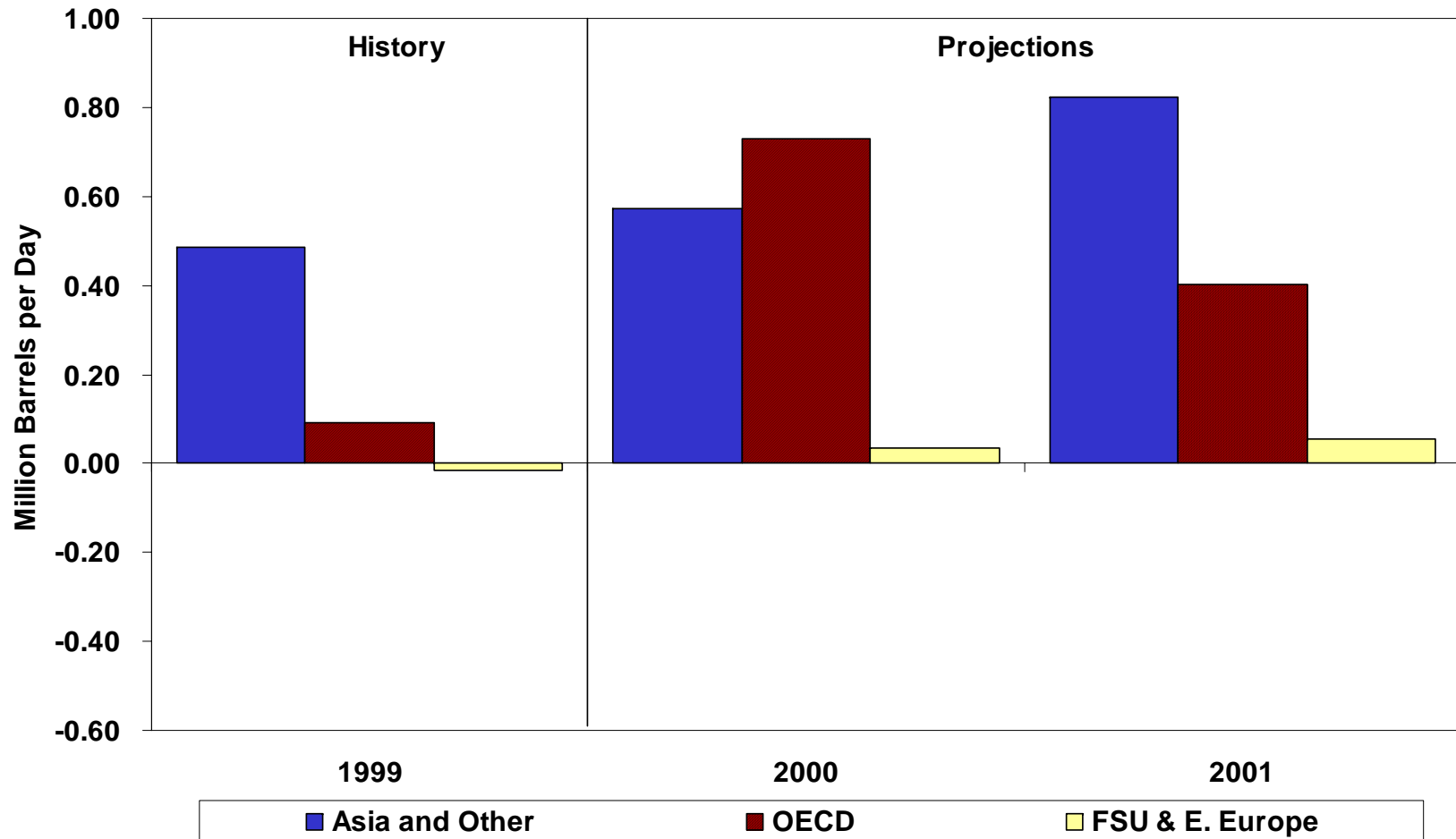
Figure 14. Distillate Fuel Inventories



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



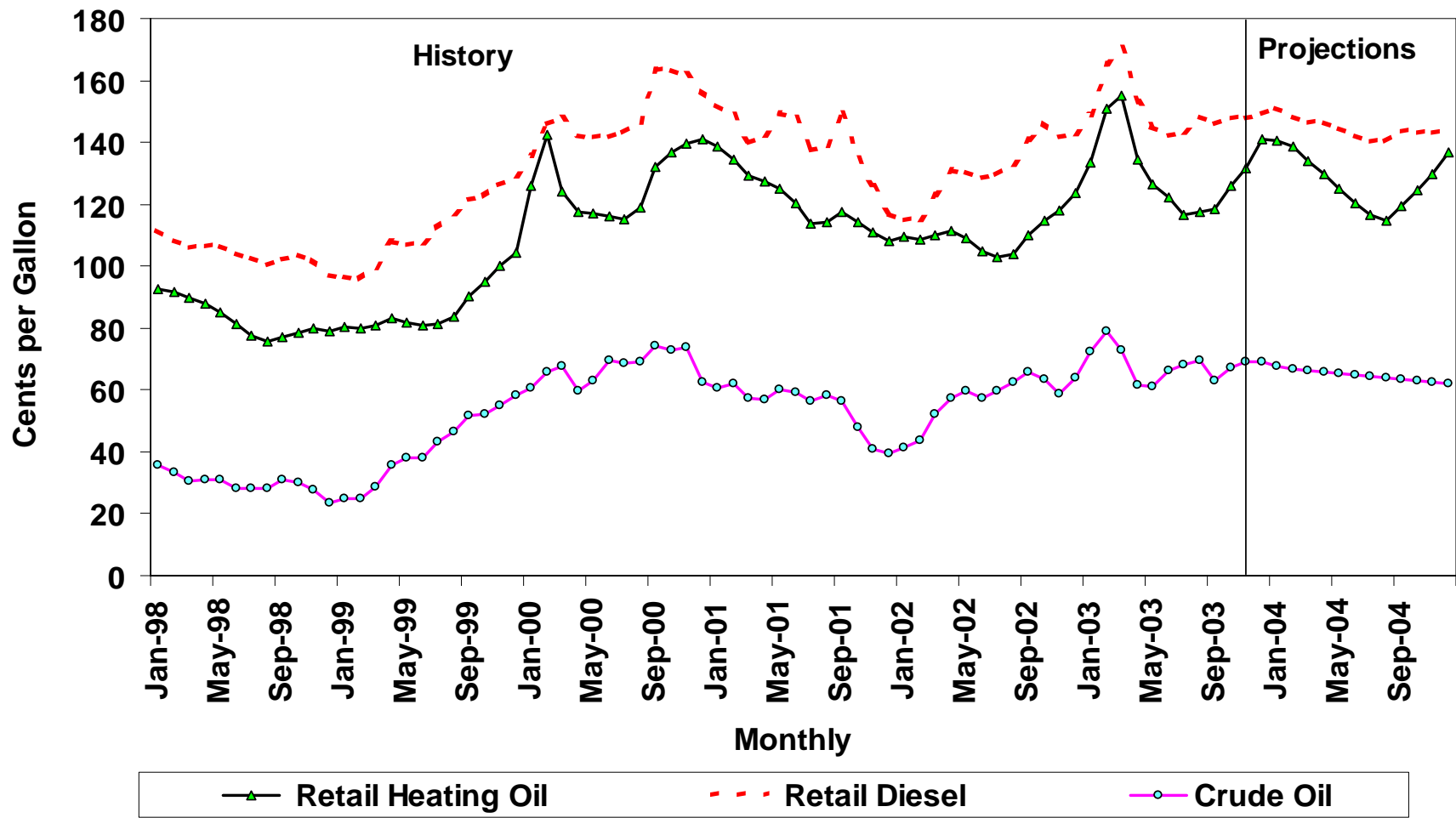
Figure 15. World Petroleum Production (Changes from Previous Year)



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



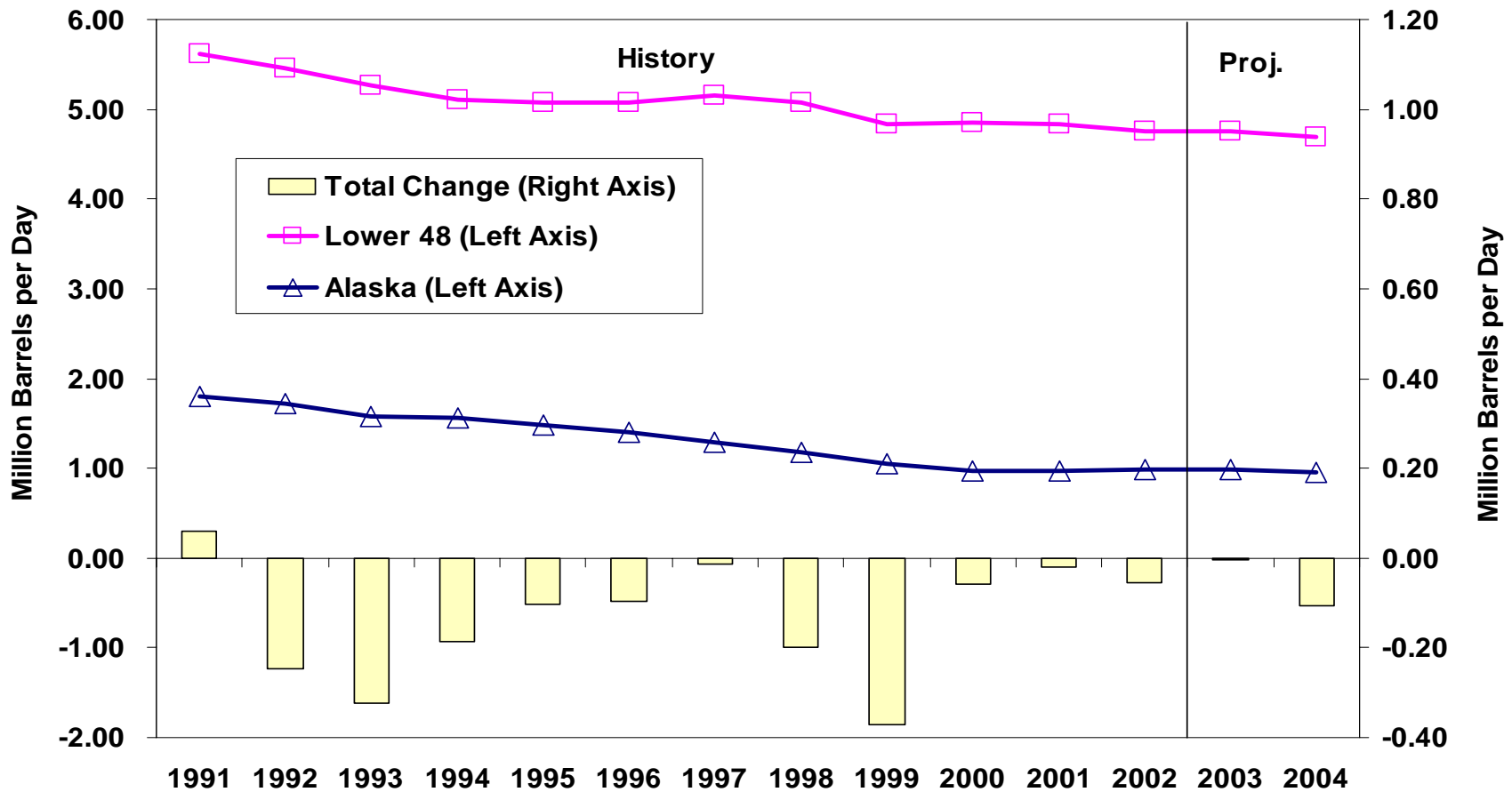
Figure 16. Distillate Fuel Prices



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



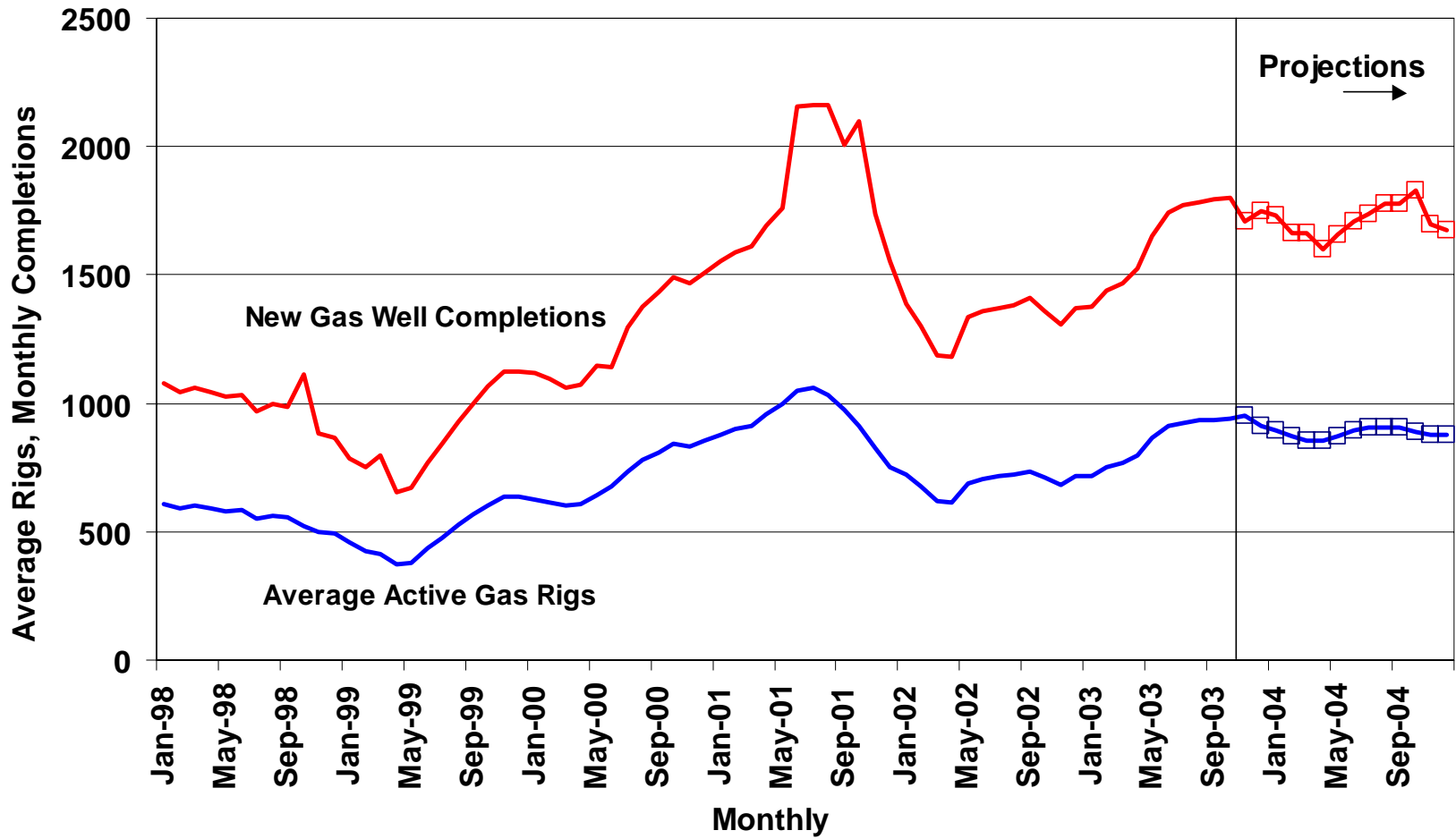
Figure 17. U.S. Crude Oil Production Trends



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



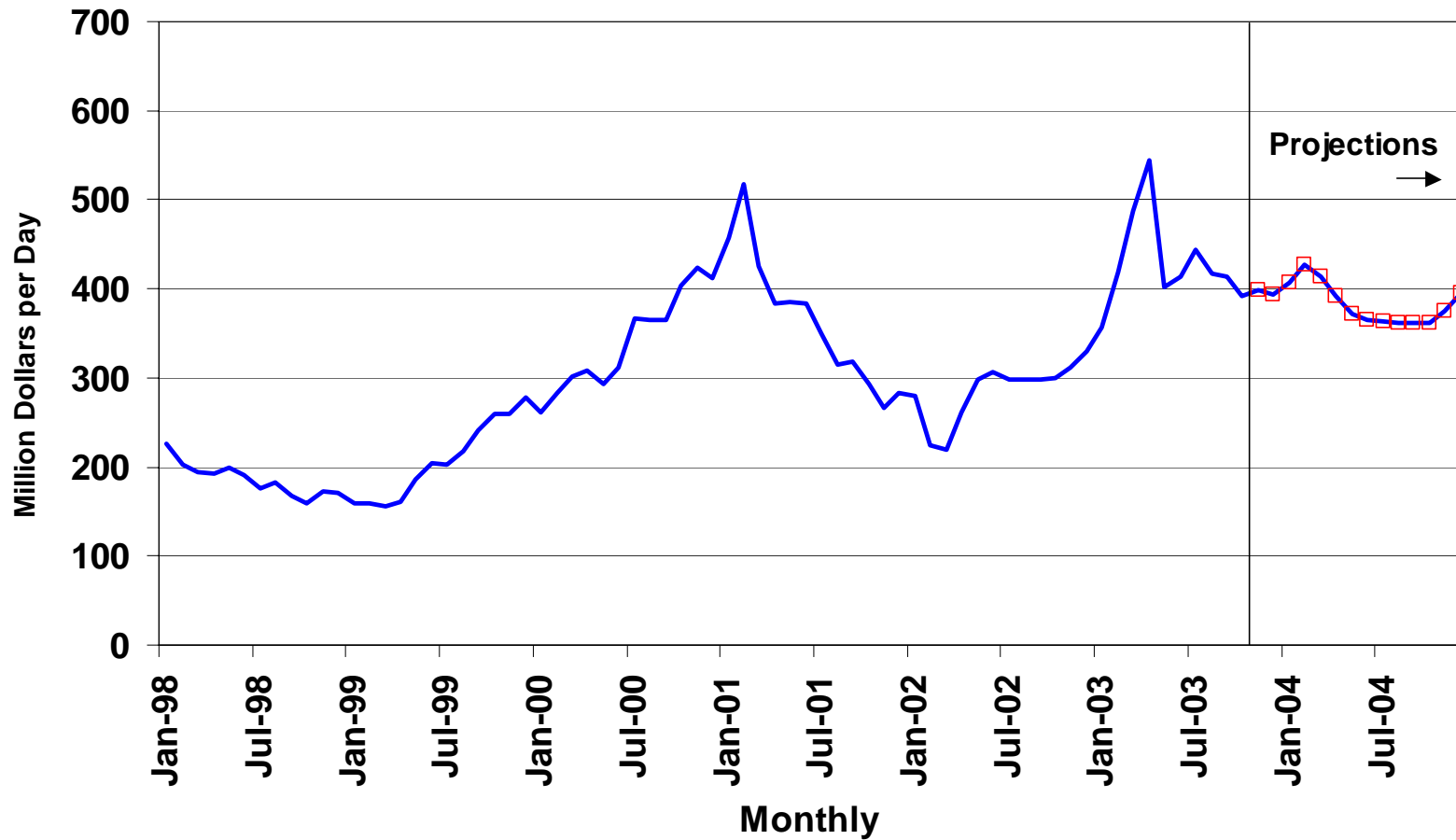
Figure 18. U.S. Natural Gas-Directed Drilling Activity



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



Figure 19. U.S. Oil and Gas Production Revenues



Sources: History: EIA; Projections: Short-Term Energy Outlook, December 2003.



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

	Year				Annual Percentage Change		
	2001	2002	2003	2004	2001-2002	2002-2003	2003-2004
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	9215	9440	<i>9716</i>	<i>10119</i>	2.4	2.9	4.2
Imported Crude Oil Price ^a (nominal dollars per barrel)	22.00	23.71	<i>27.84</i>	<i>26.61</i>	7.8	17.4	-4.4
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.80	5.75	<i>5.74</i>	<i>5.63</i>	-1.0	-0.1	-1.9
Total Petroleum Net Imports (including SPR).....	10.90	10.54	<i>11.31</i>	<i>11.63</i>	-3.3	7.3	2.9
Energy Demand							
World Petroleum (million barrels per day).....	77.1	77.7	<i>79.0</i>	<i>80.3</i>	0.7	1.7	1.7
Petroleum (million barrels per day).....	19.65	19.76	<i>20.07</i>	<i>20.37</i>	0.6	1.6	1.5
Natural Gas (trillion cubic feet)	22.23	22.61	<i>22.09</i>	<i>22.28</i>	1.7	-2.3	0.9
Coal ^c (million short tons)	1060	1065	<i>1075</i>	<i>1087</i>	0.4	1.0	1.0
Electricity (billion kilowatthours)							
Retail Sales ^d	3370	3475	<i>3488</i>	<i>3554</i>	3.1	0.4	1.9
Other Use/Sales ^e	173	180	<i>173</i>	<i>178</i>	4.2	-3.7	2.8
Total	3543	3655	<i>3661</i>	<i>3733</i>	3.2	0.2	1.9
Total Energy Demand ^f (quadrillion Btu)	96.3	97.6	<i>97.7</i>	<i>99.7</i>	1.3	0.1	2.1
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.45	10.34	<i>10.05</i>	<i>9.85</i>	-1.1	-2.8	-2.0
Renewable Energy as Percent of Total ^g	5.6%	6.2%	<i>6.4%</i>	<i>6.6%</i>			

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

^bIncludes lease condensate.

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

^dTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2001 are estimates.

^eDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 are estimates.

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

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

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL1103.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 1996 dollars - SAAR)...	9363	9392	9486	9518	9552	9629	<i>9797</i>	<i>9884</i>	<i>9978</i>	<i>10062</i>	<i>10173</i>	<i>10263</i>	9440	<i>9716</i>	<i>10119</i>
Percentage Change from Prior Year	1.4	2.2	3.3	2.9	2.0	2.5	<i>3.3</i>	<i>3.8</i>	<i>4.5</i>	<i>4.5</i>	<i>3.8</i>	<i>3.8</i>	2.4	<i>2.9</i>	<i>4.2</i>
Annualized Percent Change from Prior Quarter	5.0	1.2	4.0	1.4	1.4	3.2	<i>7.0</i>	<i>3.5</i>	<i>3.8</i>	<i>3.4</i>	<i>4.4</i>	<i>3.5</i>			
GDP Implicit Price Deflator (Index, 1996=1.000)	1.101	1.105	1.108	1.113	1.119	1.122	<i>1.127</i>	<i>1.130</i>	<i>1.136</i>	<i>1.141</i>	<i>1.146</i>	<i>1.153</i>	1.107	<i>1.124</i>	<i>1.144</i>
Percentage Change from Prior Year	1.4	1.1	0.8	1.3	1.6	1.5	<i>1.7</i>	<i>1.6</i>	<i>1.5</i>	<i>1.7</i>	<i>1.7</i>	<i>2.0</i>	1.1	<i>1.6</i>	<i>1.7</i>
Real Disposable Personal Income (billion chained 1996 Dollars - SAAR) ..	6961	7027	7058	7082	7110	7155	<i>7281</i>	<i>7285</i>	<i>7412</i>	<i>7454</i>	<i>7524</i>	<i>7582</i>	7032	<i>7208</i>	<i>7493</i>
Percentage Change from Prior Year	3.8	5.0	2.8	5.2	2.1	1.8	<i>3.2</i>	<i>2.9</i>	<i>4.2</i>	<i>4.2</i>	<i>3.3</i>	<i>4.1</i>	4.2	<i>2.5</i>	<i>4.0</i>
Manufacturing Production (Index, 1997=100.0)	110.8	111.8	112.6	111.5	111.3	110.3	<i>111.3</i>	<i>112.5</i>	<i>113.7</i>	<i>115.0</i>	<i>116.7</i>	<i>118.7</i>	111.7	<i>111.3</i>	<i>116.0</i>
Percentage Change from Prior Year	-4.0	-1.5	0.5	1.2	0.4	-1.3	<i>-1.2</i>	<i>0.9</i>	<i>2.2</i>	<i>4.2</i>	<i>4.8</i>	<i>5.5</i>	-1.0	<i>-0.3</i>	<i>4.2</i>
OECD Economic Growth (percent) ^b ...													1.6	<i>1.7</i>	<i>2.6</i>
Weather ^c															
Heating Degree-Days															
U.S.....	2072	490	49	1673	2297	607	<i>63</i>	<i>1543</i>	<i>2278</i>	<i>539</i>	<i>109</i>	<i>1632</i>	4284	<i>4510</i>	<i>4558</i>
New England	2791	865	71	2372	3504	1144	<i>100</i>	<i>2232</i>	<i>3272</i>	<i>930</i>	<i>195</i>	<i>2275</i>	6099	<i>6980</i>	<i>6672</i>
Middle Atlantic	2505	664	45	2158	3207	896	<i>43</i>	<i>1984</i>	<i>3009</i>	<i>743</i>	<i>125</i>	<i>2045</i>	5372	<i>6130</i>	<i>5922</i>
U.S. Gas-Weighted	2181	558	48	1773	2464	598	<i>75</i>	<i>1672</i>	<i>2413</i>	<i>590</i>	<i>110</i>	<i>1758</i>	4560	<i>4809</i>	<i>4871</i>
Cooling Degree-Days (U.S.).....	31	387	902	73	28	335	<i>821</i>	<i>95</i>	<i>31</i>	<i>351</i>	<i>781</i>	<i>77</i>	1393	<i>1279</i>	<i>1240</i>

^aMacroeconomic projections from Global Insight model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

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

^cPopulation-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 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. Projections of OECD growth are based on Global Insight, "World Economic Outlook," Volume 1. Macroeconomic projections are based on Global Insight Forecast CONTROL1103.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Macroeconomic^a															
Real Fixed Investment (billion chained 1996 dollars-SAAR) ...	1576	1573	1572	1589	1588	1615	<i>1669</i>	<i>1702</i>	<i>1721</i>	<i>1726</i>	<i>1743</i>	<i>1761</i>	1577	<i>1643</i>	<i>1738</i>
Real Exchange Rate (index)	1.193	1.152	1.105	1.102	1.049	1.001	<i>1.001</i>	<i>0.958</i>	<i>0.958</i>	<i>0.957</i>	<i>0.954</i>	<i>0.949</i>	1.138	<i>1.002</i>	<i>0.955</i>
Business Inventory Change (billion chained 1996 dollars-SAAR) ...	-31.9	-14.1	-2.6	2.8	-6.1	-14.3	<i>-19.7</i>	<i>-4.5</i>	<i>1.3</i>	<i>4.9</i>	<i>11.1</i>	<i>16.8</i>	-11.5	<i>-11.1</i>	<i>8.5</i>
Producer Price Index (index, 1982=1.000)	1.291	1.306	1.313	1.335	1.383	1.369	<i>1.378</i>	<i>1.379</i>	<i>1.383</i>	<i>1.380</i>	<i>1.389</i>	<i>1.394</i>	1.311	<i>1.377</i>	<i>1.387</i>
Consumer Price Index (index, 1982-1984=1.000)	1.780	1.795	1.805	1.814	1.831	1.834	<i>1.845</i>	<i>1.852</i>	<i>1.861</i>	<i>1.868</i>	<i>1.877</i>	<i>1.888</i>	1.799	<i>1.841</i>	<i>1.874</i>
Petroleum Product Price Index (index, 1982=1.000)	0.656	0.810	0.839	0.875	1.074	0.918	<i>0.975</i>	<i>0.905</i>	<i>0.942</i>	<i>0.931</i>	<i>0.895</i>	<i>0.874</i>	0.795	<i>0.968</i>	<i>0.910</i>
Non-Farm Employment (millions)	130.5	130.4	130.2	130.3	130.2	130.0	<i>129.8</i>	<i>130.0</i>	<i>130.4</i>	<i>131.0</i>	<i>131.8</i>	<i>132.5</i>	130.4	<i>130.0</i>	<i>131.4</i>
Commercial Employment (millions)	91.3	91.3	91.3	91.5	91.5	91.5	<i>91.6</i>	<i>91.9</i>	<i>92.4</i>	<i>92.9</i>	<i>93.6</i>	<i>94.4</i>	91.4	<i>91.6</i>	<i>93.3</i>
Total Industrial Production (index, 1997=100.0)	109.3	110.5	111.4	110.4	110.5	109.4	<i>110.3</i>	<i>111.4</i>	<i>112.5</i>	<i>113.5</i>	<i>114.9</i>	<i>116.6</i>	110.4	<i>110.4</i>	<i>114.4</i>
Housing Stock (millions)	115.3	115.6	115.8	116.2	116.6	116.9	<i>117.0</i>	<i>117.4</i>	<i>117.9</i>	<i>118.2</i>	<i>118.5</i>	<i>118.8</i>	115.7	<i>117.0</i>	<i>118.3</i>
Miscellaneous															
Gas Weighted Industrial Production (index, 1997=100.0)	100.4	101.0	101.6	100.8	100.6	99.8	<i>100.0</i>	<i>100.5</i>	<i>101.0</i>	<i>101.6</i>	<i>102.2</i>	<i>103.2</i>	100.9	<i>100.2</i>	<i>102.0</i>
Vehicle Miles Traveled ^b (million miles/day)	7268	8030	8053	7643	7221	8078	<i>8156</i>	<i>7746</i>	<i>7388</i>	<i>8172</i>	<i>8306</i>	<i>7935</i>	7750	<i>7803</i>	<i>7951</i>
Vehicle Fuel Efficiency (index, 1999=1.000)	0.997	1.040	1.036	1.006	0.990	1.042	<i>1.034</i>	<i>0.989</i>	<i>0.980</i>	<i>1.031</i>	<i>1.028</i>	<i>0.990</i>	1.020	<i>1.014</i>	<i>1.008</i>
Real Vehicle Fuel Cost (cents per mile)	3.31	3.75	3.76	3.91	4.39	4.01	<i>4.21</i>	<i>4.15</i>	<i>4.16</i>	<i>4.04</i>	<i>3.89</i>	<i>3.83</i>	3.69	<i>4.19</i>	<i>3.97</i>
Air Travel Capacity (mill. available ton-miles/day)	435.8	467.6	488.2	491.4	454.8	486.2	<i>493.5</i>	<i>490.6</i>	<i>481.2</i>	<i>496.4</i>	<i>509.6</i>	<i>512.8</i>	470.9	<i>481.4</i>	<i>500.0</i>
Aircraft Utilization (mill. revenue ton-miles/day)	238.2	265.3	274.3	272.0	244.1	270.6	<i>280.5</i>	<i>266.3</i>	<i>258.3</i>	<i>280.1</i>	<i>291.9</i>	<i>280.0</i>	262.6	<i>265.5</i>	<i>277.6</i>
Airline Ticket Price Index (index, 1982-1984=1.000)	2.317	2.377	2.334	2.235	2.252	2.341	<i>2.378</i>	<i>2.326</i>	<i>2.286</i>	<i>2.251</i>	<i>2.241</i>	<i>2.241</i>	2.316	<i>2.324</i>	<i>2.255</i>
Raw Steel Production (million tons)	23.92	25.03	26.34	25.68	25.61	25.52	<i>25.08</i>	<i>23.65</i>	<i>25.02</i>	<i>26.39</i>	<i>26.10</i>	<i>24.26</i>	100.98	<i>99.85</i>	<i>101.77</i>

^aMacroeconomic projections from Global Insight model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Table 3. International Petroleum Supply and Demand: Base Case
(Million Barrels per Day, Except OECD Commercial Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Demand^a															
OECD															
U.S. (50 States)	19.5	19.7	19.9	19.9	20.0	19.7	<i>20.3</i>	<i>20.3</i>	<i>20.3</i>	<i>20.0</i>	<i>20.5</i>	<i>20.7</i>	19.8	<i>20.1</i>	<i>20.4</i>
U.S. Territories.....	0.3	0.3	0.3	0.3	0.4	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	0.3	<i>0.3</i>	<i>0.3</i>
Canada	2.1	2.0	2.1	2.2	2.2	2.1	<i>2.2</i>	<i>2.2</i>	<i>2.1</i>	<i>2.1</i>	<i>2.3</i>	<i>2.2</i>	2.1	<i>2.1</i>	<i>2.2</i>
Europe	15.1	14.6	15.2	15.3	15.2	15.0	<i>15.1</i>	<i>15.5</i>	<i>15.5</i>	<i>14.6</i>	<i>15.2</i>	<i>15.8</i>	15.1	<i>15.2</i>	<i>15.3</i>
Japan	5.7	4.6	5.0	5.9	6.2	5.0	<i>4.9</i>	<i>5.7</i>	<i>6.0</i>	<i>4.9</i>	<i>5.2</i>	<i>5.6</i>	5.3	<i>5.4</i>	<i>5.4</i>
Other OECD.....	5.4	5.0	5.0	5.4	5.4	5.1	<i>5.0</i>	<i>5.5</i>	<i>5.3</i>	<i>5.0</i>	<i>5.3</i>	<i>5.6</i>	5.2	<i>5.3</i>	<i>5.3</i>
Total OECD.....	48.1	46.3	47.5	48.9	49.4	47.2	<i>47.8</i>	<i>49.5</i>	<i>49.7</i>	<i>46.9</i>	<i>48.7</i>	<i>50.3</i>	47.7	<i>48.5</i>	<i>48.9</i>
Non-OECD															
Former Soviet Union.....	4.0	3.4	3.7	4.5	4.0	3.4	<i>3.7</i>	<i>4.5</i>	<i>4.1</i>	<i>3.5</i>	<i>3.7</i>	<i>4.6</i>	3.9	<i>3.9</i>	<i>4.0</i>
Europe	0.7	0.7	0.7	0.7	0.7	0.7	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	0.7	<i>0.7</i>	<i>0.7</i>
China.....	5.1	5.1	5.4	5.4	5.4	5.4	<i>5.7</i>	<i>5.8</i>	<i>5.7</i>	<i>5.7</i>	<i>6.1</i>	<i>6.1</i>	5.3	<i>5.6</i>	<i>5.9</i>
Other Asia.....	7.7	7.7	7.8	8.1	7.9	7.9	<i>8.0</i>	<i>8.3</i>	<i>8.1</i>	<i>8.1</i>	<i>8.2</i>	<i>8.5</i>	7.8	<i>8.0</i>	<i>8.2</i>
Other Non-OECD.....	12.1	12.2	12.4	12.3	12.1	12.3	<i>12.4</i>	<i>12.4</i>	<i>12.4</i>	<i>12.6</i>	<i>12.7</i>	<i>12.7</i>	12.2	<i>12.3</i>	<i>12.6</i>
Total Non-OECD.....	29.6	29.2	29.9	31.1	30.2	29.7	<i>30.6</i>	<i>31.8</i>	<i>31.1</i>	<i>30.7</i>	<i>31.5</i>	<i>32.6</i>	30.0	<i>30.6</i>	<i>31.5</i>
Total World Demand.....	77.8	75.5	77.5	80.0	79.6	76.9	<i>78.4</i>	<i>81.2</i>	<i>80.7</i>	<i>77.6</i>	<i>80.1</i>	<i>82.8</i>	77.7	<i>79.0</i>	<i>80.3</i>
Supply^b															
OECD															
U.S. (50 States)	9.1	9.2	8.9	8.8	9.0	8.8	<i>8.8</i>	<i>8.8</i>	<i>8.9</i>	<i>8.8</i>	<i>8.7</i>	<i>8.9</i>	9.0	<i>8.8</i>	<i>8.8</i>
Canada	2.9	2.9	2.9	3.0	3.0	3.0	<i>3.2</i>	<i>3.1</i>	<i>3.1</i>	<i>3.1</i>	<i>3.2</i>	<i>3.2</i>	2.9	<i>3.1</i>	<i>3.1</i>
Mexico.....	3.6	3.6	3.6	3.6	3.8	3.8	<i>3.9</i>	<i>3.9</i>	<i>3.9</i>	<i>4.0</i>	<i>4.0</i>	<i>3.9</i>	3.6	<i>3.8</i>	<i>3.9</i>
North Sea ^c	6.3	6.3	5.8	6.4	6.3	5.8	<i>5.7</i>	<i>6.2</i>	<i>6.3</i>	<i>5.9</i>	<i>6.0</i>	<i>6.3</i>	6.2	<i>6.0</i>	<i>6.1</i>
Other OECD.....	1.7	1.6	1.7	1.6	1.6	1.6	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.6</i>	<i>1.7</i>	<i>1.6</i>	1.7	<i>1.6</i>	<i>1.6</i>
Total OECD.....	23.6	23.7	23.0	23.4	23.6	22.9	<i>23.1</i>	<i>23.6</i>	<i>23.8</i>	<i>23.4</i>	<i>23.5</i>	<i>23.9</i>	23.4	<i>23.3</i>	<i>23.7</i>
Non-OECD															
OPEC.....	28.5	27.9	28.8	29.5	30.1	30.1	<i>30.1</i>	<i>30.3</i>	<i>30.1</i>	<i>29.9</i>	<i>30.1</i>	<i>30.2</i>	28.7	<i>30.1</i>	<i>30.1</i>
Crude Oil Portion	25.2	24.6	25.5	26.3	26.9	26.7	<i>26.8</i>	<i>26.9</i>	<i>26.7</i>	<i>26.6</i>	<i>26.7</i>	<i>26.8</i>	25.4	<i>26.8</i>	<i>26.7</i>
Former Soviet Union.....	9.0	9.2	9.6	9.8	9.9	10.1	<i>10.4</i>	<i>10.7</i>	<i>10.7</i>	<i>10.9</i>	<i>11.1</i>	<i>11.2</i>	9.4	<i>10.3</i>	<i>11.0</i>
China.....	3.3	3.4	3.4	3.4	3.4	3.4	<i>3.4</i>	<i>3.4</i>	<i>3.3</i>	<i>3.4</i>	<i>3.4</i>	<i>3.4</i>	3.4	<i>3.4</i>	<i>3.4</i>
Other Non-OECD.....	11.5	11.5	11.4	11.4	11.4	11.5	<i>11.6</i>	<i>11.8</i>	<i>11.7</i>	<i>11.8</i>	<i>12.0</i>	<i>12.2</i>	11.4	<i>11.6</i>	<i>11.9</i>
Total Non-OECD.....	52.3	52.0	53.3	54.1	54.7	55.1	<i>55.6</i>	<i>56.2</i>	<i>55.9</i>	<i>56.0</i>	<i>56.6</i>	<i>56.9</i>	52.9	<i>55.4</i>	<i>56.3</i>
Total World Supply.....	75.9	75.6	76.2	77.5	78.4	78.0	<i>78.7</i>	<i>79.8</i>	<i>79.6</i>	<i>79.4</i>	<i>80.1</i>	<i>80.8</i>	76.3	<i>78.7</i>	<i>80.0</i>
Additional unaccounted for supply.....	0.3	0.3	0.3	0.3	0.3	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	0.3	<i>0.3</i>	<i>0.3</i>
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	0.2	-0.5	0.5	0.3	0.8	-0.9	<i>-0.4</i>	<i>0.3</i>	<i>0.0</i>	<i>-0.8</i>	<i>-0.3</i>	<i>0.2</i>	0.1	<i>0.0</i>	<i>-0.2</i>
Other	1.4	0.0	0.5	1.9	0.1	-0.5	<i>-0.3</i>	<i>0.9</i>	<i>0.8</i>	<i>-1.3</i>	<i>0.0</i>	<i>1.5</i>	1.0	<i>0.1</i>	<i>0.3</i>
Total Stock Withdrawals	1.6	-0.5	1.0	2.2	0.9	-1.4	<i>-0.6</i>	<i>1.2</i>	<i>0.8</i>	<i>-2.1</i>	<i>-0.3</i>	<i>1.7</i>	1.1	<i>0.0</i>	<i>0.0</i>
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.6	2.6	2.5	2.4	2.5	<i>2.6</i>	<i>2.5</i>	<i>2.5</i>	<i>2.6</i>	<i>2.6</i>	<i>2.5</i>	2.5	<i>2.5</i>	<i>2.5</i>
Non-OPEC Supply	47.4	47.7	47.4	48.0	48.3	47.9	<i>48.6</i>	<i>49.5</i>	<i>49.5</i>	<i>49.5</i>	<i>50.1</i>	<i>50.7</i>	47.6	<i>48.6</i>	<i>49.9</i>

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

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

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table 4. U.S. Energy Prices: Base Case
(Nominal Dollars)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	19.24	23.96	25.91	25.42	30.59	25.58	27.37	28.20	27.60	26.90	26.30	25.70	23.71	27.84	26.61
WTI ^b Spot Average	21.66	26.25	28.34	28.22	34.10	28.98	30.21	30.82	30.10	29.40	28.80	28.20	26.12	31.03	29.13
Natural Gas Wellhead (dollars per thousand cubic feet).....															
	2.34	2.99	2.88	3.60	5.54	5.01	4.74	4.39	4.68	4.05	4.12	4.70	2.96	4.92	4.39
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.20	1.43	1.44	1.46	1.63	1.57	1.64	1.57	1.55	1.59	1.54	1.46	1.39	1.60	1.53
Regular Unleaded	1.16	1.39	1.40	1.42	1.59	1.52	1.60	1.52	1.51	1.55	1.50	1.42	1.34	1.56	1.49
No. 2 Diesel Oil, Retail (dollars per gallon)															
	1.18	1.30	1.35	1.44	1.62	1.47	1.46	1.49	1.49	1.45	1.42	1.43	1.32	1.51	1.45
No. 2 Heating Oil, Wholesale (dollars per gallon)															
	0.60	0.68	0.73	0.79	1.00	0.78	0.80	0.78	0.83	0.79	0.78	0.81	0.69	0.86	0.81
No. 2 Heating Oil, Retail (dollars per gallon)															
	1.09	1.09	1.06	1.19	1.45	1.28	1.17	1.35	1.38	1.27	1.17	1.32	1.11	1.34	1.32
No. 6 Residual Fuel Oil, Retail ^d (dollars per barrel).....															
	19.34	24.11	25.73	26.22	33.71	26.66	28.76	28.00	27.86	25.31	24.99	25.70	23.81	29.44	26.05
Electric Power Sector ^e															
Coal (dollars per million Btu)															
	1.27	1.26	1.26	1.23	1.27	1.29	1.25	1.24	1.25	1.26	1.24	1.22	1.25	1.26	1.24
Heavy Fuel Oil ^f (dollars per million Btu)															
	2.91	3.61	3.81	4.24	5.05	4.65	4.06	4.59	4.62	4.27	3.74	4.18	3.68	4.60	4.19
Natural Gas (dollars per million Btu)															
	2.99	3.58	3.41	4.26	6.13	5.52	4.87	4.97	5.41	4.75	4.70	5.29	3.54	5.29	4.97
Other Residential															
Natural Gas (dollars per thousand cubic feet).....															
	7.21	8.29	10.24	7.98	8.63	10.52	12.45	9.26	9.23	9.97	11.33	9.44	7.86	9.39	9.57
Electricity (cents per kilowatthour).....															
	8.14	8.58	8.74	8.30	8.08	9.02	9.05	8.47	8.35	8.97	9.12	8.68	8.45	8.66	8.78

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

^ePrior to 2002, for Electric Utilities only. Includes independent power producers as of January 2002.

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

Notes: Data are estimated for the first quarter of 2003. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

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

(Million Barrels per Day, Except Closing Stocks)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	5.87	5.90	5.67	5.55	5.88	5.78	<i>5.65</i>	<i>5.66</i>	<i>5.71</i>	<i>5.66</i>	<i>5.56</i>	<i>5.60</i>	5.75	<i>5.74</i>	<i>5.63</i>
Alaska	1.03	1.01	0.93	0.97	1.01	0.98	<i>0.94</i>	<i>0.99</i>	<i>1.00</i>	<i>0.95</i>	<i>0.91</i>	<i>0.93</i>	0.98	<i>0.98</i>	<i>0.95</i>
Lower 48	4.83	4.89	4.74	4.59	4.87	4.80	<i>4.71</i>	<i>4.67</i>	<i>4.71</i>	<i>4.71</i>	<i>4.65</i>	<i>4.67</i>	4.76	<i>4.76</i>	<i>4.69</i>
Net Commercial Imports ^b	8.72	9.30	9.16	9.28	8.76	9.99	<i>10.20</i>	<i>9.57</i>	<i>9.37</i>	<i>9.99</i>	<i>10.06</i>	<i>9.82</i>	9.12	<i>9.63</i>	<i>9.81</i>
Net SPR Withdrawals	-0.10	-0.15	-0.12	-0.11	-0.13	-0.16	<i>-0.17</i>	<i>-0.16</i>	<i>-0.12</i>	<i>-0.14</i>	<i>-0.10</i>	<i>-0.12</i>	-0.12	<i>-0.15</i>	<i>-0.12</i>
Net Commercial Withdrawals.....	-0.24	0.18	0.51	-0.08	-0.04	-0.02	<i>-0.01</i>	<i>0.10</i>	<i>-0.21</i>	<i>-0.02</i>	<i>0.16</i>	<i>0.00</i>	0.09	<i>0.01</i>	<i>-0.02</i>
Product Supplied and Losses	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Unaccounted-for Crude Oil	0.19	0.12	-0.01	0.13	0.08	0.12	<i>-0.10</i>	<i>0.02</i>	<i>0.16</i>	<i>0.19</i>	<i>0.17</i>	<i>0.12</i>	0.11	<i>0.03</i>	<i>0.16</i>
Total Crude Oil Supply.....	14.44	15.34	15.21	14.78	14.56	15.71	<i>15.56</i>	<i>15.20</i>	<i>14.92</i>	<i>15.68</i>	<i>15.85</i>	<i>15.42</i>	14.95	<i>15.26</i>	<i>15.47</i>
Other Supply															
NGL Production	1.88	1.91	1.89	1.84	1.76	1.61	<i>1.71</i>	<i>1.81</i>	<i>1.87</i>	<i>1.84</i>	<i>1.80</i>	<i>1.87</i>	1.88	<i>1.72</i>	<i>1.85</i>
Other Hydrocarbon and Alcohol	0.37	0.44	0.43	0.43	0.44	0.43	<i>0.44</i>	<i>0.39</i>	<i>0.40</i>	<i>0.40</i>	<i>0.42</i>	<i>0.43</i>	0.42	<i>0.42</i>	<i>0.41</i>
Inputs															
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Processing Gain.....	0.96	0.96	0.95	0.97	0.89	0.96	<i>0.98</i>	<i>0.94</i>	<i>0.93</i>	<i>0.93</i>	<i>0.93</i>	<i>0.96</i>	0.96	<i>0.94</i>	<i>0.94</i>
Net Product Imports ^c	1.37	1.56	1.37	1.36	1.50	1.77	<i>1.79</i>	<i>1.63</i>	<i>1.85</i>	<i>1.85</i>	<i>1.83</i>	<i>1.74</i>	1.42	<i>1.67</i>	<i>1.82</i>
Product Stock Withdrawn or Added (-)	0.51	-0.49	0.06	0.49	0.87	-0.81	<i>-0.18</i>	<i>0.36</i>	<i>0.30</i>	<i>-0.67</i>	<i>-0.36</i>	<i>0.32</i>	0.15	<i>0.06</i>	<i>-0.10</i>
Total Supply	19.53	19.72	19.92	19.87	20.02	19.65	<i>20.30</i>	<i>20.32</i>	<i>20.28</i>	<i>20.04</i>	<i>20.46</i>	<i>20.73</i>	19.76	<i>20.07</i>	<i>20.38</i>
Demand															
Motor Gasoline.....	8.49	9.00	9.05	8.85	8.50	9.03	<i>9.18</i>	<i>9.12</i>	<i>8.78</i>	<i>9.23</i>	<i>9.41</i>	<i>9.33</i>	8.85	<i>8.96</i>	<i>9.19</i>
Jet Fuel	1.57	1.61	1.63	1.65	1.54	1.51	<i>1.61</i>	<i>1.66</i>	<i>1.58</i>	<i>1.59</i>	<i>1.65</i>	<i>1.69</i>	1.61	<i>1.58</i>	<i>1.63</i>
Distillate Fuel Oil	3.80	3.70	3.71	3.89	4.22	3.80	<i>3.78</i>	<i>3.98</i>	<i>4.27</i>	<i>3.86</i>	<i>3.85</i>	<i>4.10</i>	3.78	<i>3.94</i>	<i>4.02</i>
Residual Fuel Oil.....	0.73	0.69	0.62	0.76	0.86	0.72	<i>0.78</i>	<i>0.74</i>	<i>0.79</i>	<i>0.62</i>	<i>0.66</i>	<i>0.76</i>	0.70	<i>0.78</i>	<i>0.71</i>
Other Oils ^d	4.93	4.72	4.91	4.73	4.91	4.59	<i>4.94</i>	<i>4.81</i>	<i>4.85</i>	<i>4.74</i>	<i>4.89</i>	<i>4.84</i>	4.82	<i>4.81</i>	<i>4.83</i>
Total Demand	19.53	19.72	19.92	19.87	20.02	19.65	<i>20.30</i>	<i>20.32</i>	<i>20.27</i>	<i>20.03</i>	<i>20.46</i>	<i>20.73</i>	19.76	<i>20.07</i>	<i>20.37</i>
Total Petroleum Net Imports.....	10.11	10.87	10.54	10.64	10.27	11.75	<i>11.99</i>	<i>11.20</i>	<i>11.22</i>	<i>11.84</i>	<i>11.88</i>	<i>11.56</i>	10.54	<i>11.31</i>	<i>11.63</i>
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	334	318	271	278	281	283	<i>284</i>	<i>275</i>	<i>294</i>	<i>296</i>	<i>281</i>	<i>281</i>	278	<i>275</i>	<i>281</i>
Total Motor Gasoline.....	213	217	206	209	200	206	<i>196</i>	<i>201</i>	<i>206</i>	<i>212</i>	<i>206</i>	<i>210</i>	209	<i>201</i>	<i>210</i>
Finished Motor Gasoline	160	168	157	162	145	153	<i>145</i>	<i>146</i>	<i>147</i>	<i>155</i>	<i>150</i>	<i>155</i>	162	<i>146</i>	<i>155</i>
Blending Components.....	54	49	49	47	55	53	<i>51</i>	<i>54</i>	<i>60</i>	<i>57</i>	<i>56</i>	<i>55</i>	47	<i>54</i>	<i>55</i>
Jet Fuel	42	39	41	39	37	38	<i>39</i>	<i>38</i>	<i>36</i>	<i>38</i>	<i>40</i>	<i>39</i>	39	<i>38</i>	<i>39</i>
Distillate Fuel Oil	123	133	127	134	99	112	<i>131</i>	<i>130</i>	<i>101</i>	<i>112</i>	<i>130</i>	<i>134</i>	134	<i>130</i>	<i>134</i>
Residual Fuel Oil.....	34	33	33	31	32	36	<i>32</i>	<i>35</i>	<i>33</i>	<i>34</i>	<i>36</i>	<i>37</i>	31	<i>35</i>	<i>37</i>
Other Oils ^e	265	301	309	258	225	275	<i>285</i>	<i>248</i>	<i>247</i>	<i>287</i>	<i>306</i>	<i>267</i>	258	<i>248</i>	<i>267</i>
Total Stocks (excluding SPR)	1011	1040	987	949	874	950	<i>968</i>	<i>926</i>	<i>917</i>	<i>979</i>	<i>998</i>	<i>969</i>	949	<i>926</i>	<i>969</i>
Crude Oil in SPR.....	561	576	587	599	599	609	<i>624</i>	<i>639</i>	<i>650</i>	<i>662</i>	<i>672</i>	<i>683</i>	599	<i>639</i>	<i>683</i>
Heating Oil Reserve.....	2	2	2	2	2	2	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	2	<i>2</i>	<i>2</i>
Total Stocks (incl SPR and HOR).....	1575	1618	1576	1550	1475	1560	<i>1594</i>	<i>1567</i>	<i>1569</i>	<i>1644</i>	<i>1672</i>	<i>1653</i>	1550	<i>1567</i>	<i>1653</i>

^aIncludes lease condensate.^bNet imports equals gross imports plus SPR imports minus exports.^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.^dIncludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.^eIncludes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve

HOR: Heating Oil Reserve

NGL: Natural Gas Liquids

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

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

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

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

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

^bShort-Term Integrated Forecasting System.

^cRefiner acquisitions cost of imported crude oil.

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

^eRefers to percent changes in degree-days.

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

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

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	5.976	5.229	0.748	0.064	0.684
Lower 48 States.....	5.021	4.355	0.666	0.044	0.622
Alaska.....	0.955	0.873	0.081	0.020	0.061

Note: Components provided are for the fourth quarter 2004. Totals may not add to sum of components due to independent rounding.
Source: Energy Information Administration, Office of Oil and Gas, Reserves and Production Division.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Total Dry Gas Production.....	4.69	4.77	4.78	4.81	4.86	4.84	4.84	4.96	4.87	4.76	4.76	4.82	19.05	<i>19.50</i>	<i>19.21</i>
Gross Imports	0.98	0.95	1.03	1.04	0.96	0.88	1.02	1.11	1.07	1.04	1.01	1.10	4.01	<i>3.97</i>	<i>4.22</i>
Pipeline	0.95	0.88	0.97	0.97	0.88	0.76	0.86	0.93	0.92	0.86	0.83	0.92	3.78	<i>3.43</i>	<i>3.52</i>
LNG.....	0.03	0.07	0.06	0.07	0.08	0.13	0.16	0.18	0.15	0.18	0.18	0.18	0.23	<i>0.54</i>	<i>0.69</i>
Gross Exports	0.10	0.12	0.14	0.15	0.16	0.15	0.17	0.17	0.18	0.18	0.20	0.21	0.52	<i>0.65</i>	<i>0.77</i>
Net Imports	0.88	0.83	0.90	0.89	0.79	0.74	0.85	0.94	0.89	0.86	0.81	0.89	3.49	<i>3.32</i>	<i>3.45</i>
Supplemental Gaseous Fuels.....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.08	<i>0.08</i>	<i>0.08</i>
Total New Supply.....	5.59	5.62	5.69	5.72	5.68	5.59	5.72	5.92	5.79	5.64	5.59	5.73	22.62	<i>22.90</i>	<i>22.74</i>
Working Gas in Storage															
Opening	2.90	1.52	2.31	3.04	2.38	0.73	1.77	2.87	2.57	1.12	1.97	2.91	2.90	<i>2.38</i>	<i>2.57</i>
Closing	1.52	2.31	3.04	2.38	0.73	1.77	2.87	2.57	1.12	1.97	2.91	2.39	2.38	<i>2.57</i>	<i>2.39</i>
Net Withdrawals.....	1.39	-0.79	-0.73	0.67	1.65	-1.04	-1.10	0.30	1.45	-0.85	-0.94	0.51	0.53	<i>-0.19</i>	<i>0.17</i>
Total Supply	6.98	4.83	4.96	6.38	7.32	4.55	4.62	6.22	7.23	4.79	4.65	6.24	23.15	<i>22.71</i>	<i>22.91</i>
Balancing Item ^a	-0.07	0.15	-0.05	-0.56	-0.06	-0.06	0.07	-0.57	-0.10	0.03	0.02	-0.59	-0.53	<i>-0.62</i>	<i>-0.63</i>
Total Primary Supply.....	6.90	4.98	4.91	5.82	7.26	4.49	4.69	5.65	7.13	4.83	4.67	5.65	22.61	<i>22.09</i>	<i>22.28</i>
Demand															
Residential	2.20	0.83	0.37	1.51	2.52	0.83	0.38	1.37	2.41	0.83	0.38	1.44	4.92	<i>5.09</i>	<i>5.06</i>
Commercial.....	1.22	0.61	0.42	0.92	1.35	0.57	0.39	0.85	1.34	0.62	0.43	0.92	3.17	<i>3.15</i>	<i>3.31</i>
Industrial	2.17	2.05	2.01	2.12	2.14	1.85	1.95	2.10	2.15	1.93	1.93	2.08	8.34	<i>8.04</i>	<i>8.08</i>
Lease and Plant Fuel.....	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.27	0.26	0.26	0.27	1.05	<i>1.08</i>	<i>1.06</i>
Other Industrial	1.91	1.78	1.74	1.85	1.87	1.58	1.69	1.83	1.89	1.66	1.67	1.81	7.29	<i>6.96</i>	<i>7.03</i>
CHP ^b	0.32	0.31	0.35	0.29	0.30	0.26	0.31	0.28	0.30	0.29	0.31	0.28	1.28	<i>1.15</i>	<i>1.19</i>
Non-CHP	1.58	1.47	1.39	1.57	1.57	1.31	1.38	1.55	1.58	1.37	1.35	1.53	6.01	<i>5.82</i>	<i>5.83</i>
Transportation ^c	0.19	0.14	0.14	0.16	0.20	0.13	0.13	0.17	0.21	0.14	0.13	0.16	0.64	<i>0.64</i>	<i>0.64</i>
Electric Power ^d	1.12	1.35	1.97	1.11	1.05	1.13	1.83	1.15	1.02	1.32	1.80	1.05	5.55	<i>5.16</i>	<i>5.19</i>
Total Demand	6.90	4.98	4.91	5.82	7.26	4.49	4.69	5.65	7.13	4.83	4.67	5.65	22.61	<i>22.09</i>	<i>22.28</i>

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

^bNatural gas used for electricity generation and production of useful thermal output by combined heat and power (CHP) plants at industrial facilities. Includes a small amount of natural gas consumption at electricity-only plants in the industrial sector.

^cPipeline fuel use plus natural gas used as vehicle fuel.

^dNatural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

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 Production Division.

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

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Supply															
Production.....	282.6	266.7	270.9	274.1	264.1	267.2	<i>271.2</i>	<i>287.0</i>	<i>273.9</i>	<i>262.9</i>	<i>274.2</i>	<i>283.6</i>	1094.3	<i>1089.4</i>	<i>1094.5</i>
Appalachia.....	108.1	98.5	95.2	95.2	95.4	95.5	<i>96.3</i>	<i>98.2</i>	<i>97.0</i>	<i>91.7</i>	<i>91.1</i>	<i>93.5</i>	397.0	<i>385.4</i>	<i>373.3</i>
Interior.....	36.9	37.3	36.7	35.9	36.1	37.0	<i>36.5</i>	<i>36.6</i>	<i>35.9</i>	<i>35.0</i>	<i>33.9</i>	<i>33.6</i>	146.9	<i>146.2</i>	<i>138.4</i>
Western.....	137.6	130.8	138.9	143.1	132.5	134.7	<i>138.4</i>	<i>152.2</i>	<i>141.1</i>	<i>136.1</i>	<i>149.2</i>	<i>156.4</i>	550.4	<i>557.8</i>	<i>582.8</i>
Primary Stock Levels ^a															
Opening.....	35.9	40.3	41.3	35.7	43.3	39.0	<i>37.7</i>	<i>35.0</i>	<i>36.8</i>	<i>35.4</i>	<i>35.0</i>	<i>33.4</i>	35.9	<i>43.3</i>	<i>36.8</i>
Closing.....	40.3	41.3	35.7	43.3	39.0	37.7	<i>35.0</i>	<i>36.8</i>	<i>35.4</i>	<i>35.0</i>	<i>33.4</i>	<i>34.7</i>	43.3	<i>36.8</i>	<i>34.7</i>
Net Withdrawals.....	-4.4	-1.0	5.6	-7.6	4.3	1.3	<i>2.7</i>	<i>-1.8</i>	<i>1.4</i>	<i>0.3</i>	<i>1.7</i>	<i>-1.4</i>	-7.4	<i>6.5</i>	<i>2.1</i>
Imports.....	4.0	3.9	4.7	4.4	5.0	6.4	<i>7.1</i>	<i>4.7</i>	<i>6.2</i>	<i>6.6</i>	<i>6.1</i>	<i>5.7</i>	16.9	<i>23.1</i>	<i>24.6</i>
Exports.....	9.3	11.0	9.3	10.0	8.5	11.4	<i>12.1</i>	<i>10.8</i>	<i>10.7</i>	<i>11.4</i>	<i>11.2</i>	<i>10.9</i>	39.6	<i>42.9</i>	<i>44.1</i>
Total Net Domestic Supply.....	272.9	258.5	271.9	260.9	264.8	263.5	<i>268.9</i>	<i>279.1</i>	<i>270.9</i>	<i>258.4</i>	<i>270.8</i>	<i>277.0</i>	1064.2	<i>1076.1</i>	<i>1077.1</i>
Secondary Stock Levels ^b															
Opening.....	146.0	153.6	158.1	142.8	149.2	136.8	<i>148.8</i>	<i>138.7</i>	<i>157.5</i>	<i>158.0</i>	<i>167.7</i>	<i>153.8</i>	146.0	<i>149.2</i>	<i>157.5</i>
Closing.....	153.6	158.1	142.8	149.2	136.8	148.8	<i>138.7</i>	<i>157.5</i>	<i>158.0</i>	<i>167.7</i>	<i>153.8</i>	<i>159.6</i>	149.2	<i>157.5</i>	<i>159.6</i>
Net Withdrawals.....	-7.6	-4.5	15.3	-6.4	12.3	-11.9	<i>10.0</i>	<i>-18.8</i>	<i>-0.5</i>	<i>-9.7</i>	<i>13.9</i>	<i>-5.9</i>	-3.2	<i>-8.3</i>	<i>-2.1</i>
Waste Coal Supplied to IPPs ^c	2.8	2.8	2.8	2.8	2.9	2.9	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	11.1	<i>11.6</i>	<i>11.6</i>
Total Supply.....	268.1	256.7	290.0	257.3	280.0	254.4	<i>281.8</i>	<i>263.2</i>	<i>273.3</i>	<i>251.6</i>	<i>287.6</i>	<i>274.1</i>	1072.1	<i>1079.4</i>	<i>1086.6</i>
Demand															
Coke Plants.....	5.5	5.8	6.1	6.2	6.0	6.1	<i>6.1</i>	<i>6.3</i>	<i>6.3</i>	<i>6.1</i>	<i>6.1</i>	<i>5.4</i>	23.7	<i>24.4</i>	<i>23.9</i>
Electric Power Sector ^d	231.6	231.3	267.3	245.7	248.7	231.4	<i>266.2</i>	<i>238.7</i>	<i>249.6</i>	<i>230.6</i>	<i>265.9</i>	<i>251.0</i>	975.9	<i>985.0</i>	<i>997.0</i>
Retail and General Industry.....	17.0	15.5	15.6	17.1	17.5	16.1	<i>15.1</i>	<i>17.2</i>	<i>17.4</i>	<i>15.0</i>	<i>15.6</i>	<i>17.7</i>	65.2	<i>65.9</i>	<i>65.6</i>
Total Demand ^e	254.2	252.6	288.9	269.0	272.2	253.6	<i>287.4</i>	<i>262.2</i>	<i>273.3</i>	<i>251.6</i>	<i>287.6</i>	<i>274.1</i>	1064.7	<i>1075.4</i>	<i>1086.6</i>
Discrepancy ^f	13.9	4.1	1.1	-11.7	7.8	0.8	<i>-5.6</i>	<i>1.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	7.4	<i>4.0</i>	<i>0.0</i>

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

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

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

^dCoal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

^eTotal Demand includes estimated IPP consumption.

^fThe discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

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

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

Table 10a. U.S. Electricity Supply and Demand: Base Case
(Billion Kilowatt-hours)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal	454.2	452.0	519.5	479.0	485.6	446.7	516.3	463.1	483.2	445.7	514.2	485.0	1904.7	1911.7	1928.0
Petroleum	18.0	21.6	24.9	20.2	31.5	25.8	27.0	19.0	27.0	17.0	25.6	24.6	84.6	103.4	94.2
Natural Gas	121.9	143.8	211.3	123.5	116.9	124.6	202.8	132.4	120.1	147.7	199.8	123.8	600.5	576.7	591.4
Nuclear	195.6	187.8	205.7	190.9	190.1	183.2	202.0	190.4	195.1	191.4	206.3	191.5	780.1	765.6	784.3
Hydroelectric.....	59.9	76.8	59.4	54.7	60.0	80.0	62.0	60.9	74.2	81.9	66.9	68.2	250.8	262.9	291.1
Geothermal and Other ^b	13.3	14.1	14.2	13.1	13.0	13.8	14.3	14.3	14.4	14.8	15.4	15.1	54.7	55.4	59.7
Subtotal	863.0	896.1	1035.0	881.3	897.1	874.0	1024.4	880.2	913.8	898.5	1028.3	908.1	3675.4	3675.7	3748.7
Other Sectors ^c	40.5	39.8	44.1	38.6	40.2	37.3	40.6	38.9	39.7	39.2	42.4	40.2	163.1	157.0	161.5
Total Generation.....	903.5	935.9	1079.2	920.0	937.3	911.3	1064.9	919.2	953.5	937.7	1070.6	948.4	3838.6	3832.7	3910.2
Net Imports ^d	6.3	4.7	8.6	3.2	2.4	1.5	5.4	3.3	2.6	2.5	5.1	2.2	22.9	12.6	12.3
Total Supply.....	909.8	940.6	1087.8	923.2	939.8	912.8	1070.3	922.4	956.1	940.2	1075.7	950.5	3861.4	3845.4	3922.5
Losses and Unaccounted for ^e	38.6	67.6	50.8	49.2	30.3	57.3	47.1	49.4	30.6	58.9	49.4	50.9	206.1	184.1	189.8
Demand															
Retail Sales ^f															
Residential.....	311.3	281.7	382.7	292.5	337.5	273.4	377.4	290.4	343.3	288.4	376.2	304.3	1268.2	1278.7	1312.1
Commercial	255.1	273.0	313.4	266.7	265.1	267.8	312.0	265.1	266.6	269.9	310.8	270.9	1108.1	1109.9	1118.2
Industrial.....	236.3	249.0	262.3	246.2	237.2	247.4	259.3	249.4	246.1	253.7	263.2	253.4	993.8	993.2	1016.4
Other.....	23.9	25.3	30.0	26.0	25.3	25.9	29.8	25.2	25.6	26.0	29.3	26.7	105.2	106.2	107.6
Subtotal	826.5	829.1	988.2	831.4	865.1	814.3	978.4	830.1	881.6	838.0	979.5	855.3	3475.2	3487.9	3554.4
Other Use/Sales ^g	44.7	44.0	48.7	42.7	44.4	41.2	44.8	43.0	43.8	43.3	46.8	44.4	180.1	173.4	178.3
Total Demand.....	871.3	873.0	1037.0	874.1	909.5	855.5	1023.2	873.1	925.4	881.3	1026.3	899.7	3655.3	3661.3	3732.7

^aElectric Utilities and independent power producers.

^b"Other" includes generation from other gaseous fuels, wind, wood, waste, and solar sources.

^cElectricity generation from combined heat and power (CHP) facilities and electricity-only plants in the industrial and commercial sectors.

^dData for 2002 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal 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 (thus retail sales totals) are imputed. Data for 2002 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2002 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 10b. U.S. Electricity Generation by Sector: Base Case
(Billion Kilowatt-hours)

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
Electricity Generation by Sector															
Electric Power ^a															
Coal	454.2	452.0	519.5	479.0	485.6	446.7	516.3	463.1	483.2	445.7	514.2	485.0	1904.7	1911.7	1928.0
Petroleum	18.0	21.6	24.9	20.2	31.5	25.8	27.0	19.0	27.0	17.0	25.6	24.6	84.6	103.4	94.2
Natural Gas	121.9	143.8	211.3	123.5	116.9	124.6	202.8	132.4	120.1	147.7	199.8	123.8	600.5	576.7	591.4
Other ^b	268.8	278.7	279.3	258.7	263.1	276.9	278.3	265.7	283.6	288.2	288.5	274.8	1085.5	1084.0	1135.1
Subtotal	863.0	896.1	1035.0	881.3	897.1	874.0	1024.4	880.2	913.8	898.5	1028.3	908.1	3675.4	3675.7	3748.7
Commercial															
Coal	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	1.0	1.0	1.0
Petroleum	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.4	0.5	0.5
Natural Gas	1.1	1.0	2.4	1.0	1.0	1.2	1.4	0.9	1.0	1.1	1.8	1.0	5.4	4.5	5.0
Other ^b	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.5	0.5	1.9	1.8	2.0
Subtotal	1.8	1.8	3.3	1.8	1.9	2.1	2.1	1.7	1.9	1.9	2.7	2.0	8.7	7.8	8.6
Industrial															
Coal	4.9	5.0	5.4	5.3	5.5	5.0	5.2	5.2	5.3	5.2	5.4	5.4	20.7	21.0	21.3
Petroleum	1.2	1.1	1.2	1.3	1.5	1.2	1.2	1.2	1.3	0.8	1.2	1.6	4.9	5.2	4.8
Natural Gas	21.0	19.5	21.4	17.9	19.9	17.3	19.7	18.1	19.9	19.0	20.4	18.4	79.9	75.1	77.7
Other ^b	11.6	12.3	12.8	12.3	11.3	11.7	12.3	12.7	11.3	12.3	12.7	12.8	49.0	47.9	49.1
Subtotal	38.7	38.0	40.9	36.8	38.3	35.2	38.5	37.3	37.8	37.3	39.6	38.2	154.4	149.2	152.9
Total	903.5	935.9	1079.2	920.0	937.3	911.3	1064.9	919.2	953.5	937.7	1070.6	948.4	3838.6	3832.7	3910.2

^aElectric Utilities and independent power producers.

^b"Other" includes nuclear, hydroelectric, geothermal, wood, waste, wind and solar power sources.

Note: Commercial and industrial categories include electricity output from combined heat and power (CHP) facilities and some electric-only plants.

Table 10c. U.S. Fuel Consumption for Electricity Generation by Sector: Base Case

	2002				2003				2004				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2002	2003	2004
(Quadrillion Btu)															
Fuel Consumption for Electricity Generation by Sector															
Electric Power ^a															
Coal	4.752	4.747	5.485	5.042	5.103	4.748	5.463	4.899	5.121	4.731	5.456	5.150	20.0	20.2	20.5
Petroleum	0.194	0.226	0.267	0.218	0.340	0.277	0.289	0.206	0.291	0.182	0.274	0.265	0.9	1.1	1.0
Natural Gas.....	1.087	1.326	1.957	1.084	1.008	1.098	1.799	1.123	0.995	1.286	1.757	1.029	5.5	5.0	5.1
Other ^b	2.869	2.954	3.013	2.934	2.880	3.007	2.917	2.831	3.016	3.059	3.070	2.926	11.8	11.6	12.1
Subtotal	8.901	9.253	10.722	9.278	9.331	9.130	10.468	9.059	9.423	9.259	10.557	9.370	38.2	38.0	38.6
Commercial															
Coal	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.013	0.012	0.013
Petroleum	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.005	0.007	0.006
Natural Gas.....	0.009	0.009	0.019	0.009	0.009	0.010	0.012	0.008	0.009	0.010	0.015	0.009	0.047	0.038	0.042
Other ^b	0.006	0.007	0.009	0.007	0.007	0.008	0.010	0.007	0.007	0.008	0.008	0.009	0.029	0.032	0.033
Subtotal	0.019	0.020	0.034	0.020	0.021	0.022	0.026	0.019	0.021	0.021	0.029	0.023	0.093	0.089	0.094
Industrial															
Coal	0.062	0.064	0.067	0.068	0.070	0.065	0.067	0.066	0.068	0.066	0.069	0.069	0.261	0.269	0.272
Petroleum	0.015	0.014	0.015	0.016	0.018	0.017	0.015	0.016	0.016	0.011	0.015	0.021	0.059	0.067	0.063
Natural Gas.....	0.183	0.179	0.197	0.157	0.176	0.157	0.175	0.161	0.177	0.170	0.181	0.164	0.717	0.669	0.692
Other ^b	0.145	0.146	0.155	0.163	0.138	0.151	0.160	0.161	0.144	0.158	0.162	0.161	0.610	0.610	0.626
Subtotal	0.406	0.402	0.434	0.404	0.403	0.391	0.416	0.404	0.406	0.405	0.427	0.415	1.646	1.614	1.653
Total	9.326	9.675	11.190	9.702	9.756	9.542	10.911	9.482	9.850	9.684	11.013	9.807	39.893	39.691	40.355
(Physical Units)															
Electric Power ^a															
Coal (Million Short Tons).....	231.0	230.8	266.7	245.1	248.1	230.8	265.7	238.2	249.0	230.0	265.3	250.4	973.7	982.9	994.8
Petroleum (Million Barrels per Day)	0.348	0.402	0.470	0.383	0.614	0.494	0.508	0.364	0.519	0.324	0.480	0.467	0.401	0.494	0.447
Natural Gas (Trillion Cubic Feet).....	1.060	1.294	1.909	1.058	0.983	1.071	1.755	1.095	0.971	1.255	1.714	1.004	5.321	4.904	4.943
Commercial															
Coal (Million Short Tons).....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5
Petroleum (Million Barrels per Day)	0.002	0.002	0.003	0.002	0.006	0.002	0.002	0.002	0.004	0.001	0.003	0.003	0.002	0.003	0.003
Natural Gas (Trillion Cubic Feet).....	0.009	0.009	0.019	0.008	0.008	0.010	0.012	0.007	0.008	0.009	0.015	0.009	0.045	0.037	0.041
Industrial															
Coal (Million Short Tons).....	2.7	2.7	2.9	2.9	3.0	2.8	2.8	2.8	2.9	2.8	2.9	3.0	11.2	11.5	11.7
Petroleum (Million Barrels per Day)	0.027	0.025	0.026	0.028	0.034	0.032	0.027	0.029	0.030	0.020	0.027	0.037	0.026	0.030	0.029
Natural Gas (Trillion Cubic Feet).....	0.179	0.174	0.192	0.153	0.172	0.153	0.170	0.157	0.173	0.165	0.177	0.160	0.699	0.652	0.674

^aElectric Utilities and independent power producers.

^b"Other" includes nuclear, hydroelectric, geothermal, wood, waste, wind and solar power sources.

Note: Commercial and industrial categories include electricity output from combined heat and power (CHP) facilities and some electric-only plants.

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

	Year				Annual Percentage Change		
	2001	2002	2003	2004	2001-2002	2002-2003	2003-2004
Electricity Sector							
Hydroelectric Power ^a	2.165	2.623	<i>2.749</i>	<i>3.045</i>	21.2	4.8	10.8
Geothermal, Solar and Wind Energy ^b	0.363	0.392	<i>0.395</i>	<i>0.436</i>	8.0	0.8	10.4
Biofuels ^c	0.450	0.466	<i>0.495</i>	<i>0.508</i>	3.6	6.2	2.6
Total	2.978	3.481	<i>3.640</i>	<i>3.989</i>	16.9	4.6	9.6
Other Sectors ^d							
Residential and Commercial ^e	0.567	0.513	<i>0.525</i>	<i>0.549</i>	-9.5	2.3	4.6
Residential	0.475	0.418	<i>0.436</i>	<i>0.455</i>	-12.0	4.3	4.4
Commercial	0.091	0.095	<i>0.089</i>	<i>0.095</i>	4.4	-6.3	6.7
Industrial ^f	1.641	1.734	<i>1.723</i>	<i>1.720</i>	5.7	-0.6	-0.2
Transportation ^g	0.147	0.175	<i>0.234</i>	<i>0.264</i>	19.0	33.7	12.8
Total	2.354	2.422	<i>2.481</i>	<i>2.533</i>	2.9	2.4	2.1
Total Renewable Energy Demand	5.331	5.903	<i>6.121</i>	<i>6.522</i>	10.7	3.7	6.6

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

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

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

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

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

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

^gEthanol blended into gasoline.

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

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	9440	<i>9716</i>	<i>10119</i>
Imported Crude Oil Price ^a (nominal dollars per barrel)	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.71	<i>27.84</i>	<i>26.61</i>
Petroleum Supply															
Crude Oil Production ^b (million barrels per day)	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	<i>5.74</i>	<i>5.63</i>
Total Petroleum Net Imports (including SPR) (million barrels per day)	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	<i>11.31</i>	<i>11.63</i>
Energy Demand															
U.S. Petroleum (million barrels per day)	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	<i>20.07</i>	<i>20.37</i>
Natural Gas (trillion cubic feet)	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.61	<i>22.09</i>	<i>22.28</i>
Coal (million short tons).....	904	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1065	<i>1075</i>	<i>1087</i>
Electricity (billion kilowatthours)															
Retail Sales ^c	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3370	3475	<i>3488</i>	<i>3554</i>
Other Use/Sales ^d	115	118	122	128	134	144	146	148	161	183	181	173	180	<i>173</i>	<i>178</i>
Total	2827	2880	2886	2989	3069	3157	3247	3294	3425	3495	3603	3543	3655	<i>3661</i>	<i>3733</i>
Total Energy Demand ^e (quadrillion Btu)	84.6	84.5	85.9	87.6	89.2	91.2	94.2	94.7	95.1	96.8	99.0	96.3	97.6	<i>97.7</i>	<i>99.7</i>
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar).....	12.62	12.66	12.48	12.40	12.15	12.09	12.06	11.63	11.18	10.92	10.78	10.45	10.34	<i>10.05</i>	<i>9.85</i>

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

^bIncludes lease condensate.

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

^dDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2001 are estimates.

^e"Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, Annual Energy Review, 2001, DOE/EIA-0384(01) (AER), Table 1.1. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, Monthly Energy Review (MER). Consequently, the historical data may not precisely match those published in the MER or the AER.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on Global Insight Forecast CONTROL1103.

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Macroeconomic															
Real Gross Domestic Product (billion chained 1996 dollars).....	6708	6676	6880	7063	7348	7544	7813	8159	8509	8859	9191	9215	9440	<i>9716</i>	<i>10119</i>
GDP Implicit Price Deflator (Index, 1996=1.000)	0.865	0.897	0.918	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.069	1.094	1.107	<i>1.124</i>	<i>1.144</i>
Real Disposable Personal Income (billion chained 1996 Dollars)	5014	5033	5189	5261	5397	5539	5678	5854	6169	6328	6630	6748	7032	<i>7208</i>	<i>7493</i>
Manufacturing Production (Index, 1997=1.000)	74.156	72.721	75.516	78.113	83.133	87.783	92.119	100.000	106.518	111.872	117.672	112.800	111.691	<i>111.345</i>	<i>116.011</i>
Real Fixed Investment (billion chained 1996 dollars).....	895	833	886	958	1046	1109	1213	1329	1480	1595	1692	1627	1577	<i>1643</i>	<i>1738</i>
Real Exchange Rate (Index, 1996=1.000)	0.918	0.920	0.926	0.956	0.933	0.869	0.918	0.992	1.044	1.047	1.083	1.141	1.138	<i>1.002</i>	<i>0.955</i>
Business Inventory Change (billion chained 1996 dollars).....	8.7	-6.6	-4.7	3.6	11.9	13.8	9.9	14.8	27.1	14.4	17.5	-36.2	-11.5	<i>-11.1</i>	<i>8.5</i>
Producer Price Index (index, 1982=1.000).....	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.255	1.328	1.342	1.311	<i>1.377</i>	<i>1.387</i>
Consumer Price Index (index, 1982-1984=1.000)	1.307	1.362	1.403	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	1.771	1.799	<i>1.841</i>	<i>1.874</i>
Petroleum Product Price Index (index, 1982=1.000).....	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	0.853	0.795	<i>0.968</i>	<i>0.910</i>
Non-Farm Employment (millions)	109.5	108.4	108.7	110.8	114.3	117.3	119.7	122.8	125.9	129.0	131.8	131.8	130.4	<i>130.0</i>	<i>131.4</i>
Commercial Employment (millions)	71.0	70.5	70.9	72.9	75.7	78.4	80.7	83.4	86.1	89.1	91.4	92.0	91.4	<i>91.6</i>	<i>93.3</i>
Total Industrial Production (index, 1997=100.0).....	77.6	76.3	78.3	80.8	85.1	89.2	93.1	100.0	105.6	110.1	115.3	111.2	110.4	<i>110.4</i>	<i>114.4</i>
Housing Stock (millions)	101.1	101.8	102.6	103.8	105.1	106.7	108.0	109.4	111.1	112.7	113.3	114.7	115.7	<i>117.0</i>	<i>118.3</i>
Weather ^a															
Heating Degree-Days															
U.S.	4024	4200	4431	4672	4472	4516	4690	4523	3946	4153	4447	4191	4284	<i>4510</i>	<i>4558</i>
New England	5924	6042	6018	5904	6748	6631	5850	6725	5742	6014	6585	6110	6099	<i>6980</i>	<i>6672</i>
Middle Atlantic	5136	5317	6108	6040	6083	5966	6118	5940	4923	5493	5944	5424	5372	<i>6130</i>	<i>5922</i>
U.S. Gas-Weighted.....	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4680	4451	4560	<i>4809</i>	<i>4871</i>
Cooling Degree-Days (U.S.).....	1262	1331	1051	1222	1228	1293	1186	1167	1414	1301	1240	1256	1393	<i>1279</i>	<i>1240</i>

^aPopulation-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 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; U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on Global Insight Forecast CONTROL1103.

Table A3. U.S. Energy Supply and Demand: Base Case
(Quadrillion Btu except where noted)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production															
Coal	22.46	21.59	21.63	20.25	22.11	22.03	22.68	23.21	23.94	23.19	22.62	23.05	22.56	22.46	22.57
Natural Gas.....	18.33	18.23	18.38	18.58	19.35	19.08	19.27	19.32	19.61	19.34	19.66	20.23	19.58	20.05	19.75
Crude Oil.....	15.57	15.70	15.22	14.49	14.10	13.89	13.72	13.66	13.24	12.45	12.36	12.28	12.16	12.15	11.96
Natural Gas Liquids	2.17	2.31	2.36	2.41	2.39	2.44	2.53	2.50	2.42	2.53	2.61	2.55	2.56	2.35	2.52
Nuclear	6.10	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.99	8.19
Hydroelectric.....	3.04	2.99	2.60	2.87	2.67	3.20	3.58	3.62	3.27	3.23	2.78	2.12	2.59	2.73	3.02
Other Renewables.....	3.08	3.14	3.29	3.27	3.38	3.46	3.55	3.43	3.26	3.33	3.35	3.12	3.22	3.30	3.39
Total.....	70.75	70.38	69.96	68.29	70.70	71.17	72.42	72.34	72.80	71.67	71.24	71.38	70.83	71.03	71.41
Net Imports															
Coal	-2.70	-2.77	-2.59	-1.78	-1.69	-2.14	-2.19	-2.01	-1.87	-1.30	-1.21	-0.77	-0.61	-0.54	-0.54
Natural Gas.....	1.46	1.67	1.94	2.25	2.52	2.74	2.85	2.90	3.06	3.50	3.62	3.69	3.58	3.40	3.54
Crude Oil.....	12.50	12.22	13.00	14.43	15.07	15.36	16.20	17.88	18.96	19.06	19.94	20.58	20.17	21.30	21.75
Petroleum Products	2.79	2.00	1.96	1.97	2.19	1.53	2.02	1.76	1.98	2.12	2.44	2.72	2.49	2.93	3.20
Electricity	0.01	0.07	0.09	0.09	0.15	0.13	0.14	0.12	0.09	0.10	0.12	0.08	0.08	0.04	0.04
Coal Coke.....	0.00	0.01	0.03	0.03	0.06	0.06	0.02	0.05	0.07	0.06	0.07	0.03	0.06	0.05	0.05
Total.....	14.06	13.19	14.44	16.99	18.30	17.69	19.04	20.70	22.28	23.54	24.97	26.32	25.77	27.19	28.05
Adjustments ^a	-0.25	1.06	1.65	2.50	0.58	2.63	3.06	1.93	0.25	1.76	3.11	-1.61	0.85	-0.68	0.11
Consumption															
Coal	19.19	18.99	19.12	19.84	19.91	20.09	21.00	21.45	21.66	21.62	22.58	21.66	21.96	22.14	22.41
Natural Gas.....	19.72	20.15	20.83	21.35	21.84	22.78	23.20	23.33	22.93	23.01	24.04	22.85	23.24	22.70	22.90
Petroleum	33.55	32.85	33.53	33.84	34.67	34.55	35.76	36.27	36.93	37.96	38.40	38.33	38.30	38.90	39.68
Nuclear	6.10	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.99	8.19
Other.....	6.00	6.23	6.09	6.34	6.46	7.00	7.48	7.33	6.75	6.77	6.43	5.22	5.80	5.81	6.38
Total.....	84.57	84.64	86.05	87.78	89.57	91.50	94.52	94.97	95.34	96.97	99.32	96.09	97.45	97.54	99.56

^aBalancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted-for supply.

Table A4. Annual Average U.S. Energy Prices: Base Case
(Nominal Dollars)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Crude Oil Prices (dollars per barrel)															
Imported Average ^a	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.71	27.84	26.61
WTI ^b Spot Average	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.12	31.03	29.13
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.70	4.02	2.96	4.92	4.39
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.39	1.60	1.53
Regular Unleaded	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.34	1.56	1.49
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.17	1.13	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.40	1.32	1.51	1.45
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.69	0.86	0.81
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.04	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.23	1.11	1.34	1.32
No. 6 Residual Fuel Oil, Retail ^d															
(dollars per barrel).....	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.24	23.81	29.44	26.05
Electric Power Sector ^e															
Coal															
(dollars per million Btu)	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.25	1.26	1.24
Heavy Fuel Oil ^f															
(dollars per million Btu)	3.22	2.48	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.73	3.68	4.60	4.19
Natural Gas															
(dollars per million Btu)	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.34	4.44	3.54	5.29	4.97
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.63	7.86	9.39	9.57
Electricity															
(cents per kilowatthour).....	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.62	8.45	8.66	8.78

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

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents.

^ePrior to 2002, for Electric Utilities only. Includes independent power producers as of January 2002.

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

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

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

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Crude Oil Supply															
Domestic Production ^a	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	5.74	5.63
Alaska.....	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	0.98	0.98	0.95
Lower 48	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	4.76	4.76	4.69
Net Commercial Imports ^b	5.76	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	9.12	9.63	9.81
Net SPR Withdrawals.....	0.06	0.05	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	-0.12	-0.15	-0.12
Net Commercial Withdrawals.....	0.00	-0.01	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	0.09	0.01	-0.02
Product Supplied and Losses	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	0.11	0.03	0.16
Total Crude Oil Supply	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	14.95	15.26	15.47
Other Supply															
NGL Production.....	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.87	1.88	1.72	1.85
Other Hydrocarbon and Alcohol Inputs.....	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	0.42	0.42	0.41
Crude Oil Product Supplied.....	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processing Gain.....	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	0.96	0.94	0.94
Net Product Imports ^c	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	1.42	1.67	1.82
Product Stock Withdrawn.....	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.23	0.15	0.06	-0.10
Total Supply	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.07	20.38
Demand															
Motor Gasoline ^d	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	8.85	8.96	9.19
Jet Fuel.....	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	1.61	1.58	1.63
Distillate Fuel Oil	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	3.78	3.94	4.02
Residual Fuel Oil.....	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	0.70	0.78	0.71
Other Oils ^e	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	4.82	4.81	4.83
Total Demand.....	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.07	20.37
Total Petroleum Net Imports	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	11.31	11.63
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	323	325	318	335	337	303	284	305	324	284	286	312	278	275	281
Total Motor Gasoline.....	220	219	216	226	215	202	195	210	216	193	196	210	209	201	210
Jet Fuel.....	52	49	43	40	47	40	40	44	45	41	45	42	39	38	39
Distillate Fuel Oil	132	144	141	141	145	130	127	138	156	125	118	145	134	130	134
Residual Fuel Oil.....	49	50	43	44	42	37	46	40	45	36	36	41	31	35	37
Other Oils ^f	261	267	263	273	275	258	250	259	291	246	247	287	258	248	267

^aIncludes lease condensate.

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

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

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

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

Table A6. Annual U.S. Natural Gas Supply and Demand: Base Case
(Trillion Cubic Feet)

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Total Dry Gas Production	17.81	17.70	17.84	18.10	18.82	18.60	18.78	18.83	19.02	18.83	19.18	19.68	19.05	<i>19.50</i>	<i>19.21</i>
Gross Imports	1.53	1.77	2.14	2.35	2.62	2.84	2.94	2.99	3.15	3.59	3.78	3.98	4.01	<i>3.97</i>	<i>4.22</i>
Gross Exports	0.09	0.13	0.22	0.14	0.16	0.15	0.15	0.16	0.16	0.16	0.24	0.37	0.52	<i>0.65</i>	<i>0.77</i>
Net Imports	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.60	3.49	<i>3.32</i>	<i>3.45</i>
Supplemental Gaseous Fuels.....	0.12	0.11	0.12	0.12	0.11	0.11	0.09	0.08	0.08	0.08	0.09	0.09	0.08	<i>0.08</i>	<i>0.08</i>
Total New Supply.....	19.38	19.45	19.88	20.42	21.39	21.40	21.66	21.74	22.10	22.34	22.81	23.37	22.62	<i>22.90</i>	<i>22.74</i>
Working Gas in Storage															
Opening	2.85	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	<i>2.38</i>	<i>2.57</i>
Closing.....	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.38	<i>2.57</i>	<i>2.39</i>
Net Withdrawals.....	-0.22	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.18	0.53	<i>-0.19</i>	<i>0.17</i>
Total Supply.....	19.16	19.70	20.11	20.70	21.11	21.85	21.64	21.74	21.54	22.54	23.61	22.18	23.15	<i>22.71</i>	<i>22.91</i>
Balancing Item ^a	0.01	-0.14	0.12	0.09	0.13	0.35	0.96	0.98	0.70	-0.15	-0.15	0.05	-0.53	<i>-0.62</i>	<i>-0.63</i>
Total Primary Supply	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.61	<i>22.09</i>	<i>22.28</i>
Demand															
Residential	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.78	4.92	<i>5.09</i>	<i>5.06</i>
Commercial.....	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.04	3.17	<i>3.15</i>	<i>3.31</i>
Industrial	8.25	8.36	8.70	8.87	8.91	9.38	9.68	9.71	9.49	9.16	9.40	8.45	8.34	<i>8.04</i>	<i>8.08</i>
Lease and Plant Fuel.....	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.15	1.09	1.05	<i>1.08</i>	<i>1.06</i>
Other Industrial	7.02	7.23	7.53	7.70	7.79	8.16	8.44	8.51	8.32	8.08	8.25	7.36	7.29	<i>6.96</i>	<i>7.03</i>
CHP ^b	1.06	1.06	1.11	1.12	1.18	1.26	1.29	1.28	1.35	1.40	1.39	1.31	1.28	<i>1.15</i>	<i>1.19</i>
Non-CHP	5.96	6.17	6.42	6.58	6.61	6.90	7.15	7.23	6.97	6.68	6.87	6.05	6.01	<i>5.82</i>	<i>5.83</i>
Transportation ^c	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	0.62	0.64	<i>0.64</i>	<i>0.64</i>
Electric Power ^d	3.24	3.32	3.45	3.47	3.90	4.24	3.81	4.06	4.59	4.82	5.21	5.34	5.55	<i>5.16</i>	<i>5.19</i>
Total Demand	19.17	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	22.61	<i>22.09</i>	<i>22.28</i>

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

^bNatural gas used for electricity generation and production of useful thermal output by combined heat and power plants at industrial facilities. Includes a small amount of natural gas consumption at electricity-only plants in the industrial sector.

^cPipeline fuel use plus natural gas used as vehicle fuel.

^dNatural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

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 Production Division.

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply															
Production.....	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1127.7	1094.3	1089.4	1094.5
Appalachia.....	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	432.8	397.0	385.4	373.3
Interior.....	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.0	146.9	146.2	138.4
Western.....	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	547.9	550.4	557.8	582.8
Primary Stock Levels ^a															
Opening.....	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	36.8
Closing.....	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	36.8	34.7
Net Withdrawals.....	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-4.0	-7.4	6.5	2.1
Imports.....	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	19.8	16.9	23.1	24.6
Exports.....	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	39.6	42.9	44.1
Total Net Domestic Supply.....	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1035.2	1094.8	1064.2	1076.1	1077.1
Secondary Stock Levels ^b															
Opening.....	147.1	170.1	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	149.2	157.5
Closing.....	170.1	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	149.2	157.5	159.6
Net Withdrawals.....	-23.0	-0.1	3.3	43.8	-16.5	1.5	12.0	17.2	-22.8	-17.5	40.7	-37.6	-3.2	-8.3	-2.1
Waste Coal Supplied to IPPs ^c	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	10.6	11.1	11.6	11.6
Total Supply.....	898.5	890.8	907.2	937.1	953.2	960.4	1007.1	1033.9	1031.8	1040.2	1086.0	1067.9	1072.1	1079.4	1086.6
Demand															
Coke Plants.....	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	23.7	24.4	23.9
Electric Power Sector ^d	782.6	783.9	795.1	831.6	838.4	850.2	896.9	921.4	936.6	940.9	985.8	964.4	975.9	985.0	997.0
Retail and General Industry.....	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	69.6	65.2	65.9	65.6
Residential and Commercial.....	6.7	6.1	6.2	6.2	6.0	5.8	6.0	6.5	4.9	4.9	4.1	4.4	4.4	4.5	4.4
Industrial.....	76.3	75.4	74.0	74.9	75.2	73.1	71.7	71.5	67.4	64.7	65.2	65.3	60.7	61.4	61.2
CHP ^e	27.8	27.0	28.2	28.9	29.7	29.4	29.4	29.9	28.6	27.8	28.0	25.8	26.1	26.1	26.5
Non-CHP.....	48.5	48.4	45.8	46.0	45.5	43.7	42.3	41.7	38.9	37.0	37.2	39.5	34.7	35.3	34.7
Total Demand ^f	904.5	899.2	907.7	944.1	951.3	962.1	1006.3	1029.5	1037.1	1038.6	1084.1	1060.1	1064.7	1075.4	1086.6
Discrepancy ^g	-6.0	-8.5	-0.5	-7.0	1.9	-1.7	0.8	4.3	-5.3	1.6	1.9	7.7	7.4	4.0	0.0

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

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

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

^dEstimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2001 and projections for 2002 and 2003 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).

^eCoal used for electricity generation and production of useful thermal output by combined heat and power plants at industrial facilities. Includes a small amount of coal consumption at electricity –only plants in the industrial sector.

^fTotal Demand includes estimated IPP consumption.

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

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

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

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

	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Net Electricity Generation															
Electric Power Sector ^a															
Coal	1572.1	1568.8	1597.7	1665.5	1666.3	1686.1	1772.0	1820.8	1850.2	1858.6	1943.1	1882.8	1904.7	<i>1911.7</i>	<i>1928.0</i>
Petroleum	118.9	112.8	92.2	105.4	98.7	68.1	74.8	86.5	122.2	111.5	105.2	119.1	84.6	<i>103.4</i>	<i>94.2</i>
Natural Gas	309.5	317.8	334.3	342.2	385.7	419.2	378.8	399.6	449.3	473.0	518.0	554.9	600.5	<i>576.7</i>	<i>591.4</i>
Nuclear	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	728.3	753.9	768.8	780.1	<i>765.6</i>	<i>784.3</i>
Hydroelectric	286.2	281.5	245.8	273.5	250.6	302.7	338.1	346.6	313.4	308.6	265.8	204.9	250.8	<i>262.9</i>	<i>291.1</i>
Geothermal and Other ^b	36.5	40.8	44.3	45.9	45.8	43.7	44.7	46.0	47.3	48.7	50.2	49.4	54.7	<i>55.4</i>	<i>59.7</i>
Subtotal	2900.1	2934.2	2933.1	3042.8	3087.5	3193.2	3283.0	3328.1	3456.1	3528.7	3636.2	3580.1	3675.4	<i>3675.7</i>	<i>3748.7</i>
Other Sectors ^c	136.7	138.2	149.5	153.3	158.8	159.3	160.0	162.8	162.9	164.8	164.6	156.6	163.1	<i>157.0</i>	<i>161.5</i>
Total	3036.7	3072.5	3082.6	3196.1	3246.3	3352.5	3443.0	3490.9	3619.0	3693.5	3800.8	3736.6	3838.6	<i>3832.7</i>	<i>3910.2</i>
Net Imports ^d	2.3	19.6	25.4	27.8	44.8	39.2	40.2	34.1	25.8	29.0	34.0	22.0	22.9	<i>12.6</i>	<i>12.3</i>
Total Supply	3039.0	3092.1	3108.0	3223.9	3291.1	3391.7	3483.2	3525.0	3644.8	3722.5	3834.8	3758.7	3861.4	<i>3845.4</i>	<i>3922.5</i>
Losses and Unaccounted for ^e	211.9	212.0	222.4	234.9	222.4	234.4	236.2	230.9	219.7	227.9	231.9	216.1	206.1	<i>184.1</i>	<i>189.8</i>
Demand															
Retail Sales ^f															
Residential	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1202.6	1268.2	<i>1278.7</i>	<i>1312.1</i>
Commercial	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1089.2	1108.1	<i>1109.9</i>	<i>1118.2</i>
Industrial	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	964.2	993.8	<i>993.2</i>	<i>1016.4</i>
Other	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	113.8	105.2	<i>106.2</i>	<i>107.6</i>
Subtotal	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3369.8	3475.2	<i>3487.9</i>	<i>3554.4</i>
Other Use/Sales ^g	114.6	118.1	122.3	127.5	134.1	144.1	145.9	148.4	160.9	182.5	181.5	172.8	180.1	<i>173.4</i>	<i>178.3</i>
Total Demand	2827.1	2880.1	2885.6	2989.0	3068.7	3157.3	3247.0	3294.0	3425.1	3494.6	3602.9	3542.6	3655.3	<i>3661.3</i>	<i>3732.7</i>

^aElectric Utilities and independent power producers.

^b"Other" includes generation from other gaseous fuels, wind, wood, waste, and solar sources.

^cElectricity generation from combined heat and power facilities and electricity-only plants in the industrial and commercial sectors.

^dData for 2002 are estimates.

^eBalancing item, mainly transmission and distribution losses.

^fTotal 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 2002 are estimated.

^gDefined as the sum of facility use of onsite net electricity generation plus direct sales of power by industrial- or commercial-sector generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2002 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.