

## Short-Term Energy Outlook

November 2004

### Winter Fuels Update (Figure 1)

Higher oil prices in this *Outlook* raised our projections for heating oil and propane prices and [household heating fuel expenditures](#) this winter. Heating oil expenditures by typical Northeastern households are now expected to average about 37 percent above last winter's levels (compared to our previous projection of a 28-percent increase), with average residential prices averaging \$1.88 per gallon for the October-to-March period. Propane-heated households can expect to see increased expenditures of about 26 percent this winter (compared with a 22-percent increase projected last month). Expected increases in expenditures for natural gas-heated households remain the same as last month at about 15 percent.

### Crude Oil and Petroleum Products (Figures 2 to 8)

U.S. spot prices for crude oil ([West Texas Intermediate \(WTI\)](#)) have ranged from under \$49 per barrel to over \$56 per barrel in the last 3 weeks. The projected average WTI price for the fourth quarter of 2004 is just over \$51 per barrel, about \$20 per barrel higher than the price in the fourth quarter of 2003 and about \$5 per barrel above the projection for the fourth quarter provided in the previous *Outlook*.

WTI prices moved up sharply in October in part because of production losses in the Gulf of Mexico due to the effects of Hurricane Ivan. According to the Minerals Management Service, in early October about 500,000 barrels per day of Gulf oil output was shut in; this situation improved to about 200,000 barrels per day in early November. Considering the strong demand growth seen this year and expected in 2005, [U.S. oil inventories](#) and [inventories in the other industrialized countries](#) remain relatively low compared to historical standards. Given this, together with limited prospects for large increases in production from outside the Organization of Petroleum Exporting Countries (OPEC) in the near term, oil prices are expected to remain elevated in the mid- to high-\$40s range through 2005, even though OPEC crude oil production remains high at about 30

million barrels per day. OPEC production capacity (and, thus, world oil production capacity) remains about 0.5-1.0 million barrels per day above current output levels, an implied global utilization rate of about 99 percent.

World petroleum demand growth for 2004 has been revised upwards again to 2.8 million barrels per day over 2003 levels, reflecting 3.5-percent growth over 2003, an increase of about 200,000 barrels per day from the last *Outlook*. Global oil demand growth is expected to slow to 2.4 percent in 2005 as global economic growth slows toward more sustainable rates, influenced in part by high world oil prices.

U.S. petroleum demand is projected to average 20.4 million barrels per day this year, up 2.0 percent from last year. In 2005, demand growth is projected to slow to 1.0 percent as a result of moderation in economic growth and continued high energy prices. Motor gasoline growth is expected to be 1.3 percent in 2004 and 1.7 percent in 2005. Following three years of decline, jet fuel demand is expected to increase once again, with growth averaging 2.7 percent in 2004 and 2005. Distillate consumption is projected to show moderate growth of 2.2 percent, buoyed by 3.1-percent average growth in transportation diesel.

Since the third week of June, the U.S. monthly average pump price for regular gasoline ranged from the upper \$1.80's to the low \$2.00's per gallon. On November 8, 2004, the average price was \$2.00 per gallon. Motor gasoline prices are expected to average \$1.98 per gallon in the fourth quarter of this year compared to \$1.89 per gallon projected in the previous *Outlook*. Spot prices for gasoline have eased since their mid-October peak in response to lower crude oil costs and higher gasoline inventories (which moved toward the upper end of their normal range by the end of October). Still, relatively high current and projected crude oil costs suggest that large reductions in average gasoline prices are unlikely anytime soon. In fact, gasoline prices are likely to gain 10-15 cents per gallon by the spring of 2005.

### Natural Gas (Figures 9 to 10)

Natural gas prices increased in September and October in response to natural gas production losses in the Gulf of Mexico caused by Hurricane Ivan. The average spot price for natural gas at the Henry Hub for the month of September was \$5.15 per thousand cubic feet (mcf) and \$6.54 per mcf in October. Henry Hub prices are expected to average \$6.18 per mcf in 2004 and \$6.33 per mcf in 2005.

Working gas in storage is estimated to have reached its highest level since 1991 at 3,305 billion cubic feet. This is 6 percent higher than year-ago and 9 percent higher than the five-year average. Despite the high storage level, spot prices have risen significantly now that the heating season is under way.

With continuing high rates of drilling for natural gas in North America, 2005 domestic production is projected to grow by 1.6 percent. A portion of that expected growth comes from assuming no hurricane-related disruptions in 2005 to match the production losses from Hurricane Ivan in 2004. Steady, if modest, increases in liquefied natural gas imports, restrained export growth, and carryover from the robust storage levels noted above are expected to contribute to moderate improvement in the supply picture through 2005.

### Electricity and Coal Outlook (Figures 11 to 13)

Electricity demand is expected to increase by 1.9 percent this year and by another 2.4 percent in 2005. Projected electricity demand in the fourth quarter of 2004 is 2.9 percent above the prior-year level, when heating-related demand was depressed by comparatively mild weather conditions.

Coal demand in the electric power sector is expected to show steady gains of 0.4 percent this year and 2.4 percent next year. Despite higher spot prices for coal, power sector demand for coal continues to increase as oil and gas prices remain high and hydroelectric power availability remains low in 2004. U.S. coal production is expected to grow by 3.7 percent in 2004 and by another 2.3 percent in 2005.

# Figure 1. Illustrative Residential Heating Fuel Bills

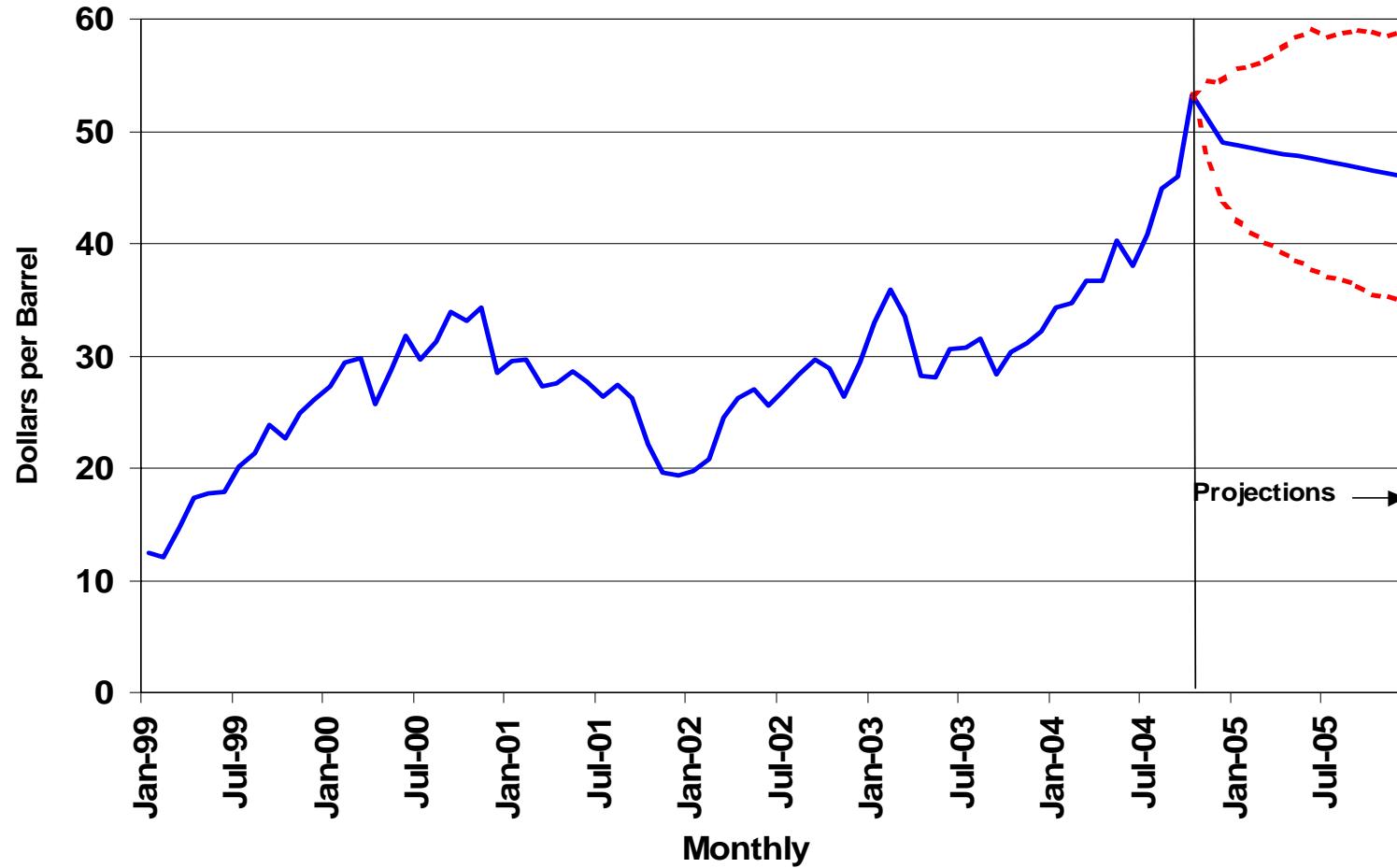
**Table WF1: Selected Average Consumer Prices and Expenditures for Heating Fuels During the Winter**

	Average 1998-2000	Actual 2001-2002	Actual 2002-2003	Actual 2003-2004	Projections 2004-2005	% Change
<b>Natural Gas (Midwest)</b>						
Consumption (mcf*)	88.8	81.3	94.9	89.1	91.6	2.8
Avg. Price (\$/mcf)	7.61	7.41	8.40	9.77	10.95	12.1
Expenditures (\$)	676	602	797	870	1003	15.3
<b>Heating Oil (Northeast)</b>						
Consumption (gallons)	673	577	743	700	697	-0.5
Avg. Price (\$/gallon)	1.12	1.10	1.34	1.36	1.88	38.0
Expenditures (\$)	754	637	995	953	1309	37.4
<b>Propane (Midwest)</b>						
Consumption (gallons)	877	803	940	882	907	2.8
Avg. Price (\$/gallon)	1.10	1.11	1.20	1.30	1.59	22.4
Expenditures (\$)	965	888	1124	1147	1443	25.8

Consumption based on typical per household use for regions noted. Prices are retail national averages.

\*thousand cubic feet.

## Figure 2. West Texas Intermediate Crude Oil Price (Base Case and 95% Confidence Interval\*)

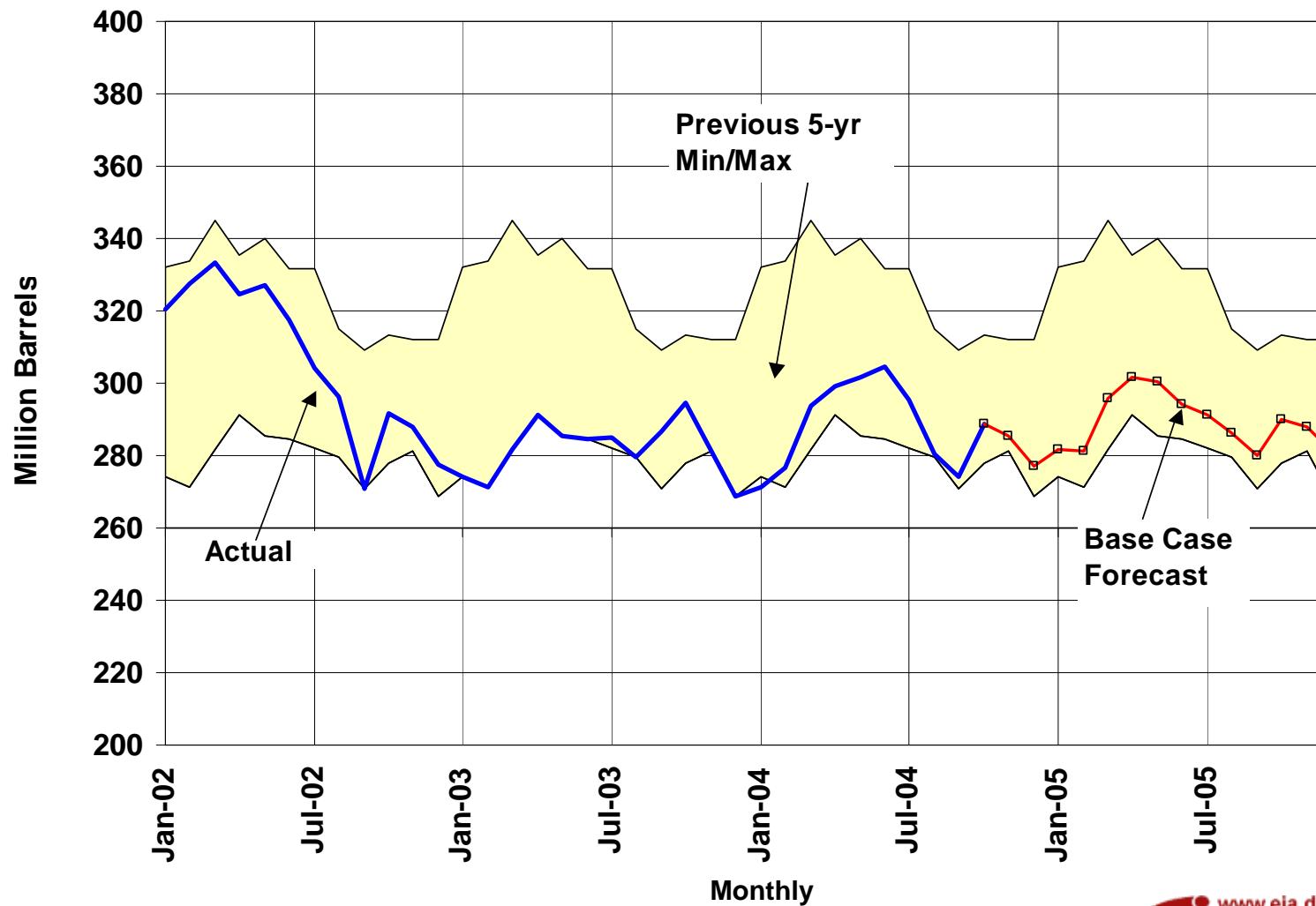


\*The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

Short-Term Energy Outlook, November 2004

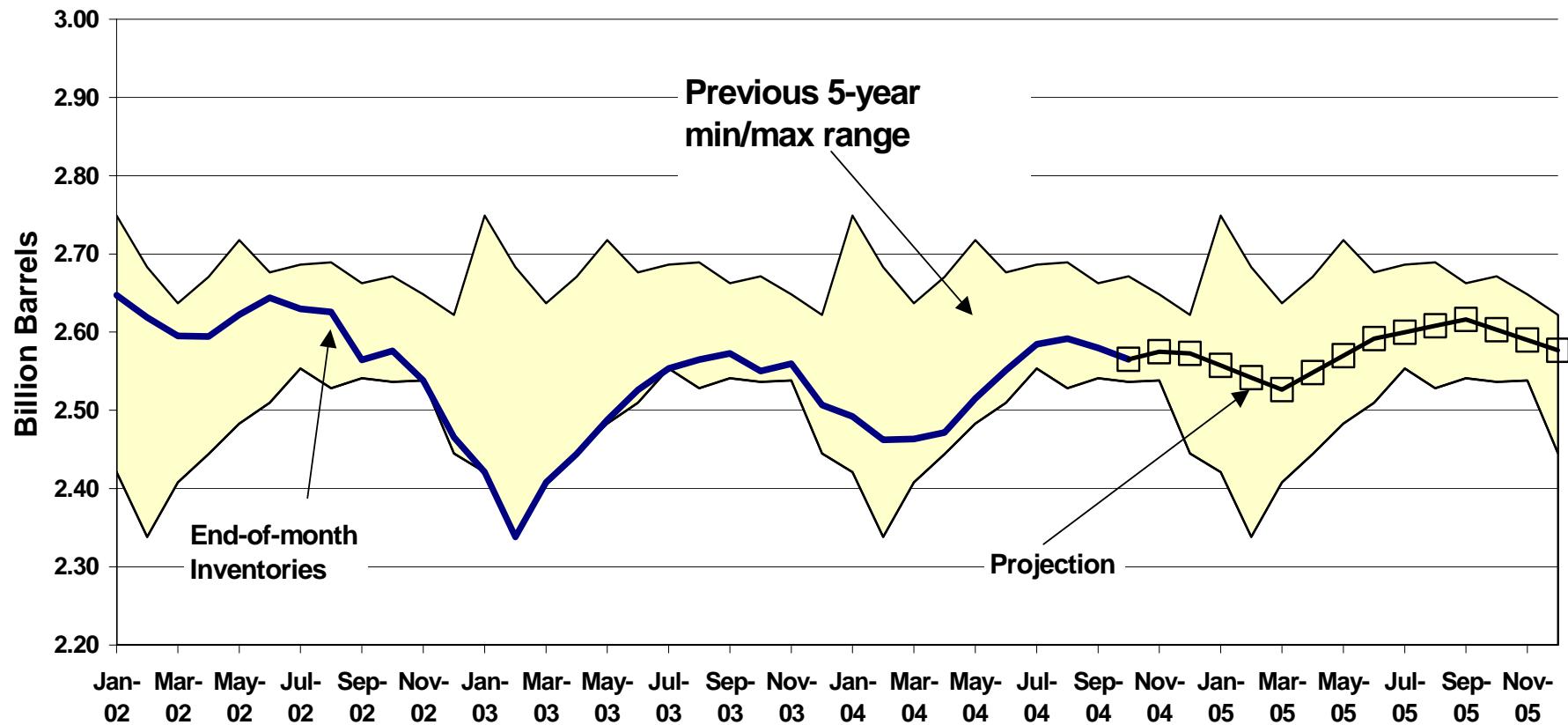


## Figure 3. U.S. Crude Oil Stocks (min/max)



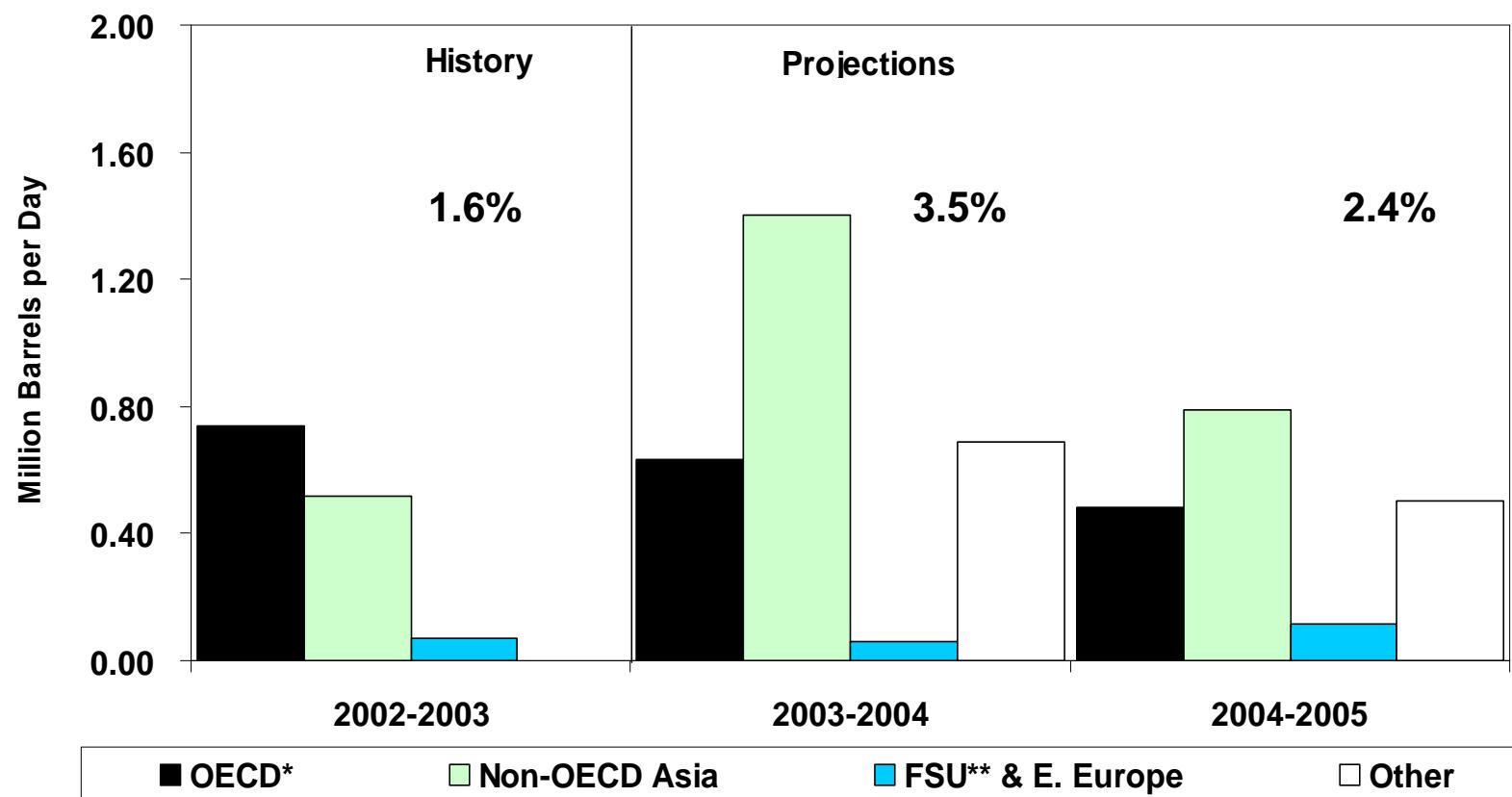
Short-Term Energy Outlook, November 2004

## Figure 4. OECD\* Commercial Oil Stocks



\*Organization for Economic Cooperation and Development  
Short-Term Energy Outlook, November 2004

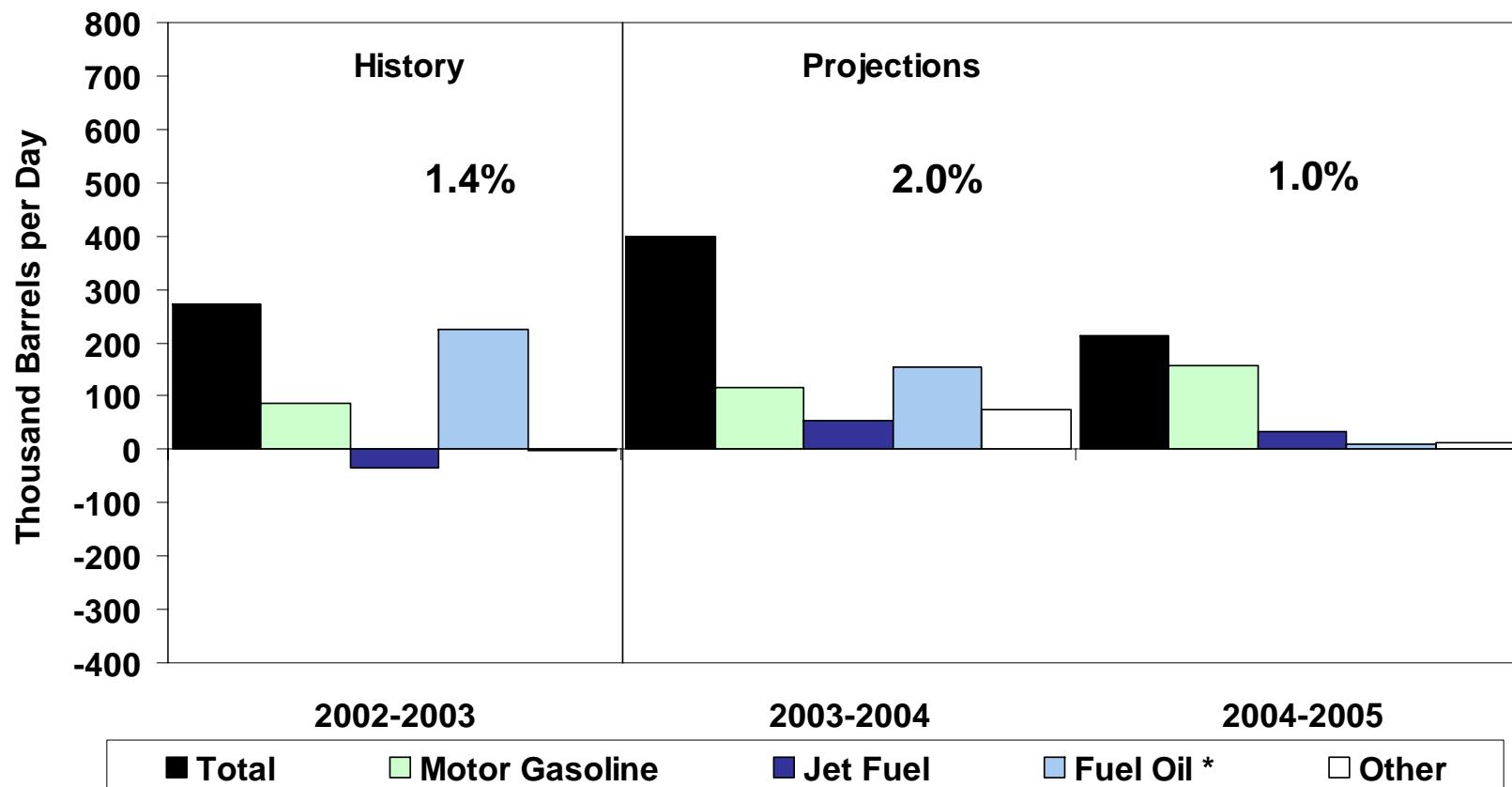
## Figure 5. World Oil Demand Growth (Change from Year Ago)



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

\*\* FSU = Former Soviet Union

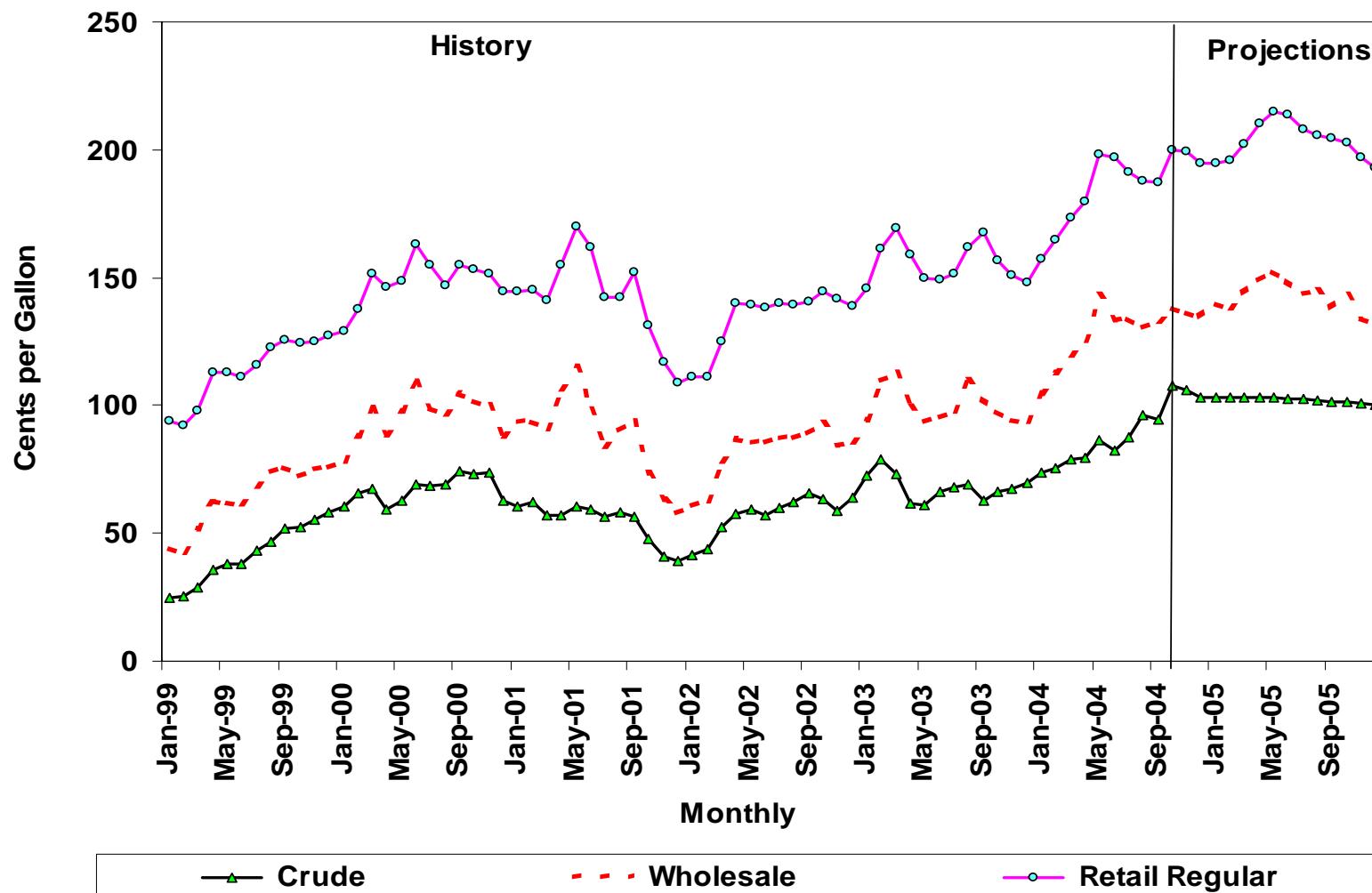
## Figure 6. U.S. Petroleum Products Demand Growth (Change from Year Ago)



\* Sum of distillate and residual fuel.

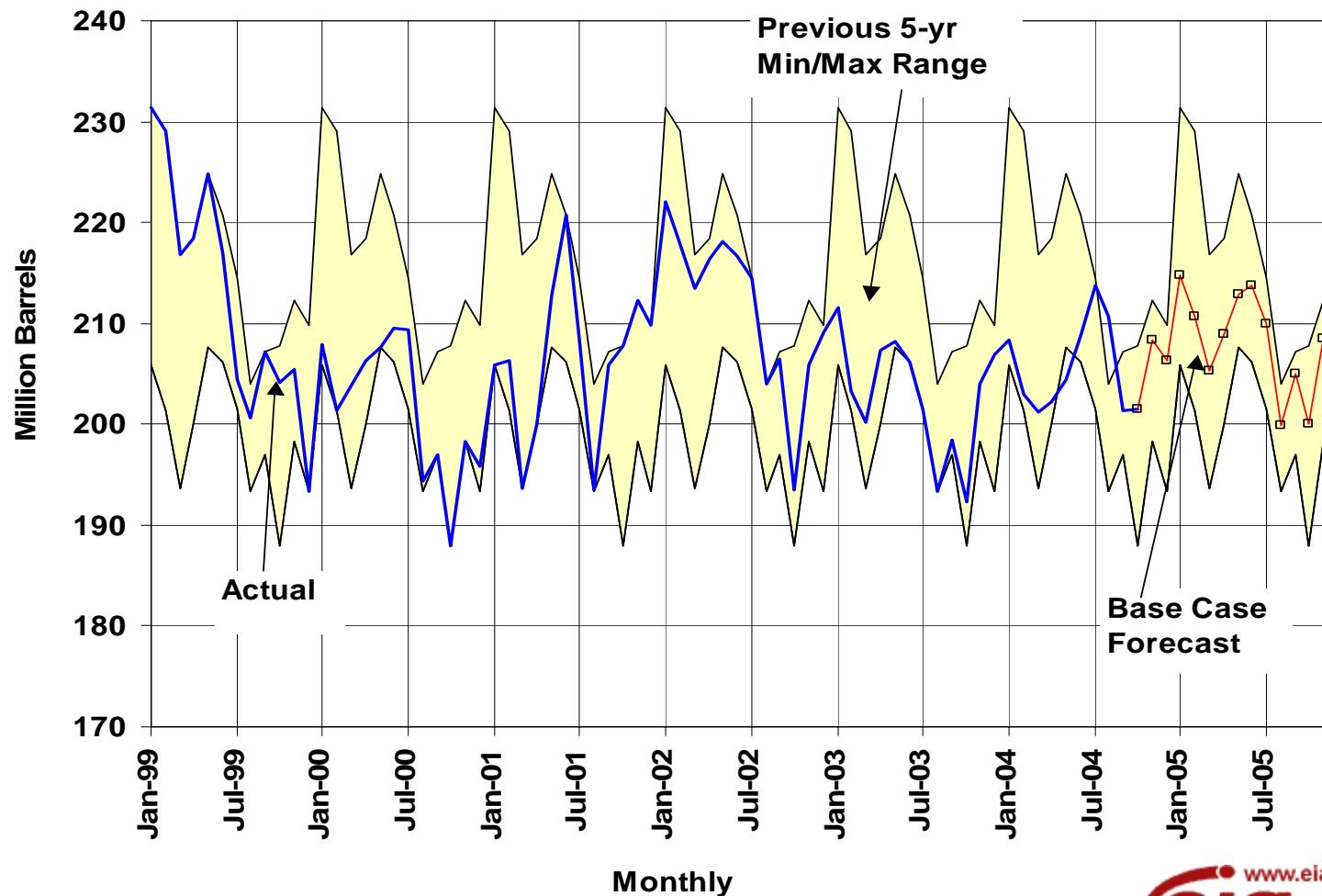


## Figure 7. Gasoline Prices and Crude Oil Costs



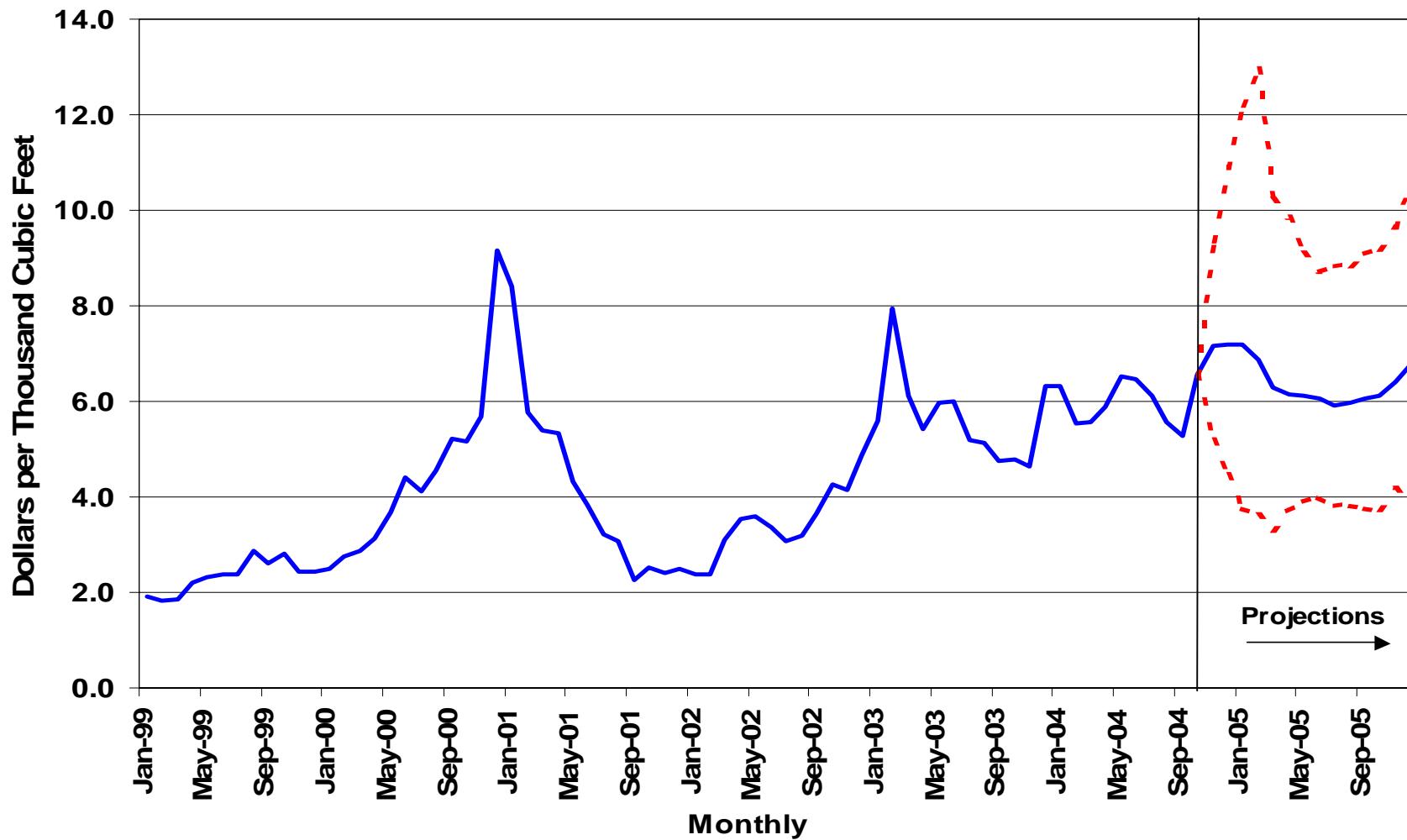
Short-Term Energy Outlook, November 2004

## Figure 8. U.S. Gasoline Inventories



Short-Term Energy Outlook, November 2004

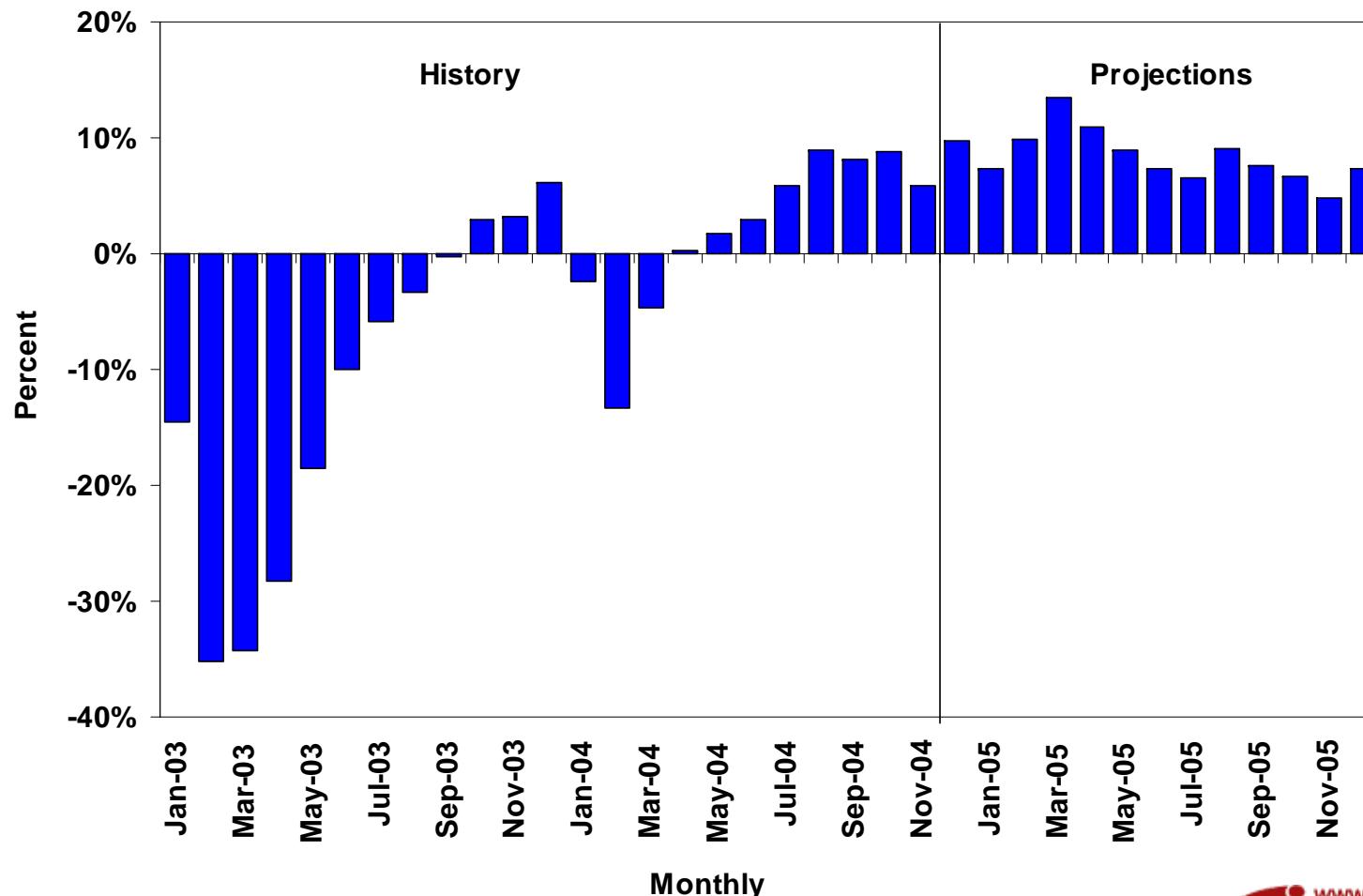
## Figure 9. U.S. Natural Gas Spot Prices (Base Case and 95% Confidence Interval\*)



\*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.

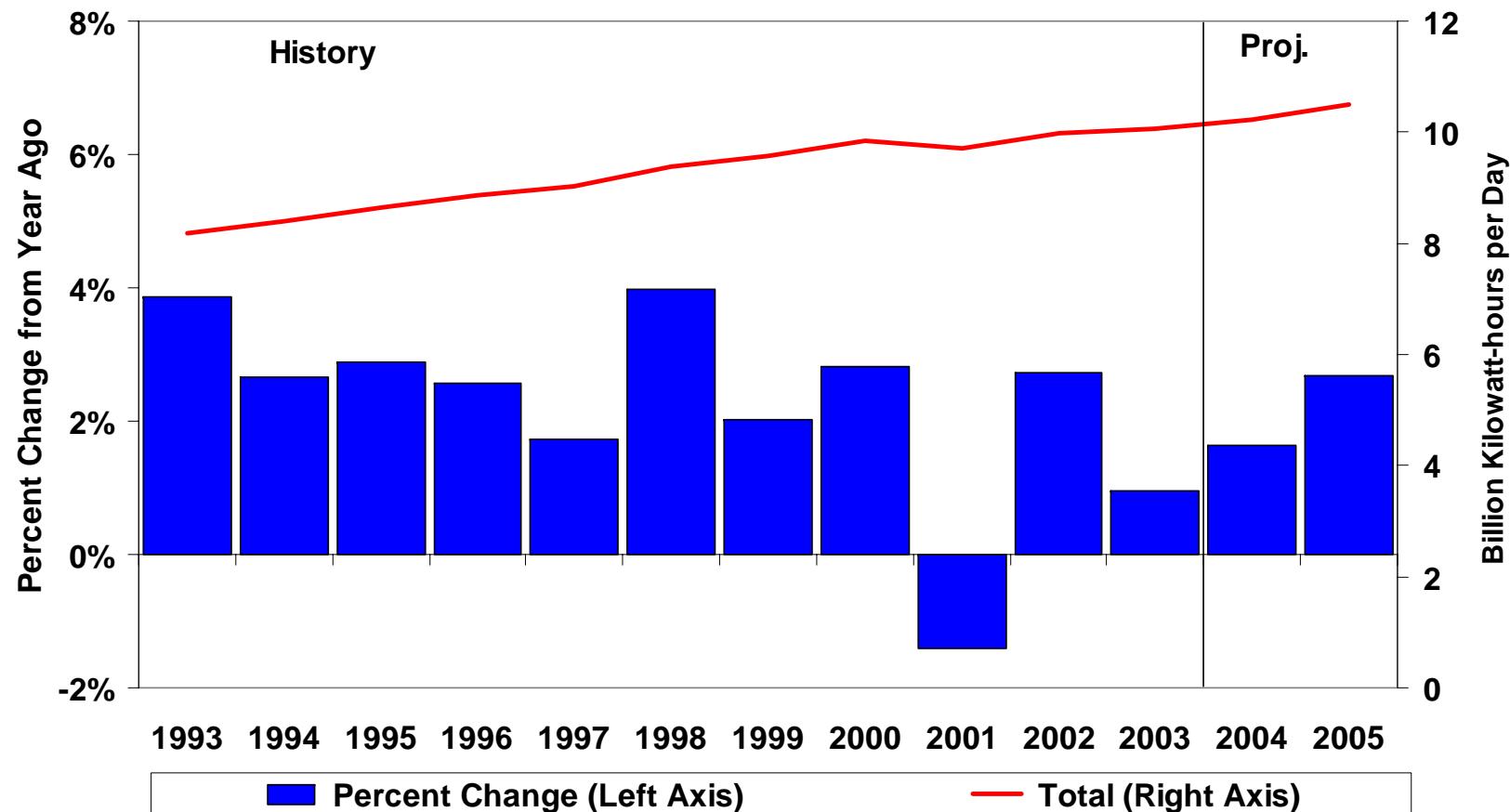
Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, November 2004.

## Figure 10. U.S. Working Gas in Storage (Percent Difference from Previous 5-Year Average)



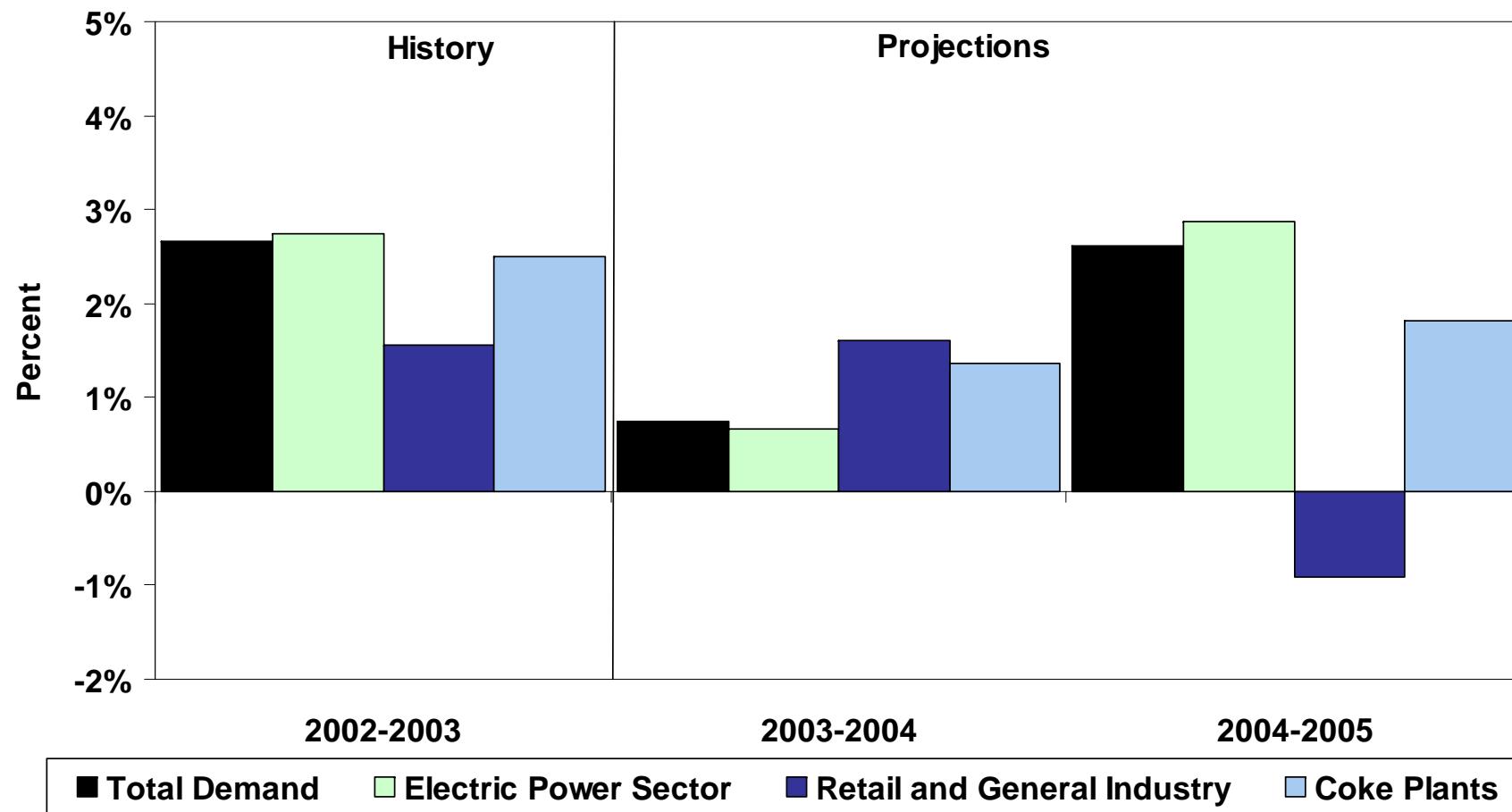
Short-Term Energy Outlook, November 2004

## Figure 11. Total U.S. Electricity Demand Growth Patterns



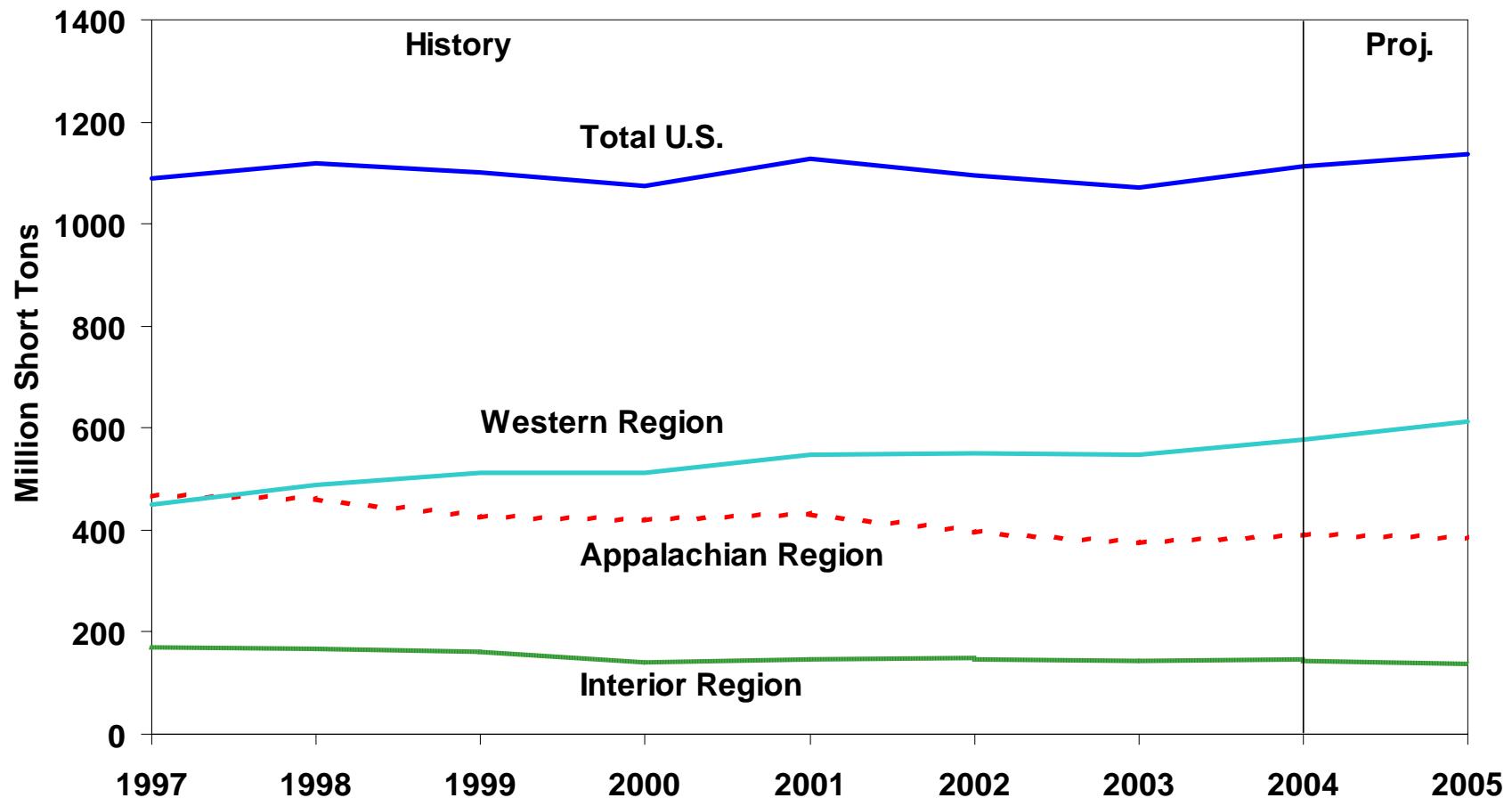
Short-Term Energy Outlook, November 2004

## Figure 12. U.S. Coal Demand (Percent Change from Year Ago)



Short-Term Energy Outlook, November 2004

## Figure 13. U.S. Coal Production

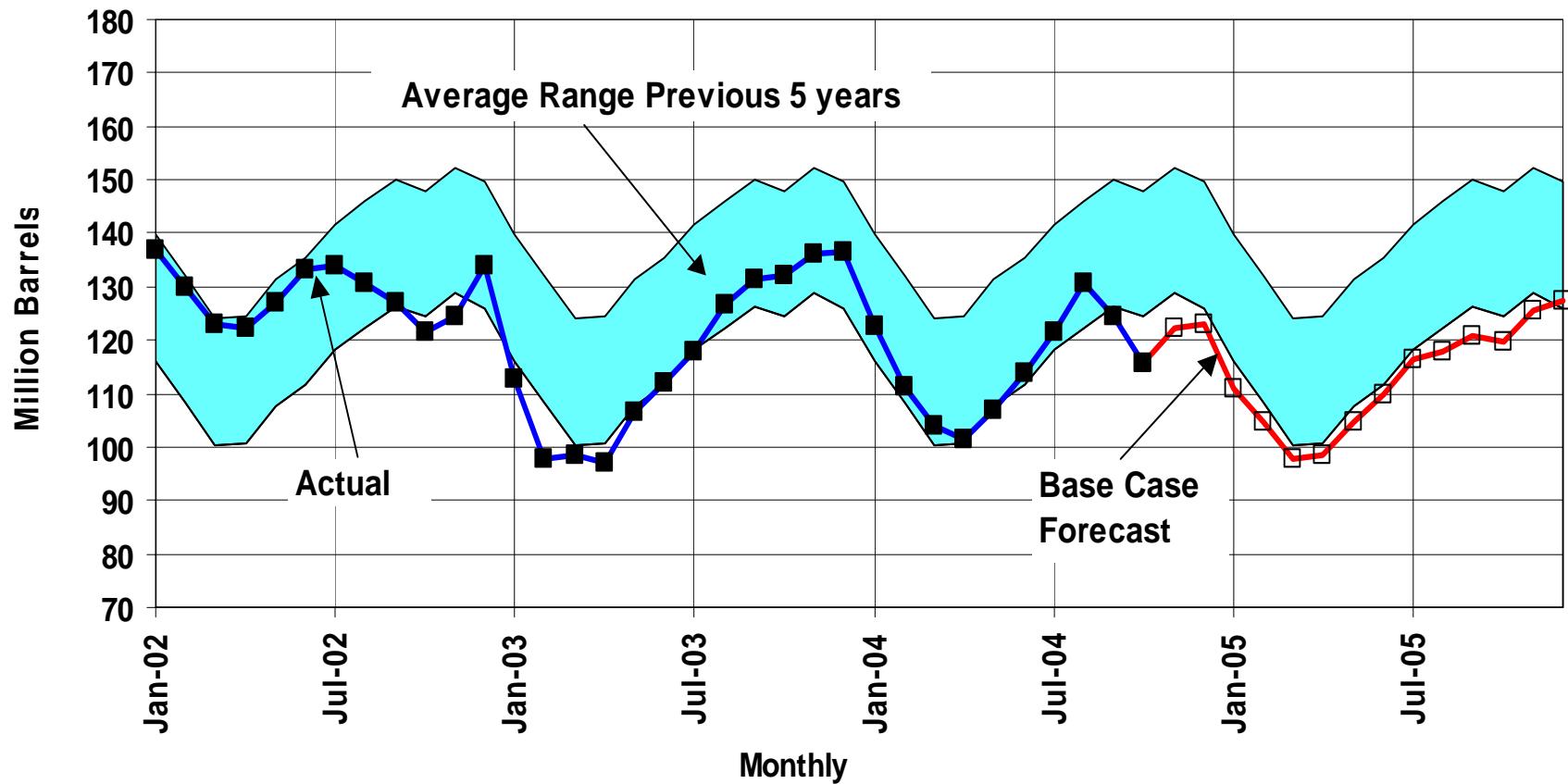


Short-Term Energy Outlook, November 2004



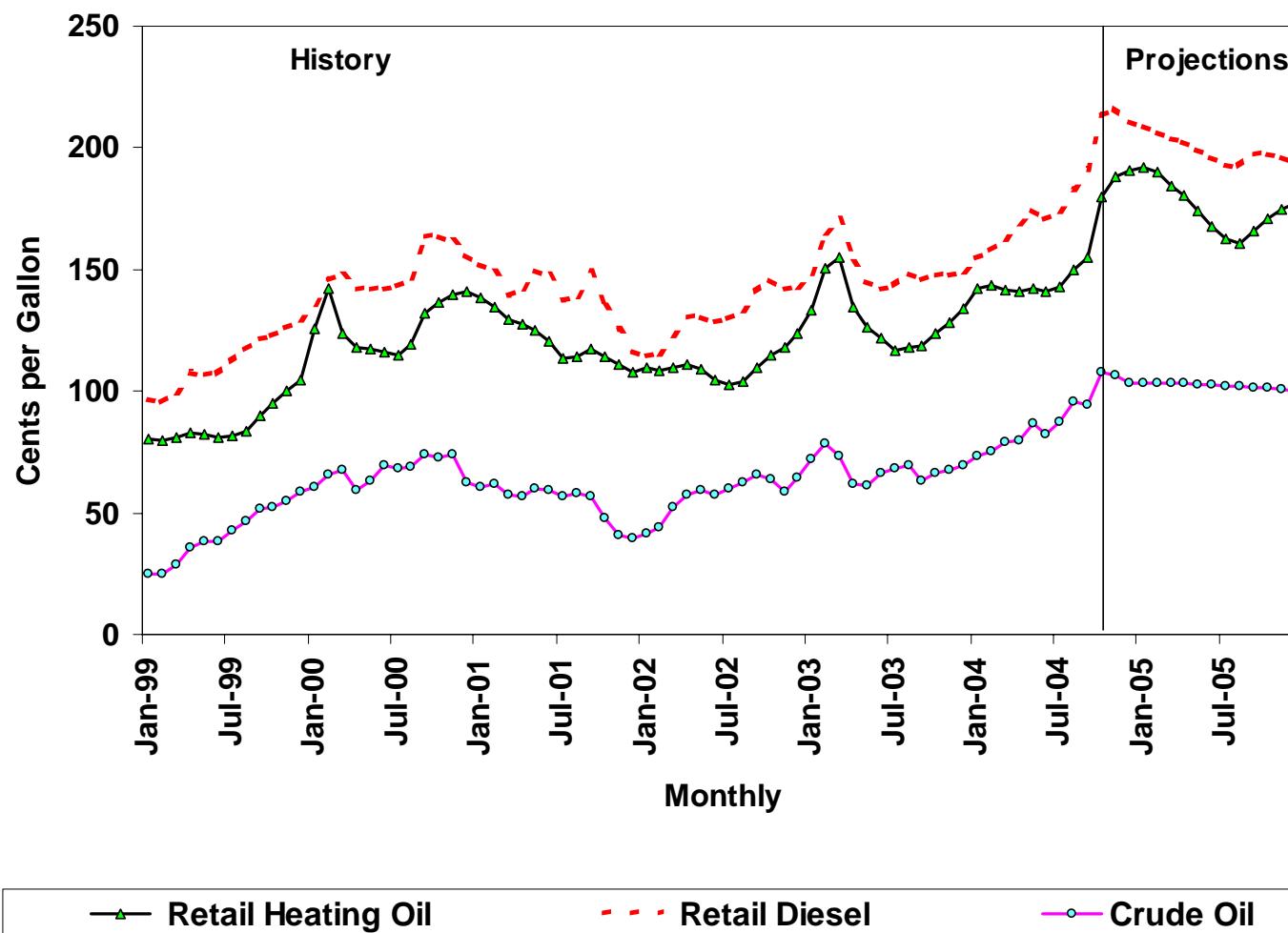
# **Additional Charts**

## Figure 14. U.S. Distillate Fuel Oil Inventories



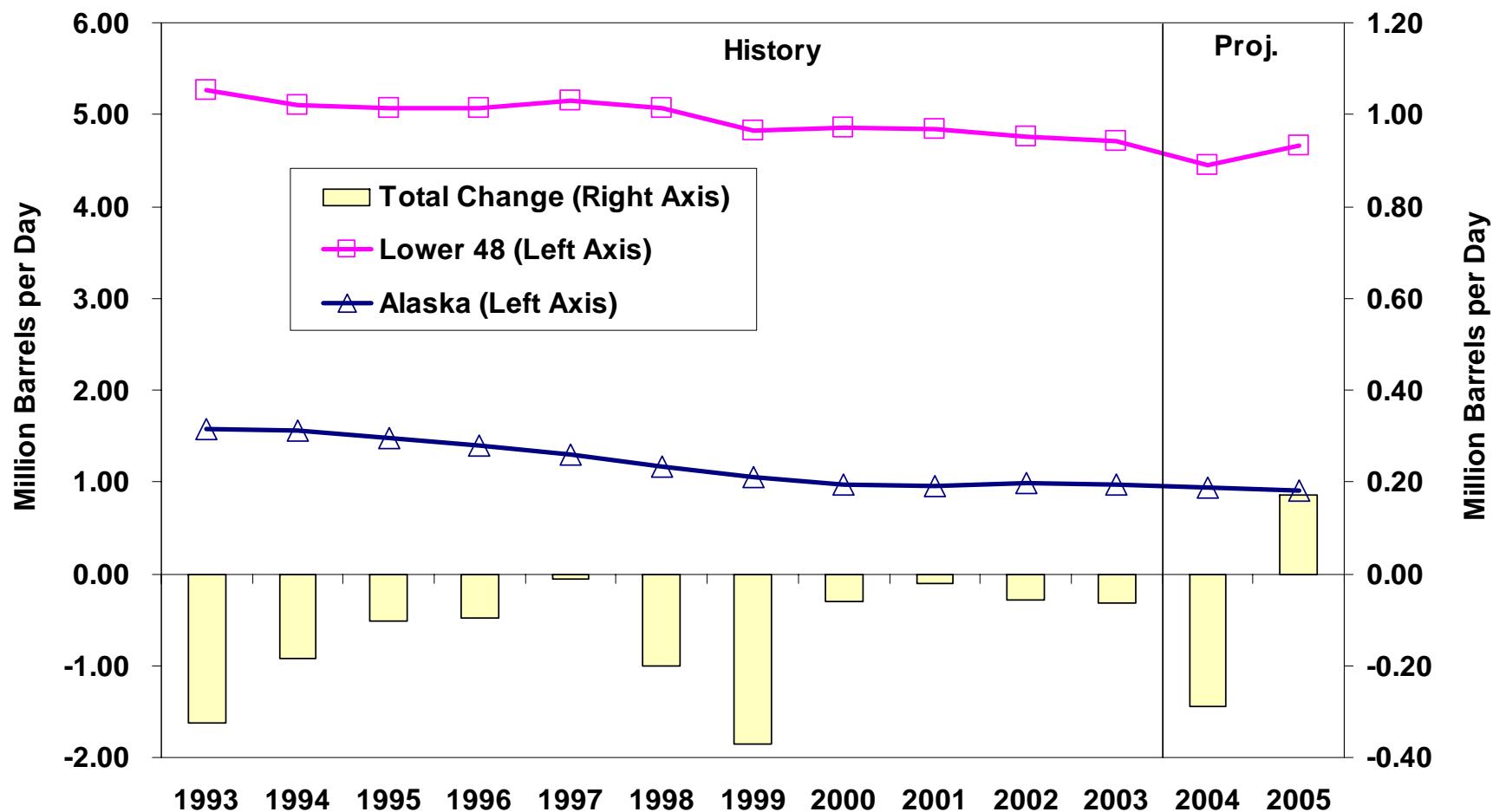
Short-Term Energy Outlook, November 2004

## Figure 15. U.S. Distillate Fuel Prices



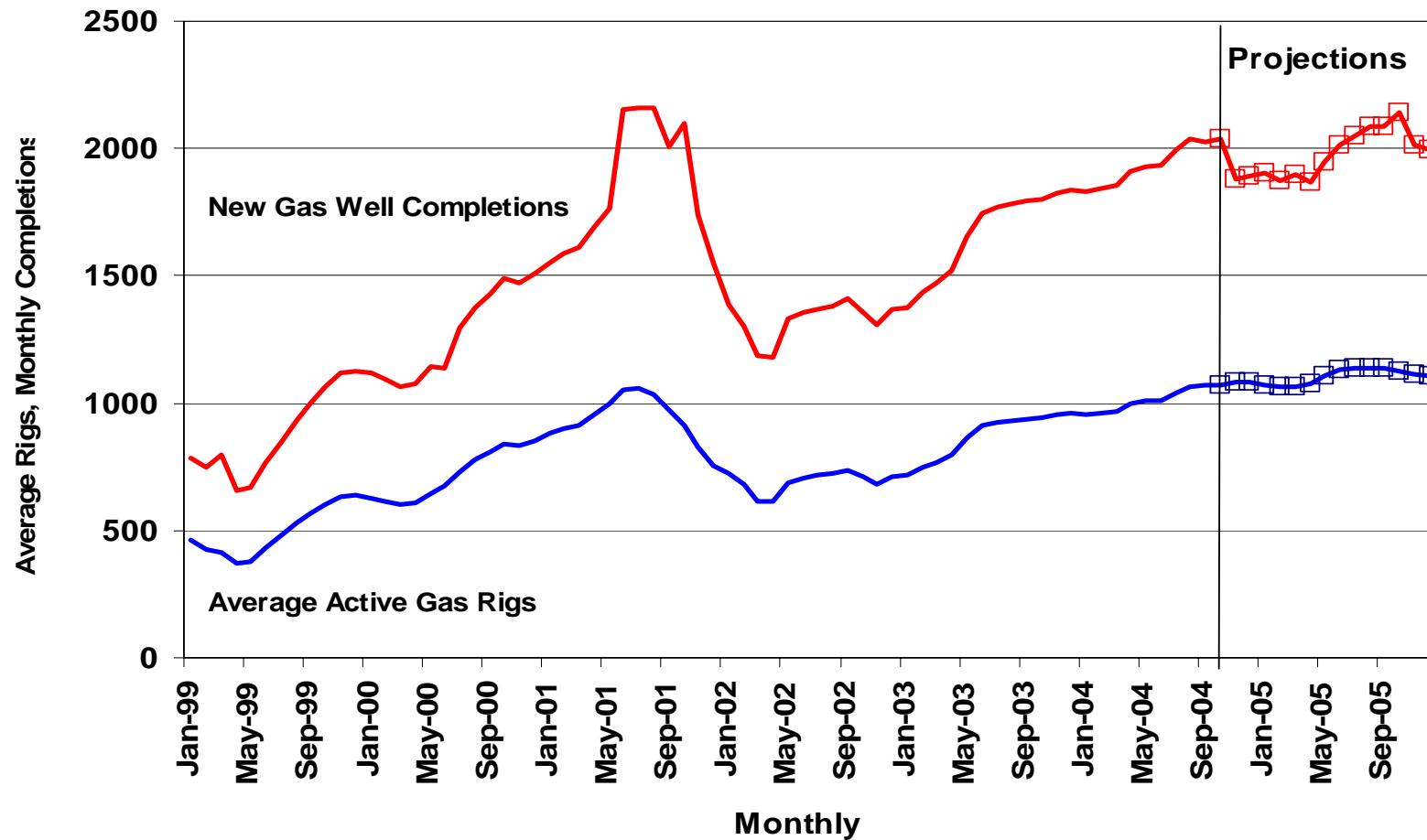
Short-Term Energy Outlook, November 2004

## Figure 16. U.S. Crude Oil Production Trends



Short-Term Energy Outlook, November 2004

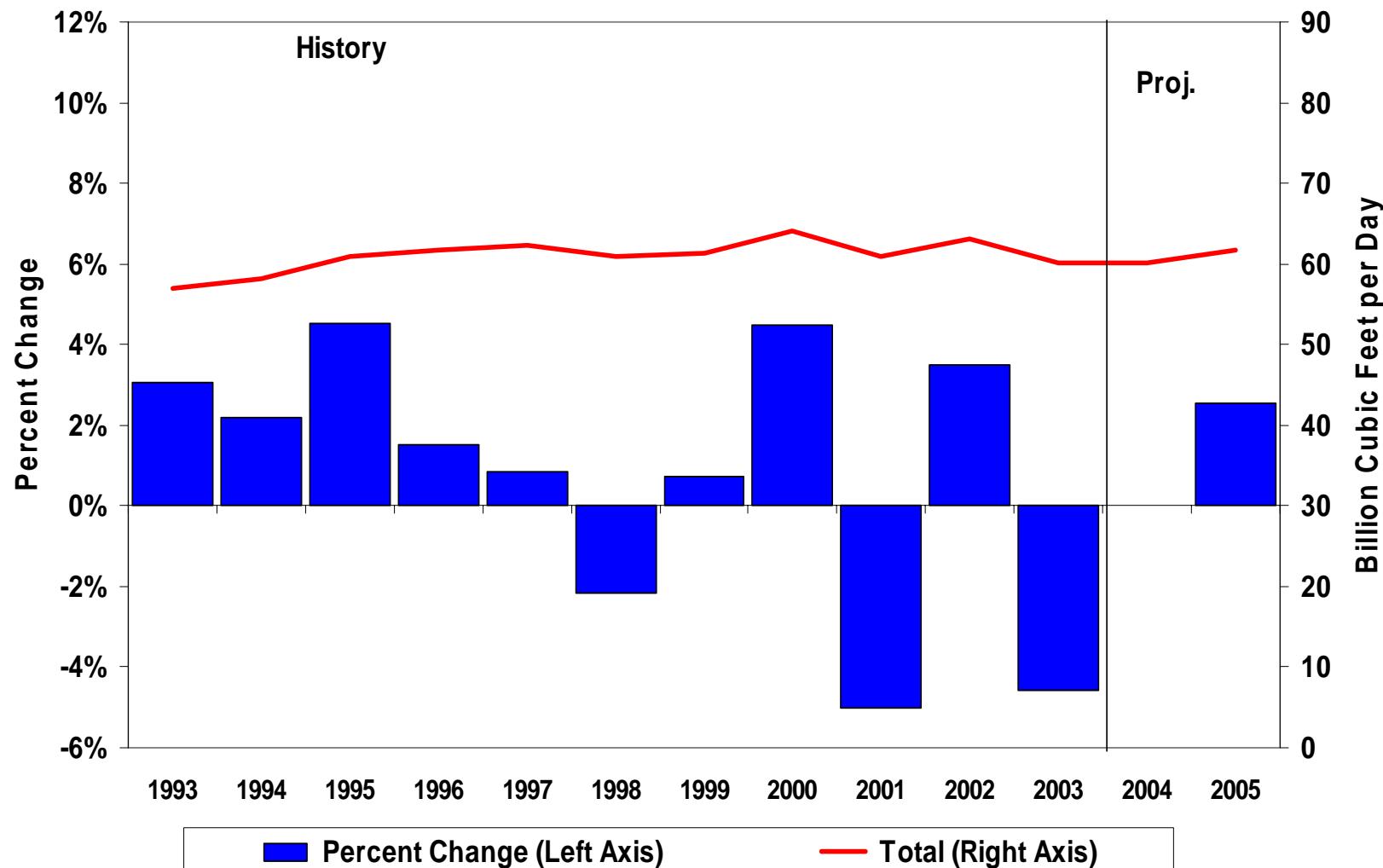
## Figure 17. U.S. Natural Gas-Directed Drilling Activity



Short-Term Energy Outlook, November 2004



## Figure 18. Total U.S. Natural Gas Demand Growth Patterns



Short-Term Energy Outlook, November 2004

## DRAFT

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

	Year				Annual Percentage Change		
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
<b>Real Gross Domestic Product (GDP)</b>							
(billion chained 2000 dollars) .....	<b>10075</b>	<b>10381</b>	10837	11166	<b>3.0</b>	4.4	3.0
Imported Crude Oil Price <sup>a</sup>							
(nominal dollars per barrel) .....	<b>23.71</b>	<b>27.74</b>	36.75	42.18	<b>17.0</b>	32.4	14.8
<b>Petroleum Supply</b> (million barrels per day)							
Crude Oil Production <sup>b</sup> .....	<b>5.75</b>	<b>5.68</b>	5.39	5.56	<b>-1.1</b>	-5.1	3.2
Total Petroleum Net Imports( Million Barrels per Day)							
(including SPR) .....	<b>10.54</b>	<b>11.24</b>	11.75	11.84	<b>6.6</b>	4.6	0.7
<b>Energy Demand</b>							
World Petroleum							
(million barrels per day) .....	78.4	<b>79.7</b>	82.5	84.5	<b>1.6</b>	3.5	2.4
Petroleum							
(million barrels per day) .....	<b>19.76</b>	<b>20.03</b>	20.43	20.64	<b>1.4</b>	2.0	1.0
Natural Gas							
(trillion cubic feet) .....	<b>23.00</b>	<b>21.95</b>	22.01	22.51	<b>-4.6</b>	0.3	2.3
Coal <sup>c</sup>							
(million short tons) .....	<b>1066</b>	<b>1095</b>	1103	1132	<b>2.7</b>	0.7	2.6
Electricity (billion kilowatthours)							
Retail Sales <sup>d</sup> .....	<b>3463</b>	<b>3500</b>	3565	3652	<b>1.1</b>	1.9	2.4
Other Use/Sales <sup>e</sup> .....	<b>177</b>	<b>174</b>	179	181	<b>-1.7</b>	3.1	1.3
Total .....	<b>3639</b>	<b>3674</b>	3744	3833	<b>0.9</b>	1.9	2.4
Total Energy Demand <sup>f</sup>							
(quadrillion Btu) .....	<b>97.4</b>	<b>97.5</b>	98.4	100.4	<b>0.1</b>	1.0	2.1
Total Energy Demand per Dollar of GDP							
(thousand Btu per 2000 Dollar) .....	<b>9.66</b>	<b>9.39</b>	9.08	8.99	<b>-2.8</b>	-3.3	-0.9
Renewable Energy as Percent of Total <sup>g</sup>	<b>6.4%</b>	<b>6.4%</b>	6.6%	6.7%			

<sup>a</sup>Refers to the refiner acquisition cost (RAC) of imported crude oil.<sup>b</sup>Includes lease condensate.<sup>c</sup>Total Demand includes estimated Independent Power Producer (IPP) coal consumption.<sup>d</sup>Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in Energy Information Administration (EIA) *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 2003 are estimates.<sup>e</sup>Defined 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 2003 are estimates.<sup>f</sup>The conversion from physical units to Btu is calculated by using a subset of conversion factors used in the calculations performed for gross energy consumption in EIA's *MER*. Consequently, the historical data may not precisely match those published in the *MER* or the *Annual Energy Review (AER)*.<sup>g</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. EIA 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; estimates and 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 Model of the US Economy, October 2004.

## DRAFT

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Macroeconomic<sup>a</sup></b>															
Real Gross Domestic Product (billion chained 2000 dollars - SAAR).....	10184	10287	10473	10581	10698	10785	10893	10975	11053	11136	11206	11269	10381	10837	11166
Percentage Change from Prior Year .....	1.9	2.3	3.5	4.4	5.0	4.8	4.0	3.7	3.3	3.3	2.9	2.7	3.0	4.4	3.0
Annualized Percent Change from Prior Quarter .....	1.9	4.1	7.4	4.2	4.5	3.3	4.1	3.0	2.9	3.1	2.5	2.3			
GDP Implicit Price Deflator (Index, 2000=100) .....	105.5	105.8	106.2	106.6	107.3	108.2	108.5	108.9	109.5	110.1	110.7	111.3	106.0	108.2	110.4
Percentage Change from Prior Year .....	2.0	1.9	1.8	1.7	1.7	2.3	2.2	2.2	2.1	1.8	2.0	2.2	1.8	2.1	2.0
Real Disposable Personal Income (billion chained 2000 Dollars - SAAR) ....	7591	7671	7823	7850	7897	7944	7983	8119	8090	8148	8193	8231	7734	7986	8166
Percentage Change from Prior Year .....	0.7	1.1	3.5	3.9	4.0	3.6	2.0	3.4	2.4	2.6	2.6	1.4	2.3	3.3	2.3
Manufacturing Production (Index, 1997=100.0) .....	112.3	111.3	112.5	114.2	116.0	117.8	119.5	120.3	121.5	122.2	122.9	123.5	112.6	118.4	122.5
Percentage Change from Prior Year .....	0.6	-1.3	-0.6	1.7	3.2	5.8	6.2	5.3	4.7	3.7	2.9	2.7	0.1	5.1	3.5
OECD Economic Growth (percent) <sup>b</sup> .....													2.1	3.4	3.1
<b>Weather<sup>c</sup></b>															
Heating Degree-Days															
U.S. ....	2320	550	70	1522	2229	438	63	1590	2285	536	107	1634	4463	4320	4562
New England .....	3523	1045	100	2179	3396	840	130	2250	3273	930	195	2278	6847	6616	6676
Middle Atlantic .....	3218	844	79	1956	3100	591	37	2030	3011	743	125	2048	6097	5758	5927
U.S. Gas-Weighted .....	2500	608	77	1642	2397	485	74	1713	2439	592	122	1756	4827	4669	4909
Cooling Degree-Days (U.S.).....	36	328	829	89	40	373	738	90	31	351	779	77	1282	1242	1238

<sup>a</sup>Macroeconomic projections from Global Insight model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

<sup>b</sup>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.

<sup>c</sup>Population-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 population.

SAAR: Seasonally-adjusted annualized rate.

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

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 Model of US Economy, October 2004.

## DRAFT

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Macroeconomic<sup>a</sup></b>															
Real Fixed Investment (billion chained 2000 dollars-SAAR) .....	1553	1593	1661	1703	1721	1778	1822	1860	1850	1863	<b>1868</b>	1870	1627	1795	1863
Real Exchange Rate (index) .....	0.967	0.923	0.922	0.874	0.851	0.877	0.859	0.840	0.827	0.826	<b>0.828</b>	0.829	0.921	0.857	0.827
Business Inventory Change (billion chained 2000 dollars-SAAR) .....	-12.2	-15.1	-20.4	-13.1	3.0	9.1	8.9	8.2	12.3	7.2	<b>4.3</b>	4.3	-15.2	7.3	7.0
Producer Price Index (index, 1982=1.000) .....	1.379	1.368	1.379	1.399	1.420	1.458	1.478	1.507	1.513	1.516	<b>1.520</b>	1.524	1.381	1.466	1.518
Consumer Price Index (index, 1982-1984=1.000) .....	1.831	1.834	1.845	1.848	1.864	1.886	1.896	1.913	1.926	1.936	<b>1.946</b>	1.956	1.840	1.890	1.941
Petroleum Product Price Index (index, 1982=1.000) .....	1.074	0.920	0.976	0.936	1.051	1.177	1.233	1.321	1.328	1.354	<b>1.309</b>	1.288	0.977	1.196	1.320
Non-Farm Employment (millions) .....	130.0	129.9	129.8	130.0	130.4	131.1	131.5	132.0	132.6	133.2	<b>133.6</b>	133.9	129.9	131.2	133.3
Commercial Employment (millions) .....	91.5	91.6	91.7	91.9	92.3	93.0	93.3	93.7	94.2	94.7	<b>95.1</b>	95.4	91.7	93.1	94.8
Total Industrial Production (index, 1997=100.0) .....	111.2	110.0	111.1	112.6	114.4	115.8	116.8	118.0	119.2	119.6	<b>120.0</b>	120.3	111.2	116.3	119.8
Housing Stock (millions) .....	116.6	116.9	117.2	117.5	117.9	118.0	118.2	118.6	119.0	119.3	<b>119.7</b>	120.0	117.1	118.2	119.5
<b>Miscellaneous</b>															
Gas Weighted Industrial Production (index, 1997=100.0) .....	100.0	99.0	99.5	101.4	102.2	103.4	105.0	105.7	105.8	106.1	<b>106.3</b>	106.6	100.0	104.0	106.2
Vehicle Miles Traveled <sup>b</sup> (million miles/day) .....	7285	8163	8226	7874	7412	8260	8345	7914	7559	8357	<b>8450</b>	8103	7890	7984	8119
Vehicle Fuel Efficiency (index, 1999=1.000) .....	0.990	1.047	1.037	1.010	0.976	1.043	1.048	1.012	0.979	1.042	<b>1.038</b>	1.020	1.021	1.020	1.020
Real Vehicle Fuel Cost (cents per mile) .....	4.36	3.96	4.18	4.07	4.53	4.84	4.80	5.06	5.20	5.22	<b>5.05</b>	4.91	4.14	4.81	5.10
Air Travel Capacity (mill. available ton-miles/day) .....	478.2	472.1	484.5	495.4	475.3	502.8	519.9	529.2	521.6	520.4	<b>525.4</b>	531.2	482.6	506.9	524.7
Aircraft Utilization (mill. revenue ton-miles/day) .....	259.0	271.8	279.8	267.7	265.8	304.0	316.1	301.4	295.0	312.7	<b>325.8</b>	313.3	269.6	296.9	311.8
Airline Ticket Price Index (index, 1982-1984=1.000) .....	2.252	2.341	2.378	2.281	2.275	2.317	2.263	2.271	2.330	2.401	<b>2.433</b>	2.392	2.313	2.282	2.389
Raw Steel Production (million tons) .....	25.61	25.52	24.29	22.98	26.32	<b>27.07</b>	27.71	24.80	27.00	27.52	<b>27.48</b>	25.81	98.39	105.90	107.82

<sup>a</sup>Macroeconomic projections from Global Insight model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

<sup>b</sup>Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

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. Macroeconomic projections are based on Global Insight Model of US Economy, October 2004.



## DRAFT

**Table 3a. OPEC Oil Production**

	OPEC 10 Quota		September 2004 Production	Production	October 2004	
	08/01/2004	11/01/2004			Capacity	Surplus Capacity
<b>Algeria</b> .....	830	862	1,250	1,250	1,250	0
<b>Indonesia</b> .....	1,348	1,399	945	940	940	0
<b>Iran</b> .....	3,817	3,964	3,900	3,900	3,900	0
<b>Kuwait</b> .....	2,087	2,167	2,400	2,400	2,400	0
<b>Libya</b> .....	1,392	1,445	1,560	1,560	1,560	0
<b>Nigeria</b> .....	2,142	2,224	2,300	2,300	2,300	0
<b>Qatar</b> .....	674	700	800	800	800	0
<b>Saudi Arabia</b> .....	8,451	8,776	9,500	9,500	10,000 - 10,500	500 - 1,000
<b>United Arab Emirates</b> .....	2,269	2,356	2,500	2,500	2,500	0
<b>Venezuela</b> .....	2,992	3,107	2,500	2,500	2,500	0
<b>OPEC 10</b> .....	26,000	27,000	27,655	27,650	28,150 - 28,650	500 - 1,000
<b>Iraq</b> .....			2,300	2,200	2,200	0
<b>Crude Oil Total</b> .....			29,955	29,850	30,350 - 30,850	500 - 1,000
<b>Other Liquids</b> .....			3,903	3,903		
<b>Total OPEC Supply</b> .....			33,858	33,753		

Notes: Crude oil does not include lease condensate or natural gas liquids. OPEC Quotas are based on crude oil production only. "Capacity" refers to maximum sustainable production capacity, defined as the maximum amount of production that: 1) could be brought online within a period of 30 days; and 2) sustained for at least 90 days. Kuwaiti and Saudi Arabian figures each include half of the production from the Neutral Zone between the two countries. Saudi Arabian production also includes oil produced from its offshore Abu Safa field produced on behalf of Bahrain. The amount of Saudi Arabian spare capacity that can be brought online is shown as a range, because a short delay may be needed to achieve the higher level. The United Arab Emirates (UAE) is a federation of seven emirates. The UAE's OPEC quota applies only to the emirate of Abu Dhabi, which controls the vast majority of the UAE's economic and resource wealth. Venezuelan capacity and production numbers exclude extra heavy crude oil used to make Orimulsion. OPEC: Organization of Petroleum Exporting Countries: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. OPEC 10 refers to all OPEC less Iraq. Iraqi production and exports have not been a part of any recent OPEC agreements. Iraq's current production number in this table is net of re-injection and water cut. Latest estimated gross production is about 2.3 million barrels per day. Other liquids include lease condensate, natural gas liquids, and other liquids including volume gains from refinery processing.

**DRAFT**

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Crude Oil Prices</b> (dollars per barrel)															
Imported Average <sup>a</sup> .....	<b>30.58</b>	<b>25.58</b>	<b>27.37</b>	<b>27.81</b>	<b>31.12</b>	<b>33.97</b>	<b>38.04</b>	<b>43.55</b>	<b>42.60</b>	<b>42.49</b>	<b>42.08</b>	<b>41.54</b>	<b>27.74</b>	36.75	42.18
WTI <sup>b</sup> Spot Average.....	<b>34.10</b>	<b>28.98</b>	<b>30.21</b>	<b>31.19</b>	<b>35.24</b>	<b>38.35</b>	<b>43.87</b>	<b>51.09</b>	<b>48.50</b>	<b>47.75</b>	<b>47.00</b>	<b>46.25</b>	<b>31.12</b>	42.14	47.38
<b>Natural Gas</b> (dollars per thousand cubic feet)															
Average Wellhead.....	<b>5.54</b>	<b>5.01</b>	<b>4.74</b>	<b>4.62</b>	<b>5.22</b>	<b>5.56</b>	<b>5.28</b>	<b>6.31</b>	<b>6.38</b>	<b>5.57</b>	<b>5.46</b>	<b>5.80</b>	<b>4.98</b>	5.59	5.80
Henry Hub Spot.....	<b>6.50</b>	<b>5.80</b>	<b>5.03</b>	<b>5.25</b>	<b>5.81</b>	<b>6.29</b>	<b>5.66</b>	<b>6.97</b>	<b>6.79</b>	<b>6.11</b>	<b>5.98</b>	<b>6.43</b>	<b>5.64</b>	6.18	6.33
<b>Petroleum Products</b>															
Gasoline Retail <sup>c</sup> (dollars per gallon)															
All Grades.....	<b>1.63</b>	<b>1.57</b>	<b>1.64</b>	<b>1.56</b>	<b>1.70</b>	<b>1.96</b>	<b>1.93</b>	<b>2.02</b>	<b>2.02</b>	<b>2.17</b>	<b>2.10</b>	<b>2.02</b>	<b>1.60</b>	1.90	2.08
Regular Unleaded.....	<b>1.59</b>	<b>1.53</b>	<b>1.60</b>	<b>1.52</b>	<b>1.65</b>	<b>1.92</b>	<b>1.89</b>	<b>1.98</b>	<b>1.98</b>	<b>2.13</b>	<b>2.06</b>	<b>1.98</b>	<b>1.56</b>	1.86	2.04
No. 2 Diesel Oil, Retail (dollars per gallon).....	<b>1.62</b>	<b>1.47</b>	<b>1.46</b>	<b>1.48</b>	<b>1.59</b>	<b>1.72</b>	<b>1.83</b>	<b>2.13</b>	<b>2.07</b>	<b>1.99</b>	<b>1.95</b>	<b>1.96</b>	<b>1.51</b>	1.82	1.99
No. 2 Heating Oil, Wholesale (dollars per gallon).....	<b>1.00</b>	<b>0.78</b>	<b>0.80</b>	<b>0.86</b>	<b>0.95</b>	<b>1.00</b>	<b>1.18</b>	<b>1.42</b>	<b>1.36</b>	<b>1.29</b>	<b>1.26</b>	<b>1.29</b>	<b>0.88</b>	1.15	1.30
No. 2 Heating Oil, Retail (dollars per gallon).....	<b>1.45</b>	<b>1.28</b>	<b>1.18</b>	<b>1.29</b>	<b>1.42</b>	<b>1.41</b>	<b>1.50</b>	<b>1.87</b>	<b>1.89</b>	<b>1.74</b>	<b>1.63</b>	<b>1.74</b>	<b>1.32</b>	1.57	1.76
No. 6 Residual Fuel Oil, Retail <sup>d</sup> (dollars per barrel).....	<b>33.72</b>	<b>26.66</b>	<b>28.76</b>	<b>27.82</b>	<b>29.35</b>	<b>30.12</b>	<b>30.67</b>	<b>36.46</b>	<b>36.24</b>	<b>34.84</b>	<b>34.96</b>	<b>35.73</b>	<b>29.41</b>	31.61	35.48
<b>Electric Power Sector</b> (dollars per million Btu)															
Coal.....	<b>1.27</b>	<b>1.29</b>	<b>1.27</b>	<b>1.25</b>	<b>1.30</b>	<b>1.32</b>	<b>1.36</b>	<b>1.34</b>	<b>1.35</b>	<b>1.35</b>	<b>1.33</b>	<b>1.33</b>	<b>1.27</b>	1.33	1.34
Heavy Fuel Oil <sup>e</sup> .....	<b>5.05</b>	<b>4.76</b>	<b>4.60</b>	<b>4.36</b>	<b>4.42</b>	<b>4.83</b>	<b>4.78</b>	<b>5.68</b>	<b>5.39</b>	<b>5.49</b>	<b>5.58</b>	<b>6.09</b>	<b>4.72</b>	4.85	5.61
Natural Gas.....	<b>6.13</b>	<b>5.52</b>	<b>5.13</b>	<b>4.93</b>	<b>5.71</b>	<b>6.06</b>	<b>5.85</b>	<b>6.26</b>	<b>6.68</b>	<b>5.92</b>	<b>5.90</b>	<b>6.36</b>	<b>5.39</b>	5.96	6.16
<b>Other Residential</b>															
Natural Gas (dollars per thousand cubic feet) .....	<b>8.62</b>	<b>10.58</b>	<b>12.47</b>	<b>9.67</b>	<b>9.82</b>	<b>11.21</b>	<b>13.36</b>	<b>11.04</b>	<b>10.90</b>	<b>11.57</b>	<b>13.28</b>	<b>11.07</b>	<b>9.50</b>	10.64	11.23
Electricity (cents per kilowatthour) .....	<b>8.08</b>	<b>9.02</b>	<b>9.09</b>	<b>8.63</b>	<b>8.37</b>	<b>9.09</b>	<b>9.27</b>	<b>8.77</b>	<b>8.54</b>	<b>9.29</b>	<b>9.47</b>	<b>8.93</b>	<b>8.71</b>	8.88	9.06

<sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil.

<sup>b</sup>West Texas Intermediate.

<sup>c</sup>Average self-service cash prices.

<sup>d</sup>Average for all sulfur contents.

<sup>e</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. Minor discrepancies with other published EIA historical data are due to rounding. Historical data are printed in bold; estimates and forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: EIA: 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.



DRAFT

**Table 6. Approximate Energy Demand Sensitivities<sup>a</sup> for the STIFS<sup>b</sup>**  
 (Percent Deviation Base Case)

Demand Sector	+1% GDP	+ 10% Prices		+ 10% Weather <sup>e</sup>	
		Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer <sup>f</sup>
<b>Petroleum</b>					
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%
<b>Natural Gas</b>					
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%
<b>Coal</b>					
Total	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Power	0.6%	0.0%	0.0%	1.9%	1.9%
<b>Electricity</b>					
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%

<sup>a</sup>Percent change in demand quantity resulting from specified percent changes in model inputs.

<sup>b</sup>Short-Term Integrated Forecasting System.

<sup>c</sup>Refiner acquisitions cost of imported crude oil.

<sup>d</sup>Average unit value of marketed natural gas production reported by States.

<sup>e</sup>Refers to percent changes in degree-days.

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

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

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States	6.229	5.334	0.895	0.086	0.809
Lower 48 States	5.296	4.412	0.884	0.080	0.804
Alaska	0.932	0.922	0.010	0.005	0.005

Note: Components provided are for the fourth quarter 2005.

Source: EIA, Office of Oil and Gas, Reserves and Production Division.

DRAFT

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Supply</b>															
Total Dry Gas Production.....	<b>4.78</b>	<b>4.75</b>	<b>4.78</b>	<b>4.76</b>	<b>4.76</b>	<b>4.66</b>	4.70	4.73	4.78	4.79	4.78	<b>4.80</b>	19.07	18.84	19.15
Gross Imports .....	<b>1.01</b>	<b>0.95</b>	<b>1.01</b>	<b>1.03</b>	<b>1.07</b>	<b>0.97</b>	1.03	0.94	1.02	0.98	1.01	<b>1.04</b>	4.00	4.00	4.06
Pipeline .....	<b>0.93</b>	<b>0.83</b>	<b>0.85</b>	<b>0.88</b>	<b>0.91</b>	<b>0.82</b>	0.84	0.78	0.85	0.78	0.79	<b>0.83</b>	3.49	3.36	3.26
LNG.....	<b>0.08</b>	<b>0.13</b>	<b>0.16</b>	<b>0.14</b>	<b>0.15</b>	<b>0.16</b>	0.18	0.16	0.16	0.20	0.22	<b>0.21</b>	0.51	0.65	0.80
Gross Exports .....	<b>0.17</b>	<b>0.16</b>	<b>0.16</b>	<b>0.21</b>	<b>0.20</b>	<b>0.16</b>	0.16	0.18	0.18	0.17	0.17	<b>0.20</b>	0.69	0.70	0.72
Net Imports .....	<b>0.84</b>	<b>0.80</b>	<b>0.85</b>	<b>0.82</b>	<b>0.86</b>	<b>0.81</b>	0.87	0.76	0.84	0.81	0.84	<b>0.85</b>	3.30	3.30	3.34
Supplemental Gaseous Fuels.....	<b>0.02</b>	<b>0.01</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	0.01	0.02	0.02	0.02	0.02	<b>0.02</b>	0.06	0.06	0.07
Total New Supply.....	<b>5.63</b>	<b>5.57</b>	<b>5.65</b>	<b>5.59</b>	<b>5.64</b>	<b>5.48</b>	5.58	5.50	5.64	5.62	5.64	<b>5.66</b>	22.44	22.20	22.56
<b>Working Gas in Storage</b>															
Opening .....	<b>2.38</b>	<b>0.73</b>	<b>1.77</b>	<b>2.84</b>	<b>2.56</b>	<b>1.06</b>	2.02	3.08	2.65	1.26	2.11	<b>3.07</b>	2.38	2.56	2.65
Closing.....	<b>0.73</b>	<b>1.77</b>	<b>2.84</b>	<b>2.56</b>	<b>1.06</b>	<b>2.02</b>	3.08	2.65	1.26	2.11	3.07	<b>2.60</b>	2.56	2.65	2.60
Net Withdrawals.....	<b>1.65</b>	-1.04	-1.07	0.28	1.51	-0.96	-1.06	0.43	1.39	-0.85	-0.96	<b>0.47</b>	-0.19	-0.09	0.06
Total Supply .....	<b>7.28</b>	<b>4.53</b>	<b>4.57</b>	<b>5.87</b>	<b>7.14</b>	<b>4.52</b>	4.52	5.93	7.03	4.76	4.68	<b>6.14</b>	22.25	22.11	22.61
Balancing Item <sup>a</sup> .....	<b>0.06</b>	<b>0.02</b>	-0.01	-0.36	<b>0.06</b>	<b>0.18</b>	0.00	-0.34	0.18	0.07	0.01	<b>-0.36</b>	-0.29	-0.10	-0.10
Total Primary Supply.....	<b>7.33</b>	<b>4.54</b>	<b>4.56</b>	<b>5.51</b>	<b>7.20</b>	<b>4.69</b>	4.53	5.59	7.21	4.84	4.69	<b>5.77</b>	21.95	22.01	22.51
<b>Demand</b>															
Residential .....	<b>2.51</b>	<b>0.82</b>	<b>0.37</b>	<b>1.39</b>	<b>2.42</b>	<b>0.74</b>	0.37	1.40	2.41	0.81	0.37	<b>1.45</b>	5.10	4.94	5.03
Commercial.....	<b>1.37</b>	<b>0.57</b>	<b>0.39</b>	<b>0.82</b>	<b>1.30</b>	<b>0.54</b>	0.37	0.84	1.32	0.59	0.40	<b>0.88</b>	3.14	3.06	3.19
Industrial .....	<b>2.19</b>	<b>1.90</b>	<b>1.97</b>	<b>2.09</b>	<b>2.22</b>	<b>1.96</b>	1.96	2.06	2.19	1.99	2.01	<b>2.14</b>	8.15	8.20	8.33
Lease and Plant Fuel.....	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.27</b>	0.28	0.28	0.28	0.28	0.28	<b>0.28</b>	1.12	1.11	1.12
Other Industrial .....	<b>1.91</b>	<b>1.62</b>	<b>1.69</b>	<b>1.81</b>	<b>1.94</b>	<b>1.69</b>	1.68	1.79	1.91	1.72	1.73	<b>1.86</b>	7.03	7.09	7.22
CHP <sup>b</sup> .....	<b>0.30</b>	<b>0.26</b>	<b>0.29</b>	<b>0.29</b>	<b>0.27</b>	<b>0.29</b>	0.29	0.27	0.29	0.33	0.31	<b>0.27</b>	1.14	1.12	1.20
Non-CHP .....	<b>1.62</b>	<b>1.35</b>	<b>1.41</b>	<b>1.52</b>	<b>1.66</b>	<b>1.39</b>	1.39	1.52	1.62	1.39	1.42	<b>1.59</b>	5.89	5.96	6.02
Transportation <sup>c</sup> .....	<b>0.21</b>	<b>0.13</b>	<b>0.13</b>	<b>0.16</b>	<b>0.21</b>	<b>0.14</b>	0.13	0.16	0.22	0.14	0.13	<b>0.16</b>	0.64	0.64	0.65
Electric Power <sup>d</sup> .....	<b>1.05</b>	<b>1.13</b>	<b>1.70</b>	<b>1.06</b>	<b>1.05</b>	<b>1.31</b>	1.69	1.12	1.09	1.31	1.78	<b>1.13</b>	4.93	5.17	5.31
Total Demand .....	<b>7.33</b>	<b>4.54</b>	<b>4.56</b>	<b>5.51</b>	<b>7.20</b>	<b>4.69</b>	4.53	5.59	7.21	4.84	4.69	<b>5.77</b>	21.95	22.01	22.51

<sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

<sup>b</sup>Natural 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.

<sup>c</sup>Pipeline fuel use plus natural gas used as vehicle fuel.

<sup>d</sup>Natural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

LNG = Liquefied natural gas

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

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

## DRAFT

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Supply</b>															
Production.....	264.2	268.5	268.6	270.5	274.6	273.9	280.2	282.7	289.5	271.4	288.2	288.1	1071.8	1111.4	1137.1
Appalachia.....	95.4	96.7	92.4	92.3	98.3	97.6	98.6	97.4	102.2	92.4	94.0	96.7	376.8	391.9	385.2
Interior.....	36.1	37.0	36.1	37.1	36.2	36.1	35.8	35.7	33.8	34.7	35.5	34.7	146.3	143.8	138.7
Western.....	132.7	134.8	140.1	141.1	140.0	140.2	145.9	149.6	153.5	144.3	158.7	156.7	548.7	575.8	613.1
Primary Stock Levels <sup>a</sup>															
Opening .....	43.3	47.4	45.1	38.2	38.3	36.6	35.3	31.9	34.4	34.9	35.9	33.6	43.3	38.3	34.4
Closing.....	47.4	45.1	38.2	38.3	36.6	35.3	31.9	34.4	34.9	35.9	33.6	34.6	38.3	34.4	34.6
Net Withdrawals.....	-4.2	2.4	6.8	(S)	1.7	1.3	3.4	-2.4	-0.5	-1.1	2.3	-0.9	5.0	3.9	-0.2
Imports.....	5.0	6.4	7.1	6.6	5.3	6.9	7.7	6.9	5.5	6.9	8.0	6.3	25.0	26.7	26.7
Exports.....	8.5	11.4	12.1	11.0	9.7	15.3	13.3	12.8	10.7	12.3	13.2	12.1	43.0	51.1	48.4
Total Net Domestic Supply .....	256.5	265.8	270.4	266.2	271.9	266.9	277.9	274.4	283.8	264.8	285.2	281.3	1058.8	1091.0	1115.2
Secondary Stock Levels <sup>b</sup>															
Opening .....	148.9	136.8	148.0	128.4	127.0	118.5	122.7	115.2	116.0	117.0	121.9	113.0	148.9	127.0	116.0
Closing.....	136.8	148.0	128.4	127.0	118.5	122.7	115.2	116.0	117.0	121.9	113.0	114.7	127.0	116.0	114.7
Net Withdrawals.....	12.0	-11.1	19.6	1.4	8.5	-4.2	7.5	-0.8	-0.9	-4.9	8.9	-1.7	21.9	10.9	1.3
Waste Coal Supplied to IPPs <sup>c</sup> .....	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	3.8	3.8	3.7	3.8	11.6	12.5	15.1
Total Supply.....	271.4	257.6	292.8	270.5	283.3	265.6	288.2	277.3	286.7	263.7	297.8	283.4	1092.2	1114.4	1131.6
<b>Demand</b>															
Coke Plants.....	6.0	6.1	6.1	6.1	5.9	5.9	6.8	5.9	6.4	6.3	6.6	5.7	24.2	24.6	25.0
Electric Power Sector <sup>d</sup> .....	248.7	231.4	271.7	252.5	253.6	238.5	265.5	253.4	262.5	242.2	275.5	259.7	1004.3	1011.0	1039.9
Retail and General Industry .....	17.0	15.7	16.0	17.5	17.6	15.6	16.0	18.0	17.7	15.2	15.8	18.0	66.2	67.3	66.7
Total Demand <sup>e</sup> .....	271.8	253.2	293.8	276.0	277.1	260.1	288.3	277.3	286.7	263.7	297.8	283.4	1094.7	1102.8	1131.6
Discrepancy <sup>f</sup> .....	-0.4	4.4	-0.9	-5.6	6.2	5.5	-0.1	0.0	0.0	0.0	0.0	0.0	-2.5	11.6	0.0

<sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

<sup>b</sup>Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

<sup>c</sup>Estimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>d</sup>Coal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

<sup>e</sup>Total Demand includes estimated IPP consumption.

<sup>f</sup>The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

Notes: Totals may not add due to independent rounding. Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; estimates and forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

## DRAFT

**Table 10a. U.S. Electricity Supply and Demand: Base Case**  
(Billion Kilowatthours)

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Net Electricity Generation</b>															
Electric Power Sector <sup>a</sup>															
Coal.....	<b>485.6</b>	<b>446.7</b>	<b>526.3</b>	<b>489.4</b>	<b>492.9</b>	<b>460.8</b>	512.0	489.5	506.2	466.3	530.4	499.2	<b>1948.0</b>	1955.2	2002.0
Petroleum.....	<b>31.5</b>	<b>25.8</b>	<b>31.9</b>	<b>23.4</b>	<b>31.6</b>	<b>28.2</b>	30.3	21.9	30.6	20.3	30.4	22.4	<b>112.5</b>	112.1	103.7
Natural Gas.....	<b>116.9</b>	<b>124.6</b>	<b>190.5</b>	<b>118.7</b>	<b>121.9</b>	<b>150.9</b>	192.1	132.3	130.5	150.9	203.6	136.8	<b>550.6</b>	597.2	621.8
Nuclear.....	<b>190.1</b>	<b>183.2</b>	<b>202.3</b>	<b>188.2</b>	<b>198.2</b>	<b>191.3</b>	208.4	192.6	196.8	192.9	207.5	192.6	<b>763.7</b>	790.6	789.7
Hydroelectric.....	<b>60.0</b>	<b>80.0</b>	<b>61.9</b>	<b>58.7</b>	<b>63.9</b>	<b>67.3</b>	60.5	63.1	70.0	84.1	67.5	65.4	<b>260.6</b>	254.8	287.1
Other <sup>b</sup> .....	<b>13.0</b>	<b>13.8</b>	<b>13.9</b>	<b>14.5</b>	<b>14.6</b>	<b>15.7</b>	15.4	15.3	14.8	15.2	16.1	16.0	<b>55.1</b>	61.0	62.2
Subtotal.....	<b>897.1</b>	<b>874.0</b>	<b>1026.7</b>	<b>892.9</b>	<b>923.1</b>	<b>914.3</b>	1018.8	914.7	949.0	929.7	1055.4	932.4	<b>3690.7</b>	3770.9	3866.6
Other Sectors <sup>c</sup> .....	<b>40.2</b>	<b>37.3</b>	<b>38.8</b>	<b>41.0</b>	<b>39.3</b>	<b>40.0</b>	41.7	41.1	40.2	40.4	42.7	41.0	<b>157.3</b>	162.2	164.3
Total Generation.....	<b>937.3</b>	<b>911.3</b>	<b>1065.5</b>	<b>933.8</b>	<b>962.5</b>	<b>954.3</b>	1060.5	955.8	989.2	970.1	1098.1	973.4	<b>3848.0</b>	3933.1	4030.8
Net Imports.....	<b>2.6</b>	<b>1.6</b>	<b>4.6</b>	<b>-2.4</b>	<b>-0.9</b>	<b>0.8</b>	7.3	2.9	2.0	0.8	3.3	0.6	<b>6.4</b>	10.2	6.6
Total Supply.....	<b>940.0</b>	<b>912.9</b>	<b>1070.1</b>	<b>931.4</b>	<b>961.6</b>	<b>955.1</b>	1067.9	958.7	991.2	970.9	1101.4	974.0	<b>3854.4</b>	3943.3	4037.4
Losses and Unaccounted for <sup>d</sup> .....	<b>30.5</b>	<b>57.4</b>	<b>44.9</b>	<b>48.0</b>	<b>45.7</b>	<b>61.5</b>	42.7	49.3	47.2	62.3	44.4	50.1	<b>180.8</b>	199.3	204.0
<b>Demand</b>															
Retail Sales <sup>e</sup>															
Residential.....	<b>337.5</b>	<b>273.4</b>	<b>377.6</b>	<b>291.4</b>	<b>339.1</b>	<b>288.5</b>	366.2	300.5	346.8	290.2	379.1	307.4	<b>1279.9</b>	1294.3	1323.5
Commercial <sup>f</sup> .....	<b>289.2</b>	<b>292.4</b>	<b>343.8</b>	<b>298.0</b>	<b>288.3</b>	<b>300.8</b>	341.6	299.8	297.7	307.7	355.0	308.7	<b>1223.4</b>	1230.5	1269.0
Industrial.....	<b>237.2</b>	<b>247.4</b>	<b>259.4</b>	<b>247.4</b>	<b>243.3</b>	<b>258.5</b>	269.7	262.3	253.3	264.3	274.3	261.2	<b>991.4</b>	1033.8	1053.1
Transportation <sup>g</sup> .....	<b>1.2</b>	<b>1.2</b>	<b>1.5</b>	<b>1.3</b>	<b>1.8</b>	<b>1.7</b>	1.6	1.3	1.8	1.7	1.6	1.3	<b>5.3</b>	6.3	6.5
Subtotal.....	<b>865.1</b>	<b>814.3</b>	<b>982.4</b>	<b>838.2</b>	<b>872.4</b>	<b>849.4</b>	979.1	864.0	899.7	864.0	1009.9	878.6	<b>3500.0</b>	3564.9	3652.1
Other Use/Sales <sup>h</sup> .....	<b>44.4</b>	<b>41.2</b>	<b>42.8</b>	<b>45.2</b>	<b>43.4</b>	<b>44.1</b>	46.1	45.4	44.4	44.6	47.1	45.3	<b>173.7</b>	179.0	181.3
Total Demand.....	<b>909.5</b>	<b>855.5</b>	<b>1025.2</b>	<b>883.4</b>	<b>915.9</b>	<b>893.5</b>	1025.1	909.4	944.0	908.5	1057.0	923.8	<b>3673.6</b>	3743.9	3833.4

<sup>a</sup>Electric utilities and independent power producers.<sup>b</sup>"Other" includes generation from other gaseous fuels, geothermal, wind, wood, waste, and solar sources.<sup>c</sup>Electricity generation from combined heat and power (CHP) facilities and electricity-only plants in the industrial and commercial sectors.<sup>d</sup>Balancing item, mainly transmission and distribution losses.<sup>e</sup>Total of retail electricity sales by electric utilities and power marketers.<sup>f</sup>Commercial sector, including public street and highway lighting, interdepartmental sales and other sales to public authorities. These items, along with transportation sector; electricity were formerly included in an "other" category, which is no longer provided. (See EIA's Monthly Energy Review, Table 7.5, for a comparison of "Old Basis" and "New Basis" electricity retail sales.) Through 2003, data are estimated as the sum of "Old Basis Commercial" and approximately 95 percent of "Old Basis Other"; beginning in 2004, data are actual survey data.<sup>g</sup>Transportation sector, including sales to railroads and railways. Through 2003, data are estimated as approximately 5 percent of "Old Basis Other"; beginning in 2004, data are actual survey data.<sup>h</sup>Defined 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 2003 are estimates.

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

Sources: Historical data: EIA: latest data available from EIA databases supporting the following reports: *Electric Power Annual*, DOE/EIA-0226 and *Electric Power Monthly*, DOE/EIA-0226. Projections: EIA, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels (hydroelectric and nuclear).

## DRAFT

**Table 10b. U.S. Electricity Generation by Sector: Base Case**  
(Billion Kilowatthours)

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
<b>Electricity Generation by Sector</b>															
Electric Power <sup>a</sup>															
Coal.....	<b>485.6</b>	<b>446.7</b>	<b>526.3</b>	<b>489.4</b>	<b>492.9</b>	<b>460.8</b>	<b>512.0</b>	<b>489.5</b>	<b>506.2</b>	<b>466.3</b>	<b>530.4</b>	<b>499.2</b>	<b>1948.0</b>	<b>1955.2</b>	<b>2002.0</b>
Petroleum.....	<b>31.5</b>	<b>25.8</b>	<b>31.9</b>	<b>23.4</b>	<b>31.6</b>	<b>28.2</b>	<b>30.3</b>	<b>21.9</b>	<b>30.6</b>	<b>20.3</b>	<b>30.4</b>	<b>22.4</b>	<b>112.5</b>	<b>112.1</b>	<b>103.7</b>
Natural Gas.....	<b>116.9</b>	<b>124.6</b>	<b>190.5</b>	<b>118.7</b>	<b>121.9</b>	<b>150.9</b>	<b>192.1</b>	<b>132.3</b>	<b>130.5</b>	<b>150.9</b>	<b>203.6</b>	<b>136.8</b>	<b>550.6</b>	<b>597.2</b>	<b>621.8</b>
Other <sup>b</sup> .....	<b>263.1</b>	<b>276.9</b>	<b>278.0</b>	<b>261.4</b>	<b>276.7</b>	<b>274.4</b>	<b>284.4</b>	<b>271.0</b>	<b>281.6</b>	<b>292.2</b>	<b>291.1</b>	<b>274.0</b>	<b>1079.5</b>	<b>1106.4</b>	<b>1139.0</b>
Subtotal.....	<b>897.1</b>	<b>874.0</b>	<b>1026.7</b>	<b>892.9</b>	<b>923.1</b>	<b>914.3</b>	<b>1018.8</b>	<b>914.7</b>	<b>949.0</b>	<b>929.7</b>	<b>1055.4</b>	<b>932.4</b>	<b>3690.7</b>	<b>3770.9</b>	<b>3866.6</b>
Commercial															
Coal.....	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<b>1.0</b>	<b>1.1</b>	<b>1.3</b>
Petroleum.....	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
Natural Gas.....	<b>1.0</b>	<b>1.2</b>	<b>1.1</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.1</b>	<b>4.3</b>	<b>4.1</b>	<b>4.7</b>
Other <sup>b</sup> .....	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>2.0</b>	<b>2.1</b>	<b>2.3</b>
Subtotal.....	<b>1.9</b>	<b>2.1</b>	<b>2.0</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>2.1</b>	<b>2.1</b>	<b>2.2</b>	<b>2.5</b>	<b>2.1</b>	<b>7.8</b>	<b>7.8</b>	<b>8.9</b>	
Industrial															
Coal.....	<b>5.5</b>	<b>5.0</b>	<b>5.4</b>	<b>5.3</b>	<b>5.5</b>	<b>5.1</b>	<b>5.6</b>	<b>5.1</b>	<b>5.6</b>	<b>5.1</b>	<b>5.7</b>	<b>5.1</b>	<b>21.2</b>	<b>21.3</b>	<b>21.5</b>
Petroleum.....	<b>1.5</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>0.8</b>	<b>1.2</b>	<b>1.2</b>	<b>5.2</b>	<b>4.9</b>	<b>4.5</b>
Natural Gas.....	<b>19.9</b>	<b>17.3</b>	<b>18.7</b>	<b>18.4</b>	<b>18.3</b>	<b>19.8</b>	<b>19.1</b>	<b>17.6</b>	<b>19.5</b>	<b>21.9</b>	<b>20.5</b>	<b>17.8</b>	<b>74.3</b>	<b>74.8</b>	<b>79.7</b>
Other <sup>b</sup> .....	<b>11.3</b>	<b>11.7</b>	<b>11.5</b>	<b>14.3</b>	<b>12.4</b>	<b>12.1</b>	<b>13.7</b>	<b>15.1</b>	<b>11.6</b>	<b>10.5</b>	<b>12.8</b>	<b>14.8</b>	<b>48.8</b>	<b>53.3</b>	<b>49.7</b>
Subtotal.....	<b>38.3</b>	<b>35.2</b>	<b>36.8</b>	<b>39.2</b>	<b>37.5</b>	<b>38.1</b>	<b>39.6</b>	<b>39.0</b>	<b>38.1</b>	<b>38.2</b>	<b>40.2</b>	<b>38.9</b>	<b>149.5</b>	<b>154.3</b>	<b>155.4</b>
Total .....	<b>937.3</b>	<b>911.3</b>	<b>1065.5</b>	<b>933.8</b>	<b>962.5</b>	<b>954.3</b>	<b>1060.5</b>	<b>955.8</b>	<b>989.2</b>	<b>970.1</b>	<b>1098.1</b>	<b>973.4</b>	<b>3848.0</b>	<b>3933.1</b>	<b>4030.8</b>

<sup>a</sup>Electric utilities and independent power producers.<sup>b</sup>"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.

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

Sources: Historical data: EIA: latest data available from EIA databases supporting the following report: *Electric Power Monthly*, DOE/EIA-0226.

Projections: EIA, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels (hydroelectric and nuclear).

## DRAFT

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

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Fuel Consumption for Electricity Generation by Sector	(Quadrillion Btu)														
Electric Power <sup>a</sup>															
Coal .....	5.06	4.70	5.53	5.14	5.16	4.85	5.40	5.15	5.34	4.93	5.61	5.28	20.43	20.56	21.15
Petroleum .....	0.34	0.28	0.34	0.25	0.34	0.30	0.31	0.22	0.30	0.20	0.30	0.22	1.21	1.17	1.02
Natural Gas.....	1.01	1.10	1.68	1.02	1.03	1.30	1.67	1.10	1.07	1.29	1.76	1.12	4.81	5.10	5.24
Other <sup>b</sup> .....	2.79	3.00	3.07	2.83	2.91	2.89	3.04	2.89	3.00	3.10	3.10	2.92	11.69	11.72	12.13
Subtotal .....	9.20	9.08	10.62	9.24	9.43	9.34	10.42	9.36	9.71	9.52	10.76	9.54	38.13	38.56	39.53
Commercial															
Coal.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
Petroleum.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Natural Gas.....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.05
Other <sup>b</sup> .....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.04
Subtotal.....	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.09	0.09	0.11
Industrial															
Coal .....	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.08	0.07	0.08	0.07	0.28	0.30	0.31
Petroleum .....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.07	0.06	0.05
Natural Gas.....	0.18	0.16	0.17	0.17	0.16	0.18	0.18	0.16	0.18	0.20	0.19	0.16	0.68	0.68	0.73
Other <sup>b</sup> .....	0.14	0.15	0.17	0.16	0.17	0.14	0.17	0.20	0.16	0.15	0.17	0.20	0.63	0.68	0.69
Subtotal .....	0.41	0.39	0.43	0.42	0.42	0.41	0.45	0.45	0.44	0.44	0.46	0.45	1.65	1.73	1.78
Total .....	9.63	9.49	11.07	9.68	9.87	9.77	10.90	9.84	10.17	9.98	11.25	10.02	39.87	40.38	41.43
	(Physical Units)														
Electric Power <sup>a</sup>															
Coal (million short tons) .....	248.1	230.8	271.2	252.0	253.0	238.1	265.0	252.9	261.9	241.7	275.0	259.1	1002.2	1008.9	1037.9
Petroleum (million barrels per day) .....	0.61	0.49	0.60	0.44	0.60	0.53	0.55	0.39	0.54	0.35	0.53	0.39	0.54	0.52	0.45
Natural Gas (trillion cubic feet).....	0.98	1.07	1.64	1.00	1.00	1.27	1.63	1.07	1.04	1.26	1.71	1.09	4.69	4.98	5.11
Commercial															
Coal (million short tons) .....	0.13	0.11	0.14	0.12	0.14	0.13	0.16	0.15	0.17	0.15	0.18	0.15	0.50	0.58	0.65
Petroleum (million barrels per day) .....	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas (trillion cubic feet).....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.04
Industrial															
Coal (million short tons) .....	3.01	2.80	2.92	2.86	3.03	3.07	3.52	3.00	3.31	3.08	3.42	3.05	11.60	12.62	12.86
Petroleum (million barrels per day) .....	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02
Natural Gas (trillion cubic feet).....	0.17	0.15	0.16	0.17	0.15	0.18	0.18	0.16	0.17	0.20	0.18	0.16	0.66	0.66	0.71

<sup>a</sup>Electric utilities and independent power producers.<sup>b</sup>"Other" includes other gaseous fuels, 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.

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

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

## DRAFT

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

	Year				Annual Percentage Change		
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
<b>Electricity Sector</b>							
Hydroelectric Power.....	<b>2.636</b>	<b>2.722</b>	2.661	2.997	3.3	-2.2	12.6
Geothermal, Solar and Wind Energy .....	<b>0.415</b>	<b>0.390</b>	0.448	0.456	<b>-6.0</b>	14.9	1.8
Biofuels .....	<b>0.516</b>	<b>0.507</b>	0.520	0.530	<b>-1.7</b>	2.6	1.9
Total .....	<b>3.567</b>	<b>3.619</b>	3.630	3.983	<b>1.5</b>	0.3	9.7
<b>Other Sectors</b>							
Residential and Commercial .....	<b>0.539</b>	<b>0.532</b>	0.588	0.615	<b>-1.3</b>	10.5	4.6
Residential .....	<b>0.418</b>	<b>0.436</b>	0.455	0.474	<b>4.3</b>	4.4	4.2
Commercial .....	<b>0.121</b>	<b>0.097</b>	0.133	0.141	<b>-19.8</b>	37.1	6.0
Industrial .....	<b>1.792</b>	<b>1.800</b>	1.929	1.840	<b>0.4</b>	7.2	-4.6
Transportation .....	<b>0.175</b>	<b>0.237</b>	0.300	0.309	<b>35.4</b>	26.6	3.0
Total .....	<b>2.506</b>	<b>2.570</b>	2.816	2.764	<b>2.6</b>	9.6	-1.8
Total Renewable Energy Demand .....	<b>6.072</b>	<b>6.189</b>	6.446	6.748	<b>1.9</b>	4.2	4.7

<sup>a</sup>Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

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

<sup>c</sup>Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

<sup>d</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly as inputs to marketed energy. EIA does not estimate or project total consumption of non-marketed renewable energy.

<sup>e</sup>Includes biofuels and solar energy consumed in the residential and commercial sectors.

<sup>f</sup>Consists primarily of biofuels for use other than in electricity cogeneration.

<sup>g</sup>Ethanol blended into gasoline.

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

Sources: Historical data: EIA: latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226 and *Renewable Energy Annual*, DOE/EIA-0603. Projections: EIA, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

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

	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Real Gross Domestic Product (GDP)</b> (billion chained 2000 dollars) .....	7101	7337	7533	7835	8032	8329	8704	9067	9470	9817	9891	10075	10381	10837	11166
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel) .....	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.71	27.74	36.75	42.18
<b>Petroleum Supply</b>															
Crude Oil Production <sup>b</sup> (million barrels per day) .....	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	5.68	5.39	5.56
Total Petroleum Net Imports (including SPR) (million barrels per day) .....	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	11.24	11.75	11.84
<b>Energy Demand</b>															
U.S. Petroleum (million barrels per day) .....	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.03	20.43	20.64
Natural Gas (trillion cubic feet) .....	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	23.00	21.95	22.01	22.51
Coal (million short tons) .....	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1066	1095	1103	1132
Electricity (billion kilowatthours)															
Retail Sales <sup>c</sup> .....	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3370	3463	3500	3565	3652
Other Use/Sales <sup>d</sup> .....	118	122	128	134	144	146	148	161	183	181	173	177	174	179	181
Total .....	2880	2886	2989	3069	3157	3247	3294	3425	3495	3603	3543	3639	3674	3744	3833
Total Energy Demand <sup>e</sup> (quadrillion Btu) .....	84.5	85.9	87.6	89.2	91.2	94.2	94.7	95.1	96.8	98.9	96.3	97.4	97.5	98.4	100.4
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar) .....	11.90	11.70	11.63	11.39	11.36	11.31	10.88	10.51	10.22	10.08	9.74	9.66	9.39	9.08	8.99

<sup>a</sup>Refers to the imported cost of crude oil to U.S. refineries.

<sup>b</sup>Includes lease condensate.

<sup>c</sup>Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in Energy Information Administration (EIA) *Electric Power Monthly* and *Electric Power Annual*. Power marketers' sales for historical periods are reported in EIA's *Electric Sales and Revenue*, Appendix C.

<sup>d</sup>Defined 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 2003 are estimates.

<sup>e</sup>"Total Energy Demand" refers to the aggregate energy concept presented in EIA's *Annual Energy Review*, DOE/EIA-0384 (*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 EIA, *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; EIA; 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 Model of the U.S. Economy, October 2004.

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

	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2000 dollars).....	7101	7337	7533	7835	8032	8329	8704	9067	9470	9817	9891	10075	10381	10837	11166
GDP Implicit Price Deflator (Index, 2000=100) .....	84.5	86.4	88.4	90.3	92.1	93.9	95.4	96.5	97.9	100.0	102.4	104.1	106.0	108.2	110.4
Real Disposable Personal Income (billion chained 2000 Dollars) .....	5352	5536	5594	5746	5906	6081	6296	6664	6862	7194	7333	7560	7734	7986	8166
Manufacturing Production (Index, 1997=100) .....	72.4	75.3	78.1	83.1	87.8	92.1	100.0	106.8	112.3	117.7	113.1	112.5	112.6	118.4	122.5
Real Fixed Investment (billion chained 2000 dollars).....	829	878	953	1042	1110	1209	1321	1455	1576	1679	1629	1549	1627	1795	1863
Real Exchange Rate (Index, 2000=1.000) .....	0.849	0.854	0.886	0.865	0.806	0.849	0.915	0.961	0.964	1.000	1.055	1.051	0.921	0.857	0.827
Business Inventory Change (billion chained 2000 dollars).....	-6.4	-4.5	3.4	11.5	13.4	9.7	20.7	18.6	17.0	7.9	-21.3	-7.5	-15.2	7.3	7.0
Producer Price Index (index, 1982=1.000).....	1.165	1.172	1.189	1.205	1.248	1.277	1.276	1.244	1.255	1.328	1.342	1.311	1.381	1.466	1.518
Consumer Price Index (index, 1982-1984=1.000) .....	1.362	1.403	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	1.770	1.799	1.840	1.890	1.941
Petroleum Product Price Index (index, 1982=1.000).....	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	0.853	0.795	0.977	1.196	1.320
Non-Farm Employment (millions) .....	108.4	108.7	110.8	114.3	117.3	119.7	122.8	125.9	129.0	131.8	131.8	130.3	129.9	131.2	133.3
Commercial Employment (millions) .....	70.5	70.9	72.9	75.7	78.4	80.7	83.4	86.1	89.1	91.4	92.0	91.4	91.7	93.1	94.8
Total Industrial Production (index, 1997=100.0).....	76.1	78.2	80.8	85.2	89.3	93.1	100.0	105.9	110.6	115.4	111.5	110.9	111.2	116.3	119.8
Housing Stock (millions) .....	101.8	102.6	103.8	105.1	106.7	108.0	109.4	111.1	112.7	113.3	114.7	115.7	117.1	118.2	119.5
<b>Weather <sup>a</sup></b>															
Heating Degree-Days															
U.S. ....	4202	4433	4671	4470	4516	4689	4525	3946	4154	4447	4193	4272	4463	4320	4562
New England .....	6043	6918	6803	6748	6632	6749	6726	5743	6013	6584	6112	6098	6847	6616	6676
Middle Atlantic .....	5319	6107	6039	6083	5967	6118	5942	4924	5495	5942	5438	5371	6097	5758	5927
U.S. Gas-Weighted.....	4570	4787	5062	4861	4905	5092	4911	4271	4510	4796	4534	4635	4827	4669	4909
Cooling Degree-Days (U.S.).....	1356	1075	1251	1254	1322	1216	1195	1438	1328	1268	1288	1385	1282	1242	1238

<sup>a</sup>Population-weighted degree-days. A degree-day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 2000 population.

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: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA); Federal Reserve System, Statistical Release G.17; U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on Global Insight Model of the U.S. Economy, September 2004. Degree-day projections are from NOAA's Climate Prediction Center.

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

	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Production</b>															
Coal .....	21.59	21.63	20.25	22.11	22.03	22.68	23.21	23.94	23.19	22.62	23.53	22.70	22.36	23.19	23.72
Natural Gas.....	18.23	18.38	18.58	19.35	19.08	19.27	19.32	19.61	19.34	19.66	20.20	19.49	19.60	19.37	19.69
Crude Oil.....	15.70	15.22	14.49	14.10	13.89	13.72	13.66	13.24	12.45	12.36	12.28	12.16	12.03	11.45	11.77
Natural Gas Liquids .....	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	2.46	2.48
Nuclear .....	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.14	7.97	8.25	8.24
Hydroelectric.....	2.99	2.60	2.87	2.67	3.20	3.58	3.62	3.27	3.23	2.78	2.13	2.60	2.71	2.65	2.98
Other Renewables.....	3.14	3.29	3.27	3.38	3.46	3.55	3.43	3.26	3.33	3.35	3.12	3.38	3.39	3.71	3.67
Total.....	70.38	69.96	68.29	70.70	71.17	72.42	72.34	72.80	71.67	71.24	71.84	71.04	70.40	71.07	72.55
<b>Net Imports</b>															
Coal .....	-2.77	-2.59	-1.76	-1.66	-2.08	-2.17	-2.01	-1.87	-1.30	-1.21	-0.77	-0.61	-0.49	-0.66	-0.59
Natural Gas.....	1.67	1.94	2.25	2.52	2.74	2.85	2.90	3.06	3.50	3.62	3.69	3.59	3.39	3.39	3.43
Crude Oil.....	13.14	12.36	13.16	14.32	15.69	15.02	16.59	17.79	18.84	18.87	19.77	19.36	20.48	21.29	21.38
Petroleum Products.....	2.15	1.86	1.80	2.08	1.56	1.87	1.64	1.85	2.10	2.31	2.61	2.39	2.66	2.84	2.80
Electricity .....	0.07	0.09	0.09	0.15	0.13	0.14	0.12	0.09	0.10	0.12	0.08	0.08	0.02	0.03	0.02
Coal Coke .....	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	0.14	0.06
Total.....	14.27	13.70	15.58	17.47	18.11	17.73	19.29	20.99	23.29	23.77	25.40	24.87	26.11	27.04	27.10
<b>Adjustments <sup>a</sup></b> .....	-0.13	2.21	3.72	1.08	1.93	4.07	3.10	1.36	1.81	3.94	-0.92	1.44	0.95	0.31	0.78
<b>Demand</b>															
Coal .....	18.99	19.12	19.84	19.91	20.09	21.00	21.45	21.66	21.62	22.58	21.66	22.02	22.62	22.59	23.18
Natural Gas.....	19.72	20.15	20.83	21.35	21.84	22.78	23.20	23.33	22.93	23.01	24.04	24.86	23.71	23.77	24.31
Petroleum .....	32.85	33.53	33.84	34.67	34.55	35.76	36.27	36.93	37.96	38.40	38.33	38.30	38.94	39.70	40.09
Nuclear .....	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.14	7.97	8.25	8.24
Other.....	6.54	6.59	6.66	6.62	7.66	7.59	7.22	6.16	6.65	7.09	4.25	4.03	4.22	4.09	4.61
Total.....	84.52	85.87	87.58	89.25	91.22	94.22	94.73	95.15	96.77	98.94	96.32	97.35	97.46	98.41	100.44

<sup>a</sup>Balancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted-for supply.

Sources: Historical data: *Annual Energy Review*, DOE/EIA-0384; projections generated by simulation of the Short-Term Integrated Forecasting System.

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

	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Crude Oil Prices</b> (dollars per barrel)															
Imported Average <sup>a</sup> .....	<b>18.74</b>	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.00	23.71	27.74	36.75	42.18
WTI <sup>b</sup> Spot Average.....	<b>21.60</b>	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.12	31.12	42.14	47.38
<b>Natural Gas</b> (dollars per thousand cubic feet)															
Average Wellhead.....	<b>1.64</b>	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.70	4.01	2.95	4.98	5.59	5.80
Henry Hub Spot .....	<b>1.54</b>	1.83	2.19	1.97	1.74	2.84	2.57	2.15	2.34	4.45	4.09	3.47	5.64	6.18	6.33
<b>Petroleum Products</b>															
Gasoline Retail <sup>c</sup> (dollars per gallon)															
All Grades .....	<b>1.15</b>	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.39	1.60	1.90	2.08
Regular Unleaded.....	<b>1.10</b>	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.34	1.56	1.86	2.04
No. 2 Diesel Oil, Retail (dollars per gallon) .....	<b>1.13</b>	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.40	1.32	1.51	1.82	1.99
No. 2 Heating Oil, Wholesale (dollars per gallon) .....	<b>0.62</b>	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.69	0.88	1.15	1.30
No. 2 Heating Oil, Retail (dollars per gallon) .....	<b>0.98</b>	0.93	0.90	0.87	0.86	0.97	0.96	0.83	0.87	1.28	1.22	1.11	1.32	1.57	1.76
No. 6 Residual Fuel Oil, Retail <sup>d</sup> (dollars per barrel).....	<b>14.32</b>	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.24	23.81	29.41	31.61	35.48
<b>Electric Power Sector</b> (dollars per million Btu)															
Coal.....	<b>1.45</b>	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.25	1.27	1.33	1.34
Heavy Fuel Oil <sup>e</sup> .....	<b>2.48</b>	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.73	3.67	4.72	4.85	5.61
Natural Gas.....	<b>2.15</b>	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.34	4.44	3.54	5.39	5.96	6.16
<b>Other Residential</b>															
Natural Gas (dollars per thousand cubic feet).....															
Electricity (cents per kilowatthour).....	<b>8.05</b>	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.62	8.45	8.71	8.88	9.06

<sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil.

<sup>b</sup>West Texas Intermediate.

<sup>c</sup>Average self-service cash prices.

<sup>d</sup>Average for all sulfur contents.

<sup>e</sup>Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. 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: EIA: 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														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup>	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.75	5.68	5.39	5.56
Alaska	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	0.98	0.97	0.94	0.91
Lower 48	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	4.76	4.71	4.45	4.66
Net Commercial Imports <sup>b</sup>	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	9.12	9.65	10.01	10.08
Net SPR Withdrawals	0.04	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	-0.12	-0.11	-0.11	-0.04
Net Commercial Withdrawals	0.00	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	0.09	0.02	-0.02	-0.01
Product Supplied and Losses	-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	0.00
Unaccounted-for Crude Oil	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	0.11	0.05	0.15	0.09
Total Crude Oil Supply	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	14.95	15.30	15.42	15.68
Other Supply															
NGL Production	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	1.80	1.81
Other Hydrocarbon and Alcohol Inputs	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	0.44	0.43
Crude Oil Product Supplied	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	0.00
Processing Gain	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	0.96	0.97	1.01	0.98
Net Product Imports <sup>c</sup>	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	1.42	1.59	1.74	1.77
Product Stock Withdrawn	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.23	0.14	0.03	0.02	-0.02
Total Supply	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.03	20.43	20.65
<b>Demand</b>															
Motor Gasoline <sup>d</sup>	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	8.85	8.93	9.05	9.21
Jet Fuel	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	1.67
Distillate Fuel Oil	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	3.78	3.93	4.06	4.10
Residual Fuel Oil	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	0.70	0.77	0.79	0.76
Other Oils <sup>e</sup>	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	4.82	4.82	4.90	4.91
Total Demand	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.76	20.03	20.43	20.64
Total Petroleum Net Imports	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.42	10.90	10.54	11.24	11.75	11.84
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	325	318	335	337	303	284	305	324	284	286	312	278	269	277	281
Total Motor Gasoline	219	216	226	215	202	195	210	216	193	196	210	209	207	206	207
Jet Fuel	49	43	40	47	40	40	44	45	41	45	42	39	39	39	40
Distillate Fuel Oil	144	141	141	145	130	127	138	156	125	118	145	134	137	123	127
Residual Fuel Oil	50	43	44	42	37	46	40	45	36	36	41	31	38	36	36
Other Oils <sup>f</sup>	267	263	273	275	258	250	259	291	246	247	287	258	241	249	250

<sup>a</sup>Includes lease condensate.

<sup>b</sup>Net imports equals gross imports plus SPR imports minus exports.

<sup>c</sup>Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

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

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

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

Sources: Historical data: EIA: 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														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Supply</b>															
Total Dry Gas Production .....	17.70	17.84	18.10	18.82	18.60	18.78	18.83	19.02	18.83	19.18	19.62	18.96	19.07	18.84	19.15
Gross Imports .....	1.77	2.14	2.35	2.62	2.84	2.94	2.99	3.15	3.59	3.78	3.98	4.02	4.00	4.00	4.06
Gross Exports .....	0.13	0.22	0.14	0.16	0.15	0.15	0.16	0.16	0.16	0.24	0.37	0.52	0.69	0.70	0.72
Net Imports .....	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.60	3.50	3.30	3.30	3.34
Supplemental Gaseous Fuels.....	0.11	0.12	0.12	0.11	0.11	0.11	0.08	0.08	0.08	0.09	0.09	0.07	0.06	0.06	0.07
Total New Supply.....	19.45	19.88	20.42	21.39	21.40	21.68	21.74	22.10	22.34	22.81	23.30	22.53	22.44	22.20	22.56
Working Gas in Storage															
Opening .....	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	2.56	2.65
Closing.....	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.38	2.56	2.65	2.60
Net Withdrawals.....	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.19	0.53	-0.19	-0.09	0.06
Total Supply.....	19.70	20.11	20.70	21.11	21.85	21.66	21.74	21.54	22.54	23.61	22.12	23.06	22.25	22.11	22.61
Balancing Item <sup>a</sup> .....	-0.14	0.12	0.09	0.13	0.35	0.94	0.98	0.70	-0.15	-0.15	0.11	-0.06	-0.29	-0.10	-0.10
Total Primary Supply .....	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	23.00	21.95	22.01	22.51
<b>Demand</b>															
Residential.....	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.77	4.89	5.10	4.94	5.03
Commercial.....	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.02	3.10	3.14	3.06	3.19
Industrial .....	8.36	8.70	8.87	8.91	9.38	9.68	9.71	9.49	9.16	9.40	8.47	8.67	8.15	8.20	8.33
Lease and Plant Fuel.....	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.15	1.12	1.11	1.12	1.11	1.12
Other Industrial .....	7.23	7.53	7.70	7.79	8.16	8.44	8.51	8.32	8.08	8.25	7.35	7.56	7.03	7.09	7.22
CHP <sup>b</sup> .....	1.06	1.11	1.12	1.18	1.26	1.29	1.28	1.35	1.40	1.39	1.31	1.24	1.14	1.12	1.20
Non-CHP .....	6.17	6.42	6.58	6.61	6.90	7.15	7.23	6.97	6.68	6.87	6.04	6.32	5.89	5.96	6.02
Transportation <sup>c</sup> .....	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	0.63	0.67	0.64	0.64	0.65
Electric Power <sup>d</sup> .....	3.32	3.45	3.47	3.90	4.24	3.81	4.06	4.59	4.82	5.21	5.34	5.67	4.93	5.17	5.31
Total Demand .....	19.56	20.23	20.79	21.24	22.20	22.60	22.72	22.24	22.39	23.47	22.23	23.00	21.95	22.01	22.51

<sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

<sup>b</sup>Natural 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.

<sup>c</sup>Pipeline fuel use plus natural gas used as vehicle fuel.

<sup>d</sup>Natural 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: EIA: latest data available from EIA databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; Projections: EIA, 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														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Supply</b>															
Production.....	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1127.7	1094.3	1071.8	1111.4	1137.1
Appalachia.....	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	432.8	397.0	376.8	391.9	385.2
Interior.....	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.0	146.9	146.3	143.8	138.7
Western .....	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	547.9	550.4	548.7	575.8	613.1
Primary Stock Levels <sup>a</sup>															
Opening .....	29.0	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	38.3	34.4
Closing.....	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	35.9	43.3	38.3	34.4	34.6
Net Withdrawals.....	-4.0	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-4.0	-7.4	5.0	3.9	-0.2
Imports.....	3.4	3.8	8.2	8.9	9.5	8.1	7.5	8.7	9.1	12.5	19.8	16.9	25.0	26.7	26.7
Exports.....	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	39.6	43.0	51.1	48.4
Total Net Domestic Supply .....	886.4	897.8	887.8	963.1	952.7	987.3	1008.5	1045.7	1048.1	1035.2	1094.8	1064.2	1058.8	1091.0	1115.2
Secondary Stock Levels <sup>b</sup>															
Opening .....	147.1	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	148.9	127.0	116.0
Closing.....	170.2	166.8	123.1	139.6	138.0	126.0	108.8	131.6	149.1	108.5	146.0	148.9	127.0	116.0	114.7
Net Withdrawals.....	-23.1	3.3	43.8	-16.5	1.5	12.0	17.2	-22.8	-17.5	40.7	-37.6	-2.9	21.9	10.9	1.3
Waste Coal Supplied to IPPs <sup>c</sup> .....	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	12.5	15.1
Total Supply.....	863.3	907.2	937.9	954.5	962.7	1008.1	1033.9	1031.8	1040.2	1086.0	1067.9	1072.4	1092.2	1114.4	1131.6
<b>Demand</b>															
Coke Plants .....	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	23.7	24.2	24.6	25.0
Electric Power Sector <sup>d</sup> .....	783.9	795.1	831.6	838.4	850.2	896.9	921.4	936.6	940.9	985.8	964.4	977.5	1004.3	1011.0	1039.9
Retail and General Industry.....	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	69.6	65.2	66.2	67.3	66.7
Residential and Commercial .....	6.1	6.2	6.2	6.0	5.8	6.0	6.5	4.9	4.9	4.1	4.4	4.4	4.2	4.6	4.5
Industrial .....	75.4	74.0	74.9	75.2	73.1	71.7	71.5	67.4	64.7	65.2	65.3	60.7	62.0	62.6	62.2
CHP <sup>e</sup> .....	27.0	28.2	28.9	29.7	29.4	29.4	29.9	28.6	27.8	28.0	25.8	26.2	26.7	27.4	
Non-CHP .....	48.4	45.8	46.0	45.5	43.7	42.3	41.7	38.9	37.0	37.2	39.5	34.5	35.2	35.2	34.8
Total Demand <sup>f</sup> .....	899.2	907.7	944.1	951.3	962.1	1006.3	1029.5	1037.1	1038.6	1084.1	1060.1	1066.4	1094.7	1102.8	1131.6
Discrepancy <sup>g</sup> .....	-35.9	-0.5	-6.1	3.2	0.6	1.7	4.3	-5.3	1.6	1.9	7.7	6.1	-2.5	11.6	0.0

<sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

<sup>b</sup>Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

<sup>c</sup>Estimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>d</sup>Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, EIA.

<sup>e</sup>Coal 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 coal consumption at electricity-only plants in the industrial sector.

<sup>f</sup>Total Demand includes estimated IPP consumption.

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

Notes: Rows and columns may not add due to independent rounding. 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 or by EIA's office of Coal, Nuclear, Electric and Alternate Fuels (coal production).

Sources: Historical data: EIA: latest data available from EIA databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121, and *Electric Power Monthly*, DOE/EIA-0226. Projections: EIA, 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 Kilowatthours)**

	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Net Electricity Generation</b>															
Electric Power Sector <sup>a</sup>															
Coal.....	<b>1568.8</b>	1597.7	1665.5	1666.3	<b>1686.1</b>	1772.0	<b>1820.8</b>	<b>1850.2</b>	1858.6	1943.1	1882.8	<b>1910.6</b>	<b>1948.0</b>	1955.2	2002.0
Petroleum.....	112.8	92.2	105.4	98.7	68.1	74.8	86.5	122.2	111.5	105.2	119.1	89.7	112.5	112.1	103.7
Natural Gas.....	317.8	334.3	342.2	385.7	419.2	378.8	399.6	449.3	473.0	518.0	554.9	607.7	550.6	597.2	621.8
Nuclear.....	612.6	618.8	610.3	640.4	<b>673.4</b>	674.7	628.6	673.7	728.3	753.9	768.8	780.1	<b>763.7</b>	790.6	789.7
Hydroelectric.....	281.5	245.8	273.5	250.6	302.7	338.1	346.6	313.4	308.6	265.8	204.9	251.7	<b>260.6</b>	254.8	287.1
Other <sup>b</sup> .....	42.1	45.5	47.0	47.0	44.8	45.8	47.3	48.6	50.0	51.6	49.4	58.6	55.1	61.0	62.2
Subtotal .....	<b>2935.6</b>	<b>2934.4</b>	<b>3043.9</b>	<b>3088.7</b>	<b>3194.2</b>	<b>3284.1</b>	<b>3329.4</b>	<b>3457.4</b>	<b>3530.0</b>	<b>3637.5</b>	<b>3580.1</b>	<b>3698.5</b>	<b>3690.7</b>	3770.9	3866.6
Other Sectors <sup>c</sup> .....	138.2	149.5	153.3	158.8	159.3	160.0	162.8	162.9	164.8	164.6	156.6	160.0	157.3	162.2	164.3
Total .....	<b>3073.8</b>	<b>3083.9</b>	<b>3197.2</b>	<b>3247.5</b>	<b>3353.5</b>	<b>3444.2</b>	<b>3492.2</b>	<b>3620.3</b>	<b>3694.8</b>	<b>3802.1</b>	<b>3736.6</b>	<b>3858.5</b>	<b>3848.0</b>	3933.1	4030.8
Net Imports.....	19.6	25.4	27.8	44.8	39.2	40.2	34.1	25.9	29.0	33.8	22.0	22.8	6.4	10.2	6.6
Total Supply .....	<b>3093.4</b>	<b>3109.3</b>	<b>3225.0</b>	<b>3292.3</b>	<b>3392.7</b>	<b>3484.4</b>	<b>3526.2</b>	<b>3646.2</b>	<b>3723.8</b>	<b>3835.9</b>	<b>3758.7</b>	<b>3881.3</b>	<b>3854.4</b>	3943.3	4037.4
Losses and Unaccounted for <sup>d</sup> .....	213.4	223.7	236.0	223.7	235.4	237.4	232.2	221.0	229.2	233.0	216.1	242.1	180.8	199.3	204.0
<b>Demand</b>															
Retail Sales <sup>e</sup>															
Residential .....	<b>955.4</b>	<b>935.9</b>	<b>994.8</b>	<b>1008.5</b>	<b>1042.5</b>	<b>1082.5</b>	<b>1075.9</b>	<b>1130.1</b>	1144.9	1192.4	1202.6	<b>1267.0</b>	<b>1279.9</b>	1294.3	1323.5
Commercial <sup>f</sup> .....	<b>855.2</b>	<b>850.0</b>	<b>884.7</b>	<b>913.1</b>	<b>953.1</b>	<b>980.1</b>	<b>1026.6</b>	<b>1078.0</b>	1103.8	1159.3	1197.4	<b>1218.2</b>	<b>1223.4</b>	1230.5	1269.0
Industrial.....	<b>946.6</b>	<b>972.7</b>	<b>977.2</b>	<b>1008.0</b>	<b>1012.7</b>	<b>1033.6</b>	<b>1038.2</b>	<b>1051.2</b>	<b>1058.2</b>	<b>1064.2</b>	<b>964.2</b>	<b>972.2</b>	<b>991.4</b>	1033.8	1053.1
Transportation <sup>g</sup> .....	4.8	4.7	4.8	5.0	5.0	4.9	4.9	5.0	5.1	5.4	5.5	5.2	5.3	6.3	6.5
Subtotal .....	<b>2762.0</b>	<b>2763.4</b>	<b>2861.5</b>	<b>2934.6</b>	<b>3013.3</b>	<b>3101.1</b>	<b>3145.6</b>	<b>3264.2</b>	<b>3312.1</b>	<b>3421.4</b>	<b>3369.8</b>	<b>3462.5</b>	<b>3500.0</b>	3564.9	3652.1
Other Use/Sales <sup>h</sup> .....	118.1	122.3	127.5	134.1	144.1	145.9	148.4	160.9	182.5	181.5	172.8	176.6	173.7	179.0	181.3
Total Demand.....	<b>2880.1</b>	<b>2885.6</b>	<b>2989.0</b>	<b>3068.7</b>	<b>3157.3</b>	<b>3247.0</b>	<b>3294.0</b>	<b>3425.1</b>	<b>3494.6</b>	<b>3602.9</b>	<b>3542.6</b>	<b>3639.1</b>	<b>3673.6</b>	3743.9	3833.4

<sup>a</sup>Electric Utilities and independent power producers.

<sup>b</sup>"Other" includes generation from other gaseous fuels, geothermal, wind, wood, waste, and solar sources.

<sup>c</sup>Electricity generation from combined heat and power facilities and electricity-only plants in the industrial and commercial sectors.

<sup>d</sup>Balancing item, mainly transmission and distribution losses.

<sup>e</sup>Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's *Electric Power Monthly* and *Electric Power Annual*. Power marketers' sales are reported annually in Appendix C of EIA's *Electric Sales and Revenue*. Quarterly data for power marketers (and thus retail sales totals) are imputed. Data for 2003 are estimated.

<sup>f</sup>Commercial sector, including public street and highway lighting, interdepartmental sales and other sales to public authorities. These items, along with transportation sector; electricity were formerly included in an "other" category, which is no longer provided. (See EIA's Monthly Energy Review, Table 7.5, for a comparison of "Old Basis" and "New Basis" electricity retail sales.) Through 2003, data are estimated as the sum of "Old Basis Commercial" and approximately 95 percent of "Old Basis Other"; beginning in 2004, data are actual survey data.

<sup>g</sup>Transportation sector, including sales to railroads and railways. Through 2003, data are estimated as approximately 5 percent of "Old Basis Other"; beginning in 2004, data are actual survey data.

<sup>h</sup>Defined 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 2003 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 and by EIA's office of Coal, Nuclear, Electric and Alternate Fuels (hydroelectric and nuclear).

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