

E Short-Term Energy Outlook

April 2004

Summer Fuels Outlook Summary (Figures 1 to 3)

Motor gasoline markets remain tight and <u>motor gasoline prices</u> are likely to remain high and volatile through the summer. <u>High crude oil costs</u>, strong gasoline demand, <u>low gasoline inventories</u>, and more stringent gasoline specifications this year have increased marginal gasoline supply costs and retail prices to high levels well before the peak driving season. It is also important to note that the domestic gasoline supply system is vulnerable to severe price shocks if major refinery or pipeline outages occur. (See <u>"Summer 2004 Motor Gasoline Outlook"</u> for more detailed analysis of the gasoline market this summer.)

Two factors that could reduce the risk of sharply higher pump prices would be a more rapid decline rate for crude oil prices than currently expected and solid improvement in the availability of gasoline import volumes from those seen so far this year.

Oil Market Developments (Figures 4 to 6)

West Texas Intermediate (WTI) prices averaged about \$36.70 per barrel in March, a \$5.60 per barrel climb from last November. Price expectations through 2004 average \$33 per barrel for crude oil. Potential price spikes remain a danger given the uncertainty about Organization of Petroleum Exporting Countries (OPEC) production levels and the uncertainties surrounding the continued recovery of output and exports from Iraq as well as political unrest in Venezuela. Oil price declines are expected in 2005 as Iraqi oil production continues to increase and inventories are rebuilt toward more normal levels.

<u>Petroleum inventories remain low</u> in the countries of the Organization for Economic Cooperation and Development (OECD), particularly the United States. They are projected to remain at least slightly above observed 5-year minimums throughout the 2004-2005 forecast period.

1

OPEC-10 (OPEC minus Iraq) crude oil production in March exceeded the new official (April 1) OPEC production quotas by an estimated 2.4 million barrels per day. Looking ahead, EIA's projection reflects the expectation that OPEC-10 will reduce production by about 1.5 million barrels per day from the average March level by May, a significantly smaller cut than implied by a literal reading of OPEC's March 31 announcement. Annual OPEC crude oil production (including Iraq) is expected to remain fairly constant (at roughly 27 million barrels per day) between 2003-2005, allowing for some modest stock building over the period. Non-OPEC oil supply is projected to increase by about 1.4 million barrels per day in 2004 and by about 1.2 million barrels per day in 2005.

Annual <u>world oil demand</u> is projected to continue growing by an average of about 2.2 percent in 2004 and 2005 after posting a 2.0 percent gain in 2003. Assuming these growth rates, oil demand in 2005 would be about 3.5 million barrels per day above the 2003 level.

<u>U.S petroleum demand</u> in 2003 grew an estimated 1.6 percent to just over 20 million barrels per day. In 2004, total demand is expected to climb to 20.3 million barrels per day, up 1.4 percent, as increases in transportation- and industrial-related use offset some reductions in heavy fuel oil demand. An additional 2.5-percent growth in domestic demand is anticipated for 2005, bringing the annual average consumption rate to 20.9 million barrels per day.

Natural Gas Outlook (Figures 7 to 9)

Underground storage facilities reported withdrawals that were below the 5-year average withdrawals for March. This still left <u>natural gas inventories</u> at the end of March about 10 percent below the 5-year average level, but 37 percent higher than last year at this time.

Natural gas spot prices are likely to be about \$5.40 per thousand cubic feet (mcf) this year. (Spot prices averaged about \$6.10 per mcf in January, \$4.90 in February, and about \$5.35 in March.) The projection for 2005 is about the same. As in other recent projections, this outcome depends on modest growth in domestic production (slightly more than 1 percent per year) in 2004 and 2005.

In 2004, <u>natural gas demand</u> is expected to increase by about 2.4 percent due to economic growth, weather factors, and an overall increase in fuel oil prices relative to the average natural gas price. Demand in 2005 is expected to increase by 0.6 percent as the economy continues to expand but reductions in weather-

related demand are expected in the first quarter of 2005 relative to the first quarter of 2004, lessening the overall growth rate next year. Oil prices are expected to ease relative to natural gas in 2005. Natural gas production is estimated to have increased approximately 0.6 percent in 2003. Natural gas production is expected to continue to rise slightly through 2005 as natural gas well completions, which totaled an estimated 20,000 in 2003, continue to grow to between 22,000 and 23,000 wells per year over the next 2 years.

Electricity and Coal Outlook (Figures 10 to 12)

<u>Electricity demand</u> in 2004 is expected to increase by 1.9 percent, driven by accelerated growth in the economy and weather-related increases in the first and the fourth quarters. In 2005, annual electricity demand is projected to grow by a further 2.0 percent, as the economic expansion continues.

<u>Coal demand</u> in the electric power sector is expected to continue growing in 2004 and 2005. <u>U.S. coal production</u> is expected to increase by 2.8 and 2.9 percent in 2004 and 2005, respectively, as demand for coal increases.

Coal prices to the electric power sector are projected to increase by 3.4 percent (4 percent in the second quarter) this year. This is somewhat unusual given the generally stable nature of coal prices, and likely reflects the impact of high natural gas prices in the electric power sector on the prices of competing fossil fuels. The result has been soaring spot coal prices in the Central and Northern Appalachian coal producing regions, since the beginning of the year. In contrast, most coal prices west of the Mississippi river have remained relatively stable.

3

Figure 1. Gasoline Prices and Crude Oil Costs

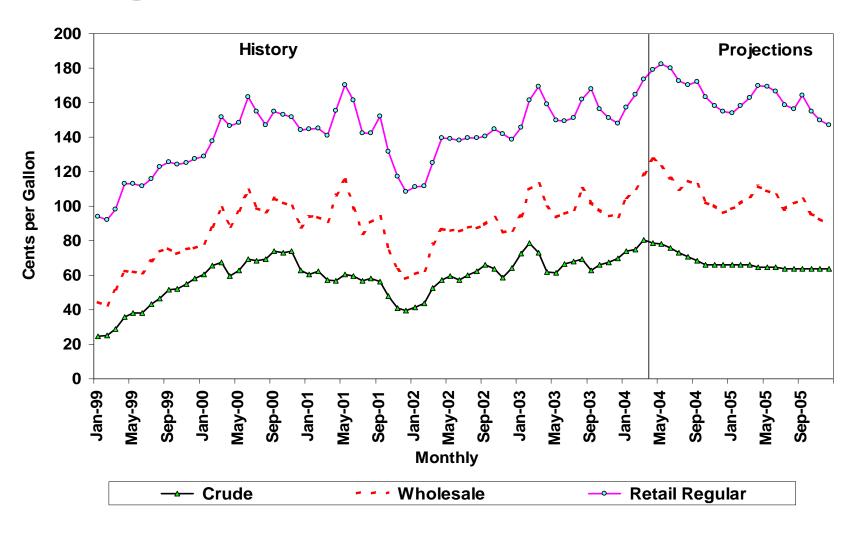
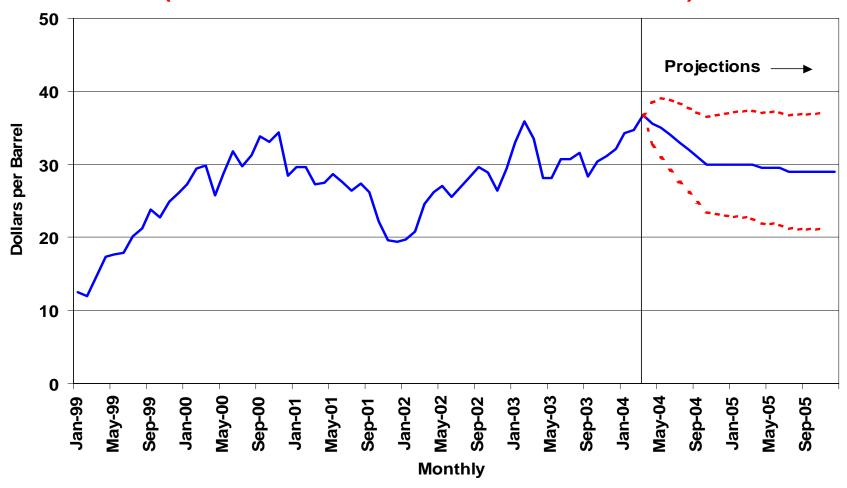




Figure 2. West Texas Intermediate Crude Oil Price

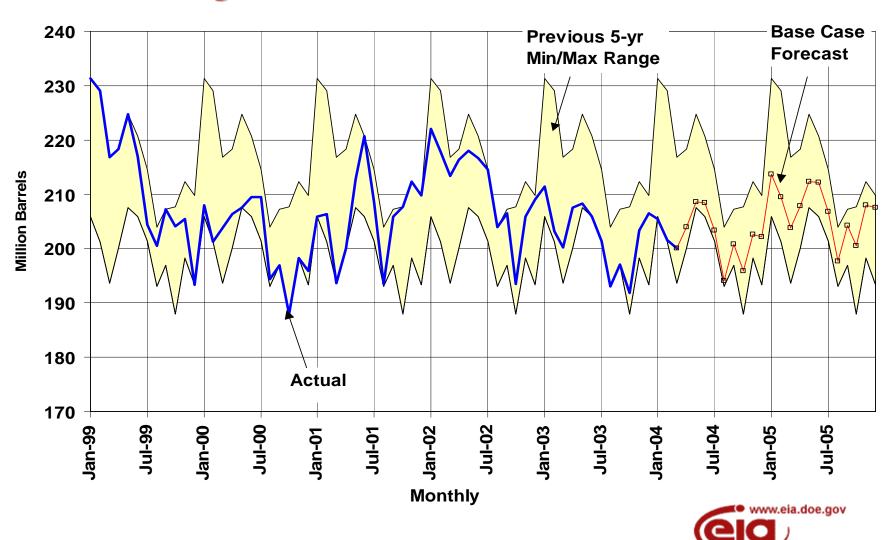
(Base Case and 95% Confidence Interval*)



^{*}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.

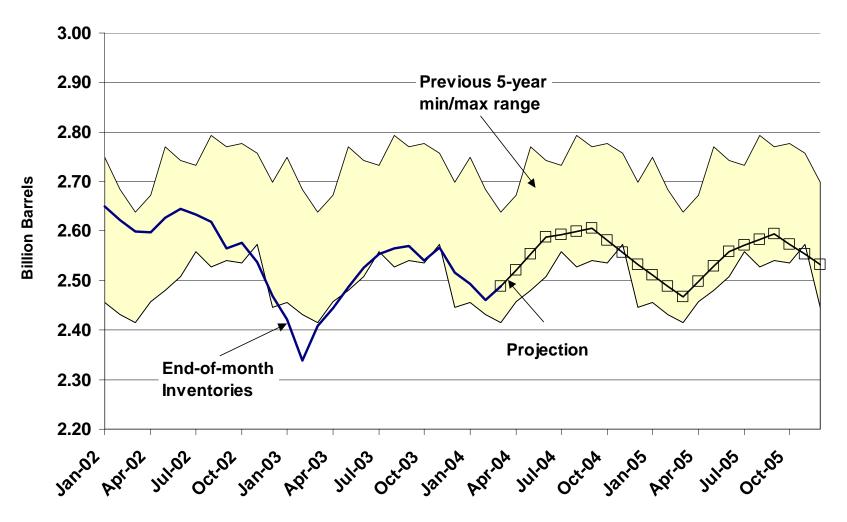
Short-Term Energy Outlook, April 2004

Figure 3. U.S. Gasoline Inventories



Short-Term Energy Outlook, April 2004

Figure 4. OECD* Commercial Oil Stocks



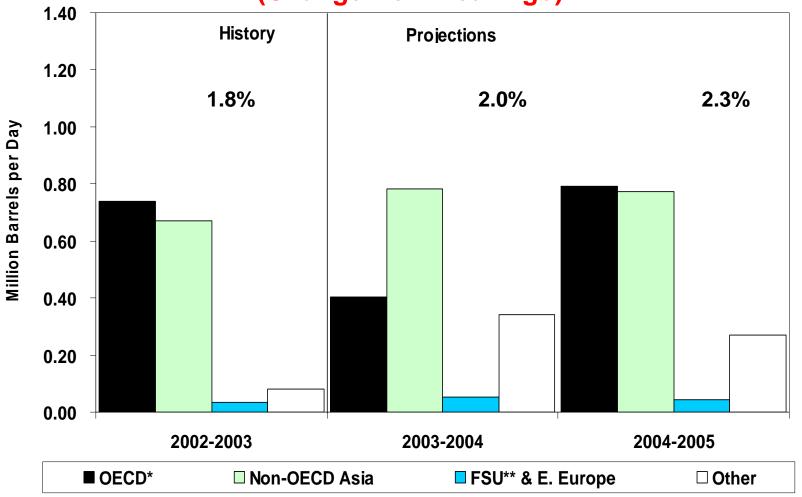
^{*}Organization for Economic Cooperation and Development





Figure 5. World Oil Demand Growth

(Change from Year Ago)



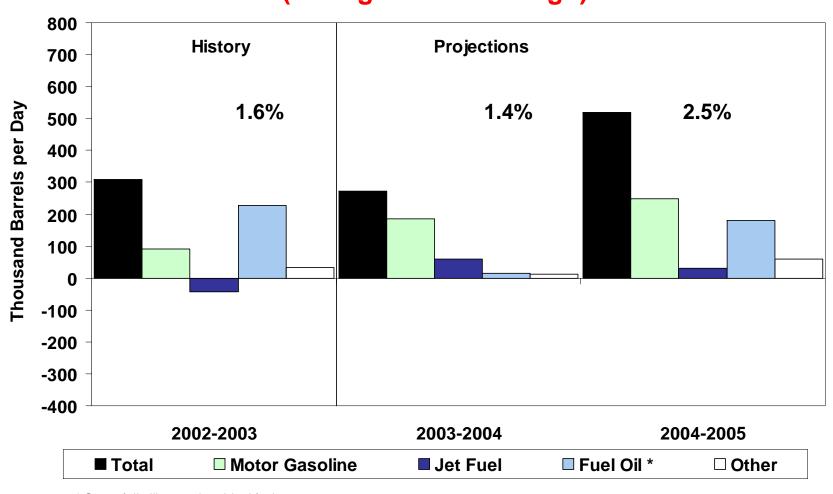
^{*} Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.

Short-Term Energy Outlook, April 2004



^{**} FSU = Former Soviet Union

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



^{*} Sum of distillate and residual fuel.



Figure 7. U.S. Working Gas in Storage

(Difference from Previous 5-Year Average)

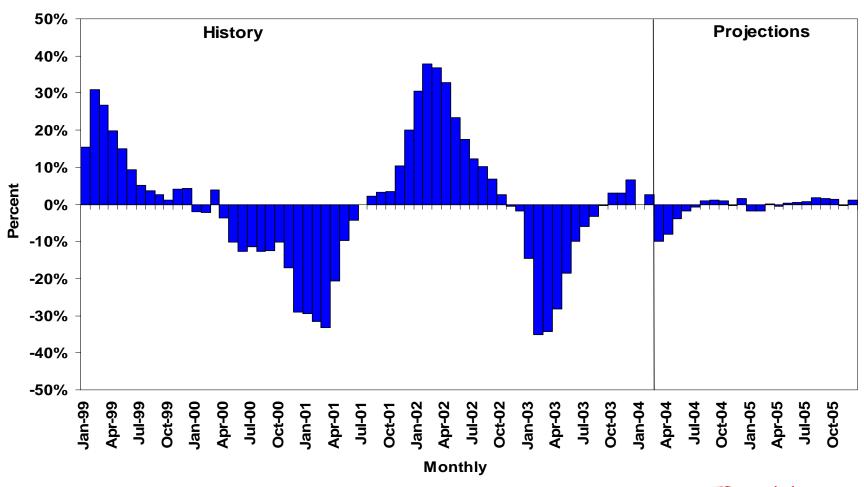
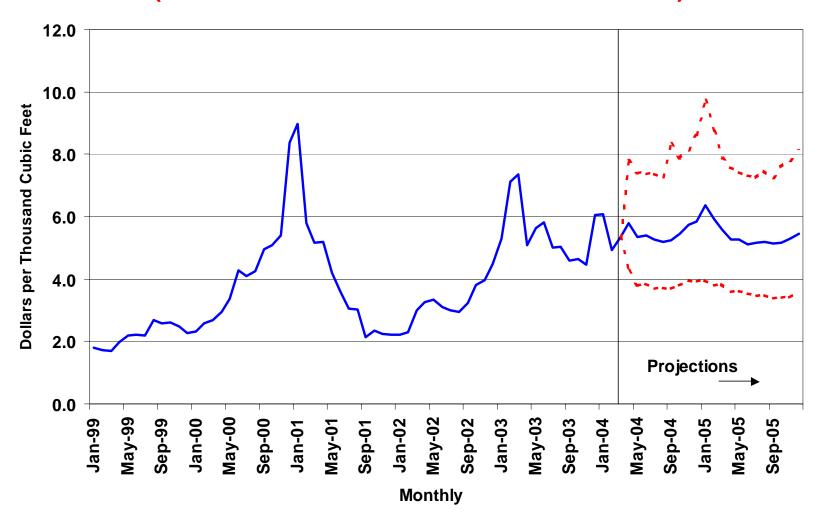




Figure 8. U.S. Natural Gas Spot Prices

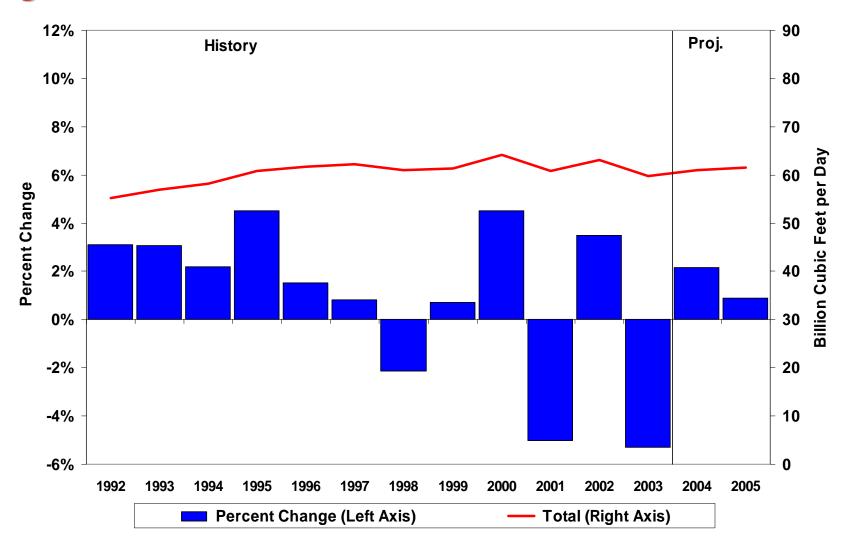
(Base Case and 95% Confidence Interval*)



^{*}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, April 2004.

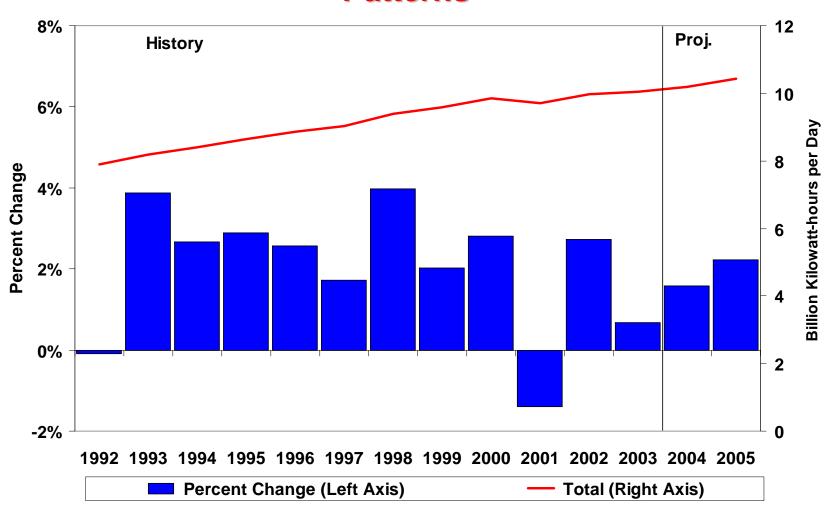
Figure 9. Total U.S. Natural Gas Demand Growth Patterns



Short-Term Energy Outlook, April 2004



Figure 10. Total U.S. Electricity Demand Growth Patterns



Short-Term Energy Outlook, April 2004



Figure 11. U.S. Coal Demand

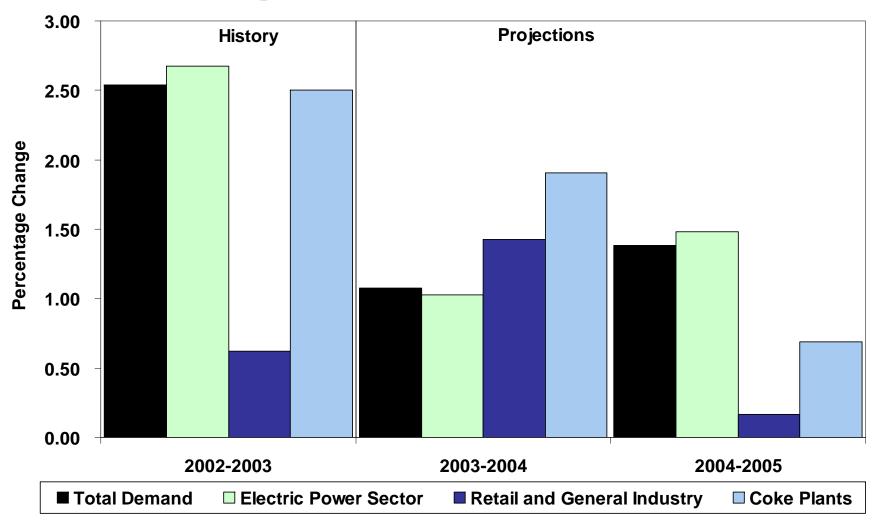
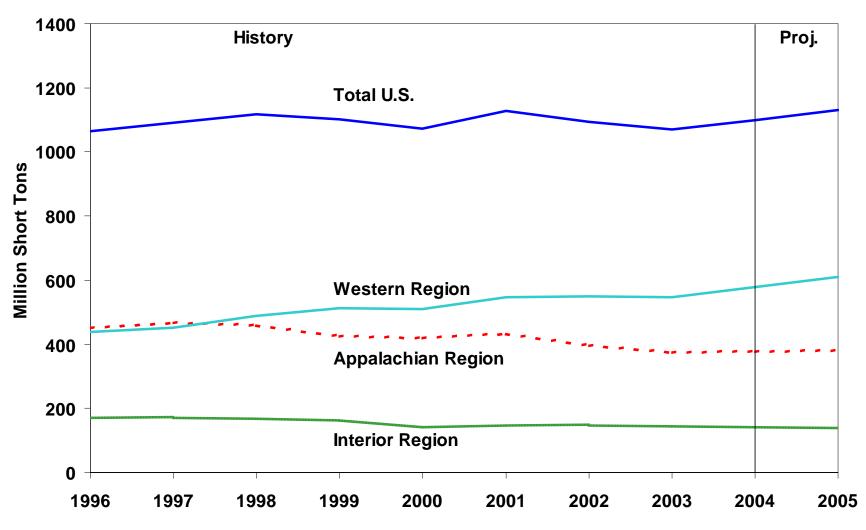




Figure 12. U.S. Coal Production



Short-Term Energy Outlook, April 2004



Additional Charts

Figure 13. Winter Heating Bills

Illustrative Consumer Prices and Expenditures for Heating Fuels During the Winter														
	Average	2000-2001	2001-2002	2002-2003	2003-2004									
	1997-1999	Actual	Actual	Actual	Base Forecast									
Natural Gas (Midwest)														
Consumption (mcf)	84	99.1	81.3	95.2	90.5									
Avg. Price (\$/mcf)	6.51	9.53	7.41	8.40	9.56									
Expenditures (\$)	550	944	602	800	865									
Heating Oil (Northeast)														
Consumption (gals)	640	728	577	743	703									
Avg. Price (\$/gal)	0.96	1.37	1.10	1.34	1.37									
Expenditures (\$)	616	996	635	993	964									
Propane (Midwest)														
Consumption (gals)	834	979	803	941	894									
Avg. Price (\$/gal)	0.93	1.38	1.11	1.20	1.28									
Expenditures (\$)	779	1349	888	1126	1143									

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.



Figure 14. U.S. Distillate Fuel Oil Inventories

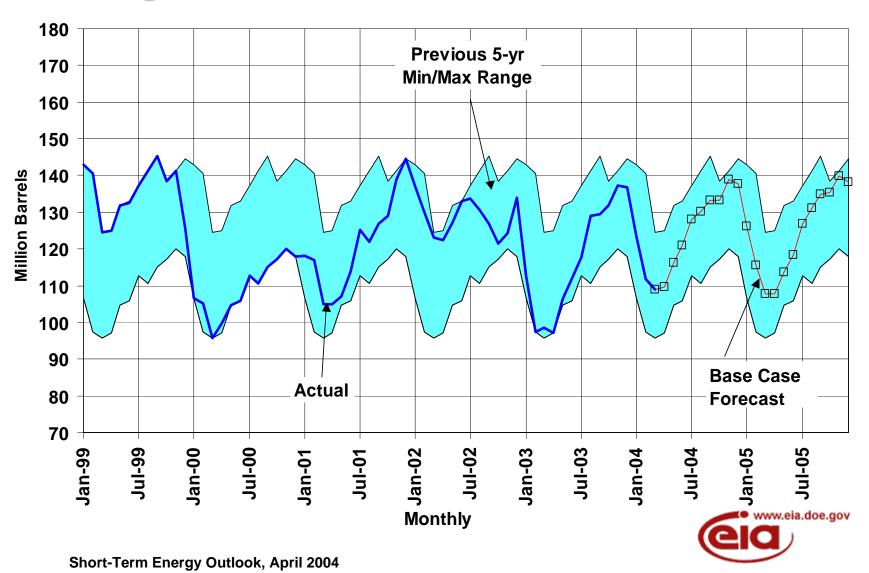


Figure 15. U.S. Distillate Fuel Prices

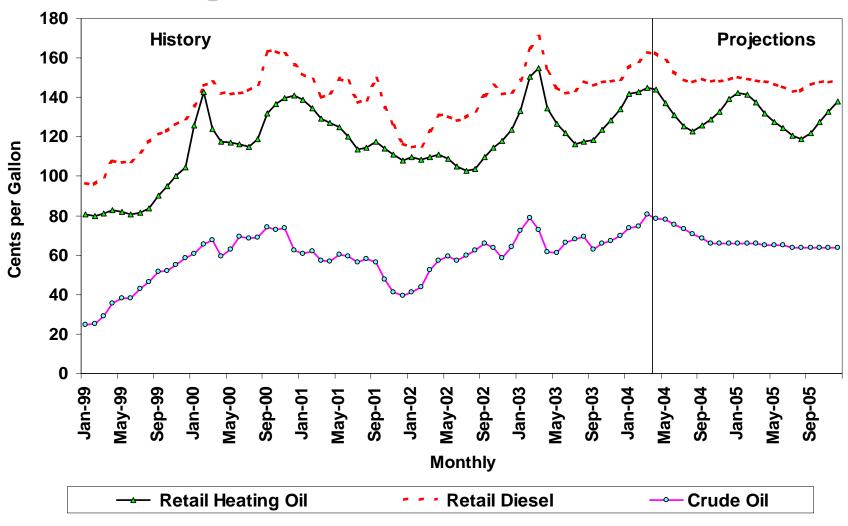




Figure 16. U.S. Crude Oil Production Trends

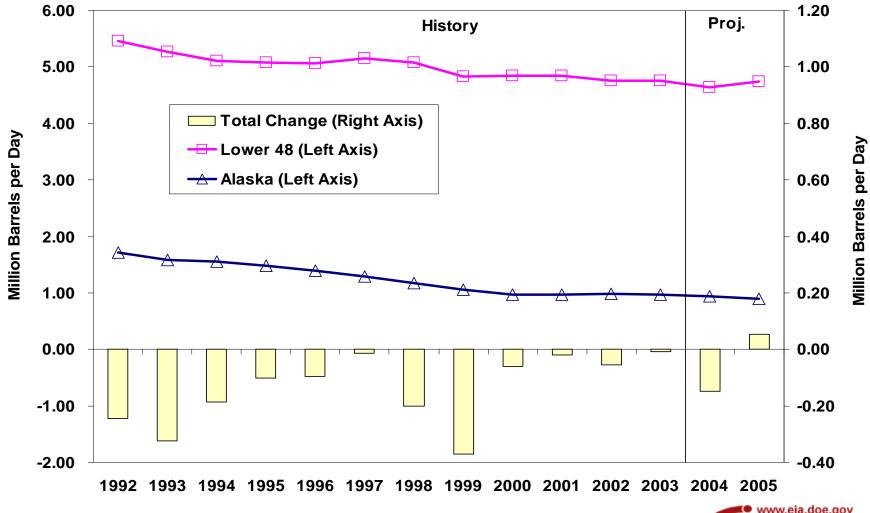




Figure 17. U.S. Natural Gas-Directed Drilling Activity

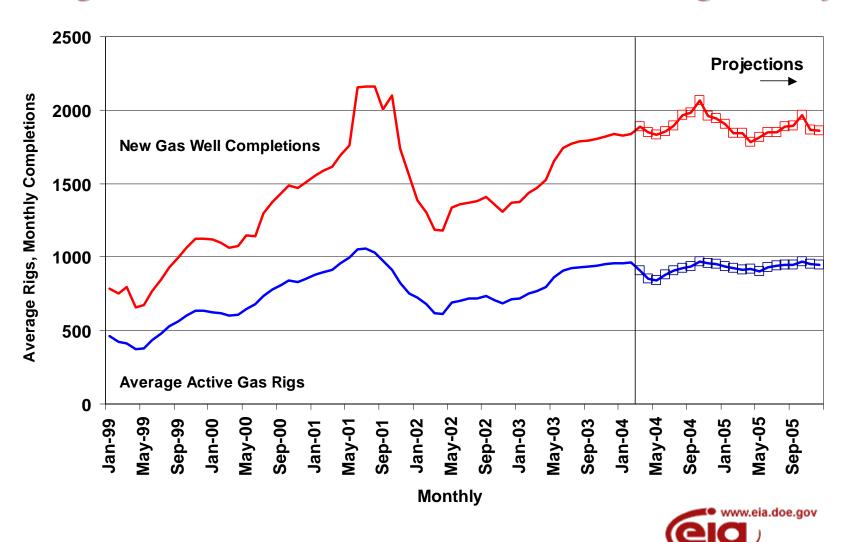


Figure 18. U.S. Oil and Gas Production Revenues

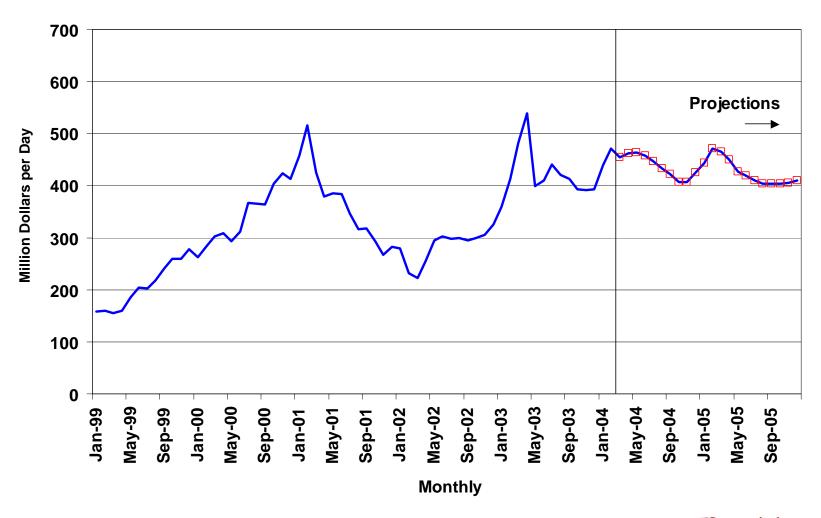




Table HL1. U.S. Energy Supply and Demand: Base Case

3, 11,		Year		Annı	ıal Percentage C	hange	
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
Real Gross Domestic Product (GDP)	<u> </u>						
(billion chained 2000 dollars)	10083	10398	10881	11243	3.1	4.7	3.3
Imported Crude Oil Price ^a							
(nominal dollars per barrel)	23.71	27.74	29.80	26.36	17.0	7.4	-11.5
Petroleum Supply (million barrels per day)							
Crude Oil Production ^b	5.75	5.74	5.59	5.64	-0.2	-2.6	0.9
Total Petroleum Net Imports							
(including SPR)	10.54	11.33	11.62	11.94	7.5	2.5	2.8
Energy Demand							
World Petroleum							
(million barrels per day)	77.7	79.1	80.7	82.5	1.8	2.0	2.3
Petroleum							
(million barrels per day)	19.76	20.07	20.34	20.86	1.6	1.4	2.5
Natural Gas	00.00	04.70	00.04	00.45	5.0	0.4	0.0
(trillion cubic feet)	23.00	21.78	22.31	22.45	-5.3	2.4	0.6
Coal ^c							
(million short tons)	1066	1093	1105	1120	2.5	1.1	1.4
Electricity (billion kilowatthours)							
Retail Sales ^d		3490	3550	3623	0.8	1.7	2.1
Other Use/Sales ^e		174	182	181	-1.4	4.4	-0.1
Total	3639	3664	3732	3805	0.7	1.9	2.0
Total Energy Demand ^f							
(quadrillion Btu)	97.4	97.4	99.2	100.9	0.1	1.9	1.6
Total Energy Demand per Dollar of GDP							
(thousand Btu per 2000 Dollar)	9.65	9.37	9.12	8.97	-3.0	-2.6	-1.6
Renewable Energy as Percent of Total ⁹	6.4%	6.4%	6.7%	6.7%			

^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 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.

^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 2003 are estimates.

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).

⁹Renewable 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 Forecast CONTROL0304.

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

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		2003				2004				2005			_	Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 2000 dollars - SAAR)	10210	10288	10493	10599	10724	10839	10933	11029	11119	11206	11283	11366	10398	10881	11243
Percentage Change from Prior Year	2.1	2.4	3.6	4.3	5.0	5.4	4.2	4.1	3.7	3.4	3.2	3.0	3.1	4.7	3.3
Annualized Percent Change from Prior Quarter	2.0	3.1	8.2	4.1	4.8	4.3	3.5	3.6	3.3	3.2	2.8	2.9			
GDP Implicit Price Deflator (Index, 2000=100)	105.2	105.4	105.9	106.2	106.6	107.1	107.5	108.1	108.6	109.0	109.5	110.0	105.7	107.3	109.3
Percentage Change from Prior Year	1.7	1.6	1.7	1.5	1.4	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.8
Real Disposable Personal Income (billion chained 2000 Dollars - SAAR)	7662	7754	7872	7872	7963	8004	8029	8090	8160	8218	8264	8324	7790	8021	8241
Percentage Change from Prior Year	1.6	1.7	3.5	3.4	3.9	3.2	2.0	2.8	2.5	2.7	2.9	2.9	2.5	3.0	2.7
Manufacturing Production (Index, 1997=100.0)	112.3	111.3	112.5	114.2	115.8	117.7	119.2	121.0	122.6	124.3	125.6	126.9	112.6	118.4	124.9
Percentage Change from Prior Year	0.6	-1.3	-0.6	1.7	3.0	5.7	6.0	6.0	5.9	5.6	5.4	4.9	0.1	5.2	5.4
OECD Economic Growth (percent) b													1.9	2.9	2.6
Weather °															
Heating Degree-Days U.S New England Middle Atlantic	3523 3218	552 1045 844 598	68 95 51 75	1502 2177 1937 1627	2218 3386 3149 2400	541 928 741 590	109 195 125 110	1631 2276 2045 1758	2254 3240 2961 2383	538 933 745 589	99 190 126 110	1623 2259 2050 1758	4448 6840 6050 4764	4499 6785 6060 4858	4514 6623 5882 4840
U.S. Gas-Weighted Cooling Degree-Days (U.S.)		327	834	92	2400 36	351	781	77	2363 34	347	784	76	4764 1289	4656 1245	1242

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

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 Forecast CONTROL0304.

^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.

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

Table 2. U.S. Energy Indi	cato		ase c	ase											
		2003				2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Macroeconomic ^a															
Real Fixed Investment															
(billion chained 2000 dollars-SAAR)	1578	1601	1661	1698	1732	1755	1775	1788	1804	1823	1837	1855	1635	1762	1830
Real Exchange Rate															
(index)	1.049	1.015	1.005	1.003	0.990	0.986	0.983	0.981	0.979	0.976	0.973	0.970	1.018	0.985	0.974
Business Inventory Change															
(billion chained 2000 dollars-SAAR)	-12.2	-15.1	-15.8	-5.9	-0.3	8.1	12.3	18.2	19.2	19.3	17.9	15.8	-12.3	9.6	18.0
Producer Price Index															
(index, 1982=1.000)	1.383	1.369	1.377	1.397	1.416	1.429	1.431	1.439	1.436	1.434	1.442	1.448	1.381	1.429	1.440
Consumer Price Index															
(index, 1982-1984=1.000)	1.831	1.834	1.845	1.848	1.860	1.869	1.876	1.886	1.893	1.900	1.908	1.918	1.840	1.873	1.904
Petroleum Product Price Index	4 074	0.040	0.075	0.000	0.050	4 000	4 0 4 7	0.047	0.007	0.005	0.000	0.000	0.000	4 000	0.040
(index, 1982=1.000)	1.074	0.918	0.975	0.886	0.956	1.088	1.017	0.947	0.967	0.985	0.938	0.908	0.963	1.002	0.949
Non-Farm Employment	420.0	400.0	400.0	420.0	400.0	400.5	101.1	404.0	400.5	400.0	400.7	4040	400.0	400.0	100.4
(millions)	130.0	129.9	129.8	130.0	130.2	130.5	131.1	131.8	132.5	133.2	133.7	134.2	129.9	130.9	133.4
Commercial Employment (millions)	01 5	91.6	91.7	91.9	92.2	92.5	93.0	93.6	94.1	94.7	95.2	95.6	91.7	92.8	94.9
Total Industrial Production	91.5	91.0	91.7	91.9	92.2	92.5	93.0	93.0	94.1	94.7	95.2	95.0	91.7	92.0	94.9
(index, 1997=100.0)	111 2	110 0	111 1	112 5	1130	1150	1165	112 0	110 /	120 8	121 0	123.0	111.2	115 0	121.3
Housing Stock	111.2	110.0		112.0	113.9	110.2	110.5	110.0	113.4	120.0	121.9	123.0	111.2	110.9	121.5
(millions)	116.6	116.9	117.0	1174	1179	1182	1186	118 9	1192	1195	119.8	120 1	1170	1184	1197
(1111110110)				, , , , ,	111.0	110.2	7 70.0	7 70.0	110.2	110.0	110.0	120.1	777.0	110.4	110.1
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1997=100.0)	100.0	99.0	99.5	101.2	102.0	102.8	103.2	103.9	104.4	105.2	105.8	106.4	100.0	103.0	105.5
Vehicle Miles Traveled b															
(million miles/day)	7292	8162	8228	7867	7540	8305	8373	7923	7676	8483	8604	8177	7890	8036	8237
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.992	1.044	1.035	1.010	0.999	1.037	1.034	1.003	0.972	1.074	1.089	1.035	1.021	1.019	1.043
Real Vehicle Fuel Cost															
(cents per mile)	4.35	3.98	4.18	4.06	4.26	4.63	4.40	4.19	4.21	4.27	4.03	3.91	4.14	4.37	4.10
Air Travel Capacity															
(mill. available ton-miles/day)	454.8	476.0	477.3	495.4	478.5	499.5	511.2	513.7	503.8	516.2	525.4	527.6	476.0	500.8	518.3
Aircraft Utilization															
(mill. revenue ton-miles/day)	244.1	269.4	277.2	267.7	257.7	282.0	292.4	280.3	271.8	293.3	303.3	290.1	264.7	278.1	289.7
Airline Ticket Price Index															
(index, 1982-1984=1.000)	2.252	2.341	2.378	2.281	2.274	2.275	2.291	2.297	2.345	2.369	2.377	2.378	2.313	2.284	2.367
Raw Steel Production															
(million tons)	25.61	25.52	24.29	23.03	22.68	24.95	25.31	24.03	26.35	27.27	27.12	26.19	98.44	96.97	106.93

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

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.

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bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

Table 3. International Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except OECD Commercial Stocks)

(Willion Barrels per Ba	2003			2004					2005					Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005	
Demand ^a			I													
OECD																
U.S. (50 States)	20.0	19.7	20.3	20.3	20.1	20.2	20.5	20.6	20.7	20.6	21.0	21.1	20.1	20.3	20.9	
U.S. Territories	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	
Canada	2.2	2.1	2.2	2.2	2.2	2.1	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.2	2.3	
Europe	15.2	15.0	15.3	15.4	15.6	14.6	15.2	15.8	15.7	14.7	15.3	15.9	15.2	15.3	15.4	
Japan	6.2	5.0	4.9	5.6	6.0	4.9	5.1	5.5	6.0	4.9	5.1	5.5	5.4	5.4	5.4	
Other OECD	5.4	5.1	5.1	5.5	5.3	5.0	5.3	5.6	5.4	5.1	5.4	5.7	5.3	5.3	5.4	
Total OECD	49.3	47.2	48.0	49.2	49.5	47.1	48.7	50.1	50.4	47.8	49.5	50.9	48.4	48.8	49.6	
Non-OECD																
Former Soviet Union	4.0	3.4	3.7	4.5	4.1	3.5	3.7	4.6	4.1	3.5	3.8	4.6	3.9	4.0	4.0	
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
China	5.5	5.7	5.7	5.6	6.0	6.3	6.2	6.1	6.5	6.8	6.7	6.6	5.6	6.1	6.6	
Other Asia	7.9	7.9	8.0	8.3	8.2	8.2	8.3	8.6	8.4	8.4	8.5	8.9	8.0	8.3	8.6	
Other Non-OECD	12.1	12.3	12.4	12.4	12.5	12.7	12.8	12.7	12.7	12.9	13.1	13.0	12.3	12.7	12.9	
Total Non-OECD	30.3	30.1	30.5	31.6	31.5	31.3	31.7	32.7	32.6	32.4	32.8	33.8	30.6	31.8	32.9	
Total World Demand	79.7	77.2	78.5	80.8	81.0	78.4	80.4	82.8	82.9	80.2	82.3	84.7	79.1	80.7	82.5	
Supply ^b																
OECD																
U.S. (50 States)	9.0	8.8	8.8	8.8	8.8	8.7	8.6	8.8	8.8	8.7	8.8	8.9	8.8	8.7	8.8	
Canada	3.0	3.0	3.2	3.2	3.3	3.1	3.2	3.3	3.2	3.2	3.3	3.4	3.1	3.2	3.3	
Mexico	3.8	3.8	3.9	3.9	3.8	3.9	4.0	3.9	4.0	4.0	4.0	3.9	3.8	3.9	4.0	
North Sea ^c	6.3	5.8	5.7	6.1	6.1	5.8	5.9	6.2	6.2	5.8	5.9	6.2	6.0	6.0	6.0	
Other OECD	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
Total OECD	23.6	22.9	23.1	23.7	23.6	23.2	23.3	23.7	23.7	23.4	23.7	24.1	23.3	23.5	23.7	
Non-OECD																
OPEC	30.1	30.1	30.3	31.6	32.1	30.5	30.4	30.5	30.7	30.9	31.1	31.1	30.5	30.9	31.0	
Crude Oil Portion	26.9	26.7	26.8	27.9	28.3	26.8	26.7	26.8	27.0	27.2	27.4	27.4	27.1	27.1	27.2	
Former Soviet Union	9.9	10.1	10.4	10.7	10.9	10.8	11.0	11.1	11.5	11.7	11.9	12.0	10.3	11.0	11.8	
China	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.3	3.4	3.4	3.4	3.4	3.4	
Other Non-OECD	11.4	11.5	11.6	11.9	12.2	12.0	12.2	12.4	12.2	12.3	12.5	12.7	11.6	12.2	12.4	
Total Non-OECD	54.8	55.1	55.8	57.7	58.6	56.7	57.1	57.4	57.7	58.2	58.9	59.1	55.9	57.5	58.5	
Total World Supply	78.4	78.0	79.0	81.4	82.2	79.9	80.4	81.2	81.5	81.6	82.6	83.2	79.2	80.9	82.2	
Additional Unaccounted for Supply	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Stock Changes																
Net Stock Withdrawals or Additions (-)																
U.S. (50 States including SPR)	8.0	-0.9	-0.4	0.3	0.0	-0.8	-0.2	0.3	0.1	-0.8	-0.1	0.4	-0.1	-0.2	-0.1	
Other	0.1	-0.2	-0.3	-1.2	-1.4	-1.0	-0.1	1.0	1.1	-0.9	-0.5	0.7	-0.4	-0.4	0.1	
Total Stock Withdrawals	1.0	-1.1	-0.7	-0.9	-1.5	-1.8	-0.3	1.3	1.2	-1.7	-0.6	1.1	-0.4	-0.6	0.0	
OECD Comm. Stocks, End (bill. bbls.)	2.4	2.5	2.6	2.5	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.5	
Non-OPEC Supply	48.3	48.0	48.6	49.7	50.1	49.4	50.0	50.6	50.7	50.7	51.5	52.1	48.7	50.0	51.3	

^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.

clincludes 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; estimates and forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: EIA: 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 3a. OPEC Oil Production

(Thousand Barrels per Day)

	04/01/2004	February 2004	March 2004		
	OPEC 10 Quota	Production	Production	Capacity	Surplus Capacity
Algeria	750	1,200	1,200	1,200	0
Indonesia	1,218	975	970	970	0
ran	3,450	3,900	3,900	3,900	0
Kuwait	1,886	2,300	2,300	2,300	0
Libya	1,258	1,450	1,450	1,450	0
Nigeria	1,936	2,350	2,350	2,350	0
Qatar	609	750	750	850	100
Saudi Arabia	7,638	8,700	8,300	10,000 - 10,500	1,700 - 2,200
United Arab Emirates	2,051	2,300	2,200	2,500	300
Venezuela	2,704	2,450	2,450	2,450	0
OPEC 10	23,500	26,375	25,870	27,970 - 28,470	2,100 - 2,600
raq		2,000	2,200	2,200	0
Crude Oil Total		28,375	28,070	30,170 - 30,670	2,100 - 2,600
Other Liquids		3,730	3,730		
Total OPEC Supply		32,105	31,800		

Notes: Crude oil does not include lease condensate or natural gas liquids. 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 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 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 2.4 - 2.5 million barrels per day, based on a 3-day moving average. Other liquids include lease condensate, natural gas liquids, and other liquids including volume gains from refinery processing.

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

(Normal Donals)	2003				2004				2005			Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Crude Oil Prices (dollars per barrel)															
Imported Average a	30.58	25.58	27.37	27.80	31.54	31.75	29.00	27.00	27.00	26.50	26.00	26.00	27.74	29.80	26.36
WTI ^b Spot Average															
Natural Gas (dollars per thousand cubic	e feet)														
Average Wellhead	5.54	5.01	4.74	4.62	5.22	4.97	4.79	5.15	5.54	4.87	4.75	4.86	4.98	5.03	5.01
Composite Spot	6.58	5.52	4.88	5.06	5.47	5.51	5.24	5.68	5.96	5.22	5.16	5.31	5.51	<i>5.4</i> 8	5.41
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades		1.57	-	1.56	1.70	1.85	1.76	1.63	1.63	1.73	1.64	1.55	1.60	1.73	1.63
Regular Unleaded	1.59	1.53	1.60	1.52	1.65	1.81	1.72	1.59	1.58	1.68	1.60	1.51	1.56	1.69	1.59
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.62	1.47	1.46	1.48	1.59	1.58	1.49	1.49	1.50	1.47	1.44	1.48	1.51	1.53	1.47
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	1.00	0.78	0.80	0.86	0.94	0.90	0.83	0.85	0.86	0.81	0.79	0.84	0.88	0.88	0.83
(dollars per gallon)	1.45	1.28	1.18	1.29	1.43	1.38	1.25	1.35	1.41	1.28	1.20	1.33	1.32	1.36	1.32
No. 6 Residual Fuel Oil, Retail d															
(dollars per barrel)	33.71	26.66	28.75	27.83	31.65	33.14	30.92	28.04	30.29	27.91	27.77	26.83	29.40	30.87	28.22
Electric Power Sector (dollars per mill	ion Btu)														
Coal		1.29	1.27	1.27	1.33	1.35	1.31	1.28	1.31	1.32	1.30	1.29	1.27	1.32	1.31
Heavy Fuel Oil ^e	5.05	4.76	4.60	4.22	4.90	5.52	5.05	4.75	4.57	4.42	4.35	4.36	4.69	5.02	4.42
Natural Gas	6.13	5.52	5.13	4.88	5.19	5.01	4.94	5.57	5.97	5.24	5.21	5.46	5.38	5.14	5.41
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	8.62	10.58	12.47	9.59	9.55	10.55	12.12	10.03	9.94	10.83	12.05	9.76	9.48	10.04	10.19
Electricity															
(cents per kilowatthour)	8.08	9.02	9.09	8.63	8.29	8.92	9.08	8.65	8.38	9.00	9.17	8.74	8.70	8.74	8.83

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

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.

^bWest Texas Intermediate.

^cAverage self-service cash prices.

^dAverage for all sulfur contents. ^eIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

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

(Million Barrels per Day, Except Closing Stocks)

(Willion Barrolo per Be	<u> </u>			2004				2005			Year				
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Supply	1			l .		l .									
Crude Oil Supply															
Domestic Production a	5.88	5.78	5.65	5.64	5.64	5.60	5.50	5.62	5.63	5.57	5.66	5.71	5.74	5.59	5.64
Alaska	1.01	0.98	0.94	0.96	0.97	0.94	0.89	0.98	0.95	0.89	0.86	0.88	0.97	0.95	0.90
Lower 48	4.87	4.80	4.71	4.67	4.67	4.66	4.61	4.64	4.68	4.67	4.80	4.83	4.76	4.64	4.75
Net Commercial Imports ^b		10.02	10.23	9.77	9.59	9.87	9.96	9.87	9.47	10.40	10.40	9.97	9.70	9.82	10.06
Not Commercial imports	0.70	10.02	. 0.20	0.77	0.00	0.07	0.00	0.07	0.47	10.40	10.40	0.07	0.70	0.02	70.00
Net SPR Withdrawals	-0.13	-0.16	-0.12	-0.11	-0.13	-0.15	-0.10	-0.12	-0.12	-0.08	0.00	0.00	-0.13	-0.12	-0.05
Net Commercial Withdrawals	-0.04	-	-0.02	0.19	-0.31	0.00	0.15	0.01	-0.21	-0.02	0.16	0.03	0.03	-0.04	-0.01
Product Supplied and Losses		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil		0.10	-0.18	-0.12	-0.02	0.47	0.31	0.02	0.39	0.37	0.13	0.00	-0.03	0.19	0.22
Offaccounted-for Crude Oil	0.00	0.10	-0.10	-0.12	-0.02	0.47	0.31	0.02	0.39	0.37	0.13	0.01	-0.03	0.19	0.22
Total Crude Oil Supply	14.56	15.71	15.56	15.38	14.77	15.79	15.82	15.39	15.16	16.23	16.35	15.72	15.30	15.45	15.87
Other Supply															
NGL Production	1.76	1.61	1.71	1.79	1.81	1.79	1.72	1.77	1.85	1.78	1.74	1.82	1.72	1.77	1.79
Other Hydrocarbon and Alcohol Inputs	0.44	0.42	0.44	0.40	0.40	0.39	0.40	0.40	0.39	0.40	0.42	0.42	0.43	0.40	0.40
Crude Oil Product Supplied		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processing Gain		0.97	1.00	1.02	0.94	0.97	0.95	0.97	0.94	0.96	0.97	0.97	0.97	0.96	0.96
Net Product Imports ^c		1.77	1.79	1.43	1.78	1.95	1.82	1.63	1.98	1.94	1.85	1.76	1.62	1.79	1.88
Product Stock Withdrawn or Added (-)		-0.80	-0.18	0.25	0.42	-0.68	-0.23	0.41	0.41	-0.66	-0.30	0.38	0.03	-0.02	-0.04
Total Supply			-	-	20.12		20.48			20.65		21.06	20.07		20.86
Demand	20.01	13.07	20.55	20.21	20.12	20.21	20.40	20.07	20.72	20.00	21.02	21.00	20.07	20.00	20.00
Motor Gasoline	8.50	9.04	9.19	9.01	8.73	9.27	9.36	9.14	8.95	9.48	9.62	9.43	8.94	9.12	9.37
Jet Fuel	1.54	1.51	1.61	1.62	1.57	1.59	9.30 1.66	9.1 4 1.70	1.62	9.40 1.62	1.68	9.43 1.72	1.57	1.63	1.66
Distillate Fuel Oil		3.80	3.79	3.92	4.16	3.86	3.81	4.14	4.34	3.95	3.91	4.21	3.93	3.99	4.10
Residual Fuel Oil		0.72	0.78	0.74	0.84	0.63		0.75	0.84	0.73	0.80	0.80			0.79
Other Oils d		4.59					0.67						0.78	0.73	
			4.96	4.98	4.82	4.85	4.97	4.85	4.97	4.87	4.99	4.89	4.86	4.87	4.93
Total Demand	20.02	19.67	20.33	20.27	20.12	20.20	20.47	20.57	20.72	20.65	21.01	21.06	20.07	20.34	20.86
Total Petroleum Net Imports	10.28	11.78	12.02	11.21	11.36	11.82	11.78	11.50	11.45	12.34	12.26	11.73	11.33	11.62	11.94
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	282	284	286	268	296	296	282	281	300	301	287	284	268	281	284
Total Motor Gasoline	200	206	197	207	200	208	201	202	204	212	204	207	207	202	207
Finished Motor Gasoline	145	153	145	147	138	150	144	145	142	153	148	151	147	145	151
Blending Components	55	53	52	60	62	59	57	57	62	59	57	57	60	57	57
Jet Fuel	37	38	40	39	35	38	40	39	37	39	41	40	39	39	40
Distillate Fuel Oil	99	112	129	137	109	121	133	138	108	118	135	138	137	138	138
Residual Fuel Oil	32	36	32	38	38	38	38	38	35	36	36	37	38	38	37
Other Oils ^e	226	275	285	241	240	279	294	252	248	286	302	261	241	252	261
Total Stocks (excluding SPR)	876	951	969	929	918	980	29 4 988	950	931	993	1006	968	929	950	968
Crude Oil in SPR	599	609	909 624	929 638	918 651	960 664	988 674	950 685	93 i 695	993 703	703	908 703	929 638	950 685	908 703
	2	2								703 2				2	703 2
Heating Oil Reserve		2 1561	2 1506	2 4560	2	2	2	2	2		2	2	2 1560		
Total Stocks (incl SPR and HOR)	14//	1001	1596	1569	1571	1647	1663	1636	1629	1697	1711	1673	1569	1636	1673

^aIncludes lease condensate.

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; estimates and forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System model.

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.

^bNet imports equals gross 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.

Table 6. Approximate Energy Demand Sensitivities^a for the STIFS^b

(Percent Deviation Base Case)

		+ 10	0% Prices	+ 109	% Weather ^e
Demand Sector	+1% GDP	Crude Oil °	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%		-0.4%	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.

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

(Million Barrels per Day)

	High	Low		Difference	
	Price Case	Price Case	Total	Uncertainty	Price Impact
United States	5.959	5.450	0.508	0.49	0.459
Lower 48 States	5.073	4.575	0.498	0.044	0.454
Alaska	0.886	0.875	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.

^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.

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 8. U.S. Natural Gas Supply and Demand: Base Case

(Trillion Cubic Feet)

(Thillon Cubic Feet)															
		2003				2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Supply															
Total Dry Gas Production	4.78	4.75	4.78	4.77	4.78	4.84	4.83	4.85	4.85	4.88	4.90	4.92	19.08	19.31	19.55
Gross Imports	0.99	0.92	0.93	0.97	0.99	0.93	0.96	1.01	0.99	0.97	0.99	1.05	3.81	3.89	4.00
Pipeline	0.91	0.80	0.77	0.83	0.85	0.77	0.80	0.85	0.84	0.78	0.80	0.85	3.30	3.27	3.26
LNG	0.08	0.13	0.16	0.14	0.14	0.16	0.16	0.17	0.15	0.19	0.19	0.20	0.51	0.62	0.74
Gross Exports	0.16	0.15	0.15	0.20	0.19	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.66	0.76	0.86
Net Imports	0.82	0.77	0.78	0.77	0.80	0.75	0.77	0.81	0.79	0.76	0.77	0.81	3.15	3.13	3.14
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	0.07	0.08	0.08
Total New Supply	5.62	5.54	5.57	5.57	5.60	5.61	5.62	5.68	5.67	5.65	5.69	5.75	22.31	22.51	22.76
Working Gas in Storage															
Opening	2.38	0.73	1.77	2.84	2.58	1.00	1.93	2.88	2.46	1.11	1.98	2.90	2.38	2.58	2.46
Closing		1.77	2.84	2.58	1.00	1.93	2.88	2.46	1.11	1.98	2.90	2.45	2.58	2.46	2.45
Net Withdrawals		-1.04	-1.08	0.26	1.58	-0.93	-0.95	0.43	1.35	-0.87	-0.92	0.45	-0.21	0.12	0.01
Total Supply	7.27	4.51	4.50	5.83	7.18	4.68	4.67	6.11	7.01	4.79	4.77	6.19	22.10	22.64	22.76
Balancing Item ^a	0.02	0.02	0.04	-0.41	-0.02	0.11	-0.02	-0.41	0.12	0.12	-0.08	-0.47	-0.32	-0.33	-0.32
Total Primary Supply	7.29	4.53	4.54	5.42	7.17	4.79	4.65	5.70	7.13	4.90	4.70	5.72	21.78	22.31	22.45
Demand															
Residential	2.50	0.82	0.37	1.33	2.43	0.81	0.38	1.43	2.38	0.82	0.38	1.43	5.03	5.04	5.01
Commercial	1.36	0.57	0.39	0.82	1.35	0.60	0.42	0.90	1.32	0.61	0.42	0.91	3.13	3.27	3.27
Industrial	2.17	1.88	1.95	2.07	2.22	2.01	2.02	2.16	2.27	2.06	2.03	2.13	8.08	8.41	8.49
Lease and Plant Fuel	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	1.12	1.15	1.15
Other Industrial		1.60	1.67	1.79	1.94	1.72	1.73	1.87	1.98	1.78	1.74	1.84	6.96	7.26	7.34
CHP ^b	0.30	0.26	0.29	0.29	0.30	0.28	0.29	0.28	0.30	0.28	0.29	0.29	1.14	1.15	1.16
Non-CHP		1.34	1.39	1.50	1.64	1.44	1.44	1.58	1.69	1.49	1.44	1.55	5.82	6.10	6.18
Transportation ^c		0.13	0.13	0.16	0.22	0.14	0.13	0.16	0.22	0.14	0.13	0.16	0.64	0.66	0.65
Electric Power d	1.05	1.13	1.70	1.04	0.94	1.23	1.70	1.05	0.94	1.26	1.73	1.09	4.91	4.93	5.02
Total Demand	7.29	4.53	4.54	5.42	7.17	4.79	4.65	5.70	7.13	4.90	4.70	5.72	21.78	22.31	22.45

^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. LNG = Liquified 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.

Table 9. U.S. Coal Supply and Demand: Base Case

(Million Short Tons)

(Willion Chort Toris)	2003				2004				2005			Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Supply															
Production	264.0	268.3	268.2	269.0	268.6	268.1	279.5	283.0	281.9	272.1	283.7	292.9	1069.5	1099.2	1130.6
Appalachia	95.2	96.6	92.4	91.6	94.2	93.5	93.6	97.5	97.8	92.6	92.5	98.4	375.7	378.8	381.3
Interior	36.2	37.0	36.1	37.2	35.1	35.7	36.0	35.7	35.3	34.8	34.9	35.3	146.5	142.6	140.3
Western	132.6	134.7	139.7	140.2	139.3	138.9	149.8	149.8	148.9	144.6	156.3	159.3	547.3	577.8	609.0
Primary Stock Levels ^a															
Opening	43.3	39.0	37.7	35.0	36.8	35.4	35.0	33.4	34.7	35.1	35.3	33.2	43.3	36.8	34.7
Closing	39.0	37.7	35.0	36.8	35.4	35.0	33.4	34.7	35.1	35.3	33.2	35.1	36.8	34.7	35.1
Net Withdrawals	4.3	1.3	2.7	-1.8	1.4	0.3	1.7	-1.4	-0.4	-0.2	2.1	-1.9	6.5	2.1	-0.3
Imports	5.0	6.4	7.1	6.6	6.5	6.8	6.3	5.9	6.7	7.0	6.5	6.1	25.0	25.4	26.3
Exports	8.5	11.4	12.1	11.0	10.7	11.4	11.2	10.9	10.9	11.5	11.3	11.1	43.0	44.1	44.8
Total Net Domestic Supply	264.7	264.6	265.8	262.9	265.8	263.9	276.3	276.6	277.3	267.4	281.0	286.1	1058.0	1082.6	1111.8
Secondary Stock Levels ^b															
Opening	148.9	136.8	148.0	128.4	127.9	130.9	141.6	128.0	129.3	131.0	140.3	126.5	148.9	127.9	129.3
Closing	136.8	148.0	128.4	127.9	130.9	141.6	128.0	129.3	131.0	140.3	126.5	132.3	127.9	129.3	132.3
Net Withdrawals		-11.1	19.6	0.5	-3.0	-10.7	13.7	-1.4	-1.7	-9.3	13.8	-5.8	21.0	-1.5	-3.0
Waste Coal Supplied to IPPs ^c	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	11.6	11.6	11.6
Total Supply	279.6	256.4	288.3	266.3	265.7	256.0	292.9	278.2	278.6	261.0	297.8	283.2	1090.6	1092.7	1120.5
Demand															
Coke Plants		6.1	6.1	6.1	6.3	6.3	6.4	5.8	6.3	6.3	6.5	5.8	24.2	24.7	24.9
Electric Power Sector d	248.7	231.4	271.7	251.9	254.3	234.5	270.7	254.5	254.6	239.5	275.5	259.4	1003.6	1013.9	1028.9
Retail and General Industry	16.9	15.6	15.8	17.3	17.6	15.3	15.8	17.9	17.7	15.2	15.8	18.0	65.6	66.5	66.6
Total Demand ^e	271.6	253.0	293.6	275.2	278.1	256.0	292.9	278.2	278.6	261.0	297.8	283.2	1093.5	1105.2	1120.5
Discrepancy f	8.0	3.4	-5.3	-9.0	-12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-12.4	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.

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

^{*}Total Demand includes estimated IPP consumption.

¹The 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 Expressing 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).

Table 10a. U.S. Electricity Supply and Demand: Base Case

(Billion Kilowatthours)

(Billion Kilowa	attnour	S)													
		2003				2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Net Electricity Generation															
Electric Power Sector ^a															
Coal	485.6	446.7	526.3	488.0	491.9	452.8	523.1	491.3	490.6	460.9	530.2	498.5	1946.6	1959.1	1980.2
Petroleum	31.5	25.8	31.9	23.8	33.7	20.9	28.8	24.3	29.4	24.9	35.7	27.2	113.0	107.7	117.3
Natural Gas	116.9	124.6	190.5	118.5	111.8	139.2	190.1	123.9	112.7	143.5	196.0	130.0	550.5	565.0	582.2
Nuclear	190.1	183.2	202.3	186.6	187.3	191.5	206.1	191.3	196.8	192.9	207.5	192.6	762.1	776.3	789.7
Hydroelectric	60.0	80.0	61.9	58.9	73.3	80.8	65.6	66.7	79.2	84.3	66.6	68.7	260.9	286.4	298.8
Other ^b	13.0	13.8	13.9	14.4	14.5	14.9	15.5	15.3	14.9	15.5	16.1	15.9	55.0	60.1	62.4
Subtotal	897.1	874.0	1026.7	890.3	912.4	900.1	1029.2	912.7	923.6	922.1	1052.2	932.8	3688.1	3754.5	3830.7
Other Sectors ^c	40.2	37.3	38.8	41.3	41.3	40.4	42.3	40.6	40.1	40.2	42.9	41.2	157.7	164.6	164.4
Total Generation	937.3	911.3	1065.5	931.6	953.7	940.5	1071.6	953.3	963.7	962.3	1095.1	974.0	3845.7	3919.0	3995.1
Net Imports	2.4	1.5	4.4	-3.8	-1.3	0.1	3.3	0.6	0.0	0.3	3.2	0.0	4.5	2.6	3.5
Total Supply	939.8	912.8	1069.9	927.8	952.4	940.6	1074.8	953.9	963.7	962.7	1098.3	974.0	3850.3	3921.7	3998.6
Losses and Unaccounted for d	30.3	57.3	44.7	54.3	30.4	59.0	44.5	55.9	31.2	60.4	45.4	57.0	186.6	189.9	194.0
Demand															
Retail Sales ^e															
Residential	337.5	273.4	377.6	283.8	338.6	283.7	374.5	299.8	344.2	291.9	381.9	306.2	1272.3	1296.5	1324.2
Commercial	265.1	267.8	314.6	268.9	267.6	272.9	314.6	273.3	272.6	282.2	325.6	282.4	1116.4	1128.5	1162.9
Industrial	237.2	247.4	259.4	248.0	243.7	253.8	264.5	253.0	244.6	256.7	267.6	255.2	991.9	1015.1	1024.1
Other		25.9	30.7	27.2	26.5	26.4	29.9	27.2	26.8	27.1	30.4	27.6	109.1	110.0	111.9
Subtotal	865.1	814.3	982.4	827.9	876.4	836.9	983.6	853.2	888.3	857.9	1005.5	871.4	3489.6	3550.1	3623.1
Other Use/Sales f	44.4	41.2	42.8	45.6	45.6	44.6	46.7	44.8	44.3	44.4	47.3	45.5	174.1	181.7	181.5
Total Demand	909.5	855.5	1025.2	873.5	922.0	881.5	1030.3	898.0	932.5	902.3	1052.8	916.9	3663.7	3731.8	3804.6

^aElectric utilities and independent power producers.

^fDefined 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).

^{bi}Other" includes generation from other gaseous fuels, geothermal, wind, wood, waste, and solar sources.

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

^dBalancing item, mainly transmission and distribution losses.

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

Table 10b. U.S. Electricity Generation by Sector: Base Case

(Billion Kilowatthours)

(Billion r	Nilowa		5)												
		2003				2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Electricity Generation by S	Sector														
Electric Power ^a															
Coal	485.6	446.7	526.3	488.0	491.9	<i>4</i> 52.8	523.1	491.3	490.6	460.9	530.2	498.5	1946.6	1959.1	1980.2
Petroleum	31.5	25.8	31.9	23.8	33.7	20.9	28.8	24.3	29.4	24.9	35.7	27.2	113.0	107.7	117.3
Natural Gas	116.9	124.6	190.5	118.5	111.8	139.2	190.1	123.9	112.7	143.5	196.0	130.0	550.5	565.0	582.2
Other ^b	263.1	276.9	278.0	259.9	275.0	287.2	287.2	273.3	291.0	292.7	290.2	277.1	1078.0	1122.7	1151.0
Subtotal	897.1	874.0	1026.7	890.3	912.4	900.1	1029.2	912.7	923.6	922.1	1052.2	932.8	3688.1	3754.5	3830.7
Commercial															
Coal	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.4	0.3	1.0	1.2	1.2
Petroleum	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.5	0.6	0.6
Natural Gas	-	1.2	1.1	1.0	1.1	1.4	1.5	1.2	1.2	1.3	1.4	1.1	4.3	5.2	5.1
Other ^b	0.4	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.5	0.6	0.6	0.6	2.0	2.4	2.3
Subtotal	1.9	2.1	2.0	1.8	2.2	2.4	2.6	2.2	2.2	2.3	2.5	2.2	7.9	9.4	9.2
Industrial															
Coal	5.5	5.0	5.4	5.4	5.6	5.4	5.8	5.2	5.4	5.3	5.8	5.2	21.4	21.9	21.7
Petroleum	1.5	1.2	1.2	1.4	1.6	1.0	1.1	1.3	1.4	1.2	1.4	1.5	5.3	5.2	5.5
Natural Gas	19.9	17.3	18.7	18.9	19.6	18.5	18.9	18.3	19.4	18.5	19.2	18.8	74.8	75.2	75.9
Other ^b	11.3	11.7	11.5	13.9	12.3	13.1	13.9	13.5	11.8	12.9	13.9	13.6	48.4	52.9	52.1
Subtotal	38.3	35.2	36.8	39.5	39.1	38.0	39.7	38.3	37.9	37.9	40.3	39.0	149.8	155.2	155.2
Total	937.3	911.3	1065.5	931.6	953.7	940.5	1071.6	953.3	963.7	962.3	1095.1	974.0	3845.7	3919.0	3995.1

^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.

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).

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

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		2003				2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Fuel Consumption for Electricity						(Quadril	lion Btu)								
Generation by Sector															
Electric Power ^a															
Coal		4.748	5.578	5.169	5.218	4.811	5.557	5.223	5.225	4.914	5.655	5.324	20.6	20.8	21.1
Petroleum		0.277	0.340	0.257	0.363	0.224	0.309	0.261	0.316	0.268	0.384	0.293	1.2	1.2	1.3
Natural Gas		1.098	1.679	1.011	0.922	1.211	1.670	1.029	0.922	1.236	1.697	1.065	4.8	4.8	4.9
Other ^b		3.068	3.100	2.813	2.930	3.054	3.062	2.915	3.097	3.111	3.094	2.955	12.0	12.0	12.3
Subtotal	9.445	9.190	10.696	9.250	9.433	9.300	10.598	9.429	9.560	9.528	10.829	9.637	38.6	38.8	39.6
Commercial															
Coal	0.003	0.003	0.004	0.003	0.004	0.003	0.005	0.004	0.004	0.003	0.004	0.004	0.013	0.015	0.014
Petroleum	. 0.003	0.001	0.002	0.002	0.003	0.001	0.002	0.002	0.003	0.001	0.002	0.002	0.007	0.008	0.008
Natural Gas	. 0.009	0.010	0.010	0.008	0.009	0.012	0.013	0.010	0.010	0.012	0.012	0.010	0.037	0.044	0.043
Other b	0.007	0.010	0.011	0.007	0.008	0.010	0.011	0.010	0.009	0.010	0.010	0.009	0.035	0.039	0.038
Subtotal	. 0.021	0.024	0.025	0.021	0.025	0.027	0.030	0.026	0.025	0.025	0.029	0.025	0.091	0.106	0.104
Industrial															
Coal	0.070	0.065	0.068	0.069	0.072	0.068	0.073	0.066	0.069	0.068	0.074	0.066	0.273	0.279	0.277
Petroleum	. 0.018	0.017	0.015	0.019	0.022	0.014	0.015	0.018	0.018	0.016	0.019	0.020	0.070	0.068	0.073
Natural Gas	. 0.176	0.157	0.168	0.172	0.176	0.168	0.171	0.166	0.175	0.168	0.174	0.170	0.673	0.681	0.687
Other ^b	0.150	0.159	0.171	0.155	0.155	0.166	0.171	0.170	0.149	0.162	0.171	0.170	0.634	0.662	0.652
Subtotal	. 0.415	0.398	0.422	0.415	0.425	0.416	0.431	0.419	0.411	0.414	0.437	0.427	1.650	1.691	1.688
Total	9.882	9.612	11.143	9.685	9.882	9.742	11.059	9.873	9.996	9.967	11.296	10.088	40.323	40.556	41.346
						(Physica	al Units)								
Electric Power ^a															
Coal (million short tons)	. 248.1	230.8	271.2	251.4	253.7	233.9	270.2	254.0	254.0	238.9	275.0	258.9	1001.5	1011.8	1026.8
Petroleum (million barrels per day)	0.614	0.494	0.596	0.454	0.650	0.402	0.544	0.461	0.570	0.477	0.673	0.516	0.539	0.514	0.559
Natural Gas (trillion cubic feet)	0.983	1.071	1.638	0.986	0.900	1.181	1.629	1.004	0.899	1.206	1.655	1.039	4.678	4.714	4.800
Commercial															
Coal (million short tons)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.5	0.6	0.6
Petroleum (million barrels per day)		0.002	0.003	0.003	0.006	0.002	0.003	0.004	0.006	0.002	0.004	0.004	0.003	0.004	0.004
Natural Gas (trillion cubic feet)		0.010	0.009	0.008	0.009	0.012	0.012	0.010	0.010	0.011	0.012	0.009	0.036	0.043	0.042
Industrial															
Coal (million short tons)	3.0	2.8	2.9	2.9	3.1	2.9	3.1	2.8	2.9	2.9	3.2	2.8	11.7	12.0	11.8
Petroleum (million barrels per day)		0.032	0.028	0.034	0.040	0.026	0.028	0.032	0.034	0.030	0.035	0.036	0.032	0.031	0.033
Natural Gas (trillion cubic feet)		0.153	0.163	0.168	0.172	0.163	0.167	0.162	0.171	0.164	0.170	0.166	0.656	0.664	0.670

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).

^aElectric utilities and independent power producers. ^b"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

Table 11. U.S. Renewable Energy Use by Sector: Base Case

(Quadrillion Btu)

		Year			Annua	I Percentage C	hange
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
Electricity Sector							
Hydroelectric Power ^a	2.633	2.725	2.993	3.123	3.5	9.8	4.3
Geothermal, Solar and Wind Energy b	0.415	0.388	0.431	0.450	-6.5	11.1	4.4
Biofuels ^c	0.516	0.505	0.531	0.541	-2.1	5.1	1.9
Total	3.563	3.618	3.954	4.114	1.5	9.3	4.0
Other Sectors ^d							
Residential and Commercial ^e	0.539	0.532	0.569	0.586	-1.3	7.0	3.0
Residential	0.418	0.436	0.455	0.474	4.3	4.4	4.2
Commercial	0.121	0.096	0.114	0.111	-20.7	18.8	-2.6
Industrial f	1.792	1.795	1.846	1.818	0.2	2.8	-1.5
Transportation ^g	0.175	0.236	0.268	0.275	34.9	13.6	2.6
Total	2.506	2.564	2.683	2.678	2.3	4.6	-0.2
Total Renewable Energy Demand	6.069	6.182	6.637	6.792	1.9	7.4	2.3

^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. EIA does not estimate or project total consumption of non-marketed renewable energy.

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

Consists 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; 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
Real Gross Domestic Product (GDP)															
(billion chained 2000 dollars)	7101	7337	7533	7835	8032	8329	8704	9067	9470	9817	9867	10083	10398	10881	11243
Imported Crude Oil Price ^a															
(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	29.80	26.36
Petroleum Supply															
Crude Oil Production ^b															
(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	5.74	5.59	5.64
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	11.33	11.62	11.94
Energy Demand															
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	20.07	20.34	20.86
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	21.78	22.31	22.45
Coal															
(million short tons)	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1066	1093	1105	1120
Electricity (billion kilowatthours)															
Retail Sales ^c		2763	2861	2935	3013	3101	3146	3264	3312	3421	3370	3463	3490	3550	3623
Other Use/Sales d		122	128	134	144	146	148	161	183	181	173	177	174	182	181
Total	2880	2886	2989	3069	3157	3247	3294	3425	3495	3603	3543	3639	3664	3732	3805
Total Energy Demand ^e															
(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	97.4	99.2	100.9
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	9.76	9.65	9.37	9.12	8.97

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

blncludes lease condensate.

^cTotal 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.

^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 2003 are estimates.

e "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

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 Forecast CONTROL0304.

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
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2000 dollars)	7101	7337	7533	7835	8032	8329	8704	9067	9470	9817	9867	10083	10398	10881	11243
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	103.9	105.7	107.3	109.3
Real Disposable Personal Income															
(billion chained 2000 Dollars)	5352	5536	5594	5746	5906	6081	6296	6664	6862	7194	7320	7597	7790	8021	8241
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	124.9
Real Fixed Investment															
(billion chained 2000 dollars)	829	878	953	1042	1110	1209	1321	1455	1576	1679	1626	1566	1635	1762	1830
Real Exchange Rate															
(Index, 2000=1.000)	1.026	1.025	1.026	1.025	0.974	0.930	0.927	1.042	1.031	1.000	1.023	1.042	1.018	0.985	0.974
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	-23.4	-7.5	-12.3	9.6	18.0
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	1.429	1.440
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	1.873	1.904
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	0.963	1.002	0.949
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	130.9	133.4
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	92.8	94.9
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	115.9	121.3
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	117.0	118.4	119.7
Weather ^a															
Heating Degree-Days															
U.S	4200	4431	4672	4472	4516	4690	4523	3946	4153	4447	4191	4284	4448	4499	4514
New England	6042	6018	5904	6748	6631	5850	6725	5742	6014	6585	6110	6099	6840	6785	6623
Middle Atlantic		6108	6040	6083	5966	6118	5940	4923	5493	5944	5424	5372	6050	6060	5882
U.S. Gas-Weighted		4458	4754	4659	4707	4980	4802	4183	4399	4680	4451	4560	4764	4858	4840
Cooling Degree-Days (U.S.)		1051	1222	1228	1293	1186	1167	1414	1301	1240	1256	1393	1289	1245	1242

^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.

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 Forecast CONTROL0304. Degree-day projections are from NOAA's Climate Prediction Center.

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 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
Production		•													
Coal	21.59	21.63	20.25	22.11	22.03	22.68	23.21	23.94	23.19	22.62	23.05	22.56	22.05	22.67	23.31
Natural Gas	18.23	18.38	18.58	19.35	19.08	19.27	19.32	19.61	19.34	19.66	20.17	19.49	19.62	19.85	20.09
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	12.15	11.87	11.94
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	2.34	2.42	2.45
Nuclear	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.96	8.11	8.25
Hydroelectric	2.99	2.60	2.87	2.67	3.20	3.58	3.62	3.27	3.23	2.78	2.12	2.60	2.71	2.98	3.11
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	3.38	3.56	3.58
Total	70.38	69.96	68.29	70.70	71.17	72.42	72.34	72.80	71.67	71.24	71.32	70.91	70.20	71.45	72.73
Net Imports															
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	-0.51	-0.51
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	3.23	3.21	3.22
Crude Oil	13.14	12.36	13.16	14.32	15.69	15.02	16.59	17.79	18.84	18.87	19.77	19.38	20.61	20.91	21.37
Petroleum Products	2.15	1.86	1.80	2.08	1.56	1.87	1.64	1.85	2.10	2.31	2.61	2.40	2.72	2.95	3.14
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	0.01	0.01
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	0.06	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	24.89	26.12	26.63	27.30
Adjustments ^a	-0.13	2.21	3.72	1.08	1.93	4.07	3.10	1.36	1.81	3.94	-0.40	1.55	1.08	1.17	0.84
Demand															
Coal	18.99	19.12	19.84	19.91	20.09	21.00	21.45	21.66	21.62	22.58	21.66	22.00	22.55	22.80	23.11
Natural Gas	19.72	20.15	20.83	21.35	21.84	22.78	23.20	23.33	22.93	23.01	24.04	24.88	23.57	24.14	24.29
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	39.02	39.67	40.56
Nuclear	6.42	6.48	6.41	6.69	7.08	7.09	6.60	7.07	7.61	7.86	8.03	8.15	7.96	8.11	8.25
Other	6.54	6.59	6.66	6.62	7.66	7.59	7.22	6.16	6.65	7.09	4.26	4.02	4.32	4.54	4.67
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	97.41	99.24	100.87

^aBalancing 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)

(i tolimiai 2 oliaio)								Year							
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Crude Oil Prices (dollars per barrel)															
Imported Average a	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	29.80	26.36
WTI ^b Spot Average	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.12	31.12	33.03	29.38
Natural Gas (dollars per thousand cubic	feet)														
Average Wellhead	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.70	4.02	2.95	4.98	5.03	5.01
Composite Spot	1.41	1.67	2.03	1.77	1.53	2.48	2.45	2.03	2.20	4.21	4.00	3.22	5.51	<i>5.4</i> 8	5.41
Petroleum Products															
Gasoline Retail ^c (dollars per gallon)															
All Grades	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	1.73	1.63
Regular Unleaded	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	1.69	1.59
No. 2 Diesel Oil, Retail															
(dollars per gallon)	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	1.53	1.47
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.69	0.88	0.88	0.83
No. 2 Heating Oil, Retail															
(dollars per gallon)	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.23	1.11	1.32	1.36	1.32
No. 6 Residual Fuel Oil, Retail d															
(dollars per barrel)	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.24	23.81	29.40	30.87	28.22
Electric Power Sector (dollars per millio	n Btu)														
Coal	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.25	1.27	1.32	1.31
Heavy Fuel Oil ^e		2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.73	3.68	4.69	5.02	4.42
Natural Gas	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.34	4.44	3.54	5.38	5.14	5.41
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.63	7.91	9.48	10.04	10.19
Electricity															
(cents per kilowatthour)	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.62	8.45	8.70	8.74	8.83
^a Refiner acquisition cost (RAC) of imported (crudo oil														

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

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.

^bWest Texas Intermediate.

^cAverage self-service cash prices.

dAverage for all sulfur contents.

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

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
Supply															
Crude Oil Supply															
Domestic Production a	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	5.59	5.64
Alaska		1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	0.98	0.97	0.95	0.90
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	4.76	4.64	4.75
Net Commercial Imports b	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	9.12	9.70	9.82	10.06
Net SPR Withdrawals		-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	-0.12	-0.13	-0.12	-0.05
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	0.03	-0.04	-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		0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	0.11	-0.03	0.19	0.22
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	15.45	15.87
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	1.77	1.79
Other Hydrocarbon and Alcohol Inputs		0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	0.42	0.43	0.40	0.40
Crude Oil Product Supplied		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	0.96	0.96
Net Product Imports ^c	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	1.42	1.62	1.79	1.88
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	0.15	0.03	-0.02	-0.04
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	20.07	20.35	20.86
Demand															
Motor Gasoline d	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	8.85	8.94	9.12	9.37
Jet Fuel		1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	1.61	1.57	1.63	1.66
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	3.99	4.10
Residual Fuel Oil		1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	0.70	0.78	0.73	0.79
Other Oils ^e	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	4.82	4.86	4.87	4.93
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	20.07	20.34	20.86
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	11.33	11.62	11.94
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	325	318	335	337	303	284	305	324	284	286	312	278	268	281	284
Total Motor Gasoline		216	226	215	202	195	210	216	193	196	210	209	207	202	207
Jet Fuel		43	40	47	40	40	44	45	41	45	42	39	39	39	40
Distillate Fuel Oil		141	141	145	130	127	138	156	125	118	145	134	137	138	138
Residual Fuel Oil		43	44	42	37	46	40	45	36	36	41	31	38	38	37
Other Oils f		263	273	275	258	250	259	291	246	247	287	258	241	252	261

^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 EIA, Short-Term Energy Outlook, EIA/DOE-0202(93/3Q), for details on this adjustment.

elncludes 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.

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

SPR: Strategic Petroleum Reserve. NGL: Natural Gas Liquids

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

Sources: Historical data: 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
Supply			•			•		•							
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	19.08	19.31	19.55
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	3.81	3.89	4.00
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	0.66	0.76	0.86
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	3.15	3.13	3.14
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	0.08	0.07	0.08	0.08
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	22.54	22.31	22.51	22.76
Working Gas in Storage															
Opening	2.85	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.38	2.58	2.46
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	2.58	2.46	2.45
Net Withdrawals	0.03	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.19	0.53	-0.21	0.12	0.01
Total Supply	19.48	20.11	20.70	21.11	21.85	21.66	21.74	21.54	22.54	23.61	22.12	23.07	22.10	22.64	22.76
Balancing Item ^a	0.08	0.12	0.09	0.13	0.35	0.94	0.98	0.70	-0.15	-0.15	0.11	-0.07	-0.32	-0.33	-0.32
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	21.78	22.31	22.45
Demand															
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	5.03	5.04	5.01
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	3.13	3.27	3.27
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	8.08	8.41	8.49
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	1.15	1.15
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	6.96	7.26	7.34
CHP ^b	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	1.15	1.16
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	5.82	6.10	6.18
Transportation ^c	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	0.66	0.65
Electric Power ^d	3.32	3.45	3.47	3.90	4.24	3.81	4.06	4.59	4.82	5.21	5.34	5.67	4.91	4.93	5.02
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	21.78	22.31	22.45

^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.

CHP =

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.

^b 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.

^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.

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
Supply															
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	1069.5	1099.2	1130.6
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	375.7	378.8	381.3
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	146.5	142.6	140.3
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	547.3	577.8	609.0
Primary Stock Levels ^a															
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	36.8	34.7
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	36.8	34.7	35.1
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	6.5	2.1	-0.3
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	25.4	26.3
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	44.1	44.8
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	1058.0	1082.6	1111.8
Secondary Stock Levels ^b															
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	127.9	129.3
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	127.9	129.3	132.3
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	21.0	-1.5	-3.0
Waste Coal Supplied to IPPs ^c	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	11.6
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	1090.6	1092.7	1120.5
Demand															
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	24.7	24.9
Electric Power Sector d	783.9	795.1	831.6	838.4	850.2	896.9	921.4	936.6	940.9	985.8	964.4	977.5	1003.6	1013.9	1028.9
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	65.6	66.5	66.6
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	4.4	4.6	4.4
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	61.2	61.9	62.2
CHP ^e	27.0	28.2	28.9	29.7	29.4	29.4	29.9	28.6	27.8	28.0	25.8	26.2	26.8	27.6	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	34.4	34.3	34.8
Total Demand ^f	899.2	907.7	944.1	951.3	962.1	1006.3	1029.5	1037.1	1038.6	1084.1	1060.1	1066.4	1093.5	1105.2	1120.5
Discrepancy ^g	-35.9	-0.5	-6.1	3.2	0.6	1.7	4.3	-5.3	1.6	1.9	7.7	6.1	-2.9	-12.4	0.0

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

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.

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

Estimated 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, EIA.

^eCoal 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.

^fTotal Demand includes estimated IPP consumption.

⁹The 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.

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
Net Electricity Generation		•													
Electric Power Sector ^a															
Coal	1568.8	1597.7	1665.5	1666.3	1686.1	1772.0	1820.8	1850.2	1858.6	1943.1	1882.8	1910.6	1946.6	1959.1	1980.2
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	113.0	107.7	117.3
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	550.5	565.0	582.2
Nuclear	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	728.3	753.9	768.8	780.1	762.1	776.3	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	260.9	286.4	298.8
Other ^b	42.1	45.5	47.0	47.0	44.8	45.8	47.3	48.6	50.0	51.6	49.4	58.6	55.0	60.1	62.4
Subtotal	2935.6	2934.4	3043.9	3088.7	3194.2	3284.1	3329.4	3457.4	3530.0	3637.5	3580.1	3698.5	3688.1	3754.5	3830.7
Other Sectors ^c	138.2	149.5	153.3	158.8	159.3	160.0	162.8	162.9	164.8	164.6	156.6	160.0	157.7	164.6	164.4
Total	3073.8	3083.9	3197.2	3247.5	3353.5	3444.2	3492.2	3620.3	3694.8	3802.1	3736.6	3858.5	3845.7	3919.0	3995.1
Net Imports	19.6	25.4	27.8	44.8	39.2	40.2	34.1	25.8	29.0	34.0	22.0	22.9	4.5	2.6	3.5
Total Supply	3093.4	3109.3	3225.0	3292.3	3392.7	3484.4	3526.2	3646.1	3723.8	3836.2	3758.7	3881.3	3850.3	3921.7	3998.6
Losses and Unaccounted for d	213.4	223.7	236.0	223.7	235.4	237.4	232.2	221.0	229.2	233.3	216.1	242.2	186.6	189.9	194.0
Demand															
Retail Sales ^e															
Residential	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1202.6	1267.0	1272.3	1296.5	1324.2
Commercial	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1089.2	1116.2	1116.4	1128.5	1162.9
Industrial	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	964.2	972.2	991.9	1015.1	1024.1
Other	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	113.8	107.1	109.1	110.0	111.9
Subtotal	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3369.8	3462.5	3489.6	3550.1	3623.1
Other Use/Sales f	118.1	122.3	127.5	134.1	144.1	145.9	148.4	160.9	182.5	181.5	172.8	176.6	174.1	181.7	181.5
Total Demand	2880.1	2885.6	2989.0	3068.7	3157.3	3247.0	3294.0	3425.1	3494.6	3602.9	3542.6	3639.1	3663.7	3731.8	3804.6

^aElectric 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 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.

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

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

^dBalancing item, mainly transmission and distribution losses.

eTotal of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S *Electric Power Monthly* and *Electric Power Annual*. Power marketers' sales 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.

^fDefined 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.