

#### **E** Short-Term Energy Outlook

September 2004

#### **Crude Oil and Petroleum Products** (Figures 1 to 5)

The average <u>WTI spot price</u> for August 2004 was \$44.90 per barrel, about \$3 above the average projected for August in last month's *Outlook*. The baseline WTI price projections have been raised slightly in the near term so that a monthly average price below \$40 per barrel is not expected until about midway through 2005.

Oil prices remain high even though OPEC is producing at its highest levels since OPEC began tracking quotas in 1982. OPEC (including Iraq) crude oil production in August was 29.7 million barrels per day, about the same as July levels (revised upwards from the last *Outlook*). World oil surplus production capacity is currently near its lowest point of the past 3 decades, providing an extremely limited cushion in the event of unexpected world oil market disruptions.

The overall level of petroleum inventories, both in the United States and in the rest of the industrialized world, remains below normal, particularly when viewed in the context of rapidly increasing global oil demand. World oil demand growth for 2004 has been revised upwards to 2.4 million barrels per day (3.2 percent higher than 2003), with a revision to Chinese oil demand growth accounting for 300,000 of the total 400,000 barrels per day increase since the last *Outlook*. Global oil demand growth in 2005 is expected to slow somewhat to 2.4 percent, in part due to the impact of high oil prices on world economic growth.

The average U.S. pump price for regular gasoline has varied between the upper \$1.80's and low \$1.90's per gallon since the third week of June. On September 7, 2004, it stood at \$1.85 per gallon, 21 cents below the peak level recorded in EIA's weekly survey on May 24 of this year. Small reductions in monthly average pump prices are expected after Labor Day. Spot prices for gasoline have weakened recently as gasoline inventories shifted to the top of their normal range at the end of August from the low end of their normal range in June. This development may accelerate price declines in the near term, and the U.S. average pump price for regular gasoline may dip below \$1.80 per gallon by the end of the

1

year. However, high current and projected crude oil costs suggest that larger reductions in average gasoline prices are unlikely anytime soon.

<u>U.S. petroleum demand</u> is projected to average 20.4 million barrels per day this year, a 1.9 percent increase from the 2003 average. Further growth of 1.7 percent is expected for 2005. The increase is led mainly by transportation fuels. For 2004 and 2005, motor gasoline demand growth is projected to average 1.9 percent per year. Jet fuel demand growth is projected to average a robust 3.8 percent, while diesel fuel consumption growth is projected to average 2.7 percent. Refinery capacity utilization is expected to increase from an average 92.3 percent this year to 94.2 percent in 2005.

#### Natural Gas (Figures 6 to 7)

Natural gas prices continued to weaken in August as cooling demand levels and peak power demand stayed well below normal for the second month in a row. August cooling degree-days were the lowest since 1992 on a national population-weighted basis. The average spot price for natural gas at the Henry Hub was \$5.56 per thousand cubic feet (mcf), about 7 percent below the projected value from the August *Outlook*.

The lower prices and relatively weak summer demand spurred high rates of storage injection, resulting in an estimated end-August level of working gas in storage of 2,743 billion cubic feet, nearly 2.4 percent above last month's projection, and about 9 percent above the 5-year average. The higher storage levels are likely to transmit some of the current weakness in prices to the heating season months, although spot prices are still expected to rise significantly once the heating season gets under way.

With high rates of drilling for natural gas in North America, we project about 1.4-percent growth in domestic production next year. Steady, if modest, increases in liquefied natural gas imports, restrained export growth, and carryover from the robust storage levels noted above will also contribute to an expected moderate improvement in the supply picture through 2005.

Therefore, natural gas spot prices are not expected to post a significantly higher average in 2005 than in 2004. Henry Hub prices averaged \$5.80 per mcf in 2003 and are expected to average \$5.96 in 2004 and \$6.14 in 2005.

#### **Electricity and Coal Outlook** (Figures 8 to 10)

Electricity demand is expected to increase by 1.6 percent this year and by another 2.8 percent next year. Continued economic growth in the 3- to 4-percent range is generally consistent with electricity demand growth of roughly 2 percent annually. However, weather patterns may reduce electricity demand growth at times. For example, electricity demand in the third quarter of 2004 is estimated to have declined slightly compared with the third quarter of 2003 because cooling demand has been far below normal during this quarter. Projections for electricity demand in the fourth quarter of 2004 are 3 percent above the prior-year level, when heating-related demand was depressed by mild conditions.

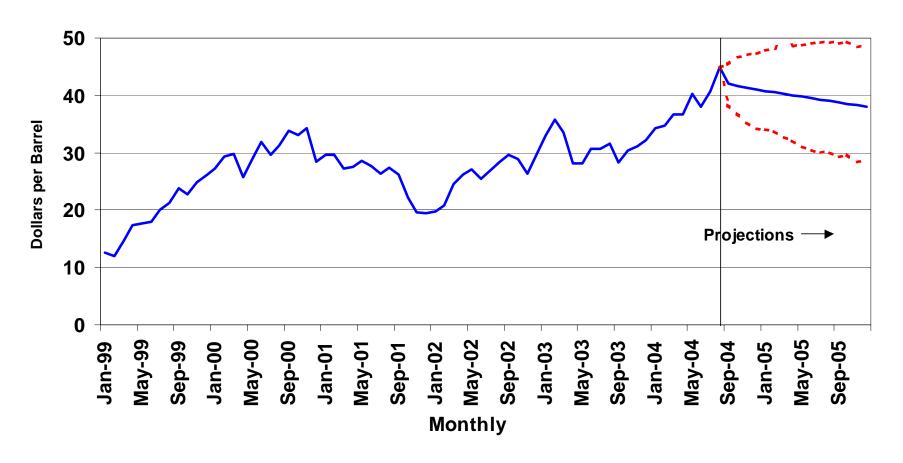
<u>Coal demand</u> in the electric power sector is expected to show steady gains of 1.3 percent this year and 2.7 percent next year. Despite higher spot prices for coal, coal demand continues to increase in the power sector as oil and gas prices remain high and hydroelectric power availability remains low. <u>U.S. coal production</u> is expected to grow by 3.6 percent in 2004 and by another 3.9 percent in 2005. While many utilities in the eastern United States depend on coal to produce their baseload generation, many utilities in the western United States depend on hydropower.

#### **Winter Fuels Costs** (Figure 11)

Expected home heating fuel costs for the upcoming winter have been adjusted downward from last month's report due to the somewhat weaker natural gas prices. However, natural gas-heated households are still expected to see an increase of about 15 percent in total heating expenditures compared to those seen in the 2003-2004 heating season.

3

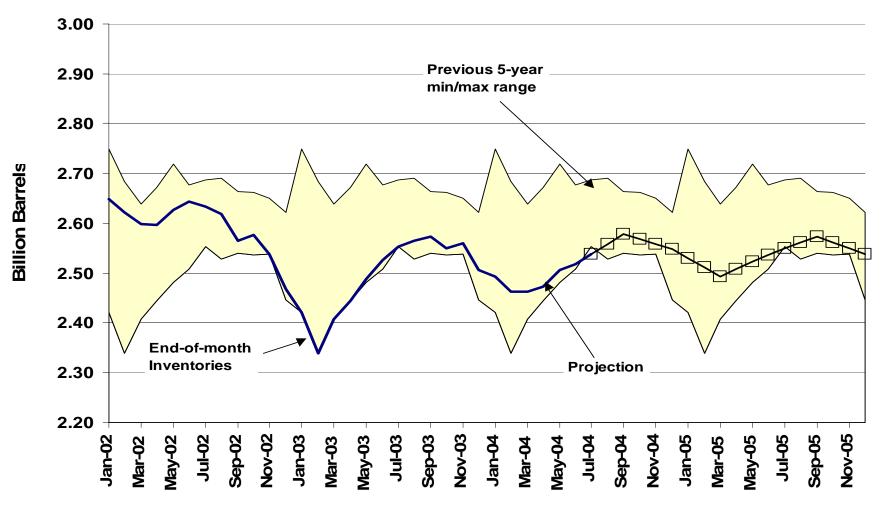
# Figure 1. West Texas Intermediate Crude Oil Price (Base Case and 95% Confidence Interval\*)



<sup>\*</sup>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, September 2004** 

## Figure 2. OECD\* Commercial Oil Stocks

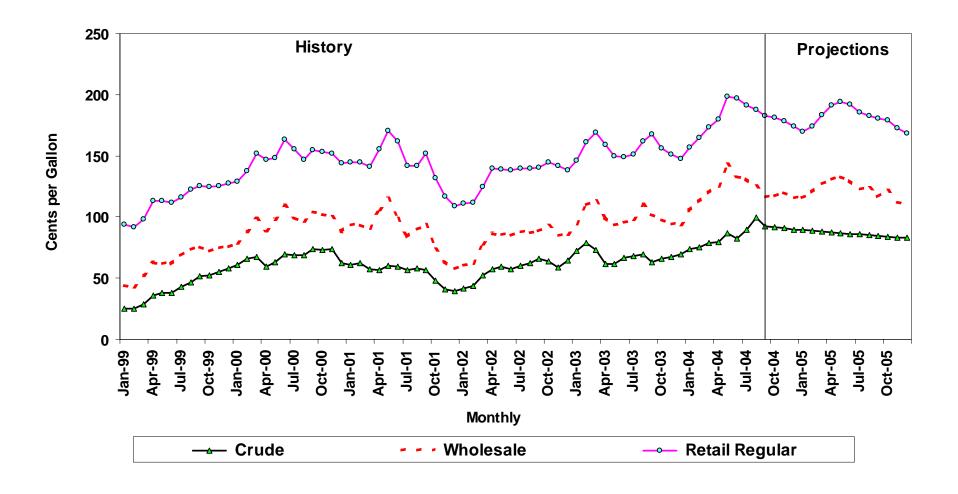


<sup>\*</sup>Organization for Economic Cooperation and Development

**Short-Term Energy Outlook, September 2004** 

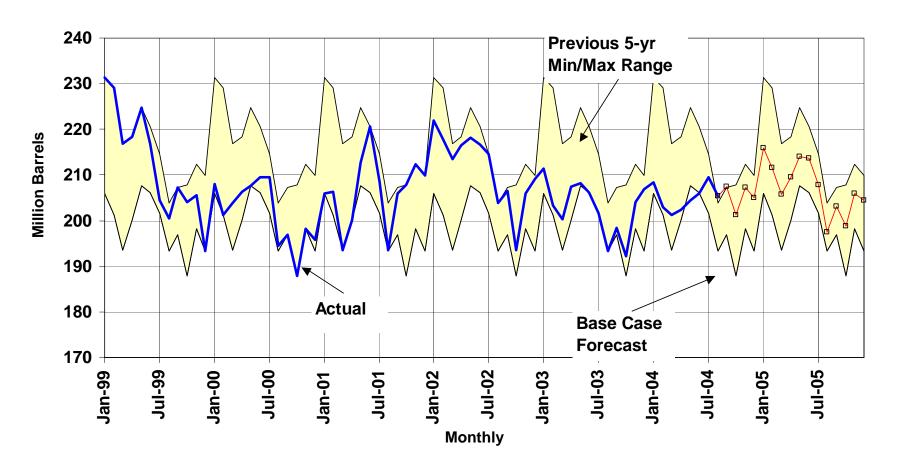


## Figure 3. Gasoline Prices and Crude Oil Costs



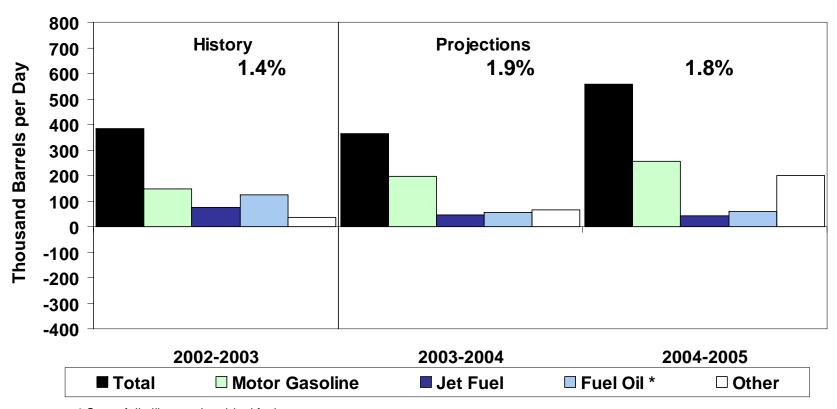


## Figure 4. U.S. Gasoline Inventories





# Figure 5. U.S. Petroleum Products Demand Growth (Change from Year Ago)

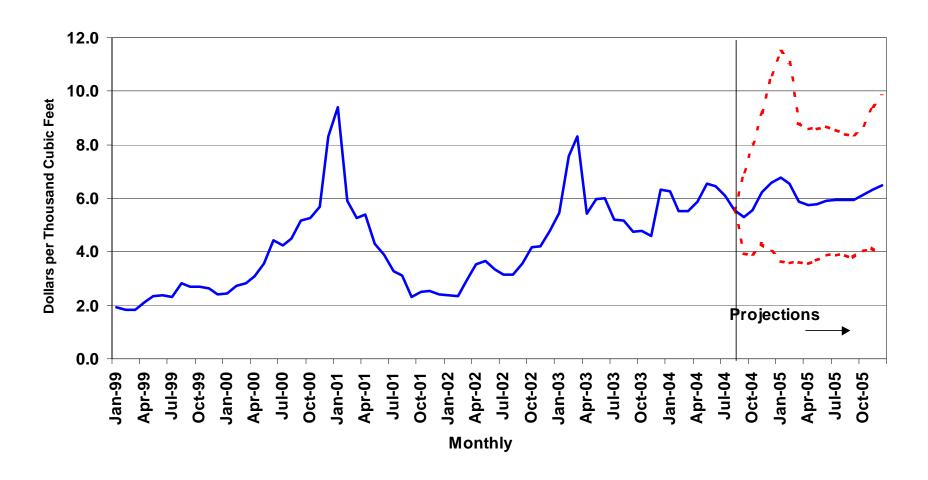


<sup>\*</sup> Sum of distillate and residual fuel.



#### Figure 6. U.S. Natural Gas Spot Prices

(Base Case and 95% Confidence Interval\*)



<sup>\*</sup>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, September2004.

# Figure 7. U.S. Working Gas in Storage (Difference from Previous 5-Year Average)

Working Gas in Underground Storage (percent Change from 5-Year Average)

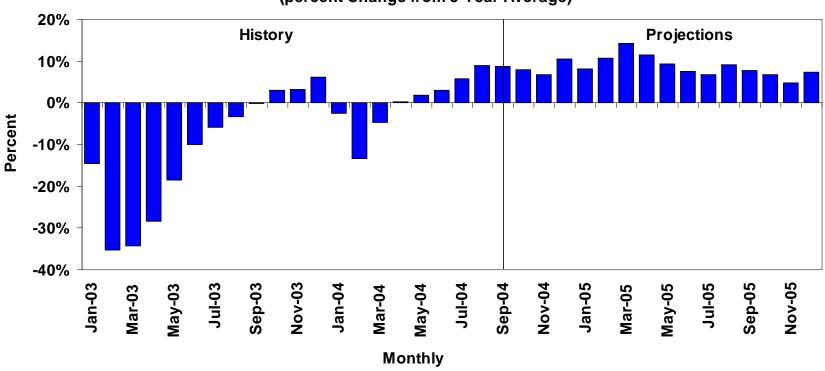
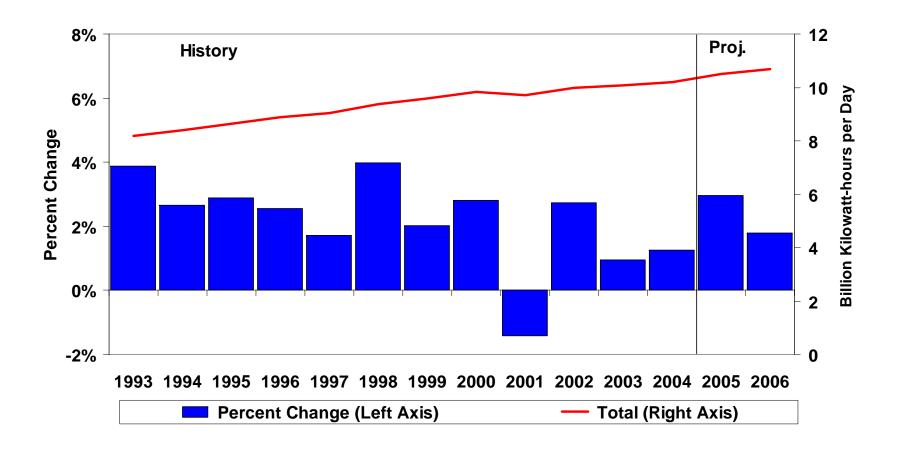


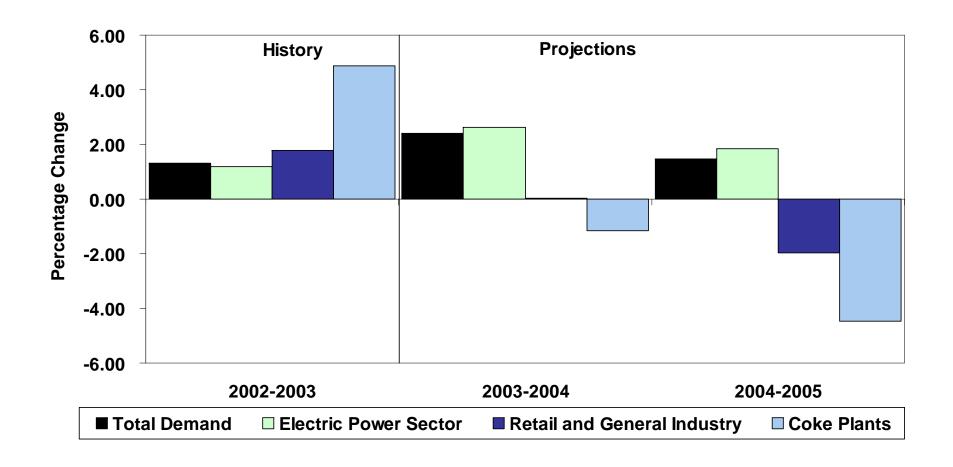


Figure 8. Total U.S. Electricity Demand Growth Patterns



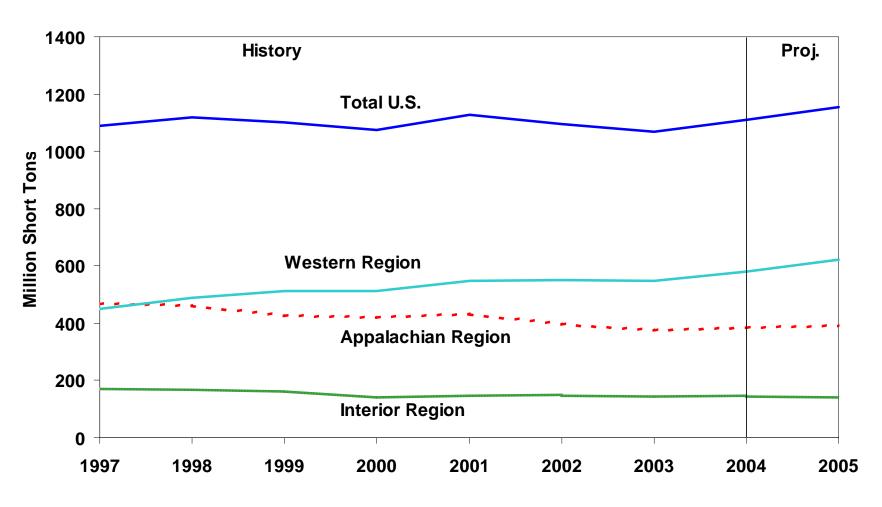


# Figure 9. U.S. Coal Demand





# Figure 10. U.S. Coal Production



**Short-Term Energy Outlook, September 2004** 



## **Figure 11. Winter Fuel Costs**

<b>Illustrative Consumer Pr</b>	ices and Exper	nditures for Hea	ting Fuels Durin	g the Winter	
	Average	2001-2002	2002-2003	2003-2004	2004-2005
	1998-2000	Actual	Actual	Actual	<b>Base Forecast</b>
Natural Gas (Midwest)					
Consumption (mcf)	88.8	81.3	95.1	88.4	96.2
Avg. Price (\$/mcf)	7.61	7.41	8.40	9.77	10.32
Expenditures (\$)	676	602	799	863	993
Heating Oil (Northeast)					
Consumption (gals)	673	577	743	728	697
Avg. Price (\$/gal)	1.12	1.10	1.34	1.36	1.50
Expenditures (\$)	754	635	993	991	1048
Propane (Midwest)					
Consumption (gals)	877	803	940	874	951
Avg. Price (\$/gal)	1.10	1.11	1.20	1.30	1.34
Expenditures (\$)	964	888	1124	1137	1271

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

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

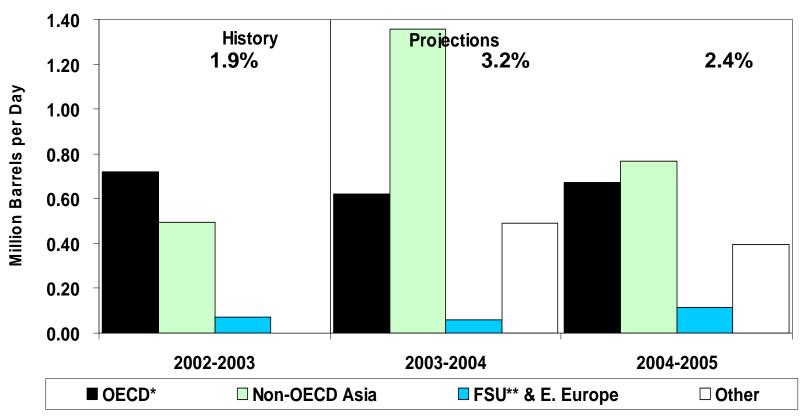
mcf = thousand cubic feet.

gal = gallon.

# **Additional Charts**

## Figure 12. World Oil Demand Growth

(Change from Year Ago)

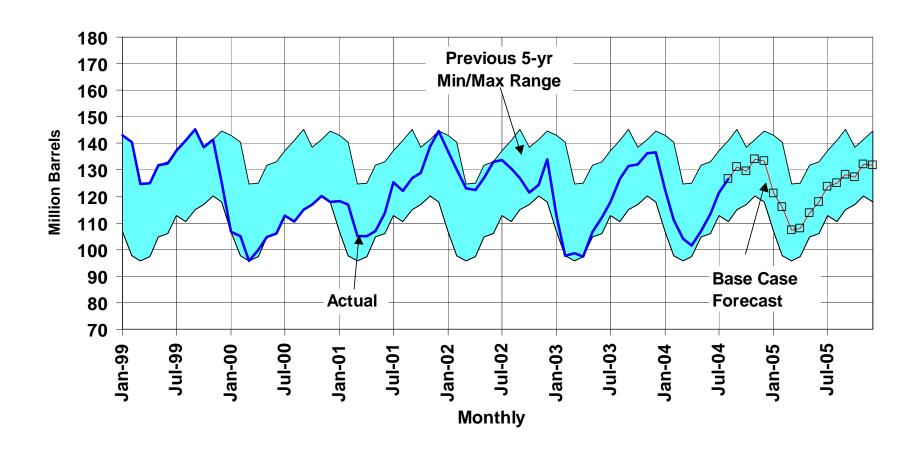


<sup>\*</sup> Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.



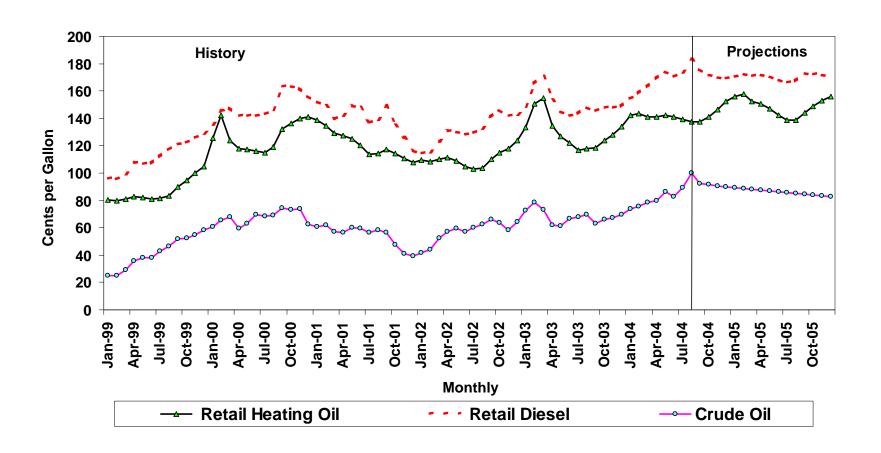
<sup>\*\*</sup> FSU = Former Soviet Union

## Figure 13. U.S. Distillate Fuel Oil Inventories



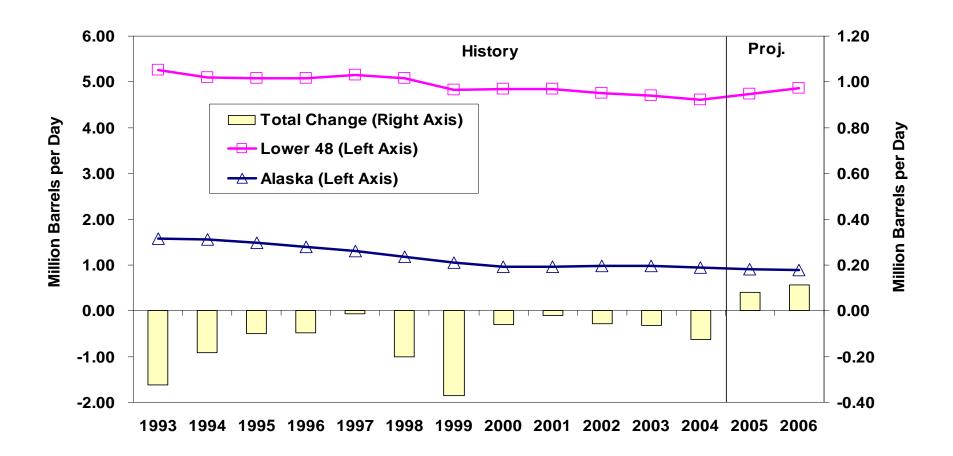


### Figure 14. U.S. Distillate Fuel Prices



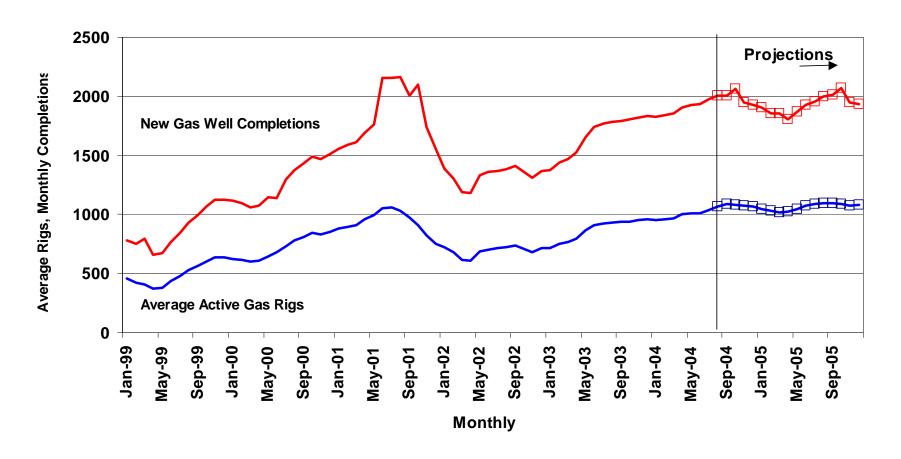


## Figure 15. U.S. Crude Oil Production Trends



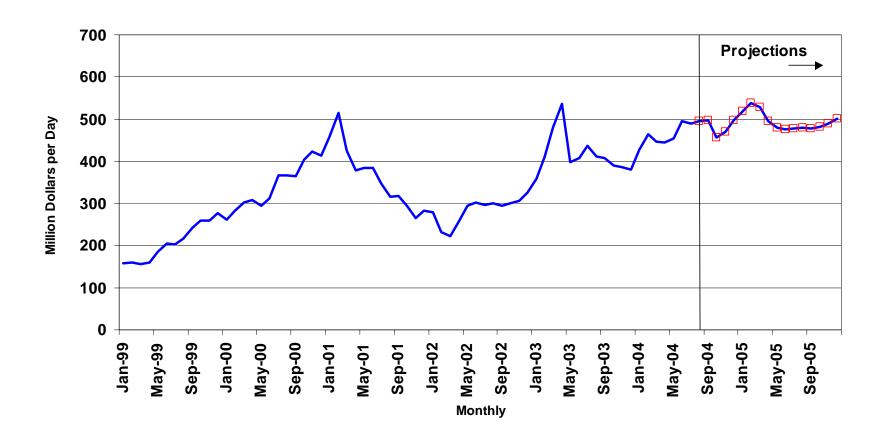


## Figure 16. U.S. Natural Gas-Directed Drilling Activity



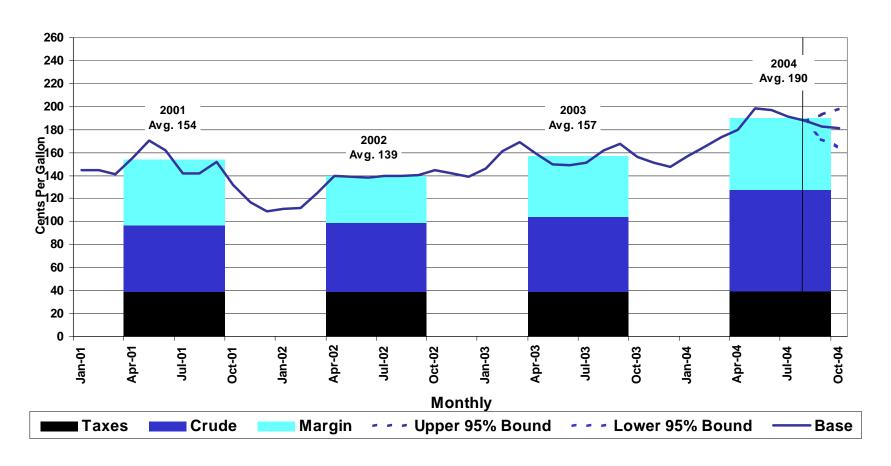


# Figure 17. U.S. Oil and Gas Production Revenues





# Figure 18. Summer Retail Motor Gasoline Prices\* (Base Case and 95% Confidence Range\*\*)



<sup>\*</sup>Regular gasoline, average all formulations.

<sup>\*\*</sup>The confidence range is based on the properties of the short-term model and excludes explicit consideration of major supply disruptions.

Figure 19. Total U.S. Natural Gas Demand Growth Patterns

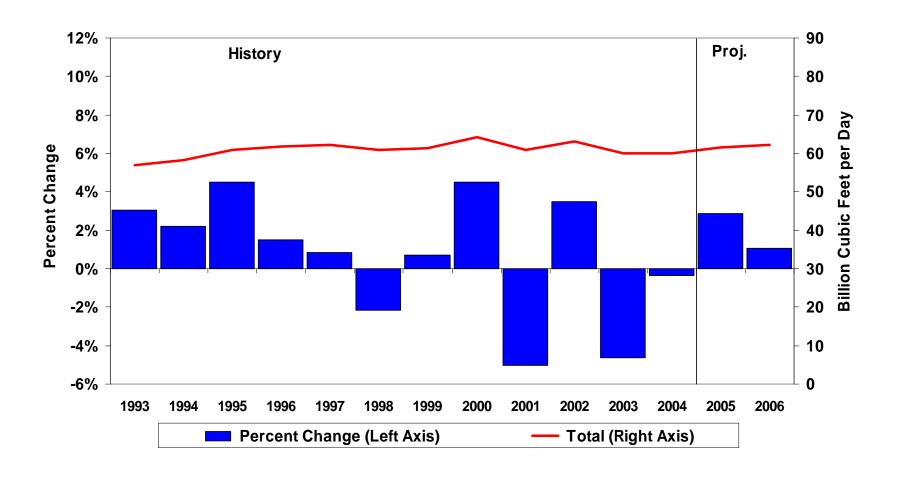




Table HL1. U.S. Energy Supply and Demand: Base Case

		Ye	ar		Annual	Percentage C	hange
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
Real Gross Domestic Product (GDP) (billion chained 2000 dollars)	10075	10381	10834	11205	3.0	4.4	3.4
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel)	23.71	27.74	35.28	35.36	17.0	27.2	0.2
<b>Petroleum Supply</b> (million barrels per day) Crude Oil Production <sup>b</sup>	5.75	5.68	5.56	5.63	-1.1	-2.2	1.4
Total Petroleum Net Imports( Million Barrels per Day) (including SPR)	10.54	11.24	11.65	11.89	6.6	3.6	2.1
Energy Demand							
World Petroleum (million barrels per day)	78.2	79.7	82.2	84.2	1.9	3.2	2.4
Petroleum (million barrels per day)	19.76	20.03	20.42	20.77	1.4	1.9	1.7
Natural Gas (trillion cubic feet)	23.00	21.94	21.93	22.50	-4.6	0.0	2.6
Coal <sup>c</sup> (million short tons)	1066	1094	1109	1137	2.6	1.4	2.5
Electricity (billion kilowatthours) Retail Sales <sup>d</sup> Other Use/Sales <sup>e</sup> Total	3463 177 3639	3500 174 3674	3554 179 3733	3653 183 3836	1.1 -1.7 0.9	1.5 3.1 1.6	2.8 2.0 2.8
Total Energy Demand <sup>f</sup> (quadrillion Btu)	97.4	97.6	98.7	101.0	0.2	1.2	2.3
Total Energy Demand per Dollar of GDP (thousand Btu per 2000 Dollar)	9.66	9.40	9.11	9.01	-2.7	-3.1	-1.1
Renewable Energy as Percent of Total <sup>9</sup>	6.4%	6.4%	6.6%	6.7%			

<sup>&</sup>lt;sup>a</sup>Refers to the refiner acquisition cost (RAC) of imported crude oil.

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 CONTROL0504.

<sup>&</sup>lt;sup>b</sup>Includes lease condensate.

<sup>&</sup>lt;sup>c</sup>Total Demand includes estimated Independent Power Producer (IPP) coal consumption.

<sup>&</sup>lt;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>&</sup>lt;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.

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>&</sup>lt;sup>9</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.

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
Macroeconomic <sup>a</sup>															
Real Gross Domestic Product (billion chained 2000 dollars - SAAR)	10184	10287	10473	10581	10698	10778	10871	10991	11083	11177	11248	11312	10381	10834	11205
Percentage Change from Prior Year	1.9	2.3	3.5	4.4	5.0	4.8	3.8	3.9	3.6	3.7	3.5	2.9	3.0	4.4	3.4
Annualized Percent Change from Prior Quarter	1.9	4.1	7.4	4.2	4.5	3.0	3.5	4.5	3.4	3.5	2.6	2.3			
GDP Implicit Price Deflator (Index, 2000=100)	105.5	105.8	106.2	106.6	107.3	108.2	108.5	109.1	109.6	110.2	110.7	111.2	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	2.3	2.2	1.9	2.0	2.0	1.8	2.1	2.0
Real Disposable Personal Income (billion chained 2000 Dollars - SAAR)	7591	7671	7823	7850	7913	7969	8043	8184	8158	8219	8269	8313	7734	8027	8240
Percentage Change from Prior Year	0.7	1.1	3.5	3.9	4.2	3.9	2.8	4.3	3.1	3.1	2.8	1.6	2.3	3.8	2.7
Manufacturing Production (Index, 1997=100.0)	112.3	111.3	112.5	114.2	116.0	117.8	119.3	121.7	123.4	124.8	125.7	126.7	112.6	118.7	125.1
Percentage Change from Prior Year	0.6	-1.3	-0.6	1.7	3.2	5.8	6.0	6.6	6.4	5.9	5.3	4.1	0.1	5.4	5.4
OECD Economic Growth (percent) <sup>b</sup>													2.1	3.4	3.2
Weather °															
Heating Degree-Days															
U.S.	2320	549	71	1510	2213	435	100	1633	2284	536	107	1622	4450	4381	4549
New England	3523	1045	101	2177	3402	849	180	2275	3271	930	195	2266	6846	6706	6662
Middle Atlantic	3218	844	79	1950	3381	589	107	2046	3007	743	125	2043	6091	6123	5918
U.S. Gas-Weighted	2500	608	77	1605	2395	481	112	1758	2383	589	110	1758	4790	4746	4840
Cooling Degree-Days (U.S.)	36	327	830	93	36	389	718	77	31	351	780	79	1286	1220	1241

<sup>&</sup>lt;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.

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 the U.S. Economy, July 2004

<sup>&</sup>lt;sup>6</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>&</sup>lt;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.

Table 2 IIS Energy Indicators: Base Case

Table 2. U.S. Energy Indi	cator	s: Ba	ise C	ase	1			I				1			
		2003	ı			2004	I	I		2005	I	I		Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Macroeconomic <sup>a</sup>															
Real Fixed Investment															
(billion chained 2000 dollars-SAAR)	1553	1593	1661	1703	1721	1768	1795	1845	1823	1847	1850	1850	1627	1782	1843
Real Exchange Rate															
(index)	1.051	1.016	1.007	1.004	0.988	0.992	0.985	0.979	0.976	0.974	0.971	0.967	1.020	0.986	0.972
Business Inventory Change															
(billion chained 2000 dollars-SAAR)	40.0	4- 4		40.4		0.5	4.0	0.4	47.0	40.0	44.0	40.0	45.0	4.0	40.4
	-12.2	-15.1	-20.4	-13.1	3.0	3.5	4.9	8.1	17.6	13.9	11.0	10.0	-15.2	4.9	13.1
Producer Price Index															
(index, 1982=1.000)	1.379	1.368	1.379	1.399	1.418	1.457	1.467	1.483	1.482	1.480	1.485	1.485	1.381	1.456	1.483
Consumer Price Index															
(index, 1982-1984=1.000)	1.831	1.834	1.845	1.848	1.864	1.886	1.896	1.908	1.916	1.924	1.932	1.941	1.840	1.889	1.928
Petroleum Product Price Index															
(index, 1982=1.000)	1.074	0.920	0.976	0.936	1.052	1.118	1.096	1.135	1.160	1.197	1.144	1.126	0.977	1.100	1.157
Non-Farm Employment															
(millions)	130.0	129.9	129.8	130.0	130.4	131.1	131.4	132.0	132.5	133.1	133.6	134.1	129.9	131.2	133.3
Commercial Employment															
(millions)	91.5	91.6	91.7	91.9	92.3	93.0	93.3	93.8	94.3	94.8	95.3	95.6	91.7	93.1	95.0
Total Industrial Production															
(index, 1997=100.0)	111.2	110.0	111.1	112.6	114.4	116.1	117.4	119.5	120.8	121.7	122.1	122.7	111.2	116.8	121.8
Housing Stock															
(millions)	116.6	116.9	117.2	117.5	117.9	118.0	118.2	118.6	119.0	119.3	119.6	119.9	117.1	118.2	119.5
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1997=100.0)	100.0	99.0	99.5	101.4	102.2	103.6	104.5	105.4	105.8	106.4	106.8	107.3	100.0	103.9	106.6
Vehicle Miles Traveled <sup>b</sup>															
(million miles/day)	7281	8168	8227	7873	7420	8369	8381	7943	7645	8443	8558	8122	7890	8029	8194
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.989	1.048	1.037	1.009	0.977	1.057	1.047	1.006	0.995	1.042	1.040	1.007	1.021	1.022	1.021
Real Vehicle Fuel Cost															
(cents per mile)	4.37	3.96	4.18	4.07	4.52	4.60	4.58	4.60	4.59	4.76	4.52	4.41	4.14	4.58	4.57
Air Travel Capacity															
(mill. available ton-miles/day)	478.2	472.4	477.8	495.4	475.3	496.3	516.1	527.6	527.5	534.8	552.1	547.5	481.0	503.9	540.5
Aircraft Utilization															
(mill. revenue ton-miles/day)	259.0	271.9	277.5	267.7	265.8	297.1	305.1	290.8	284.8	304.5	319.2	301.2	269.1	289.7	302.5
Airline Ticket Price Index															
(index, 1982-1984=1.000)	2.252	2.341	2.378	2.281	2.275	2.317	2.403	2.551	2.614	2.631	2.636	2.635	2.313	2.387	2.629
Raw Steel Production															
(million tons)	25.61	25.52	24.29	22.98	26.32	27.07	27.23	24.67	27.32	27.97	27.27	25.83	98.39	105.29	108.39

<sup>&</sup>lt;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.

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 the U.S. Economy, July 2004

SAAR: Seasonally-adjusted annualized rate.

Table 3. International Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except OECD Commercial Stocks)

	2003					2004				2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Demand <sup>a</sup>															
OECD															
U.S. (50 States)	20.0	19.7	20.2	20.2	20.4	20.3	20.4	20.6	20.7	20.5	20.9	21.0	20.0	20.4	20.8
U.S. Territories	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Canada	2.2	2.1	2.2	2.2	2.3	2.1	2.3	2.3	2.2	2.1	2.3	2.3	2.2	2.2	2.2
Europe	15.3	15.1	15.3	15.6	15.7	15.4	15.6	15.8	15.7	15.5	15.8	16.0	15.3	15.6	15.7
Japan	6.4	5.2	5.0	5.8	6.1	5.0	4.9	5.6	6.1	5.0	5.2	5.6	5.6	5.4	5.4
Other OECD	5.4	5.1	5.0	5.4	5.4	5.2	5.3	5.4	5.4	5.3	5.4	5.5	5.2	5.3	5.4
Total OECD	49.6	47.4	48.1	49.6	50.1	48.3	48.8	50.0	50.5	48.8	49.9	50.7	48.7	49.3	50.0
Non-OECD															
Former Soviet Union	4.5	3.6	4.0	4.5	4.3	3.9	4.1	4.6	4.4	3.9	4.2	4.8	4.2	4.2	4.3
Europe	0.8	0.8	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.7		0.8	0.8	0.8
China	5.2	5.2	5.8	5.9	6.2	6.5	6.7	6.7	6.8	6.9		7.2	5.5	6.5	7.0
Other Asia	7.8	7.7	7.8	8.3	8.0	8.2	8.2	8.6	8.3	8.5	8.5	9.0	7.9	8.3	8.6
Other Non-OECD	12.4	12.4	12.8	12.9	12.9	13.0	13.2	13.2	13.3	13.4	13.6	13.6	12.6	13.1	13.5
Total Non-OECD	30.7	29.7		32.4	32.2	32.5	32.9	34.0	33.7	33.6	34.0	35.4		32.9	34.2
Total World Demand	80.3	77.1	79.3	82.0	82.3	80.7	81.7	84.0	84.2	82.4	83.9	86.1	79.7	82.2	84.2
Supply <sup>b</sup>															
OECD															
U.S. (50 States)	8.9	8.7	8.7	8.8	8.9	8.8	8.6	8.9	8.9	8.7	8.8			8.8	8.9
Canada	3.0	3.0	3.2	3.2	3.2	3.1	3.2	3.3	3.3	3.3	3.4			3.2	3.4
Mexico	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.0			3.9	4.0
North Sea <sup>c</sup>	6.3	5.8	5.7	6.1	5.9	5.7	5.6	5.9	5.8	5.5		5.9			5.7
Other OECD	1.6	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	_		1.5	1.5
Total OECD	23.6	22.8	23.0	23.5	23.3	23.0	22.9	23.5	23.5	23.0	23.3	3 23.8	23.2	23.2	23.4
Non-OECD															
OPEC	30.1	30.1	30.3	31.7	32.2	32.2	33.4	32.5	32.8	33.0		33.9		32.6	<i>33.4</i>
Crude Oil Portion	26.9	26.7		27.9	28.5	28.5	29.6	28.8	29.0	29.3		30.1	27.1	28.8	29.6
Former Soviet Union	9.9	10.1	10.5	10.7	11.0	11.1	11.1	11.2	11.2	11.4		11.7		11.1	11.5
China	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6		3.6		3.6	3.6
Other Non-OECD	11.6	11.6	11.7	12.1	12.3	12.4	12.2	12.3	12.2	12.3	12.5	12.6	11.8	12.3	12.4
Total Non-OECD	55.1	55.4	56.0	58.1	59.0	59.3	60.3	59.6	59.8	60.3	61.4	61.8	56.2	59.5	60.8
Total World Supply	78.7	78.2	79.1	81.6	82.4	82.3	83.2	83.2	83.2	83.3	84.7	85.5	79.4	82.7	84.2
Stock Changes <sup>d</sup> (incl. strategic) and B	alance														
U.S. (50 States) Stock Chg.	0.8	-0.9	-0.4	0.3	0.0	-0.6	-0.3	0.3	0.1	-0.7	0.0	0.4	-0.1	-0.1	-0.1
Other OECD Stock Chg.	-0.3	-0.4	-0.3	0.2	0.1	-0.2	-0.2	0.2	0.5	0.1		-0.1	-0.2		0.0
Other Stock Chgs. and Bal.	1.1	0.2	0.9	0.0	-0.2	-0.7	-0.9	0.3	0.4	-0.3	-0.2	0.3	0.6	-0.4	0.0
Total	1.6	-1.1	0.2	0.5	0.0	-1.5	-1.4	0.8	0.9	-0.9	-0.8	0.6	0.3	-0.5	0.0
OECD Comm. Stocks, End (bill. bbls.)	2.42	2.54		2.51	2.46	2.53	2.58	2.54	2.49	2.54		2.56		2.54	2.56
Non-OPEC Supply	48.6	48.1	48.7	49.9	50.1	50.0	49.8	50.7	50.4	50.3	51.0	51.7	48.8	50.2	50.8

<sup>&</sup>lt;sup>a</sup>Demand for petroleum by the OECD countries is synonymous with "petroleum product supplied," which is defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109.

Demand for petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

blincludes 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.

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

dStock draw shown as positive number; stock build shown as negative.

OECD: Organization for Economic Cooperation and Development: Australia, Australia, 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. 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)

	07/01/2004	08/01/2004	Jul-04			Aug-04		
	OPEC 10	OPEC 10					Surplus	
	Quota	Quota	Production	Production	Capacity	High Range	Capacity	High Range
Algeria	814	830	1,250	1,250	1,250		0	
Indonesia	1,322	1,348	955	950	950		0	
Iran	3,744	3,817	3,900	3,900	3,900		0	
Kuwait	2,047	2,087	2,400	2,400	2,400		0	
Libya	1,365	1,392	1,500	1,550	1,550		0	
Nigeria	2,101	2,142	2,400	2,400	2,400		0	
Qatar	661	674	850	850	850		0	
Saudi Arabia	8,288	8,451	9,500	9,500	10,000	10,500	500	1,000
UAE	2,226	2,269	2,500	2,500	2,500		0	
Venezuela	2,934	2,992	2,500	2,500	2,500		0	
OPEC 10	25,500	26,000	27,755	27,800	28,300	28,800	500	1,000
Iraq			2,000	1,800	1,800		0	
Crude Oil Total			29,755	29,600	30,100	30,600	500	1,000
Other Liquids			3,882	3,904				

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.

Table 4. U.S. Energy Prices: Base Case

(Nominal Dollars)

		2003	1		ļ	2004				2005				Year	1
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Crude Oil Prices (dollars per barrel)															
Imported Average <sup>a</sup>	30.58	25.58	27.37	27.81	31.12	33.97	38.46	37.34	36.49	35.75	35.00	34.25	27.74	35.28	35.36
WTI <sup>b</sup> Spot Average	34.10	28.98	30.21	31.19	35.24	38.35	42.56	41.33	40.50	39.75	39.00	38.25	31.12	39.37	39.38
Natural Gas (dollars per thousand cubic feet)															
Average Wellhead	5.54	5.01	4.74	4.62	5.22	5.56	5.20	5.41	5.80	5.20	5.39	5.75	4.98	5.34	5.54
Henry Hub Spot	7.10	5.80	5.04	5.24	5.78	6.29	5.65	6.11	6.41	5.83	5.96	6.35	5.80	5.96	6.14
Petroleum Products															
Gasoline Retail <sup>c</sup> (dollars per gallon)															
All Grades	1.63	1.57	1.64	1.56	1.70	1.96	1.92	1.82	1.80	1.96	1.87	1.78	1.60	1.85	1.85
Regular Unleaded	1.59	1.53	1.60	1.52	1.65	1.92	1.87	1.78	1.76	1.92	1.83	1.73	1.56	1.81	1.81
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.62	1.47	1.46	1.48	1.59	1.72	1.78	1.71	1.72	1.70	1.69	1.72	1.51	1.70	1.71
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	1.00	0.78	0.80	0.86	0.95	1.00	1.05	1.04	1.07	1.02	1.02	1.06	0.88	1.00	1.05
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.45	1.28	1.18	1.29	1.42	1.41	1.38	1.48	1.55	1.47	1.40	1.53	1.32	1.43	1.50
No. 6 Residual Fuel Oil, Retail <sup>d</sup>															
(dollars per barrel)	33.72	26.66	28.76	27.82	29.35	30.14	30.28	33.87	34.82	32.95	32.85	33.58	29.41	30.83	33.60
Electric Power Sector (dollars per million Btu)															
Coal	1.27	1.29	1.27	1.25	1.30	1.31	1.32	1.31	1.33	1.34	1.31	1.30	1.27	1.31	1.32
Heavy Fuel Oil <sup>e</sup>	5.05	4.76	4.60	4.36	4.42	5.08	5.70	5.80	5.67	5.53	5.52	5.61	4.72	5.20	5.59
Natural Gas	6.13	5.52	5.13	4.93	5.71	6.04	6.17	6.10	6.45	5.62	6.07	6.64	5.39	6.03	6.16
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	8.62	10.58	12.47	9.67	9.82	11.24	12.96	10.44	10.13	11.13	12.94	10.94	9.50	10.44	10.74
Electricity															
(cents per kilowatthour)	8.08	9.02	9.09	8.63	8.38	9.10	9.27	8.74	8.52	9.25	9.45	8.88	8.71	8.87	9.03

<sup>&</sup>lt;sup>a</sup>Refiner 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.

<sup>&</sup>lt;sup>b</sup>West Texas Intermediate.

<sup>&</sup>lt;sup>c</sup>Average self-service cash prices. <sup>d</sup>Average for all sulfur contents.

elncludes 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)

	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Supply															
Crude Oil Supply															
Domestic Production <sup>a</sup>	5.80	5.74	5.60	5.59	5.62	5.53	5.44	5.63	5.64	5.57	5.60	5.72	5.68	5.56	5.63
Alaska	1.01	0.98	0.94	0.96	0.96	0.94	0.88	0.99	0.97	0.91	0.82	0.93	0.97	0.94	0.91
Lower 48	4.79	4.75	4.66	4.63	4.65	4.59	4.56	4.64	4.67	4.66	4.78	4.80	4.71	4.61	4.73
Net Commercial Imports <sup>b</sup>	8.78	10.02	10.11	9.69	9.55	10.21	10.26	9.74	9.56	10.44	10.28	9.87	9.65	9.94	10.04
Net SPR Withdrawals	0.00	-0.10	-0.17	-0.15	-0.15	-0.11	-0.17	-0.14	-0.12	-0.06	0.00	0.00		-0.14	-0.04
Net Commercial Withdrawals	-0.04	-0.03	-0.02	0.19	-0.27	-0.12	0.25	0.02	-0.22	0.04	0.15	0.01	0.02	-0.03	0.00
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	0.03	0.09	0.05	0.06	0.04	0.35	0.08	0.06	0.11	0.14	0.08	0.04	0.05	0.13	0.09
Total Crude Oil Supply	14.56	15.70	15.56	15.38	14.78	15.85	15.85	15.31	14.97	16.13	16.11	15.64	15.30	15.45	15.72
Other Supply															
NGL Production	1.76	1.62	1.70	1.79	1.81	1.78	1.74	1.86	1.92	1.78	1.74	1.84	1.72	1.80	1.82
Other Hydrocarbon and Alcohol Inputs	0.42	0.42	0.45	0.40	0.42	0.43	0.47	0.44	0.43	0.41	0.43	0.43	0.42	0.44	0.42
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	0.94	0.96	0.99	1.01	1.02	1.03	1.00	0.99	0.96	0.98	0.98	0.99	0.97	1.01	0.98
Net Product Imports <sup>c</sup>	1.48	1.75	1.72	1.39	1.89	1.61	1.78	1.56	2.00	1.87	1.83	1.72	1.59	1.71	1.85
Product Stock Withdrawn or Added (-)	0.86	-0.80	-0.22	0.28	0.45	-0.34	-0.45	0.42	0.42	-0.67	-0.17	0.37		0.02	-0.01
Total Supply	20.02	19.65	20.21	20.25	20.36	20.36	20.39	20.58		20.51	20.92	20.98		20.42	20.78
Demand	_0.0_	10.00		_00	20.00	20.00	20.00	20.00	20.70	20.07	20.02	20.00	_0.00	20.72	20.70
Motor Gasoline	8.51	9.02	9.18	9.02	8.78	9.16	9.26	9.13	8.89	9.37	9.52	9.33	8.93	9.08	9.28
Jet Fuel	1.55	1.52	1.62	1.62	1.57	1.60	1.70	1.73	1.65	1.66	1.73	1.76	1.58	1.65	1.70
Distillate Fuel Oil	4.22	3.79	3.77	3.94	4.25	3.97	3.96	4.16	4.40	4.02	3.98	4.18		4.08	4.14
Residual Fuel Oil	0.86	0.71	0.78	0.74	0.85	0.75	0.67	0.70	0.82	0.65	0.73	0.78	0.77	0.74	0.74
Other Oils d	4.88	4.61	4.87	4.93	4.91	4.81	4.86	4.85	4.94	4.80	4.97	4.92	4.82	4.86	4.91
Total Demand	20.02		20.21	20.25	20.36	20.30				20.50	20.92	20.98			20.77
Total Petroleum Net Imports	10.26	11.77	11.83	11.08	11.44	11.81	12.04	11.29	11.56	12.31	12.11	11.59	11.24	11.65	11.89
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	282	285	287	269	294	305	282	280	300	297	283	282	269	280	282
Total Motor Gasoline	200	206	199	207	201	206	207	205	206	214	203	204	207	205	204
Finished Motor Gasoline	145	153	146	147	133	137	134	133	129	141	133	134	147	133	134
Blending Components	56	53	52	60	68	69	73	72	77	72	70	70	60	72	70
Jet Fuel	37	38	40	39	36	38	41	39	38	40	42	40	39	39	40
Distillate Fuel Oil	99	112	131	137	104	114	131	133	107	118	128	132	137	133	132
Residual Fuel Oil	32	35	32	38	39	37	36	37	35	37	36	36	38	37	36
Other Oils <sup>e</sup>	226	275	285	241	240	256	277	240	230	268	284	246	241	240	246
Total Stocks (excluding SPR)	875	951	974	930	914	956	975	934	916	973	975	941	930	934	941
Crude Oil in SPR	599	609	624	638	652	662	671	684	695	700	700	700	638	684	700
Heating Oil Reserve	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (incl SPR and HOR)	1476	1562	1600	1570	1568	1620	1648	1620	1613	1675	1677	1643	1570	1620	1643
alncludes lease condensate.	5				.000	. 020	. 0 , 0	. 020	.0.0	.0,0		.0.10		. 020	.0.0

<sup>&</sup>lt;sup>a</sup>Includes 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.

<sup>&</sup>lt;sup>b</sup>Net imports equals gross imports minus exports.

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

<sup>&</sup>lt;sup>d</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>&</sup>lt;sup>e</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.

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

		+ 10	0% Prices	+ 10%	<b>√ Weather</b> <sup>e</sup>
Demand Sector	+1% GDP	Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>†</sup>	Spring/Summer <sup>†</sup>
Petroleum					
Total	0.6%	-0.3%	0.1%	1.1%	0.1%
Motor Gasoline	0.6%	-0.3% -0.3%	0.1%	0.0%	0.1%
Distillate Fuel	0.1%		0.0%	0.0% 2.7%	0.0%
		-0.2%			
Residual Fuel	1.6%	-3.4%	2.6%	2.0%	2.7%
Natural Gas					
Total	1.1%	0.3%	-0.4%	4.4%	1.0%
Residential	0.1%	0.0%	0.0%	8.2%	0.0%
Commercial	0.9%	0.0%	0.0%	7.3%	0.0%
Industrial	1.7%	0.2%	-0.5%	1.3%	0.0%
Electric Power	1.8%	1.6%	-1.5%	1.0%	4.0%
Coal					
Total	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Power	0.6%	0.0%	0.0%	1.9%	1.9%
Electricity					
Total	0.6%	0.0%	0.0%	1.5%	1.7%
Residential	0.1%	0.0%	0.0%	3.2%	3.6%
Commercial	0.9%	0.0%	0.0%	1.0%	1.4%
Industrial	0.8%	0.0%	0.0%	0.3%	0.2%

<sup>&</sup>lt;sup>a</sup>Percent 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	5.842	5.334	0.508	0.490	0.459
Lower 48 States	4.957	4.459	0.498	0.044	0.454
Alaska	0.886	0.876	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.

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

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

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

<sup>&</sup>lt;sup>e</sup>Refers 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)

	2003					20	04			2	005			yaer	
	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	4.76	4.76	4.70	4.76	4.77	4.82	4.83	4.80	4.81	19.07	18.99	19.25
Gross Imports	0.99	0.93	0.99	1.01	1.06	0.97	0.96	0.99	1.06	1.00	1.02	1.05	3.93	3.97	4.13
Pipeline	0.92	0.81	0.83	0.87	0.91	0.80	0.77	0.80	0.88	0.79	0.80	0.84	3.42	3.28	3.31
LNG	0.08	0.13	0.16	0.14	0.15	0.17	0.19	0.18	0.18	0.21	0.22	0.21	0.51	0.70	0.82
Gross Exports	0.17	0.16	0.16	0.21	0.18	0.17	0.17	0.19	0.19	0.18	0.18	0.21	0.69	0.71	0.75
Net Imports Supplemental Gaseous Fuels	0.82	0.78	0.84	0.80	0.87	0.81	0.79	0.80	0.87	0.82	0.84	0.85	3.24	3.26	3.38
	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.07	0.07
Total New Supply	5.62	5.54	5.63	5.58	5.65	5.52	5.56	5.58	5.71	5.67	5.66	5.67	22.37	22.32	22.70
Working Gas in Storage															
Opening	2.38	0.73	1.77	2.84	2.56	1.06	2.02	3.10	2.67	1.27	2.11	3.07	2.38	2.56	2.67
Closing	0.73	1.77	2.84	2.56	1.06	2.02	3.10	2.67	1.27	2.11	3.07	2.60	2.56	2.67	2.60
Net Withdrawals	1.65	-1.04	-1.07	0.28	1.51	-0.96	-1.08	0.43	1.40	-0.85	-0.95	0.47	-0.19	-0.11	0.07
Total Supply	7.26	4.51	4.56	5.86	7.15	4.56	4.49	6.01	7.11	4.82	4.70	6.15	22.18	22.21	22.78
Balancing Item <sup>a</sup>	0.08	0.03	0.00	-0.36	0.05	0.07	-0.04	-0.35	-0.01	0.05	0.03	-0.35	-0.24	-0.28	-0.28
Total Primary Supply	7.34	4.54	4.56	5.50	7.20	4.63	4.44	5.66	7.10	4.87	4.73	5.80	21.94	21.93	22.50
Demand															
Residential	2.52	0.83	0.37	1.39	2.42	0.75	0.37	1.42	2.35	0.81	0.37	1.45	5.11	4.96	4.98
Commercial	1.37	0.57	0.39	0.81	1.29	0.54	0.37	0.86	1.26	0.58	0.41	0.89	3.14	3.06	3.15
Industrial	2.19	1.89	1.97	2.08	2.22	1.93	1.94	2.10	2.18	2.01	2.04	2.17	8.13	8.20	8.39
Lease and Plant Fuel	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	1.12	1.12	1.13
Other Industrial	1.91	1.61	1.69	1.80	1.94	1.66	1.67	1.82	1.90	1.73	1.76	1.89	7.01	7.08	7.27
CHP <sup>b</sup>	0.30	0.26	0.29	0.29	0.27	0.29	0.28	0.27	0.30	0.33	0.29	0.27	1.14	1.11	1.19
Non-CHP	1.61	1.35	1.40	1.51	1.67	1.36	1.39	1.55	1.60	1.40	1.46	1.62	5.87	5.97	6.08
Transportation <sup>c</sup>	0.21	0.13	0.13	0.16	0.21	0.14	0.13	0.17	0.22	0.14	0.13	0.16	0.64	0.64	0.65
Electric Power d	1.05	1.13	1.70	1.06	1.05	1.28	1.63	1.11	1.09	1.33	1.79	1.12	4.93	5.07	5.33
Total Demand	7.34	4.54	4.56	5.50	7.20	4.63	4.44	5.66	7.10	4.87	4.73	5.80	21.94	21.93	22.50

<sup>&</sup>lt;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>&</sup>lt;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>°</sup>Pipeline fuel use plus natural gas used as vehicle fuel.

<sup>&</sup>lt;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.

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

(Million Short Tons)

(Willion Short Tori	2003				2004				2005				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Supply															
Production	264.0		268.2	269.0	274.6		275.8			279.8	286.2	294.5	1069.5	1109.0	1155.0
Appalachia	95.2	96.6	92.4	91.6	98.3	95.2	93.7	98.8	103.9	95.3	93.3	98.9	375.7	386.0	391.5
Interior	36.2	37.0	36.1	37.2	36.2	36.0	35.5	36.2	34.4	35.8	35.3	35.5	146.5	143.9	140.9
Western	132.6	134.7	139.7	140.2	140.0	140.5	146.6	151.9	156.1	148.7	157.7	160.1	547.3	579.1	622.6
Primary Stock Levels <sup>a</sup>															
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	5.3	6.9	5.6	5.4	4.8	5.3	6.0	5.7	25.0	23.2	21.8
Exports	8.5	11.4	12.1	11.2	9.7	15.3	11.2	10.9	11.6	12.2	12.0	11.7	43.3	47.0	47.6
Total Net Domestic Supply															
	264.7	264.6	265.8	262.6	271.6	263.7	272.0	280.0	287.3	272.7	282.4	286.6	1057.7	1087.3	1128.9
Secondary Stock Levels b															
Opening	148.9	136.8	148.0	128.4	127.0	118.5	128.1	115.8	118.7	121.0	131.7	119.1	148.9	127.0	118.7
Closing	136.8	148.0	128.4	127.0	118.5	128.1	115.8	118.7	121.0	131.7	119.1	126.0	127.0	118.7	126.0
Net Withdrawals	12.0	-11.1	19.6	1.4	8.5	-9.6	12.3	-2.9	-2.2	-10.8	12.6	-6.9	21.9	8.3	-7.3
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	279.6	256.4	288.3	266.9	283.1	257.0	287.2	280.8	288.8	265.7	298.7	283.4	1091.2	1108.1	1136.7
Demand															
Coke Plants	6.0	6.1	6.1	6.1	5.9	6.9	6.7	5.9	6.5	6.4	6.5	5.7	24.2	25.4	25.1
Electric Power Sector d	248.7	231.4	271.7	252.5	253.6	238.1	268.5	256.9	264.6	244.1	276.4			1017.1	
Retail and General Industry	16.9	15.6	15.8	17.3	17.5	15.3	16.0	18.0	17.7	15.2	15.8	18.0		66.8	66.8
Total Demand <sup>e</sup>	271.6	253.0	293.6	275.9	277.0	260.3	291.2		288.8	265.7				1109.3	
Total Bolliana	_,	_00.0	_55.0	0.5		200.0	201.2	200.0	200.0	200.7	200.7	200.4	.00	1100.0	, , , , , , ,
Discrepancy <sup>f</sup>	8.0	3.4	-5.3	-9.0	6.1	-3.3	-4.0	0.0	0.0	0.0	0.0	0.0	-2.9	-1.2	0.0

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

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).

<sup>&</sup>lt;sup>b</sup>Secondary 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.

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

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

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

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

(Rillion Kilowatthours)

		2003				2004				2005				Year	1
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Net Electricity Generation															
Electric Power Sector <sup>a</sup>															
Coal	485.6	446.7	526.3	489.4	492.9	460.4	519.8	497.0	511.1	470.8	533.1	500.2	1948.0	1970.1	2015.1
Petroleum	31.5	25.8	31.9	23.4	31.6	31.7	33.2	21.6	28.1	19.2	31.9	26.3	112.5	118.2	105.5
Natural Gas	116.9	124.6	190.5	118.7	121.9	146.7	181.1	130.1	129.4	151.7	201.8	133.2	550.6	579.8	616.1
Nuclear	190.1	183.2	202.3	188.2	198.2	191.4	206.1	191.3	196.8	192.9	207.5	192.6	763.7	786.9	789.7
Hydroelectric	60.0	80.0	61.9	58.7	63.9	67.3	61.6	63.2	70.0	84.1	67.5	65.4	260.6	256.1	287.1
Other <sup>b</sup>	13.0	13.8	13.9	14.5	14.6	15.7	15.8	15.6	15.0	15.4	16.2	16.2	55.2	61.7	62.8
Subtotal	897.1	874.0	1026.7	892.9	923.1	913.3	1017.7	918.8	950.4	934.2	1058.0	933.8	3690.7	3772.9	3876.4
Other Sectors <sup>c</sup>	40.2	37.3	38.8	41.0	39.3	40.0	41.8	41.1	40.7	40.8	42.8	41.2	157.3	162.2	165.5
Total Generation	937.3	911.3	1065.5	933.8	962.5	953.2	1059.5	959.9	991.1	975.0	1100.8	975.0	3848.0	3935.1	4042.0
Net Imports	2.6	1.6	4.6	-2.4	-0.9	0.5	2.7	0.7	0.8	0.1	2.9	0.3	6.4	3.0	4.2
Total Supply	940.0	912.9	1070.1	931.4	961.6	953.7	1062.2	960.7	991.9	975.1	1103.8	975.4	3854.4	3938.1	4046.2
Losses and Unaccounted for <sup>d</sup>	30.5	57.4	44.9	48.0	46.9	64.8	44.0	49.5	48.4	66.0	<i>4</i> 5.9	50.2	180.8	205.2	210.5
Demand															
Retail Sales <sup>e</sup>															
Residential	337.5	273.4	377.6	291.4	339.2	283.3	361.1	304.1	348.1	291.9	380.9	308.9	1279.9	1287.8	1329.8
Commercial <sup>f</sup>	289.2	292.4	343.8	298.0	288.8	300.9	340.4	300.1	298.6	308.4	355.4	309.0	1223.4	1230.3	1271.4
Industrial	237.2	247.4	259.4	247.4	242.2	259.3	269.1	260.3	251.0	262.5	272.7	260.4	991.4	1030.9	1046.6
Transportation <sup>g</sup>	1.2	1.2	1.5	1.3	1.0	1.1	1.5	1.3	1.1	1.2	1.5	1.3	5.3	5.0	5.1
Subtotal	865.1	814.3	982.4	838.2	871.3	844.7	972.0	865.8	898.7	864.0	1010.6	879.7	3500.0	3553.8	3652.9
Other Use/Sales h	44.4	41.2	42.8	45.2	43.4	44.1	46.1	45.4	44.9	45.1	47.3	45.5	173.7	179.1	182.7
Total Demand	909.5	855.5	1025.2	883.4	914.7	888.9	1018.1	911.2	943.6	909.1	1057.8	925.2	3673.6	3732.9	3835.7

<sup>&</sup>lt;sup>a</sup>Electric utilities and independent power producers.

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).

<sup>&</sup>lt;sup>b</sup> 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.

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

<sup>\*</sup>Total of retail electricity sales by electric utilities and power marketers.

<sup>&</sup>lt;sup>1</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>&</sup>lt;sup>9</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>&</sup>lt;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.

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

(Billion Kilowatthours)

		2003	ı		1	2004			I	2005				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Electricity Generation by Sector															
Electric Power <sup>a</sup>															
Coal	485.6	446.7	526.3	489.4	492.9	460.4	519.8	497.0	511.1	470.8	533.1	500.2	1948.0	1970.1	2015.1
Petroleum	31.5	25.8	31.9	23.4	31.6	31.7	33.2	21.6	28.1	19.2	31.9	26.3	112.5	118.2	105.5
Natural Gas	116.9	124.6	190.5	118.7	121.9	146.7	181.1	130.1	129.4	151.7	201.8	133.2	550.6	579.8	616.1
Other <sup>b</sup>	263.1	276.9	278.0	261.4	276.7	274.4	283.5	270.1	281.8	292.4	291.2	274.2	1079.5	1104.7	1139.6
Subtotal	897.1	874.0	1026.7	892.9	923.1	913.3	1017.7	918.8	950.4	934.2	1058.0	933.8	3690.7	3772.9	3876.4
Commercial															
Coal	0.3	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.4	0.3	0.4	0.3	1.0	1.2	1.3
Petroleum	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.5	0.5	0.5
Natural Gas	1.0	1.2	1.1	0.9	0.9	1.1	1.4	1.2	1.2	1.3	1.4	1.1	4.3	4.5	4.9
Other <sup>b</sup>	0.4	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.6	2.0	2.2	2.4
Subtotal	1.9	2.1	2.0	1.7	1.8	1.9	2.5	2.2	2.2	2.3	2.5	2.2	7.8	8.4	9.2
Industrial															
Coal	5.5	5.0	5.4	5.3	5.5	5.1	5.7	5.2	5.7	5.1	5.8	5.1	21.2	21.5	21.8
Petroleum	1.5	1.2	1.2	1.3	1.4	1.3	1.3	1.2	1.2	0.8	1.3	1.4	5.2	5.2	4.7
Natural Gas	19.9	17.3	18.7	18.4	18.3	19.6	18.3	17.6	19.8	21.5	19.3	17.7	74.3	73.8	78.3
Other <sup>b</sup>	11.3	11.7	11.5	14.3	12.4	12.1	13.9	14.9	11.7	11.2	13.9	14.8	48.8	53.4	51.7
Subtotal	38.3	35.2	36.8	39.2	37.5	38.1	39.3	38.9	38.5	38.6	40.3	39.0	149.5	153.8	156.4
Total	937.3	911.3	1065.5	933.8	962.5	953.2	1059.5	959.9	991.1	975.0	1100.8	975.0	3848.0	3935.1	4042.0

<sup>&</sup>lt;sup>a</sup> Electric utilities and independent power producers.

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).

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

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

		20	03			20	04			200	5			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2003	2004	2005
Fuel Consumption for Electricity Generation by Sector Electric Power <sup>a</sup>								(Qı	uadrillion	Btu)					
Coal	5.10	4.75	5.58	5.18	5.20	4.89	5.51	5.27	5.43	5.01	5.67	5.33	20.61	20.88	21.4
Petroleum	0.34	-	0.34			0.34	0.35	0.23	0.30	0.20	0.34	0.28	1.21	1.26	
Natural Gas Other <sup>b</sup>	1.00	1.09		1.02		1.25	1.59	1.08	1.06	1.30	1.74	1.09	4.78	4.94	5.1
	2.80 9.24	2.99 9.11	3.07 10.66			2.92 9.39	3.02 10.48	2.88 9.47	3.00 9.79	3.11 9.62	3.10 10.86	2.93 9.62			
Subtotal	9.24	9.11	10.00	9.20	9.45	9.39	10.46	9.47	9.79	9.62	10.66	9.62	30.29	30.79	39.0
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	0.01	0.01	0.0
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	0.0
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	0.03	0.04	0.04
Subtotal		0.02		0.02		0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.09	0.10	0.1
Industrial	0.02	0.02	0.02	0.02	VV_	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00	0
Coal	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.27	0.27	0.28
Petroleum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.07	0.06	0.0
Natural Gas	0.18	0.16	0.17	0.17	0.16	0.17	0.16	0.16	0.18	0.19	0.17	0.16	0.67	0.65	0.70
Other <sup>b</sup>	0.14	0.15	0.17	0.16	0.17	0.16	0.18	0.19	0.15	0.15	0.18	0.19	0.63	0.69	0.6
Subtotal	0.40	0.39	0.42	0.42	0.42	0.41	0.43	0.43	0.42	0.41	0.44	0.43	1.64	1.68	1.70
Total	9.67	9.52	11.11	9.72	9.89	9.82	10.94	9.92	10.24	10.06	11.32	10.08	40.02	40.58	41.70
Electric Power <sup>a</sup>											(Physi	cal Units)			
Coal (million short tons) Petroleum (million barrels per day)	248.1	230.8	271.2	252.0	253.0	237.6	268.1	256.4	264.0	243.6	275.9	259.2	1002.2	1015.1	1042.7
retroleum (million barreis per day)	0.61	0.49	0.60	0.44	0.60	0.60	0.62	0.41	0.54	0.36	0.60	0.49	0.54	0.56	0.50
Natural Gas (trillion cubic feet) Commercial	0.98	1.07	1.64	1.00	1.00	1.23	1.56	1.06	1.04	1.27	1.71	1.07	4.69	4.85	5.09
Coal (million short tons) Petroleum (million barrels per day)	0.13	-		0.12		0.12	0.18	0.16	0.18	0.14	0.18	0.15	0.50	0.60	0.64
Natural Gas (trillion cubic feet)	0.01 0.01	0.00 0.01	0.00 0.01	0.00 0.01		0.00 0.01	0.00 0.01	0.00 0.01	0.00 0.01	0.00 0.01	0.00 0.01	0.00 0.01	0.00 0.04	0.00 0.04	0.0
Industrial	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.01	0.01	0.01	0.01		0.04	0.0
Coal (million short tons) Petroleum (million barrels per day)	3.01	2.80	2.92	2.86	3.03	2.73	3.11	2.81	3.09	2.79	3.15	2.79	11.60	11.68	11.8
renoleum (million barreis per day)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03
Natural Gas (trillion cubic feet)	0.17	0.15	0.16	0.17	0.15	0.17	0.16	0.15	0.17	0.19	0.17	0.15	0.66	0.64	0.68

<sup>&</sup>lt;sup>a</sup>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; 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).

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.

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

		Year	•		Annu	ıal Percentage Ch	nange
	2002	2003	2004	2005	2002-2003	2003-2004	2004-2005
Electricity Sector							
Hydroelectric Power	2.633	2.721	2.675	2.998	3.3	-1.7	12.1
Geothermal, Solar and Wind Energy	0.415	0.390	0.449	0.456	-6.0	15.1	1.6
Biofuels	0.516	0.507	0.530	0.541	-1.7	4.5	2.1
Total	3.563	3.619	3.655	3.995	1.6	1.0	9.3
Other Sectors							
Residential and Commercial	0.539	0.532	0.597	0.622	-1.3	12.2	4.2
Residential	0.418	0.436	0.455	0.474	4.3	4.4	4.2
Commercial	0.121	0.097	0.142	0.147	-19.8	46.4	3.5
Industrial	1.792	1.800	1.908	1.860	0.4	6.0	-2.5
Transportation	0.175	0.237	0.297	0.301	35.4	25.3	1.3
Total	2.506	2.570	2.803	2.782	2.6	9.1	-0.7
Total Renewable Energy Demand	6.069	6.189	6.457	6.777	2.0	4.3	5.0

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

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.

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

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

<sup>&</sup>lt;sup>9</sup>Ethanol blended into gasoline.

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

Table 7 til 7 till adi Glot Eller gy Gapp	,							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	9891	10075	10381	10834	11205
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	35.28	35.36
Petroleum Supply															
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	5.56	5.63
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	11.65	11.89
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	20.03	20.42	20.77
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	21.94	21.93	22.50
Coal															
(million short tons)	899	908	944	951	962	1006	1030	1037	1039	1084	1060	1066	1094	1109	1137
Electricity (billion kilowatthours)															
Retail Sales <sup>c</sup>	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3370	3463	3500	3554	3653
Other Use/Sales d	118	122	128	134	144	146	148	161	183	181	173	177	174	179	183
Total	2880	2886	2989	3069	3157	3247	3294	3425	3495	3603	3543	3639	3674	3733	3836
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	97.6	98.7	101.0
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	9.40	9.11	9.01

<sup>&</sup>lt;sup>a</sup>Refers to the imported cost of crude oil to U.S. refiners.

<sup>&</sup>lt;sup>b</sup>Includes lease condensate.

Control 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>&</sup>lt;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>&</sup>quot;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, July 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
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2000 dollars)	7101	7337	7533	7835	8032	8329	8704	9067	9470	9817	9891	10075	10381	10834	11205
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	8027	8240
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	118.7	125.1
Real Fixed Investment															
(billion chained 2000 dollars)	829	878	953	1042	1110	1209	1321	1455	1576	1679	1629	1549	1627	1782	1843
Real Exchange Rate															
(Index, 2000=1.000)	1.026	1.025	1.028	1.026	0.975	0.931	0.928	1.043	1.030	1.000	1.024	1.043	1.020	0.986	0.972
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	4.9	13.1
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	1.456	1.483
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	1.889	1.928
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	1.100	1.157
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	95.0
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	116.8	121.8
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
Weather <sup>a</sup>															
Heating Degree-Days															
U.S	4200	4431	4672	4472	4516	4690	4523	3946	4153	4447	4191	4280	4450	4381	4549
New England	6042	6018	5904	6748	6631	6750	6725	5742	6014	6585	6110	6099	6846	6706	6662
Middle Atlantic	5317	6108	6040	6083	5966	6118	5940	4923	5493	5944	5424	5372	6091	6123	5918
U.S. Gas-Weighted	4570	4787	5062	4861	4905	5092	4911	4271	4510	4796	4534	4635	4790	4746	4840
Cooling Degree-Days (U.S.)		1075	1251	1254	1322	1216	1195	1438	1328	1268	1288	1385	1286	1220	1241

<sup>&</sup>lt;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.

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, July 2004'. 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)

(Quadrillori E			, ,					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	22.85	23.74
Natural Gas	18.23	18.38	18.58	19.35	19.08	19.27	19.32	19.61	19.34	19.66	20.17	19.48	19.58	19.50	19.77
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	11.79	11.93
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	8.15	7.97	8.22	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	2.67	2.99
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	3.70	3.69
Total	70.38	69.96	68.29	70.70	71.17	72.42	72.34	72.80	71.67	71.24	71.32	70.89	70.08	71.19	72.85
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	-0.50	-0.65	-0.69
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	3.32	3.34	3.47
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	20.50	21.16	21.32
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	2.66	2.74	2.96
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	0.12	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	26.05	26.72	27.13
Adjustments <sup>a</sup>	-0.13	2.21	3.72	1.08	1.93	4.07	3.10	1.36	1.81	3.94	-0.40	1.57	1.45	0.82	1.01
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	22.57	22.83	23.44
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	23.73	23.71	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	39.72	40.36
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	7.97	8.22	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	4.03	4.37	4.25	4.64
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	97.58	98.73	100.99

<sup>&</sup>lt;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
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	35.28	35.36
WTI <sup>b</sup> 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	39.37	39.38
Natural Gas (dollars per thousand cub	ic feet)														
Average Wellhead	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.70	4.01	2.95	4.98	5.34	5.54
Henry Hub Spot	1.54	1.83	2.19	1.97	1.74	2.84	2.60	2.15	2.33	4.37	4.19	3.43	5.80	5.96	6.14
Petroleum Products															
Gasoline Retail <sup>c</sup> (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	1.85	1.85
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	1.81	1.81
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	1.70	1.71
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	1.00	1.05
No. 2 Heating Oil, Retail															
(dollars per gallon) No. 6 Residual Fuel Oil, Retail <sup>d</sup>	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	1.43	1.50
(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	29.41	30.83	33.60
Electric Power Sector (dollars per mil	lion 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	1.31	1.32
Heavy Fuel Oil <sup>e</sup>		2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.73	3.67	4.72	5.20	5.59
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	5.39	6.03	6.16
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	9.50	10.44	10.74
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	8.71	8.87	9.03

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

<sup>&</sup>lt;sup>b</sup>West Texas Intermediate.

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

<sup>&</sup>lt;sup>d</sup>Average for all sulfur contents.

<sup>&</sup>lt;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-035; 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
Supply			l	L	L				·		L				
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	5.68	5.56	5.63
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	0.94	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	4.61	4.73
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	9.65	9.94	10.04
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	-0.14	-0.04
Net Commercial Withdrawals		0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	0.09	0.02	-0.03	0.00
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	0.13	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	15.45	15.72
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	1.82
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	0.42
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	1.71	1.85
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	-0.01
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	20.42	20.78
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	8.93	9.08	9.28
Jet Fuel		1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	1.61	1.58	1.65	1.70
Distillate Fuel Oil		2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	3.78	3.93	4.08	4.14
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	0.74	0.74
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	4.86	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	20.42	20.77
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	11.65	11.89
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	325	318	335	337	303	284	305	324	284	286	312	278	269	280	282
Total Motor Gasoline		216	226	215	202	195	210	216	193	196	210	209	207	205	204
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	133	132
Residual Fuel Oil		43	44	42	37	46	40	45	36	36	41	31	38	37	36
Other Oils f	267	263	273	275	258	250	259	291	246	247	287	258	241	240	246
alpoludos logos condensato															

<sup>&</sup>lt;sup>a</sup>Includes lease condensate.

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

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

<sup>&</sup>lt;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.

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.

<sup>&</sup>lt;sup>1</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, 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	19.07	18.99	19.25
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	3.93	3.97	4.13
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	0.71	0.75
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	3.24	3.26	3.38
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	0.07	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	22.37	22.32	22.70
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	2.67
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	2.67	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	-0.11	0.07
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	22.18	22.21	22.78
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	-0.24	-0.28	-0.28
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	21.94	21.93	22.50
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	5.11	4.96	4.98
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	3.15
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	8.13	8.20	8.39
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	1.12	1.13
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	7.01	7.08	7.27
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	1.11	1.19
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	5.87	5.97	6.08
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	5.07	5.33
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	21.94	21.93	22.50

<sup>&</sup>lt;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.

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.

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

<sup>&</sup>lt;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
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	1109.0	1155.0
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	386.0	391.5
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	143.9	140.9
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	579.1	622.6
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	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	23.2	21.8
Exports		102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	39.6	43.3	47.0	47.6
Total Net Domestic Supply		897.8	887.8	963.1	952.7	987.3	1008.5	1045.7	1048.1	1035.2	1094.8	1064.2	1057.7	1087.3	1128.9
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	118.7
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	118.7	126.0
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	8.3	-7.3
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	1091.2	1108.1	1136.7
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	25.4	25.1
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	1004.3	1017.1	1044.8
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	66.8	66.8
Residential and Commercial		6.2	6.2	6.0	5.8	6.0	6.5	4.9	4.9	4.1	4.4	4.4	4.4	4.8	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	61.2	62.0	62.3
CHP <sup>e</sup>		28.2	28.9	29.7	29.4	29.4	29.9	28.6	27.8	28.0	25.8	26.2	26.7	27.6	27.8
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	34.5
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	1094.1	1109.3	1136.7
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	-2.9	-1.2	0.0

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

<sup>&</sup>lt;sup>b</sup>Secondary 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.

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

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

<sup>&</sup>lt;sup>9</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
Net Electricity Generation	•	•	•	•		•	•		•	•			•	•	
Electric Power Sector <sup>a</sup>															
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	1948.0	1970.1	2015.1
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	118.2	105.5
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	579.8	616.1
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	763.7	786.9	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	260.6	256.1	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	55.2	61.7	62.8
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	3690.7	3772.9	3876.4
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	165.5
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	3848.0	3935.1	4042.0
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	3.0	4.2
Total Supply	3093.4	3109.3	3225.0	3292.3	3392.7	3484.4	3526.2	3646.2	3723.8	3835.9	3758.7	3881.3	3854.4	3938.1	4046.2
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	205.2	210.5
Demand															
Retail Sales <sup>e</sup>															
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	1279.9	1287.8	1329.8
Commercial <sup>f</sup>	855.2	850.0	884.7	913.1	953.1	980.1	1026.6	1078.0	1103.8	1159.3	1197.4	1218.2	1223.4	1230.3	1271.4
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	991.4	1030.9	1046.6
Transportation <sup>9</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	5.0	5.1
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	3500.0	3553.8	3652.9
Other Use/Sales h	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	179.1	182.7
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	3673.6	3732.9	3835.7

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

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

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

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

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

<sup>&</sup>lt;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.

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.

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>&</sup>lt;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 2002 are estimates.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System and by EIA's office of Coal, Nuclear, Electric and Alternate Fuels (hydroelectric and nuclear).