Table A1. Total Energy Supply and Disposition Summary
(Quadrillion Btu per Year, Unless Otherwise Noted)

Supply, Disposition, and Prices	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Production								
Crude Oil and Lease Condensate	12.05	11.47	12.45	12.37	11.75	10.56	9.68	-0.7%
Natural Gas Plant Liquids	2.34	2.46	2.39	2.57	2.67	2.62	2.57	0.2%
Dry Natural Gas	19.63	19.02	19.13	20.97	22.09	21.80	21.45	0.5%
Coal	22.12	22.86	25.78	25.73	27.30	30.61	34.10	1.6%
Nuclear Power	7.96	8.23	8.44	8.66	9.09	9.09	9.09	0.4%
Renewable Energy[1]	5.69	5.74	7.08	7.43	8.00	8.61	9.02	1.8%
Other[2]	0.72	0.64	2.16	2.85	3.16	3.32	3.44	6.7%
Total	**70.52**	**70.42**	**77.42**	**80.58**	**84.05**	**86.59**	**89.36**	**0.9%**
Imports								
Crude Oil[3]	21.06	22.02	22.01	22.91	24.63	26.96	29.54	1.1%
Petroleum Products[4]	5.16	5.93	6.36	7.29	8.01	8.41	9.27	1.7%
Natural Gas	4.10	4.36	5.01	5.81	5.83	6.37	6.72	1.7%
Other Imports[5]	0.67	0.83	0.45	0.74	1.36	2.02	2.42	4.2%
Total	**30.98**	**33.14**	**33.83**	**36.75**	**39.83**	**43.76**	**47.95**	**1.4%**
Exports								
Petroleum[6]	2.03	2.07	2.15	2.18	2.24	2.26	2.31	0.4%
Natural Gas	0.71	0.86	0.55	0.58	0.68	0.86	1.01	0.6%
Coal	1.12	1.25	1.03	0.54	0.46	0.48	0.40	-4.3%
Total	**3.86**	**4.18**	**3.74**	**3.30**	**3.39**	**3.61**	**3.72**	**-0.5%**
Discrepancy[7]	**-0.40**	**-0.31**	**-0.36**	**-0.16**	**-0.15**	**-0.25**	**-0.30**	**N/A**
Consumption								
Petroleum Products[8]	38.96	40.08	43.14	45.69	48.14	50.57	53.58	1.1%
Natural Gas	23.04	23.07	24.04	26.67	27.70	27.78	27.66	0.7%
Coal	22.38	22.53	25.09	25.66	27.65	30.89	34.49	1.7%
Nuclear Power	7.96	8.23	8.44	8.66	9.09	9.09	9.09	0.4%
Renewable Energy[1]	5.70	5.74	7.08	7.43	8.00	8.61	9.02	1.8%
Other[9]	0.02	0.04	0.07	0.08	0.05	0.05	0.05	0.9%
Total	**98.05**	**99.68**	**107.87**	**114.18**	**120.63**	**126.99**	**133.88**	**1.1%**
Net Imports - Petroleum	**24.19**	**25.88**	**26.22**	**28.02**	**30.39**	**33.11**	**36.49**	**1.3%**
Prices (2004 dollars per unit)								
Imported Low Sulfur Light Crude Oil Price (dollars per barrel)[10]	31.72	40.49	47.29	47.79	50.70	54.08	56.97	1.3%
Imported Crude Oil Price (dollars per barrel)[10]	28.46	35.99	43.99	43.00	44.99	47.99	49.99	1.3%
Natural Gas Wellhead Price (dollars per thousand cubic feet)[11]	5.08	5.49	5.03	4.52	4.90	5.43	5.92	0.3%
Coal Minemouth Price (dollars per ton)	18.40	20.07	22.23	20.39	20.20	20.63	21.73	0.3%
Average Electricity Price (cents per kilowatthour)	7.6	7.6	7.3	7.1	7.2	7.4	7.5	-0.0%

[1]Includes grid-connected electricity from conventional hydroelectric; wood and wood waste; landfill gas; municipal solid waste; other biomass; wind; photovoltaic and solar thermal sources; non-electric energy from renewable sources, such as active and passive solar systems, and wood; and both the ethanol and gasoline components of E85, but not the ethanol components of blends less than 85 percent. Excludes electricity imports using renewable sources and nonmarketed renewable energy. See Table A17 for selected nonmarketed residential and commercial renewable energy.
[2]Includes liquid hydrogen, methanol, supplemental natural gas, and some domestic inputs to refineries.
[3]Includes imports of crude oil for the Strategic Petroleum Reserve.
[4]Includes imports of finished petroleum products, unfinished oils, alcohols, ethers, and blending components.
[5]Includes coal, coal coke (net), and electricity (net).
[6]Includes crude oil and petroleum products.
[7]Balancing item. Includes unaccounted for supply, losses, gains, net storage withdrawals, heat loss when natural gas is converted to liquid fuel, and heat loss when coal is converted to liquid fuel.
[8]Includes natural gas plant liquids, crude oil consumed as a fuel, and nonpetroleum-based liquids for blending, such as ethanol.
[9]Includes net electricity imports, methanol, and liquid hydrogen.
[10]Weighted average price delivered to U.S. refiners.
[11]Represents lower 48 onshore and offshore supplies.
Btu = British thermal unit.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 natural gas supply values: Energy Information Administration (EIA), *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2004 natural gas supply values and natural gas wellhead price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005), subtracting 1 billion cubic feet per day to account for carbon dioxide included in production in Texas. 2003 natural gas wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2003 coal minemouth prices: EIA, *Annual Coal Report 2004*, DOE/EIA-0584(2004) (Washington, DC, November 2005). 2004 petroleum supply values and 2003 crude oil and lease condensate production: EIA, *Petroleum Supply Annual 2004,* DOE/EIA-0340(2004)/1 (Washington, DC, June 2005). Other 2003 petroleum supply values: EIA, *Petroleum Supply Annual 2003*, DOE/EIA-0340(2003)/1 (Washington, DC, July 2004). 2003 and 2004 low sulfur light crude oil price: EIA, Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." Other 2003 and 2004 coal values: *Quarterly Coal Report, October-December 2004*, DOE/EIA-0121(2004/4Q) (Washington, DC, March 2005). Other 2003 and 2004 values: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Energy Consumption								
Residential								
Distillate Fuel	0.91	0.94	0.84	0.79	0.73	0.67	0.61	-1.7%
Kerosene	0.08	0.09	0.09	0.09	0.08	0.07	0.07	-1.0%
Liquefied Petroleum Gas	0.52	0.54	0.56	0.59	0.61	0.63	0.65	0.7%
Petroleum Subtotal	1.50	1.57	1.48	1.47	1.43	1.37	1.32	-0.7%
Natural Gas	5.25	5.03	5.33	5.52	5.68	5.74	5.82	0.6%
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.5%
Renewable Energy[1]	0.40	0.41	0.44	0.43	0.43	0.42	0.41	0.1%
Electricity	4.34	4.41	4.99	5.38	5.77	6.10	6.47	1.5%
Delivered Energy	**11.51**	**11.44**	**12.25**	**12.81**	**13.31**	**13.64**	**14.04**	**0.8%**
Electricity Related Losses	9.51	9.60	10.74	11.26	11.85	12.24	12.60	1.1%
Total	**21.02**	**21.04**	**22.99**	**24.07**	**25.17**	**25.88**	**26.64**	**0.9%**
Commercial								
Distillate Fuel	0.48	0.50	0.48	0.49	0.50	0.51	0.52	0.1%
Residual Fuel	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.1%
Kerosene	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.3%
Liquefied Petroleum Gas	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.2%
Motor Gasoline[2]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.3%
Petroleum Subtotal	0.75	0.79	0.77	0.78	0.79	0.80	0.82	0.1%
Natural Gas	3.32	3.09	3.18	3.46	3.68	3.89	4.11	1.1%
Coal	0.08	0.09	0.09	0.09	0.09	0.09	0.09	-0.0%
Renewable Energy[3]	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%
Electricity	4.09	4.19	4.88	5.43	6.01	6.63	7.34	2.2%
Delivered Energy	**8.34**	**8.24**	**9.00**	**9.85**	**10.66**	**11.50**	**12.44**	**1.6%**
Electricity Related Losses	8.96	9.13	10.51	11.37	12.35	13.32	14.29	1.7%
Total	**17.30**	**17.37**	**19.51**	**21.23**	**23.02**	**24.82**	**26.73**	**1.7%**
Industrial[4]								
Distillate Fuel	1.14	1.19	1.20	1.20	1.23	1.26	1.32	0.4%
Liquefied Petroleum Gas	2.12	2.19	2.21	2.26	2.34	2.44	2.54	0.6%
Petrochemical Feedstock	1.37	1.49	1.48	1.49	1.51	1.53	1.55	0.2%
Residual Fuel	0.22	0.24	0.20	0.19	0.20	0.21	0.21	-0.4%
Motor Gasoline[2]	0.31	0.32	0.32	0.32	0.32	0.33	0.34	0.2%
Other Petroleum[5]	4.12	4.16	4.60	4.83	5.05	5.34	5.69	1.2%
Petroleum Subtotal	9.28	9.58	10.01	10.29	10.65	11.10	11.66	0.8%
Natural Gas	7.38	7.64	8.07	8.33	8.52	8.77	9.08	0.7%
Lease and Plant Fuel[6]	1.16	1.14	1.12	1.22	1.28	1.24	1.21	0.2%
Natural Gas Subtotal	8.54	8.78	9.19	9.55	9.80	10.02	10.29	0.6%
Metallurgical Coal	0.67	0.65	0.62	0.61	0.59	0.58	0.58	-0.4%
Other Industrial Coal	1.38	1.38	1.43	1.43	1.43	1.43	1.45	0.2%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.16	0.49	1.22	1.61	33.8%
Net Coal Coke Imports	0.05	0.14	0.02	0.02	0.02	0.01	0.02	-8.1%
Coal Subtotal	2.09	2.16	2.07	2.21	2.53	3.25	3.65	2.0%
Renewable Energy[7]	1.59	1.68	1.79	1.90	2.01	2.14	2.29	1.2%
Electricity	3.44	3.48	3.62	3.76	3.91	4.08	4.31	0.8%
Delivered Energy	**24.94**	**25.68**	**26.67**	**27.72**	**28.91**	**30.58**	**32.19**	**0.9%**
Electricity Related Losses	7.53	7.58	7.79	7.88	8.04	8.19	8.39	0.4%
Total	**32.46**	**33.27**	**34.46**	**35.60**	**36.95**	**38.77**	**40.58**	**0.8%**

Table A2. Energy Consumption by Sector and Source (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Transportation								
Distillate Fuel[8]	5.67	5.91	6.82	7.48	8.13	8.95	9.98	2.0%
Jet Fuel[9]	3.26	3.35	3.89	4.27	4.53	4.61	4.79	1.4%
Motor Gasoline[2]	16.62	16.93	18.33	19.54	20.73	21.81	22.99	1.2%
Residual Fuel	0.57	0.61	0.62	0.63	0.64	0.65	0.65	0.3%
Liquefied Petroleum Gas	0.02	0.03	0.06	0.07	0.09	0.10	0.11	5.0%
Other Petroleum[10]	0.15	0.18	0.18	0.18	0.18	0.19	0.19	0.3%
Petroleum Subtotal	26.30	27.02	29.91	32.18	34.30	36.30	38.71	1.4%
Pipeline Fuel Natural Gas	0.69	0.69	0.65	0.74	0.80	0.79	0.78	0.5%
Compressed Natural Gas	0.02	0.03	0.05	0.08	0.09	0.11	0.12	6.0%
Renewable Energy (E85)[11]	0.00	0.00	0.00	0.00	0.00	0.01	0.01	6.4%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.9%
Delivered Energy	**27.09**	**27.82**	**30.70**	**33.09**	**35.30**	**37.31**	**39.72**	**1.4%**
Electricity Related Losses	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.5%
Total	**27.27**	**28.00**	**30.90**	**33.29**	**35.50**	**37.52**	**39.93**	**1.4%**
Delivered Energy Consumption for All Sectors								
Distillate Fuel	8.19	8.55	9.34	9.96	10.59	11.38	12.43	1.5%
Kerosene	0.11	0.13	0.14	0.13	0.13	0.12	0.11	-0.6%
Jet Fuel[9]	3.26	3.35	3.89	4.27	4.53	4.61	4.79	1.4%
Liquefied Petroleum Gas	2.76	2.85	2.92	3.02	3.14	3.27	3.40	0.7%
Motor Gasoline[2]	16.98	17.30	18.70	19.91	21.10	22.19	23.38	1.2%
Petrochemical Feedstock	1.37	1.49	1.48	1.49	1.51	1.53	1.55	0.2%
Residual Fuel	0.90	0.97	0.94	0.94	0.96	0.98	0.99	0.1%
Other Petroleum[12]	4.26	4.32	4.75	4.99	5.21	5.50	5.86	1.2%
Petroleum Subtotal	37.83	38.96	42.17	44.72	47.17	49.57	52.51	1.2%
Natural Gas	15.96	15.79	16.63	17.39	17.97	18.51	19.13	0.7%
Lease and Plant Fuel[6]	1.16	1.14	1.12	1.22	1.28	1.24	1.21	0.2%
Pipeline Natural Gas	0.69	0.69	0.65	0.74	0.80	0.79	0.78	0.5%
Natural Gas Subtotal	17.81	17.62	18.40	19.35	20.06	20.55	21.11	0.7%
Metallurgical Coal	0.67	0.65	0.62	0.61	0.59	0.58	0.58	-0.4%
Other Coal	1.47	1.47	1.53	1.52	1.53	1.53	1.54	0.2%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.16	0.49	1.22	1.61	33.8%
Net Coal Coke Imports	0.05	0.14	0.02	0.02	0.02	0.01	0.02	-8.1%
Coal Subtotal	2.19	2.26	2.17	2.31	2.63	3.35	3.74	2.0%
Renewable Energy[13]	2.08	2.17	2.32	2.41	2.53	2.66	2.80	1.0%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	11.96	12.17	13.57	14.67	15.79	16.91	18.22	1.6%
Delivered Energy	**71.87**	**73.18**	**78.62**	**83.46**	**88.19**	**93.04**	**98.40**	**1.1%**
Electricity Related Losses	26.18	26.50	29.24	30.71	32.45	33.95	35.48	1.1%
Total	**98.05**	**99.68**	**107.87**	**114.18**	**120.63**	**126.99**	**133.88**	**1.1%**
Electric Power[14]								
Distillate Fuel	0.29	0.17	0.23	0.23	0.24	0.26	0.27	1.8%
Residual Fuel	0.84	0.95	0.74	0.73	0.73	0.74	0.80	-0.6%
Petroleum Subtotal	1.13	1.12	0.97	0.96	0.97	1.00	1.07	-0.2%
Natural Gas	5.23	5.45	5.65	7.32	7.65	7.23	6.54	0.7%
Steam Coal	20.19	20.26	22.92	23.35	25.02	27.54	30.74	1.6%
Nuclear Power	7.96	8.23	8.44	8.66	9.09	9.09	9.09	0.4%
Renewable Energy[15]	3.62	3.57	4.76	5.01	5.47	5.95	6.22	2.2%
Electricity Imports	0.02	0.04	0.07	0.08	0.05	0.05	0.05	0.9%
Total	**38.14**	**38.67**	**42.82**	**45.38**	**48.24**	**50.86**	**53.71**	**1.3%**

Table A2. Energy Consumption by Sector and Source (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Total Energy Consumption								
Distillate Fuel	8.48	8.72	9.57	10.19	10.83	11.64	12.70	1.5%
Kerosene	0.11	0.13	0.14	0.13	0.13	0.12	0.11	-0.6%
Jet Fuel[9]	3.26	3.35	3.89	4.27	4.53	4.61	4.79	1.4%
Liquefied Petroleum Gas	2.76	2.85	2.92	3.02	3.14	3.27	3.40	0.7%
Motor Gasoline[2]	16.98	17.30	18.70	19.91	21.10	22.19	23.38	1.2%
Petrochemical Feedstock	1.37	1.49	1.48	1.49	1.51	1.53	1.55	0.2%
Residual Fuel	1.74	1.91	1.68	1.67	1.69	1.72	1.79	-0.3%
Other Petroleum[12]	4.26	4.32	4.75	4.99	5.21	5.50	5.86	1.2%
Petroleum Subtotal	38.96	40.08	43.14	45.69	48.14	50.57	53.58	1.1%
Natural Gas	21.19	21.24	22.28	24.71	25.62	25.75	25.67	0.7%
Lease and Plant Fuel[6]	1.16	1.14	1.12	1.22	1.28	1.24	1.21	0.2%
Pipeline Natural Gas	0.69	0.69	0.65	0.74	0.80	0.79	0.78	0.5%
Natural Gas Subtotal	23.04	23.07	24.04	26.67	27.70	27.78	27.66	0.7%
Metallurgical Coal	0.67	0.65	0.62	0.61	0.59	0.58	0.58	-0.4%
Other Coal	21.66	21.74	24.45	24.88	26.55	29.07	32.29	1.5%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.16	0.49	1.22	1.61	33.8%
Net Coal Coke Imports	0.05	0.14	0.02	0.02	0.02	0.01	0.02	-8.1%
Coal Subtotal	22.38	22.53	25.09	25.66	27.65	30.89	34.49	1.7%
Nuclear Power	7.96	8.23	8.44	8.66	9.09	9.09	9.09	0.4%
Renewable Energy[16]	5.70	5.74	7.08	7.43	8.00	8.61	9.02	1.8%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity Imports	0.02	0.04	0.07	0.08	0.05	0.05	0.05	0.9%
Total	**98.05**	**99.68**	**107.87**	**114.18**	**120.63**	**126.99**	**133.88**	**1.1%**
Energy Use and Related Statistics								
Delivered Energy Use	71.87	73.18	78.62	83.46	88.19	93.04	98.40	1.1%
Total Energy Use	98.05	99.68	107.87	114.18	120.63	126.99	133.88	1.1%
Population (millions)	291.39	294.10	310.12	323.55	336.99	350.64	364.79	0.8%
Gross Domestic Product (billion 2000 dollars)	10321	10756	13043	15082	17541	20123	23112	3.0%
Carbon Dioxide Emissions (million metric tons)	5795.5	5899.9	6364.9	6717.6	7119.0	7586.7	8114.5	1.2%

[1]Includes wood used for residential heating. See Table A4 and/or Table A17 for estimates of nonmarketed renewable energy consumption for geothermal heat pumps, solar thermal hot water heating, and solar photovoltaic electricity generation.
[2]Includes ethanol (blends of 10 percent or less) and ethers blended into gasoline.
[3]Includes commercial sector consumption of wood and wood waste, landfill gas, municipal solid waste, and other biomass for combined heat and power. See Table A17 for estimates of nonmarketed renewable energy consumption for solar thermal hot water heating and solar photovoltaic electricity generation.
[4]Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
[5]Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.
[6]Represents natural gas used in the field gathering and processing plant machinery.
[7]Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.
[8]Diesel fuel for on- and off- road use.
[9]Includes only kerosene type.
[10]Includes aviation gasoline and lubricants.
[11]E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol actually varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.
[12]Includes unfinished oils, natural gasoline, motor gasoline blending components, aviation gasoline, lubricants, still gas, asphalt, road oil, petroleum coke, and miscellaneous petroleum products.
[13]Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Excludes nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.
[14]Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[15]Includes conventional hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, petroleum coke, wind, photovoltaic and solar thermal sources. Excludes net electricity imports.
[16]Includes hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, wind, photovoltaic and solar thermal sources. Includes ethanol components of E85; excludes ethanol blends (10 percent or less) in motor gasoline. Excludes net electricity imports and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.
Btu = British thermal unit.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports. Consumption values of 0.00 are values that round to 0.00, because they are less than 0.005.
Sources: 2003 and 2004 consumption based on: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 population and gross domestic product: Global Insight macroeconomic model CTL0805. 2003 and 2004 carbon dioxide emissions: EIA, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A3. Energy Prices by Sector and Source
(2004 Dollars per Million Btu, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Residential	**16.25**	**17.31**	**16.98**	**16.65**	**17.19**	**17.89**	**18.51**	**0.3%**
Primary Energy[1]	9.90	11.39	11.28	10.82	11.31	12.01	12.62	0.4%
Petroleum Products[2]	11.61	14.63	14.77	14.72	15.94	17.31	18.42	0.9%
Distillate Fuel	9.85	13.62	12.85	12.73	13.55	14.23	14.56	0.3%
Liquefied Petroleum Gas	15.00	17.30	18.17	17.91	19.34	21.19	22.68	1.0%
Natural Gas	9.43	10.40	10.33	9.80	10.16	10.76	11.32	0.3%
Electricity	26.14	26.19	24.78	24.24	24.44	24.76	25.02	-0.2%
Commercial	**15.95**	**16.56**	**16.27**	**15.80**	**16.28**	**16.95**	**17.52**	**0.2%**
Primary Energy[1]	8.11	9.20	8.96	8.45	8.74	9.21	9.65	0.2%
Petroleum Products[2]	8.17	10.39	10.56	10.65	11.22	11.78	12.28	0.6%
Distillate Fuel	7.24	9.99	10.15	10.39	10.89	11.33	11.77	0.6%
Residual Fuel	5.11	6.37	6.14	6.04	6.31	6.66	6.91	0.3%
Natural Gas	8.26	9.10	8.76	8.12	8.37	8.83	9.29	0.1%
Electricity	23.90	23.52	22.31	21.66	22.00	22.52	22.90	-0.1%
Industrial[3]	**8.03**	**8.67**	**8.48**	**8.15**	**8.48**	**8.84**	**9.27**	**0.3%**
Primary Energy	6.66	7.42	7.19	6.92	7.24	7.62	8.09	0.3%
Petroleum Products[2]	8.60	9.65	9.46	9.44	9.94	10.63	11.36	0.6%
Distillate Fuel	7.45	10.29	10.75	11.42	11.84	12.35	12.91	0.9%
Liquefied Petroleum Gas	12.93	14.24	12.03	11.80	12.92	14.06	15.25	0.3%
Residual Fuel	4.72	5.88	6.31	6.32	6.70	6.99	7.27	0.8%
Natural Gas[4]	5.59	6.10	5.69	5.16	5.49	5.99	6.45	0.2%
Metallurgical Coal[5]	1.90	2.24	2.36	2.19	2.23	2.28	2.28	0.1%
Other Industrial Coal[5]	1.62	1.74	1.86	1.80	1.81	1.86	1.92	0.4%
Coal to Liquids	N/A	N/A	N/A	0.86	1.04	1.22	1.26	N/A
Electricity	15.49	15.54	15.65	14.95	15.35	15.76	15.95	0.1%
Transportation	**11.83**	**13.81**	**14.83**	**14.82**	**15.38**	**15.84**	**16.32**	**0.6%**
Primary Energy	11.80	13.79	14.82	14.80	15.36	15.83	16.31	0.6%
Petroleum Products[2]	11.80	13.79	14.82	14.82	15.38	15.84	16.32	0.7%
Distillate Fuel[6]	11.24	13.25	14.29	14.56	14.78	15.15	15.65	0.6%
Jet Fuel[7]	6.65	9.02	9.67	9.87	10.49	10.92	11.53	0.9%
Motor Gasoline[8]	13.31	15.34	16.52	16.34	17.02	17.49	17.92	0.6%
Residual Fuel	4.63	4.91	6.43	6.31	6.54	7.05	7.59	1.7%
Liquefied Petroleum Gas[9]	17.14	17.14	16.72	16.33	16.82	18.40	19.25	0.4%
Natural Gas[10]	8.90	9.94	10.09	9.61	9.90	10.32	10.68	0.3%
Ethanol (E85)[11]	16.71	20.24	21.19	20.50	21.10	21.74	22.48	0.4%
Electricity	21.74	21.67	20.76	20.25	20.56	20.86	21.00	-0.1%
Average End-Use Energy	**11.82**	**13.00**	**13.32**	**13.16**	**13.66**	**14.14**	**14.64**	**0.5%**
Primary Energy	9.58	11.04	11.52	11.40	11.89	12.35	12.86	0.6%
Electricity	22.28	22.19	21.43	20.87	21.23	21.69	22.00	-0.0%
Electric Power[12]								
Fossil Fuel Average	2.35	2.46	2.41	2.41	2.46	2.50	2.49	0.0%
Petroleum Products	5.35	5.43	6.50	6.52	6.91	7.37	7.61	1.3%
Distillate Fuel	6.65	9.23	9.04	9.02	9.62	10.05	10.28	0.4%
Residual Fuel	4.90	4.76	5.70	5.72	6.02	6.43	6.73	1.3%
Natural Gas	5.66	5.92	5.46	5.08	5.40	5.87	6.26	0.2%
Steam Coal[5]	1.33	1.36	1.48	1.40	1.39	1.44	1.51	0.4%

Table A3. Energy Prices by Sector and Source (Continued)
(2004 Dollars per Million Btu, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Average Price to All Users[13]								
Petroleum Products[2]	10.86	12.61	13.41	13.45	14.05	14.61	15.16	0.7%
Distillate Fuel	10.20	12.62	13.30	13.72	14.07	14.52	15.04	0.7%
Jet Fuel	6.65	9.02	9.67	9.87	10.49	10.92	11.53	0.9%
Liquefied Petroleum Gas	13.40	14.89	13.39	13.19	14.38	15.66	16.90	0.5%
Motor Gasoline[8]	13.30	15.33	16.52	16.34	17.02	17.49	17.92	0.6%
Residual Fuel	4.80	5.04	6.07	6.03	6.31	6.75	7.12	1.3%
Natural Gas	6.98	7.52	7.19	6.60	6.93	7.47	7.98	0.2%
Metallurgical Coal[5]	1.90	2.24	2.36	2.19	2.23	2.28	2.28	0.1%
Other Coal[5]	1.35	1.39	1.51	1.43	1.42	1.46	1.53	0.4%
Coal to Liquids	0.00	0.00	0.00	0.86	1.04	1.22	1.26	N/A
Ethanol (E85)[11]	16.71	20.24	21.19	20.50	21.10	21.74	22.48	0.4%
Electricity	22.28	22.19	21.43	20.87	21.23	21.69	22.00	-0.0%
Non-Renewable Energy Expenditures by Sector (billion 2004 dollars)								
Residential	180.52	190.90	200.59	206.16	221.50	236.52	252.12	1.1%
Commercial	131.57	135.07	145.01	154.28	172.19	193.44	216.48	1.8%
Industrial	153.18	170.01	169.60	167.05	179.83	197.21	216.86	0.9%
Transportation	312.29	374.67	445.81	479.43	530.44	578.48	635.46	2.1%
Total Non-Renewable Expenditures	777.56	870.65	961.01	1006.92	1103.97	1205.65	1320.94	1.6%
Transportation Renewable Expenditures	0.02	0.02	0.05	0.08	0.10	0.12	0.13	6.9%
Total Expenditures	**777.58**	**870.67**	**961.06**	**1007.00**	**1104.07**	**1205.76**	**1321.07**	**1.6%**

[1]Weighted average price includes fuels below as well as coal.
[2]This quantity is the weighted average for all petroleum products, not just those listed below.
[3]Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
[4]Excludes use for lease and plant fuel.
[5]Excludes imported coal.
[6]Diesel fuel for on-road use. Includes Federal and State taxes while excluding county and local taxes.
[7]Kerosene-type jet fuel. Includes Federal and State taxes while excluding county and local taxes.
[8]Sales weighted-average price for all grades. Includes Federal, State and local taxes.
[9]Includes Federal and State taxes while excluding county and local taxes.
[10]Compressed natural gas used as a vehicle fuel. Includes estimated motor vehicle fuel taxes.
[11]E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol actually varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.
[12]Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
[13]Weighted averages of end-use fuel prices are derived from the prices shown in each sector and the corresponding sectoral consumption.
Btu = British thermal unit.
N/A = Not applicable.
Note: Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 prices for motor gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2004*, DOE/EIA-0487(2004) (Washington, DC, August 2005). 2003 residential and commercial natural gas delivered prices: EIA,*Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2004 residential and commercial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005). 2003 and 2004 industrial natural gas delivered prices are estimated based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005). 2003 transportation sector natural gas delivered prices are based on EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004) and estimated state and federal taxes. 2004 transportation sector natural gas delivered prices are model results. 2003 and 2004 electric power sector natural gas prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, May 2003 through April 2004, Table 4.11.A. 2003 and 2004 coal prices based on: EIA, *Quarterly Coal Report, October-December 2004*, DOE/EIA-0121(2004/4Q) (Washington, DC, March 2005) and EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A. 2003 and 2004 electricity prices: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 ethanol prices derived from weekly spot prices in the Oxy Fuel News. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A4. Residential Sector Key Indicators and Consumption
(Quadrillion Btu per Year, Unless Otherwise Noted)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Key Indicators								
Households (millions)								
Single-Family	76.15	77.53	84.95	90.49	95.85	100.66	105.20	1.2%
Multifamily	29.51	29.80	31.46	32.72	34.09	35.37	36.81	0.8%
Mobile Homes	6.35	6.32	6.52	6.90	7.25	7.52	7.80	0.8%
Total	**112.01**	**113.65**	**122.93**	**130.11**	**137.19**	**143.55**	**149.81**	**1.1%**
Average House Square Footage	**1728**	**1740**	**1812**	**1861**	**1905**	**1944**	**1977**	**0.5%**
Energy Intensity								
(million Btu per household)								
Delivered Energy Consumption	102.7	100.6	99.6	98.4	97.0	95.0	93.7	-0.3%
Total Energy Consumption	187.7	185.1	187.0	185.0	183.4	180.3	177.8	-0.2%
(thousand Btu per square foot)								
Delivered Energy Consumption	59.5	57.8	55.0	52.9	50.9	48.9	47.4	-0.8%
Total Energy Consumption	108.6	106.4	103.2	99.4	96.3	92.8	89.9	-0.6%
Delivered Energy Consumption by Fuel								
Electricity								
Space Heating	0.40	0.39	0.44	0.46	0.48	0.49	0.49	0.9%
Space Cooling	0.65	0.64	0.70	0.73	0.77	0.80	0.85	1.1%
Water Heating	0.37	0.37	0.38	0.39	0.39	0.39	0.39	0.2%
Refrigeration	0.41	0.40	0.37	0.35	0.36	0.36	0.38	-0.2%
Cooking	0.10	0.10	0.11	0.12	0.13	0.14	0.14	1.2%
Clothes Dryers	0.24	0.24	0.26	0.27	0.28	0.29	0.30	0.8%
Freezers	0.13	0.13	0.12	0.12	0.12	0.13	0.13	0.1%
Lighting	0.76	0.78	0.85	0.93	0.99	1.05	1.11	1.4%
Clothes Washers[1]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-0.6%
Dishwashers[1]	0.02	0.02	0.03	0.03	0.03	0.03	0.03	1.2%
Color Televisions	0.13	0.14	0.19	0.23	0.27	0.28	0.30	3.0%
Personal Computers	0.07	0.07	0.10	0.11	0.13	0.14	0.16	3.1%
Furnace Fans	0.08	0.08	0.09	0.10	0.11	0.11	0.12	1.4%
Other Uses[2]	0.94	1.00	1.31	1.51	1.70	1.86	2.03	2.8%
Delivered Energy	**4.34**	**4.41**	**4.99**	**5.38**	**5.77**	**6.10**	**6.47**	**1.5%**
Natural Gas								
Space Heating	3.69	3.50	3.73	3.87	3.98	4.02	4.06	0.6%
Space Cooling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.9%
Water Heating	1.17	1.15	1.19	1.22	1.25	1.26	1.28	0.4%
Cooking	0.21	0.21	0.23	0.24	0.26	0.27	0.28	1.0%
Clothes Dryers	0.07	0.07	0.08	0.09	0.10	0.11	0.11	1.8%
Other Uses[3]	0.10	0.10	0.09	0.09	0.09	0.09	0.09	-0.4%
Delivered Energy	**5.25**	**5.03**	**5.33**	**5.52**	**5.68**	**5.74**	**5.82**	**0.6%**
Distillate								
Space Heating	0.79	0.82	0.73	0.69	0.64	0.59	0.53	-1.7%
Water Heating	0.11	0.12	0.11	0.10	0.09	0.08	0.08	-1.9%
Other Uses[4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Delivered Energy	**0.91**	**0.94**	**0.84**	**0.79**	**0.73**	**0.67**	**0.61**	**-1.7%**
Liquefied Petroleum Gas								
Space Heating	0.29	0.29	0.28	0.28	0.28	0.27	0.26	-0.4%
Water Heating	0.05	0.05	0.05	0.05	0.05	0.05	0.05	-0.1%
Cooking	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.4%
Other Uses[3]	0.16	0.17	0.20	0.23	0.25	0.28	0.30	2.2%
Delivered Energy	**0.52**	**0.54**	**0.56**	**0.59**	**0.61**	**0.63**	**0.65**	**0.7%**
Marketed Renewables (wood)[5]	0.40	0.41	0.44	0.43	0.43	0.42	0.41	0.1%
Other Fuels[6]	0.09	0.10	0.10	0.10	0.09	0.09	0.08	-1.0%

Table A4. Residential Sector Key Indicators and Consumption (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Delivered Energy Consumption by End Use								
Space Heating	5.66	5.51	5.73	5.84	5.91	5.87	5.84	0.2%
Space Cooling	0.65	0.64	0.70	0.73	0.77	0.80	0.85	1.1%
Water Heating	1.70	1.70	1.73	1.76	1.78	1.78	1.80	0.2%
Refrigeration	0.41	0.40	0.37	0.35	0.36	0.36	0.38	-0.2%
Cooking	0.34	0.35	0.37	0.39	0.42	0.43	0.45	1.0%
Clothes Dryers	0.31	0.32	0.34	0.36	0.38	0.39	0.42	1.1%
Freezers	0.13	0.13	0.12	0.12	0.12	0.13	0.13	0.1%
Lighting	0.76	0.78	0.85	0.93	0.99	1.05	1.11	1.4%
Clothes Washers	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-0.6%
Dishwashers	0.02	0.02	0.03	0.03	0.03	0.03	0.03	1.2%
Color Televisions	0.13	0.14	0.19	0.23	0.27	0.28	0.30	3.0%
Personal Computers	0.07	0.07	0.10	0.11	0.13	0.14	0.16	3.1%
Furnace Fans	0.08	0.08	0.09	0.10	0.11	0.11	0.12	1.4%
Other Uses[7]	1.20	1.27	1.60	1.83	2.04	2.22	2.42	2.5%
Delivered Energy	**11.51**	**11.44**	**12.25**	**12.81**	**13.31**	**13.64**	**14.04**	**0.8%**
Electricity Related Losses	**9.51**	**9.60**	**10.74**	**11.26**	**11.85**	**12.24**	**12.60**	**1.1%**
Total Energy Consumption by End Use								
Space Heating	6.55	6.36	6.68	6.81	6.89	6.84	6.80	0.3%
Space Cooling	2.08	2.04	2.22	2.26	2.34	2.42	2.51	0.8%
Water Heating	2.52	2.51	2.55	2.58	2.59	2.57	2.56	0.1%
Refrigeration	1.29	1.27	1.15	1.09	1.08	1.09	1.12	-0.5%
Cooking	0.57	0.57	0.62	0.65	0.68	0.70	0.73	0.9%
Clothes Dryers	0.84	0.85	0.89	0.91	0.94	0.97	1.01	0.7%
Freezers	0.42	0.41	0.37	0.37	0.38	0.38	0.39	-0.2%
Lighting	2.41	2.46	2.69	2.87	3.03	3.15	3.27	1.1%
Clothes Washers	0.10	0.10	0.10	0.09	0.08	0.08	0.08	-0.9%
Dishwashers	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.9%
Color Televisions	0.42	0.45	0.60	0.71	0.82	0.86	0.89	2.7%
Personal Computers	0.22	0.22	0.32	0.35	0.38	0.42	0.46	2.8%
Furnace Fans	0.27	0.26	0.30	0.31	0.33	0.34	0.35	1.2%
Other Uses[7]	3.26	3.46	4.42	4.98	5.52	5.95	6.38	2.4%
Total	**21.02**	**21.04**	**22.99**	**24.07**	**25.17**	**25.88**	**26.64**	**0.9%**
Nonmarketed Renewables								
Geothermal[8]	0.00	0.00	0.01	0.01	0.01	0.01	0.01	7.1%
Solar[9]	0.02	0.02	0.03	0.04	0.04	0.05	0.05	3.0%
Total	**0.02**	**0.03**	**0.04**	**0.04**	**0.05**	**0.06**	**0.06**	**3.5%**

[1]Does not include electric water heating portion of load.
[2]Includes small electric devices, heating elements, and motors not listed above.
[3]Includes such appliances as swimming pool heaters, outdoor grills, and outdoor lighting (natural gas).
[4]Includes such appliances as swimming pool and spa heaters.
[5]Includes wood used for primary and secondary heating in wood stoves or fireplaces as reported in the *Residential Energy Consumption Survey 2001*.
[6]Includes kerosene and coal.
[7]Includes all other uses listed above.
[8]Includes primary energy displaced by geothermal heat pumps in space heating and cooling applications.
[9]Includes primary energy displaced by solar thermal water heaters and electricity generated using photovoltaics.
Btu = British thermal unit.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 based on: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005).
Projections: EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A5. Commercial Sector Key Indicators and Consumption
(Quadrillion Btu per Year, Unless Otherwise Noted)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Key Indicators								
Total Floorspace (billion square feet)								
Surviving	71.6	73.1	80.4	86.8	93.7	101.2	109.4	1.6%
New Additions	2.1	2.0	2.0	2.1	2.3	2.4	2.6	1.1%
Total	**73.7**	**75.0**	**82.3**	**88.9**	**96.0**	**103.7**	**112.0**	**1.6%**
Energy Consumption Intensity (thousand Btu per square foot)								
Delivered Energy Consumption	113.2	109.9	109.3	110.8	111.1	111.0	111.0	0.0%
Electricity Related Losses	121.6	121.6	127.7	127.9	128.7	128.5	127.5	0.2%
Total Energy Consumption	234.8	231.5	237.0	238.8	239.8	239.5	238.6	0.1%
Delivered Energy Consumption by Fuel								
Purchased Electricity								
Space Heating[1]	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.7%
Space Cooling[1]	0.43	0.41	0.44	0.46	0.48	0.51	0.55	1.1%
Water Heating[1]	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.5%
Ventilation	0.16	0.17	0.17	0.18	0.19	0.20	0.21	1.0%
Cooking	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-0.1%
Lighting	1.09	1.10	1.17	1.27	1.36	1.44	1.52	1.2%
Refrigeration	0.20	0.21	0.22	0.24	0.25	0.27	0.29	1.3%
Office Equipment (PC)	0.13	0.14	0.23	0.26	0.29	0.30	0.30	3.0%
Office Equipment (non-PC)	0.27	0.31	0.46	0.55	0.65	0.76	0.89	4.1%
Other Uses[2]	1.48	1.53	1.84	2.12	2.44	2.80	3.19	2.9%
Delivered Energy	**4.09**	**4.19**	**4.88**	**5.43**	**6.01**	**6.63**	**7.34**	**2.2%**
Natural Gas								
Space Heating[1]	1.27	1.20	1.30	1.40	1.47	1.53	1.60	1.1%
Space Cooling[1]	0.01	0.01	0.01	0.02	0.02	0.03	0.03	4.3%
Water Heating[1]	0.55	0.54	0.53	0.60	0.65	0.71	0.76	1.3%
Cooking	0.26	0.26	0.28	0.32	0.35	0.37	0.40	1.7%
Other Uses[3]	1.23	1.07	1.05	1.13	1.19	1.25	1.32	0.8%
Delivered Energy	**3.32**	**3.09**	**3.18**	**3.46**	**3.68**	**3.89**	**4.11**	**1.1%**
Distillate								
Space Heating[1]	0.21	0.19	0.22	0.23	0.23	0.24	0.25	1.0%
Water Heating[1]	0.07	0.07	0.06	0.06	0.06	0.06	0.06	-0.1%
Other Uses[4]	0.20	0.24	0.20	0.20	0.20	0.20	0.20	-0.7%
Delivered Energy	**0.48**	**0.50**	**0.48**	**0.49**	**0.50**	**0.51**	**0.52**	**0.1%**
Marketed Renewables (biomass)	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%
Other Fuels[5]	0.35	0.37	0.37	0.38	0.38	0.38	0.39	0.2%
Delivered Energy Consumption by End Use								
Space Heating[1]	1.63	1.55	1.67	1.79	1.87	1.94	2.02	1.0%
Space Cooling[1]	0.44	0.42	0.46	0.48	0.51	0.54	0.58	1.2%
Water Heating[1]	0.76	0.75	0.73	0.80	0.87	0.93	0.99	1.1%
Ventilation	0.16	0.17	0.17	0.18	0.19	0.20	0.21	1.0%
Cooking	0.29	0.29	0.32	0.35	0.38	0.40	0.43	1.5%
Lighting	1.09	1.10	1.17	1.27	1.36	1.44	1.52	1.2%
Refrigeration	0.20	0.21	0.22	0.24	0.25	0.27	0.29	1.3%
Office Equipment (PC)	0.13	0.14	0.23	0.26	0.29	0.30	0.30	3.0%
Office Equipment (non-PC)	0.27	0.31	0.46	0.55	0.65	0.76	0.89	4.1%
Other Uses[6]	3.36	3.31	3.55	3.93	4.31	4.72	5.19	1.7%
Delivered Energy	**8.34**	**8.24**	**9.00**	**9.85**	**10.66**	**11.50**	**12.44**	**1.6%**

Table A5. Commercial Sector Key Indicators and Consumption (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Electricity Related Losses	**8.96**	**9.13**	**10.51**	**11.37**	**12.35**	**13.32**	**14.29**	**1.7%**
Total Energy Consumption by End Use								
Space Heating[1]	1.97	1.87	2.02	2.13	2.21	2.29	2.37	0.9%
Space Cooling[1]	1.39	1.32	1.41	1.44	1.50	1.57	1.66	0.9%
Water Heating[1]	1.06	1.06	1.04	1.11	1.18	1.24	1.30	0.8%
Ventilation	0.52	0.53	0.54	0.56	0.57	0.60	0.63	0.7%
Cooking	0.36	0.36	0.38	0.42	0.44	0.46	0.49	1.2%
Lighting	3.48	3.51	3.70	3.94	4.15	4.33	4.49	1.0%
Refrigeration	0.65	0.66	0.71	0.74	0.78	0.82	0.86	1.0%
Office Equipment (PC)	0.41	0.44	0.74	0.82	0.88	0.89	0.89	2.7%
Office Equipment (non-PC)	0.86	0.99	1.46	1.71	1.98	2.29	2.63	3.8%
Other Uses[6]	6.61	6.64	7.52	8.37	9.33	10.34	11.41	2.1%
Total	**17.30**	**17.37**	**19.51**	**21.23**	**23.02**	**24.82**	**26.73**	**1.7%**
Nonmarketed Renewable Fuels								
Solar[7]	0.02	0.03	0.03	0.03	0.03	0.03	0.04	1.6%

[1]Includes fuel consumption for district services.
[2]Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, and medical equipment.
[3]Includes miscellaneous uses, such as pumps, emergency electric generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings.
[4]Includes miscellaneous uses, such as cooking, emergency electric generators, and combined heat and power in commercial buildings.
[5]Includes residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.
[6]Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, emergency electric generators, combined heat and power in commercial buildings, manufacturing performed in commercial buildings, and cooking (distillate), plus residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.
[7]Includes primary energy displaced by solar thermal space heating and water heating, and electricity generation by solar photovoltaic systems.
Btu = British thermal unit.
PC = Personal computer.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 based on: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005).
Projections: EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A6. Industrial Sector Key Indicators and Consumption

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Key Indicators								
Value of Shipments (billion 2000 dollars)								
Manufacturing	3985	4204	4783	5347	5969	6664	7509	2.3%
Nonmanufacturing	1393	1439	1572	1689	1808	1926	2069	1.4%
Total	**5378**	**5643**	**6355**	**7036**	**7778**	**8589**	**9578**	**2.1%**
Energy Prices (2004 dollars per million Btu)								
Distillate Oil	7.45	10.29	10.75	11.42	11.84	12.35	12.91	0.9%
Liquefied Petroleum Gas	12.93	14.24	12.03	11.80	12.92	14.06	15.25	0.3%
Residual Oil	4.72	5.88	6.31	6.32	6.70	6.99	7.27	0.8%
Motor Gasoline	13.16	15.18	16.46	16.29	16.97	17.43	17.87	0.6%
Natural Gas	5.59	6.10	5.69	5.16	5.49	5.99	6.45	0.2%
Metallurgical Coal	1.90	2.24	2.36	2.19	2.23	2.28	2.28	0.1%
Other Industrial Coal	1.62	1.74	1.86	1.80	1.81	1.86	1.92	0.4%
Coal to Liquids	N/A	N/A	N/A	0.86	1.04	1.22	1.26	N/A
Electricity	15.49	15.54	15.65	14.95	15.35	15.76	15.95	0.1%
Energy Consumption (quadrillion Btu)[1]								
Distillate	1.14	1.19	1.20	1.20	1.23	1.26	1.32	0.4%
Liquefied Petroleum Gas	2.12	2.19	2.21	2.26	2.34	2.44	2.54	0.6%
Petrochemical Feedstocks	1.37	1.49	1.48	1.49	1.51	1.53	1.55	0.2%
Residual Fuel	0.22	0.24	0.20	0.19	0.20	0.21	0.21	-0.4%
Motor Gasoline	0.31	0.32	0.32	0.32	0.32	0.33	0.34	0.2%
Petroleum Coke	0.83	0.94	1.12	1.18	1.24	1.26	1.34	1.4%
Still Gas	1.55	1.55	1.78	1.94	2.07	2.27	2.44	1.8%
Asphalt and Road Oil	1.22	1.24	1.22	1.23	1.25	1.30	1.39	0.4%
Miscellaneous Petroleum[2]	0.53	0.43	0.48	0.48	0.49	0.50	0.52	0.7%
Petroleum Subtotal	9.28	9.58	10.01	10.29	10.65	11.10	11.66	0.8%
Natural Gas	7.38	7.64	8.07	8.33	8.52	8.77	9.08	0.7%
Lease and Plant Fuel[3]	1.16	1.14	1.12	1.22	1.28	1.24	1.21	0.2%
Natural Gas Subtotal	8.54	8.78	9.19	9.55	9.80	10.02	10.29	0.6%
Metallurgical Coal and Coke[4]	0.72	0.79	0.64	0.62	0.61	0.59	0.59	-1.1%
Other Industrial Coal	1.38	1.38	1.43	1.43	1.43	1.43	1.45	0.2%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.16	0.49	1.22	1.61	33.8%
Coal Subtotal	2.09	2.16	2.07	2.21	2.53	3.25	3.65	2.0%
Renewables[5]	1.59	1.68	1.79	1.90	2.01	2.14	2.29	1.2%
Purchased Electricity	3.44	3.48	3.62	3.76	3.91	4.08	4.31	0.8%
Delivered Energy	**24.94**	**25.68**	**26.67**	**27.72**	**28.91**	**30.58**	**32.19**	**0.9%**
Electricity Related Losses	7.53	7.58	7.79	7.88	8.04	8.19	8.39	0.4%
Total	**32.46**	**33.27**	**34.46**	**35.60**	**36.95**	**38.77**	**40.58**	**0.8%**
Energy Consumption per dollar of Shipment (thousand Btu per 2000 dollars)								
Distillate	0.21	0.21	0.19	0.17	0.16	0.15	0.14	-1.6%
Liquefied Petroleum Gas	0.39	0.39	0.35	0.32	0.30	0.28	0.27	-1.4%
Petrochemical Feedstocks	0.25	0.26	0.23	0.21	0.19	0.18	0.16	-1.9%
Residual Fuel	0.04	0.04	0.03	0.03	0.03	0.02	0.02	-2.4%
Motor Gasoline	0.06	0.06	0.05	0.05	0.04	0.04	0.04	-1.8%
Petroleum Coke	0.15	0.17	0.18	0.17	0.16	0.15	0.14	-0.7%
Still Gas	0.29	0.28	0.28	0.28	0.27	0.26	0.25	-0.3%
Asphalt and Road Oil	0.23	0.22	0.19	0.17	0.16	0.15	0.15	-1.6%
Miscellaneous Petroleum[2]	0.10	0.08	0.08	0.07	0.06	0.06	0.05	-1.3%
Petroleum Subtotal	1.73	1.70	1.57	1.46	1.37	1.29	1.22	-1.3%
Natural Gas	1.37	1.35	1.27	1.18	1.09	1.02	0.95	-1.4%
Lease and Plant Fuel[3]	0.22	0.20	0.18	0.17	0.16	0.14	0.13	-1.8%
Natural Gas Subtotal	1.59	1.56	1.45	1.36	1.26	1.17	1.07	-1.4%
Metallurgical Coal and Coke[4]	0.13	0.14	0.10	0.09	0.08	0.07	0.06	-3.1%
Other Industrial Coal	0.26	0.24	0.23	0.20	0.18	0.17	0.15	-1.8%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.02	0.06	0.14	0.17	31.1%
Coal Subtotal	0.39	0.38	0.33	0.31	0.33	0.38	0.38	-0.0%
Renewables[5]	0.30	0.30	0.28	0.27	0.26	0.25	0.24	-0.8%
Purchased Electricity	0.64	0.62	0.57	0.53	0.50	0.47	0.45	-1.2%
Delivered Energy	**4.64**	**4.55**	**4.20**	**3.94**	**3.72**	**3.56**	**3.36**	**-1.2%**
Electricity Related Losses	1.40	1.34	1.23	1.12	1.03	0.95	0.88	-1.6%
Total	**6.04**	**5.89**	**5.42**	**5.06**	**4.75**	**4.51**	**4.24**	**-1.3%**

Table A6. Industrial Sector Key Indicators and Consumption (Continued)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Industrial Combined Heat and Power								
Capacity (gigawatts)	26.74	27.53	30.09	34.56	41.70	53.64	60.83	3.1%
Generation (billion kilowatthours)	149.85	149.23	178.58	212.43	266.77	356.08	412.59	4.0%

[1]Fuel consumption includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
[2]Includes lubricants and miscellaneous petroleum products.
[3]Represents natural gas used in the field gathering and processing plant machinery.
[4]Includes net coal coke imports.
[5]Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.
Btu = British thermal unit.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 prices for motor gasoline and distillate are based on: Energy Information Administration (EIA), *Petroleum Marketing Annual 2004*, DOE/EIA-0487(2004) (Washington, DC, August 2005). 2003 and 2004 coal prices are based on: EIA, *Quarterly Coal Report, October-December 2004*, DOE/EIA-0121(2004/4Q) (Washington, DC, March 2005) and EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A. 2003 and 2004 electricity prices: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 natural gas prices based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005). 2003 and 2004 consumption values based on: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 shipments: Global Insight industry model, July 2004. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A7. Transportation Sector Key Indicators and Delivered Energy Consumption

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Key Indicators								
Level of Travel								
(billion vehicle miles traveled)								
Light-Duty Vehicles less than 8,500 pounds	2594	2632	2890	3171	3474	3791	4132	1.8%
Commercial Light Trucks[1]	66	69	77	85	94	103	115	2.0%
Freight Trucks greater than 10,000 pounds	216	226	261	292	328	367	413	2.3%
(billion seat miles available)								
Air	919	980	1192	1340	1452	1507	1567	1.8%
(billion ton miles traveled)								
Rail	1489	1539	1721	1825	1983	2188	2403	1.7%
Domestic Shipping	597	629	683	727	767	792	824	1.0%
Energy Efficiency Indicators								
(miles per gallon)								
New Light-Duty Vehicle[2]	25.0	24.9	26.7	27.4	28.0	28.8	29.2	0.6%
New Car[2]	29.4	29.3	31.4	32.2	32.7	33.5	33.8	0.6%
New Light Truck[2]	21.6	21.5	23.2	24.0	24.9	25.8	26.4	0.8%
Light-Duty Stock[3]	20.2	20.2	20.4	20.8	21.4	22.0	22.5	0.4%
New Commercial Light Truck[1]	14.4	14.5	15.4	15.8	16.3	16.9	17.1	0.6%
Stock Commercial Light Truck[1]	14.0	14.1	14.6	15.2	15.7	16.2	16.7	0.7%
Freight Truck	6.0	6.0	6.0	6.2	6.4	6.6	6.8	0.5%
(seat miles per gallon)								
Aircraft	55.3	55.5	59.0	63.0	67.6	72.4	76.0	1.2%
(ton miles per thousand Btu)								
Rail	2.9	2.9	2.9	2.9	3.0	3.0	3.0	0.1%
Domestic Shipping	2.1	2.1	2.2	2.2	2.2	2.2	2.2	0.2%
Energy Use by Mode								
(quadrillion Btu)								
Light-Duty Vehicles	15.90	16.21	17.71	19.00	20.30	21.56	22.98	1.4%
Commercial Light Trucks[1]	0.59	0.61	0.66	0.70	0.75	0.80	0.86	1.3%
Bus Transportation	0.26	0.27	0.28	0.29	0.29	0.29	0.30	0.4%
Freight Trucks	4.50	4.70	5.42	5.92	6.37	6.90	7.57	1.9%
Rail, Passenger	0.13	0.13	0.14	0.15	0.15	0.16	0.17	0.8%
Rail, Freight	0.51	0.53	0.59	0.62	0.67	0.74	0.80	1.6%
Shipping, Domestic	0.28	0.30	0.32	0.33	0.35	0.36	0.37	0.8%
Shipping, International	0.51	0.55	0.55	0.56	0.56	0.57	0.57	0.1%
Recreational Boats	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.5%
Air	2.76	2.82	3.32	3.68	3.92	3.98	4.15	1.5%
Military Use	0.67	0.71	0.76	0.78	0.81	0.82	0.84	0.7%
Lubricants	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.4%
Pipeline Fuel	0.69	0.69	0.65	0.74	0.80	0.79	0.78	0.5%
Total	**27.12**	**27.82**	**30.70**	**33.09**	**35.30**	**37.31**	**39.72**	**1.4%**

Table A7. Transportation Sector Key Indicators and Delivered Energy Consumption (Continued)

Key Indicators and Consumption	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Energy Use by Mode (million barrels per day oil equivalent)								
Light-Duty Vehicles	8.36	8.51	9.40	10.13	10.83	11.49	12.23	1.4%
Commercial Light Trucks[1]	0.31	0.32	0.35	0.37	0.40	0.43	0.46	1.4%
Bus Transportation	0.12	0.13	0.13	0.14	0.14	0.14	0.14	0.5%
Freight Trucks	2.15	2.24	2.59	2.84	3.05	3.31	3.63	1.9%
Rail, Passenger	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.8%
Rail, Freight	0.24	0.25	0.28	0.30	0.32	0.35	0.38	1.6%
Shipping, Domestic	0.13	0.14	0.15	0.16	0.16	0.17	0.17	0.9%
Shipping, International	0.22	0.24	0.24	0.24	0.25	0.25	0.25	0.1%
Recreational Boats	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.5%
Air	1.33	1.37	1.60	1.78	1.90	1.93	2.01	1.5%
Military Use	0.32	0.34	0.36	0.38	0.39	0.40	0.40	0.7%
Lubricants	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.4%
Pipeline Fuel	0.35	0.35	0.33	0.37	0.41	0.40	0.39	0.5%
Total	**13.76**	**14.09**	**15.67**	**16.94**	**18.08**	**19.10**	**20.32**	**1.4%**

[1]Commercial trucks 8,500 to 10,000 pounds.
[2]Environmental Protection Agency rated miles per gallon.
[3]Combined car and light truck "on-the-road" estimate.
Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.

Sources: 2003 and 2004: Energy Information Administration (EIA), *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004); Federal Highway Administration, *Highway Statistics 2003* (Washington, DC, December 2004); Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 24 and Annual* (Oak Ridge, TN, December 2004); National Highway Traffic and Safety Administration, *Summary of Fuel Economy Performance* (Washington, DC, March 2004); U.S. Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); EIA, *Describing Current and Potential Markets for Alternative-Fuel Vehicles*, DOE/EIA-0604(96) (Washington, DC, March 1996); EIA, *Alternatives to Traditional Transportation Fuels 2004*, http://www.eia.doe.gov/fuelrenewable.html; EIA, *State Energy Data Report 2001*, DOE/EIA-0214(2001) (Washington, DC, December 2004) U.S. Department of Transportation, Research and Special Programs Administration, *Air Carrier Statistics Monthly, December 2004/2003* (Washington, DC, 2004); EIA, *Fuel Oil and Kerosene Sales 2003*, DOE/EIA-0535(2003) (Washington, DC, November 2004); and United States Department of Defense, Defense Fuel Supply Center. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A8. Electricity Supply, Disposition, Prices, and Emissions
(Billion Kilowatthours, Unless Otherwise Noted)

Supply, Disposition, and Prices	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Generation by Fuel Type								
Electric Power Sector[1]								
Power Only[2]								
Coal	1916	1916	2164	2209	2405	2728	3178	2.0%
Petroleum	111	110	90	89	90	93	99	-0.4%
Natural Gas[3]	439	486	533	743	814	775	691	1.4%
Nuclear Power	764	789	809	829	871	871	871	0.4%
Pumped Storage/Other	-9	-8	-9	-9	-9	-9	-9	0.3%
Renewable Sources[4]	322	319	432	445	465	486	500	1.7%
Distributed Generation (Natural Gas)	0	0	0	0	1	1	2	N/A
Total	**3543**	**3612**	**4020**	**4306**	**4638**	**4945**	**5332**	**1.5%**
Combined Heat and Power[5]								
Coal	37	38	30	30	30	29	27	-1.3%
Petroleum	5	5	2	2	2	2	2	-2.8%
Natural Gas	129	132	140	159	153	141	131	-0.1%
Renewable Sources	4	4	4	4	4	4	4	-0.3%
Total	**177**	**182**	**176**	**195**	**189**	**177**	**164**	**-0.4%**
Total Net Generation	**3720**	**3794**	**4196**	**4501**	**4827**	**5121**	**5497**	**1.4%**
Less Direct Use	27	26	28	28	28	28	28	0.3%
Net Available to the Grid	**3694**	**3768**	**4168**	**4473**	**4799**	**5093**	**5469**	**1.4%**
End-Use Generation[6]								
Coal	21	23	23	38	70	139	175	8.2%
Petroleum	5	5	12	13	14	13	13	3.9%
Natural Gas	83	83	101	116	134	152	169	2.8%
Other Gaseous Fuels[7]	7	5	4	4	5	5	5	0.3%
Renewable Sources[4]	35	35	40	43	46	50	55	1.8%
Other[8]	11	12	12	12	12	12	12	-0.0%
Total	**162**	**161**	**192**	**226**	**280**	**370**	**429**	**3.8%**
Less Direct Use	137	135	149	163	186	224	250	2.4%
Total Sales to the Grid	**24**	**26**	**43**	**62**	**94**	**146**	**179**	**7.7%**
Total Electricity Generation	**3882**	**3955**	**4388**	**4727**	**5108**	**5491**	**5926**	**1.6%**
Total Net Generation to the Grid	**3718**	**3793**	**4211**	**4536**	**4893**	**5240**	**5648**	**1.5%**
Net Imports	**6**	**11**	**22**	**23**	**14**	**15**	**14**	**0.9%**
Electricity Sales by Sector								
Residential	1273	1293	1461	1576	1691	1787	1897	1.5%
Commercial	1200	1229	1430	1592	1762	1944	2151	2.2%
Industrial	1008	1021	1060	1103	1147	1195	1262	0.8%
Transportation	25	25	26	28	29	30	31	0.9%
Total	**3505**	**3567**	**3978**	**4300**	**4629**	**4956**	**5341**	**1.6%**
Direct Use	164	161	177	192	214	252	278	2.1%
Total Electricity Use	**3669**	**3729**	**4155**	**4491**	**4844**	**5208**	**5619**	**1.6%**
End-Use Prices (2004 cents per kilowatthour)								
Residential	8.9	8.9	8.5	8.3	8.3	8.4	8.5	-0.2%
Commercial	8.2	8.0	7.6	7.4	7.5	7.7	7.8	-0.1%
Industrial	5.3	5.3	5.3	5.1	5.2	5.4	5.4	0.1%
Transportation	7.4	7.4	7.1	6.9	7.0	7.1	7.2	-0.1%
All Sectors Average	**7.6**	**7.6**	**7.3**	**7.1**	**7.2**	**7.4**	**7.5**	**-0.0%**
Prices by Service Category (2004 cents per kilowatthour)								
Generation	5.0	5.0	4.7	4.6	4.8	5.0	5.1	0.1%
Transmission	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.9%
Distribution	2.1	2.1	2.0	1.9	1.9	1.8	1.8	-0.6%

Table A8. Electricity Supply, Disposition, Prices, and Emissions (Continued)
(Billion Kilowatthours, Unless Otherwise Noted)

Supply, Disposition, and Prices	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Electric Power Sector Emissions[1]								
Sulfur Dioxide (million tons)	10.60	10.89	5.91	4.63	4.04	3.80	3.72	-4.0%
Nitrogen Oxide (million tons)	4.12	3.74	2.34	2.10	2.13	2.16	2.17	-2.1%
Mercury (tons)	50.70	53.31	37.73	24.04	18.74	16.59	15.31	-4.7%

[1]Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.
[2]Includes plants that only produce electricity.
[3]Includes electricity generation from fuel cells.
[4]Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power.
[5]Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report North American Industry Classification System code 22).
[6]Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.
[7]Other gaseous fuels include refinery and still gas.
[8]Other includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur and miscellaneous technologies.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 power only and combined heat and power generation, sales to utilities, net imports, residential, industrial, and total electricity sales, and emissions: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), and supporting databases. 2003 and 2004 commercial and transportation electricity sales based on: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), and Oak Ridge National Laboratory, *Transportation Energy Data Book 24* (Oak Ridge, TN, December 2004). 2003 and 2004 prices: EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A. **Projections**: EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A9. Electricity Generating Capacity
(Gigawatts)

Net Summer Capacity[1]	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Electric Power Sector[2]								
Power Only[3]								
Coal Steam	305.5	305.0	313.7	315.0	340.9	385.7	453.1	1.5%
Other Fossil Steam[4]	128.8	123.8	121.8	85.9	79.8	78.8	74.8	-1.9%
Combined Cycle	110.4	126.3	151.5	157.0	181.4	193.4	198.3	1.7%
Combustion Turbine/Diesel	125.2	127.2	136.1	136.3	146.1	155.9	170.8	1.1%
Nuclear Power[5]	99.5	99.6	100.9	104.0	108.8	108.8	108.8	0.3%
Pumped Storage	20.7	20.8	20.8	20.8	20.8	20.8	20.8	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	91.4	91.9	102.3	104.6	107.8	111.4	113.7	0.8%
Distributed Generation[7]	0.0	0.0	0.2	0.6	1.4	2.4	5.5	N/A
Total	**881.5**	**894.6**	**947.4**	**924.2**	**986.9**	**1057.2**	**1145.7**	**1.0%**
Combined Heat and Power[8]								
Coal Steam	4.9	4.9	4.9	4.3	4.3	4.3	4.3	-0.4%
Other Fossil Steam[4]	0.5	0.5	0.5	0.5	0.5	0.5	0.5	N/A
Combined Cycle	31.7	32.4	32.3	32.3	32.3	32.3	32.3	-0.0%
Combustion Turbine/Diesel	2.9	2.9	2.9	2.9	2.9	2.9	2.9	-0.0%
Renewable Sources[6]	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2%
Total	**40.4**	**41.0**	**41.0**	**40.5**	**40.5**	**40.5**	**40.5**	**-0.0%**
Cumulative Planned Additions[9]								
Coal Steam	0.0	0.0	8.3	9.3	9.3	9.3	9.3	N/A
Other Fossil Steam[4]	0.0	0.0	0.1	0.1	0.1	0.1	0.1	N/A
Combined Cycle	0.0	0.0	25.7	25.7	25.7	25.7	25.7	N/A
Combustion Turbine/Diesel	0.0	0.0	5.3	5.3	5.3	5.3	5.3	N/A
Nuclear Power	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	0.0	0.0	10.0	11.0	11.1	11.2	11.4	N/A
Distributed Generation[7]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total	**0.0**	**0.0**	**49.4**	**51.5**	**51.6**	**51.7**	**51.8**	**N/A**
Cumulative Unplanned Additions[9]								
Coal Steam	0.0	0.0	3.4	7.0	32.9	77.7	145.1	N/A
Other Fossil Steam[4]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Combined Cycle	0.0	0.0	0.0	5.5	29.9	41.9	46.8	N/A
Combustion Turbine/Diesel	0.0	0.0	4.7	11.6	21.5	31.3	46.2	N/A
Nuclear Power	0.0	0.0	0.0	2.2	6.0	6.0	6.0	N/A
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	0.0	0.0	0.4	1.7	4.8	8.3	10.4	N/A
Distributed Generation[7]	0.0	0.0	0.2	0.6	1.4	2.4	5.5	N/A
Total	**0.0**	**0.0**	**8.8**	**28.6**	**96.5**	**167.7**	**260.0**	**N/A**
Cumulative Electric Power Sector	**0.0**	**0.0**	**58.2**	**80.1**	**148.1**	**219.3**	**311.8**	**N/A**
Cumulative Retirements[10]								
Coal Steam	0.0	0.0	3.0	6.8	6.8	6.8	6.8	N/A
Other Fossil Steam[4]	0.0	0.0	2.0	37.9	44.0	45.1	49.0	N/A
Combined Cycle	0.0	0.0	0.6	0.6	0.6	0.6	0.6	N/A
Combustion Turbine/Diesel	0.0	0.0	1.4	8.2	8.2	8.2	8.2	N/A
Nuclear Power	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	0.0	0.0	0.1	0.1	0.1	0.1	0.1	N/A
Total	**0.0**	**0.0**	**7.1**	**53.6**	**59.8**	**60.8**	**64.7**	**N/A**
Total Electric Power Sector Capacity	**921.9**	**935.6**	**988.4**	**964.7**	**1027.4**	**1097.7**	**1186.2**	**0.9%**

Table A9. Electricity Generating Capacity (Continued)
(Gigawatts)

Net Summer Capacity[1]	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
End-Use Generators[11]								
Coal	4.2	4.1	4.2	6.2	10.2	19.2	23.6	6.9%
Petroleum	0.8	1.6	1.8	1.8	2.0	1.8	1.9	0.7%
Natural Gas	15.7	15.8	17.7	19.6	22.1	24.5	26.7	2.0%
Other Gaseous Fuels	1.8	1.8	1.5	1.5	1.5	1.5	1.6	-0.5%
Renewable Sources[6]	5.3	5.4	6.6	7.1	7.7	8.4	9.9	2.4%
Other	0.7	0.7	0.7	0.7	0.7	0.7	0.7	N/A
Total	**28.5**	**29.3**	**32.4**	**36.9**	**44.2**	**56.3**	**64.3**	**3.1%**
Cumulative Capacity Additions[9]	**0.0**	**0.0**	**3.1**	**7.6**	**14.8**	**26.9**	**35.0**	**N/A**

[1]Net summer capacity is the steady hourly output that generating equipment is expected to supply to system load (exclusive of auxiliary power), as demonstrated by tests during summer peak demand.
[2]Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.
[3]Includes plants that only produce electricity. Includes capacity increases (uprates) at existing units.
[4]Includes oil-, gas-, and dual-fired capacity.
[5]Nuclear capacity includes 3 gigawatts of uprates through 2030.
[6]Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power. Facilities co-firing biomass and coal are classified as coal.
[7]Primarily peak load capacity fueled by natural gas.
[8]Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report North American Industry Classification System code 22).
[9]Cumulative additions after December 31, 2004.
[10]Cumulative retirements after December 31, 2004.
[11]Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 electric generating capacity and projected planned additions: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A10. Electricity Trade
(Billion Kilowatthours, Unless Otherwise Noted)

Electricity Trade	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Interregional Electricity Trade								
Gross Domestic Sales								
Firm Power	136.7	142.4	105.5	82.4	50.6	37.9	37.9	-5.0%
Economy	215.1	233.2	231.5	200.4	168.3	165.4	158.2	-1.5%
Total	**351.8**	**375.6**	**336.9**	**282.8**	**218.9**	**203.3**	**196.1**	**-2.5%**
Gross Domestic Sales (million 2004 dollars)								
Firm Power	7129.0	7428.5	5500.9	4298.7	2639.5	1975.9	1975.9	-5.0%
Economy	9070.8	9820.2	9433.0	8328.1	7360.0	7381.2	7234.1	-1.2%
Total	**16199.8**	**17248.6**	**14933.9**	**12626.8**	**9999.5**	**9357.1**	**9210.0**	**-2.4%**
International Electricity Trade								
Imports from Canada and Mexico								
Firm Power	11.3	12.5	2.5	1.9	0.8	0.4	0.4	-12.5%
Economy	19.0	21.6	39.7	39.3	28.6	27.1	26.5	0.8%
Total	**30.3**	**34.1**	**42.3**	**41.1**	**29.4**	**27.5**	**26.9**	**-0.9%**
Exports to Canada and Mexico								
Firm Power	5.5	7.4	1.0	0.7	0.2	0.0	0.0	N/A
Economy	18.7	15.6	19.6	17.2	14.8	12.9	12.9	-0.7%
Total	**24.1**	**23.0**	**20.6**	**17.8**	**15.0**	**12.9**	**12.9**	**-2.2%**

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports. Firm Power Sales are capacity sales, meaning the delivery of the power is scheduled as part of the normal operating conditions of the affected electric systems. Economy Sales are subject to curtailment or cessation of delivery by the supplier in accordance with prior agreements or under specified conditions.

Sources: 2003 and 2004 interregional firm electricity trade data: North American Electric Reliability Council (NERC), Electricity Sales and Demand Database 2003. 2003 and 2004 Mexican electricity trade data: DOE Form FE-718R, "Annual Report of International Electrical Export/Import Data." 2003 Canadian international electricity trade data: National Energy Board, *Annual Report 2003*. 2004 Canadian electricity trade data: National Energy Board, *Annual Report 2004*. **Projections:** Energy Information Administration, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A11. Petroleum Supply and Disposition Balance
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Crude Oil								
Domestic Crude Production[1]	5.69	5.42	5.88	5.84	5.55	4.99	4.57	-0.7%
Alaska	0.99	0.91	0.83	0.89	0.76	0.47	0.27	-4.5%
Lower 48 States	4.71	4.51	5.05	4.95	4.79	4.52	4.30	-0.2%
Net Imports	9.65	10.06	10.05	10.47	11.26	12.33	13.51	1.1%
Gross Imports	9.66	10.09	10.08	10.50	11.28	12.35	13.53	1.1%
Exports	0.01	0.03	0.03	0.03	0.03	0.02	0.02	-0.7%
Other Crude Supply[2]	-0.03	-0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Crude Supply	**15.32**	**15.48**	**15.93**	**16.31**	**16.81**	**17.32**	**18.08**	**0.6%**
Other Petroleum Supply								
Natural Gas Plant Liquids	1.72	1.81	1.75	1.88	1.94	1.90	1.87	0.1%
Net Product Imports	1.60	2.05	2.28	2.76	3.16	3.35	3.73	2.3%
Gross Refined Product Imports[3]	1.85	2.07	2.39	2.83	3.13	3.25	3.56	2.1%
Unfinished Oil Imports	0.34	0.49	0.41	0.44	0.54	0.60	0.66	1.2%
Blending Component Imports	0.41	0.41	0.46	0.49	0.52	0.55	0.57	1.3%
Exports	0.96	0.96	0.98	1.00	1.03	1.04	1.07	0.4%
Refinery Processing Gain[4]	0.97	1.05	1.31	1.37	1.44	1.63	1.82	2.1%
Other Inputs	0.44	0.35	0.94	1.25	1.52	1.92	2.16	7.2%
Liquids from Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Liquids from Coal	0.00	0.00	0.00	0.08	0.23	0.58	0.76	N/A
Other[5]	0.44	0.35	0.94	1.18	1.28	1.34	1.39	5.4%
Total Primary Supply[6]	**20.05**	**20.74**	**22.21**	**23.57**	**24.87**	**26.12**	**27.65**	**1.1%**
Refined Petroleum Products Supplied								
by Fuel								
Motor Gasoline[7]	8.94	9.10	9.94	10.63	11.28	11.86	12.49	1.2%
Jet Fuel[8]	1.58	1.63	1.88	2.06	2.19	2.23	2.31	1.4%
Distillate Fuel[9]	3.93	4.06	4.61	4.91	5.21	5.59	6.09	1.6%
Residual Fuel	0.77	0.87	0.73	0.73	0.74	0.75	0.78	-0.4%
Other[10]	4.84	5.10	5.01	5.20	5.40	5.62	5.89	0.6%
by Sector								
Residential and Commercial	1.24	1.29	1.25	1.26	1.25	1.23	1.22	-0.2%
Industrial[11]	4.86	5.02	5.23	5.37	5.55	5.78	6.06	0.7%
Transportation	13.34	13.69	15.27	16.48	17.57	18.59	19.81	1.4%
Electric Power[12]	0.50	0.49	0.43	0.43	0.43	0.44	0.47	-0.1%
Total	**20.05**	**20.76**	**22.17**	**23.53**	**24.81**	**26.05**	**27.57**	**1.1%**
Discrepancy[13]	**-0.01**	**-0.02**	**0.03**	**0.04**	**0.05**	**0.07**	**0.09**	**N/A**

Table A11. Petroleum Supply and Disposition Balance (Continued)
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Imported Low Sulfur Light Crude Oil Price (2004 dollars per barrel)[14]	31.72	40.49	47.29	47.79	50.70	54.08	56.97	1.3%
Imported Crude Oil Price (2004 dollars per barrel)[14]	28.46	35.99	43.99	43.00	44.99	47.99	49.99	1.3%
Import Share of Product Supplied	0.56	0.58	0.56	0.56	0.58	0.60	0.62	0.3%
Net Expenditures for Imported Crude Oil and Petroleum Products (billion 2004 dollars)	117.53	152.36	189.84	201.18	231.71	268.22	310.15	2.8%
Domestic Refinery Distillation Capacity[15]	16.8	16.9	17.6	17.9	18.1	18.5	19.3	0.5%
Capacity Utilization Rate (percent)[16]	93.0	93.0	91.9	92.2	94.1	95.1	94.8	0.1%

[1]Includes lease condensate.
[2]Strategic petroleum reserve stock additions plus unaccounted for crude oil and crude stock withdrawals minus crude product supplied.
[3]Includes other hydrocarbons and alcohols.
[4]Represents volumetric gain in refinery distillation and cracking processes.
[5]Includes petroleum product stock withdrawals; domestic sources of blending components, other hydrocarbons, alcohols, and ethers.
[6]Total crude supply plus natural gas plant liquids, other inputs, refinery processing gain, and net product imports.
[7]Includes ethanol and ethers blended into gasoline.
[8]Includes only kerosene type.
[9]Includes distillate and kerosene.
[10]Includes aviation gasoline, liquefied petroleum gas, petrochemical feedstocks, lubricants, waxes, asphalt, road oil, still gas, special naphthas, petroleum coke, crude oil product supplied, and miscellaneous petroleum products.
[11]Includes consumption for combined heat and power (CHP), which produces electricity and other useful thermal energy.
[12]Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[13]Balancing item. Includes unaccounted for supply, losses, and gains.
[14]Weighted average price delivered to U.S. refiners.
[15]End-of-year operable capacity.
[16]Rate is calculated by dividing the gross annual input to atmospheric crude oil distillation units by their operable refining capacity in barrels per calendar day.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 imported crude oil price and petroleum product supplied based on: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 imported low sulfur light crude oil price: EIA, Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." Other 2003 data: EIA, *Petroleum Supply Annual 2003,* DOE/EIA-0340(2003)/1 (Washington, DC, July 2004). Other 2004 data: EIA, *Petroleum Supply Annual 2004,* DOE/EIA-0340(2004)/1 (Washington, DC, June 2005). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A12. Petroleum Product Prices
(2004 Cents per Gallon, Unless Otherwise Noted)

Sector and Fuel	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Crude Oil Prices (2004 dollars per barrel)								
Imported Low Sulfur Light Crude Oil Price[1]	31.72	40.49	47.29	47.79	50.70	54.08	56.97	1.3%
Imported Crude Oil Price[1]	28.46	35.99	43.99	43.00	44.99	47.99	49.99	1.3%
Delivered Sector Product Prices								
Residential								
Distillate Fuel	136.6	188.8	178.2	176.6	188.0	197.4	202.0	0.3%
Liquefied Petroleum Gas	129.7	149.1	156.5	154.3	166.6	182.6	195.4	1.0%
Commercial								
Distillate Fuel	100.2	138.3	140.0	143.2	150.1	156.3	162.2	0.6%
Residual Fuel	76.5	95.3	91.8	90.5	94.4	99.7	103.5	0.3%
Residual Fuel (2004 dollars per barrel)	32.13	40.03	38.57	38.00	39.66	41.88	43.47	0.3%
Industrial[2]								
Distillate Fuel	103.2	142.5	147.8	156.8	162.5	169.6	177.2	0.8%
Liquefied Petroleum Gas	111.7	122.7	103.6	101.7	111.3	121.1	131.4	0.3%
Residual Fuel	70.7	87.9	94.4	94.6	100.2	104.6	108.9	0.8%
Residual Fuel (2004 dollars per barrel)	29.69	36.94	39.67	39.74	42.10	43.95	45.72	0.8%
Transportation								
Diesel Fuel (distillate)[3]	154.8	182.4	195.9	199.5	202.5	207.6	214.4	0.6%
Jet Fuel[4]	89.7	121.8	130.6	133.2	141.6	147.4	155.6	0.9%
Motor Gasoline[5]	165.0	190.4	202.7	199.6	207.6	213.4	218.8	0.5%
Liquid Petroleum Gas	148.1	147.7	144.0	140.7	144.9	158.5	165.8	0.4%
Residual Fuel	69.2	73.5	96.3	94.5	97.8	105.5	113.6	1.7%
Residual Fuel (2004 dollars per barrel)	29.08	30.89	40.43	39.68	41.09	44.31	47.70	1.7%
Ethanol (E85)[6]	156.9	190.2	198.3	191.5	197.1	203.1	210.0	0.4%
Ethanol Wholesale Price	134.2	171.5	157.5	146.1	164.1	169.0	167.2	-0.1%
Electric Power[7]								
Distillate Fuel	92.2	128.0	125.4	125.2	133.5	139.4	142.6	0.4%
Residual Fuel	73.4	71.2	85.3	85.6	90.1	96.3	100.7	1.3%
Residual Fuel (2004 dollars per barrel)	30.82	29.90	35.84	35.95	37.84	40.44	42.29	1.3%
Refined Petroleum Product Prices[8]								
Distillate Fuel	140.8	174.2	182.8	188.3	193.1	199.2	206.3	0.7%
Jet Fuel[4]	89.7	121.8	130.6	133.2	141.6	147.4	155.6	0.9%
Liquefied Petroleum Gas	115.8	128.3	115.4	113.7	123.9	134.9	145.6	0.5%
Motor Gasoline[5]	164.9	190.4	202.7	199.6	207.6	213.4	218.8	0.5%
Residual Fuel	71.9	75.5	90.9	90.3	94.5	101.0	106.6	1.3%
Residual Fuel (2004 dollars per barrel)	30.19	31.71	38.19	37.94	39.70	42.42	44.75	1.3%
Average	**140.6**	**164.3**	**173.2**	**173.4**	**181.1**	**187.9**	**194.7**	**0.7%**

[1]Weighted average price delivered to U.S. refiners.
[2]Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
[3]Diesel fuel for on-road use. Includes Federal and State taxes while excluding county and local taxes.
[4]Includes only kerosene type.
[5]Sales weighted-average price for all grades. Includes Federal, State and local taxes.
[6]E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol actually varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.
[7]Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[8]Weighted averages of end-use fuel prices are derived from the prices in each sector and the corresponding sectoral consumption.
Note: Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 imported low sulfur light crude oil price: Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." 2003 and 2004 imported crude oil price: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 prices for motor gasoline, distillate, and jet fuel are based on: EIA, *Petroleum Marketing Annual 2004*, DOE/EIA-0487(2004) (Washington, DC, August 2005). 2003 and 2004 residential, commercial, industrial, and transportation sector petroleum product prices are derived from: EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report." 2003 and 2004 electric power prices based on: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2003 and 2004 ethanol prices derived from weekly spot prices in the Oxy Fuel News. 2003 and 2004 wholesale ethanol prices derived from Bloomburg U.S. average rack price. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A13. Natural Gas Supply, Disposition, and Prices
(Trillion Cubic Feet per Year, Unless Otherwise Noted)

Supply, Disposition, and Prices	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Production								
Dry Gas Production[1]	19.04	18.46	18.58	20.36	21.44	21.16	20.83	0.5%
Supplemental Natural Gas[2]	0.07	0.06	0.07	0.07	0.07	0.07	0.07	1.1%
Net Imports	**3.29**	**3.40**	**4.35**	**5.10**	**5.02**	**5.37**	**5.57**	**1.9%**
Pipeline	2.85	2.81	2.28	2.05	1.32	1.24	1.22	-3.2%
Liquefied Natural Gas[3]	0.44	0.59	2.07	3.05	3.70	4.13	4.36	8.0%
Total Supply	**22.40**	**21.92**	**23.00**	**25.54**	**26.54**	**26.60**	**26.48**	**0.7%**
Consumption by Sector								
Residential	5.08	4.88	5.17	5.36	5.51	5.57	5.64	0.6%
Commercial	3.22	3.00	3.08	3.36	3.57	3.77	3.99	1.1%
Industrial[4]	7.14	7.41	7.82	8.08	8.26	8.51	8.81	0.7%
Electric Power[5]	5.10	5.32	5.51	7.14	7.46	7.05	6.38	0.7%
Transportation[6]	0.02	0.02	0.05	0.08	0.09	0.11	0.12	6.2%
Pipeline Fuel	0.66	0.67	0.63	0.71	0.78	0.77	0.75	0.5%
Lease and Plant Fuel[7]	1.13	1.11	1.09	1.18	1.25	1.20	1.17	0.2%
Total	**22.34**	**22.41**	**23.35**	**25.91**	**26.92**	**26.99**	**26.86**	**0.7%**
Natural Gas to Liquids	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Discrepancy[8]	**0.06**	**-0.49**	**-0.36**	**-0.37**	**-0.38**	**-0.38**	**-0.39**	**N/A**
Natural Gas Prices (2004 dollars per thousand cubic feet)								
Average Lower 48 Wellhead Price[9]	**5.08**	**5.49**	**5.03**	**4.52**	**4.90**	**5.43**	**5.92**	**0.3%**
Delivered Prices								
Residential	9.74	10.72	10.65	10.11	10.48	11.10	11.67	0.3%
Commercial	8.53	9.38	9.03	8.37	8.63	9.11	9.58	0.1%
Industrial[4]	5.77	6.29	5.86	5.32	5.66	6.18	6.65	0.2%
Electric Power[5]	5.81	6.07	5.60	5.21	5.53	6.02	6.41	0.2%
Transportation[10]	9.20	10.25	10.40	9.91	10.21	10.64	11.01	0.3%
Average[11]	**7.20**	**7.74**	**7.41**	**6.80**	**7.14**	**7.69**	**8.22**	**0.2%**

[1]Marketed production (wet) minus extraction losses.
[2]Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.
[3]Includes any natural gas regasified in the Bahamas and transported via pipeline to Florida.
[4]Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
[5]Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[6]Compressed natural gas used as vehicle fuel.
[7]Represents natural gas used in field gathering and processing plant machinery.
[8]Balancing item. Natural gas lost as a result of converting flow data measured at varying temperatures and pressures to a standard temperature and pressure and the merger of different data reporting systems which vary in scope, format, definition, and respondent type. In addition, 2003 and 2004 values include net storage injections.
[9]Represents lower 48 onshore and offshore supplies.
[10]Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes.
[11]Weighted average prices. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 supply values; and lease, plant, and pipeline fuel consumption: Energy Information Administration (EIA), *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2004 supply values; and lease, plant, and pipeline fuel consumption; and wellhead price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005), subtracting 1 billion cubic feet per day to account for carbon dioxide included in production in Texas. Other 2003 and 2004 consumption based on: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2003 residential and commercial delivered prices: EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2004 residential and commercial delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005). 2003 and 2004 electric power sector prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, May 2004 through April 2005. 2003 and 2004 industrial delivered prices are estimated based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005). 2003 transportation sector delivered prices are based on: EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004) and estimated state and federal taxes. 2004 transportation sector delivered prices are model results. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A14. Oil and Gas Supply

Production and Supply	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Crude Oil								
Lower 48 Average Wellhead Price[1] (2004 dollars per barrel)	**29.68**	**38.06**	**43.49**	**44.98**	**47.50**	**50.41**	**53.16**	**1.3%**
Production (million barrels per day)[2]								
U.S. Total	5.69	5.40	5.88	5.84	5.55	4.99	4.57	-0.6%
Lower 48 Onshore	2.99	2.90	2.62	2.48	2.42	2.36	2.27	-0.9%
Lower 48 Offshore	1.72	1.59	2.42	2.47	2.36	2.15	2.03	0.9%
Alaska	0.99	0.91	0.83	0.89	0.76	0.47	0.27	-4.5%
Lower 48 End of Year Reserves[2] (billion barrels)	**18.66**	**18.21**	**19.83**	**19.98**	**19.61**	**18.74**	**17.91**	**-0.1%**
Natural Gas								
Lower 48 Average Wellhead Price[1] (2004 dollars per thousand cubic feet)	**5.08**	**5.49**	**5.03**	**4.52**	**4.90**	**5.43**	**5.92**	**0.3%**
Dry Production (trillion cubic feet)[3]								
U.S. Total	19.04	18.46	18.58	20.36	21.44	21.16	20.83	0.5%
Lower 48 Onshore	13.82	13.76	14.03	14.23	14.52	14.73	14.72	0.3%
Associated-Dissolved[4]	1.49	1.51	1.34	1.26	1.20	1.15	1.10	-1.2%
Non-Associated	12.33	12.26	12.69	12.97	13.33	13.58	13.62	0.4%
Conventional	5.49	4.79	5.01	4.86	4.66	4.44	4.17	-0.5%
Unconventional	6.84	7.47	7.68	8.11	8.66	9.14	9.45	0.9%
Lower 48 Offshore	4.76	4.26	4.31	5.08	4.71	4.25	3.97	-0.3%
Associated-Dissolved[4]	0.95	0.85	1.08	1.40	1.34	1.20	1.15	1.2%
Non-Associated	3.81	3.41	3.23	3.68	3.37	3.05	2.82	-0.7%
Alaska	0.46	0.44	0.24	1.06	2.21	2.19	2.14	6.3%
Lower 48 End of Year Dry Reserves[3] (trillion cubic feet)	**180.76**	**183.64**	**214.35**	**228.95**	**229.52**	**226.85**	**222.72**	**0.7%**
Supplemental Gas Supplies (trillion cubic feet)[5]	**0.07**	**0.06**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**1.1%**
Total Lower 48 Wells Drilled (thousands)	**30.62**	**33.74**	**32.31**	**27.86**	**26.95**	**26.40**	**26.42**	**-0.9%**

[1]Represents lower 48 onshore and offshore supplies.
[2]Includes lease condensate.
[3]Marketed production (wet) minus extraction losses.
[4]Gas which occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).
[5]Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.

Sources: 2003 and 2004 lower 48 onshore, lower 48 offshore, and Alaska crude oil production: Energy Information Administration (EIA), *Petroleum Supply Annual 2004,* DOE/EIA-0340(2004)/1 (Washington, DC, June 2005). 2003 U.S. crude oil and natural gas reserves: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, DOE/EIA-0216(2003) (Washington, DC, November 2004). 2003 Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2003 natural gas lower 48 average wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2003*, DOE/EIA-0131(2003) (Washington, DC, December 2004). 2004 natural gas lower 48 average wellhead price, Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2005/06) (Washington, DC, June 2005), subtracting 1 billion cubic feet per day to account for carbon dioxide included in production in Texas. 2003 and 2004 crude oil lower 48 average wellhead price: EIA, *Petroleum Marketing Annual 2004*, DOE/EIA-0487(2004) (Washington, DC, August 2005). Other 2003 and 2004 values: EIA, Office of Integrated Analysis and Forecasting. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A15. Coal Supply, Disposition, and Prices
(Million Short Tons per Year, Unless Otherwise Noted)

Supply, Disposition, and Prices	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Production[1]								
Appalachia	388	403	426	389	379	391	412	0.1%
Interior	146	146	190	209	219	236	281	2.5%
West	549	575	645	674	758	904	1010	2.2%
East of the Mississippi	481	497	559	538	542	570	633	0.9%
West of the Mississippi	603	627	702	734	813	960	1070	2.1%
Total	**1083**	**1125**	**1261**	**1272**	**1355**	**1530**	**1703**	**1.6%**
Net Imports								
Imports	25	27	15	27	55	82	99	5.1%
Exports	43	48	41	22	19	20	17	-4.0%
Total	**-18**	**-21**	**-26**	**5**	**36**	**63**	**83**	**N/A**
Total Supply[2]	**1065**	**1104**	**1235**	**1277**	**1391**	**1593**	**1785**	**1.9%**
Consumption by Sector								
Residential and Commercial	4	4	4	4	4	4	4	0.0%
Coke Plants	24	24	23	22	22	21	21	-0.4%
Other Industrial[3]	61	61	66	66	66	67	67	0.4%
Coal-to-Liquids Heat and Power	0	0	0	11	31	74	96	N/A
Coal-to-Liquids Liquids Production	0	0	0	11	31	72	94	N/A
Electric Power[4]	1005	1015	1140	1161	1235	1354	1502	1.5%
Total Coal Use	**1095**	**1104**	**1233**	**1276**	**1390**	**1592**	**1784**	**1.9%**
Discrepancy and Stock Change[5]	**-30**	**-0**	**2**	**1**	**1**	**1**	**1**	**N/A**
Average Minemouth Price								
(2004 dollars per short ton)	18.40	20.07	22.23	20.39	20.20	20.63	21.73	0.3%
(2004 dollars per million Btu)	0.89	0.98	1.09	1.01	1.00	1.03	1.09	0.4%
Delivered Prices (2004 dollars per short ton)[6]								
Coke Plants	51.96	61.50	64.63	60.06	61.12	62.64	62.67	0.1%
Other Industrial[3]	36.22	39.53	39.99	38.48	38.76	39.83	41.05	0.1%
Coal to Liquids	N/A	N/A	N/A	12.74	16.28	20.07	21.06	N/A
Electric Power								
(2004 dollars per short ton)	26.99	27.43	29.74	28.12	28.07	29.02	30.58	0.4%
(2004 dollars per million Btu)	1.33	1.36	1.48	1.40	1.39	1.44	1.51	0.4%
Average	**28.06**	**28.81**	**30.90**	**28.93**	**28.55**	**29.06**	**30.30**	**0.2%**
Exports[7]	40.85	54.11	54.45	46.68	47.86	48.94	46.91	-0.5%

[1]Includes anthracite, bituminous coal, lignite, and waste coal delivered to independent power producers. Waste coal deliveries totaled 11.6 million tons in 2003 and 12.5 million tons in 2004.
[2]Production plus net imports plus net storage withdrawals.
[3]Includes consumption for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public. Excludes all coal use in the coal-to-liquids process.
[4]Includes all electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
[5]Balancing item: the sum of production, net imports, and net storage withdrawals minus total consumption.
[6]Prices weighted by consumption tonnage less imports; weighted average excludes residential and commercial prices, import prices, and export free-alongside-ship (f.a.s.) prices.
[7]F.a.s. price at U.S. port of exit.
N/A = Not applicable.
Btu = British thermal unit.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 data based on: Energy Information Administration (EIA), *Annual Coal Report 2004*, DOE/EIA-0584(2004) (Washington, DC, November 2005); EIA, *Quarterly Coal Report, October-December 2004*, DOE/EIA-0121(2004/4Q) (Washington, DC, March 2005); and EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A16. Renewable Energy Generating Capacity and Generation
(Gigawatts, Unless Otherwise Noted)

Capacity and Generation	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Electric Power Sector[1]								
Net Summer Capacity								
Conventional Hydropower	77.69	77.64	77.67	77.72	77.87	77.87	77.87	0.0%
Geothermal[2]	2.11	2.11	2.56	3.19	4.61	6.02	6.64	4.5%
Municipal Solid Waste[3]	3.19	3.22	3.52	3.65	3.76	3.84	3.87	0.7%
Wood and Other Biomass[4,5]	2.00	2.00	2.15	2.15	2.46	3.45	4.63	3.3%
Solar Thermal	0.39	0.39	0.47	0.48	0.50	0.53	0.55	1.3%
Solar Photovoltaic[6]	0.03	0.03	0.07	0.14	0.22	0.31	0.39	10.5%
Wind	6.39	6.87	16.27	17.71	18.81	19.80	20.10	4.2%
Total	**91.80**	**92.26**	**102.69**	**105.03**	**108.23**	**111.81**	**114.06**	**0.8%**
Generation (billion kilowatthours)								
Conventional Hydropower	270.26	264.50	296.98	297.40	298.46	298.64	298.85	0.5%
Geothermal[2]	14.42	14.36	17.51	22.84	34.01	46.74	52.70	5.1%
Municipal Solid Waste[3]	20.84	19.86	24.89	25.96	26.83	27.52	27.79	1.3%
Wood and Other Biomass[5]	9.53	9.49	44.67	44.80	48.59	51.30	57.83	7.2%
Dedicated Plants	9.53	8.00	10.39	9.98	13.03	22.05	31.67	5.4%
Cofiring	0.00	1.49	34.29	34.82	35.55	29.25	26.16	11.7%
Solar Thermal	0.53	0.58	0.84	0.89	0.96	1.03	1.11	2.5%
Solar Photovoltaic[6]	0.00	0.00	0.18	0.34	0.54	0.76	0.98	26.9%
Wind	11.19	14.15	50.87	55.98	59.82	63.48	64.51	6.0%
Total	**326.78**	**322.93**	**435.94**	**448.23**	**469.21**	**489.47**	**503.77**	**1.7%**
End-Use Generators[7]								
Net Summer Capacity								
Conventional Hydropower[8]	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.0%
Biomass	4.32	4.33	5.01	5.48	6.02	6.60	7.29	2.0%
Solar Photovoltaic[6]	0.08	0.12	0.63	0.68	0.75	0.87	1.68	10.6%
Total	**5.32**	**5.38**	**6.57**	**7.09**	**7.70**	**8.40**	**9.89**	**2.4%**
Generation (billion kilowatthours)								
Conventional Hydropower[8]	4.29	4.45	4.42	4.42	4.42	4.42	4.42	-0.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	2.22	2.12	2.24	2.24	2.24	2.24	2.24	0.2%
Biomass	28.00	27.81	31.81	34.52	37.69	41.05	45.09	1.9%
Solar Photovoltaic[6]	0.17	0.26	1.34	1.46	1.60	1.89	3.62	10.7%
Total	**34.69**	**34.63**	**39.80**	**42.63**	**45.94**	**49.59**	**55.37**	**1.8%**

[1]Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
[2]Includes hydrothermal resources only (hot water and steam).
[3]Includes landfill gas.
[4]Facilities co-firing biomass and coal are classified as coal.
[5]Includes projections for energy crops after 2010.
[6]Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2003, EIA estimates that as much as 149 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2003, plus an additional 414 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), Table 10.6 (annual PV shipments, 1989-2003). The approach used to develop the estimate, based on shipment data, provides an upper estimate of the size of the PV stock, including both grid-based and off-grid PV. It will overestimate the size of the stock, because shipments include a substantial number of units that are exported, and each year some of the PV units installed earlier will be retired from service or abandoned.
[7]Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors; and small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.
[8]Represents own-use industrial hydroelectric power.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 capacity: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). 2003 and 2004 generation: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A17. Renewable Energy, Consumption by Sector and Source[1]
(Quadrillion Btu per Year)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Marketed Renewable Energy[2]								
Residential (wood)	**0.40**	**0.41**	**0.44**	**0.43**	**0.43**	**0.42**	**0.41**	**0.1%**
Commercial (biomass)	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.0%**
Industrial[3]	**1.59**	**1.68**	**1.79**	**1.90**	**2.01**	**2.14**	**2.29**	**1.2%**
Conventional Hydroelectric	0.04	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.01	N/A
Biomass	1.53	1.62	1.74	1.84	1.96	2.09	2.24	1.3%
Transportation	**0.23**	**0.28**	**0.66**	**0.87**	**0.96**	**1.00**	**1.01**	**5.0%**
Ethanol used in E85[4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.4%
Ethanol used in Gasoline Blending	0.23	0.28	0.65	0.87	0.95	0.99	1.00	5.0%
Electric Power[5]	**3.62**	**3.57**	**4.76**	**5.01**	**5.47**	**5.95**	**6.22**	**2.2%**
Conventional Hydroelectric	2.77	2.67	2.98	2.99	2.99	2.99	2.99	0.4%
Geothermal	0.30	0.30	0.39	0.57	0.92	1.33	1.54	6.5%
Municipal Solid Waste[6]	0.30	0.31	0.33	0.35	0.36	0.37	0.37	0.8%
Biomass	0.12	0.14	0.52	0.52	0.57	0.58	0.63	6.1%
Dedicated Plants	0.12	0.11	0.11	0.10	0.14	0.24	0.34	4.4%
Cofiring	0.00	0.03	0.41	0.42	0.43	0.34	0.30	9.6%
Solar Thermal	0.01	0.01	0.01	0.01	0.02	0.02	0.02	5.1%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.11	0.14	0.52	0.58	0.62	0.65	0.66	6.1%
Total Marketed Renewable Energy	**5.93**	**6.02**	**7.73**	**8.30**	**8.96**	**9.60**	**10.02**	**2.0%**
Sources of Ethanol								
From Corn	0.23	0.28	0.61	0.80	0.87	0.91	0.92	4.6%
From Cellulose	0.00	0.00	0.01	0.02	0.02	0.02	0.02	N/A
Imports	0.00	0.00	0.04	0.06	0.06	0.07	0.07	N/A
Total	**0.23**	**0.28**	**0.66**	**0.87**	**0.96**	**1.00**	**1.01**	**5.0%**
Nonmarketed Renewable Energy[7] Selected Consumption								
Residential	**0.02**	**0.03**	**0.04**	**0.04**	**0.05**	**0.06**	**0.06**	**3.5%**
Solar Hot Water Heating	0.02	0.02	0.03	0.03	0.04	0.04	0.05	2.8%
Geothermal Heat Pumps	0.00	0.00	0.01	0.01	0.01	0.01	0.01	7.1%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.8%
Commercial	**0.02**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.04**	**1.6%**
Solar Thermal	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.5%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.01	10.2%

[1]Actual heat rates used to determine fuel consumption for all renewable fuels except hydropower, solar, and wind. Consumption at hydroelectric, solar, and wind facilities determined by using the fossil fuel equivalent of 10,280 Btu per kilowatthour.
[2]Includes nonelectric renewable energy groups for which the energy source is bought and sold in the marketplace, although all transactions may not necessarily be marketed, and marketed renewable energy inputs for electricity entering the marketplace on the electric power grid. Excludes electricity imports; see Table A8.
[3]Includes all electricity production by industrial and other combined heat and power for the grid and for own use.
[4]Excludes motor gasoline component of E85.
[5]Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[6]Includes landfill gas.
[7]Includes selected renewable energy consumption data for which the energy is not bought or sold, either directly or indirectly as an input to marketed energy. The Energy Information Administration does not estimate or project total consumption of nonmarketed renewable energy.
N/A = Not applicable.
Btu = British thermal unit.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 ethanol: Energy Information Administration (EIA), *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 and 2004 electric power sector: EIA, Form EIA-860, "Annual Electric Generator Report" (preliminary). Other 2003 and 2004 values: EIA, Office of Integrated Analysis and Forecasting. **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A18. Carbon Dioxide Emissions by Sector and Source
(Million Metric Tons, Unless Otherwise Noted)

Sector and Source	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Residential								
Petroleum	103.3	108.1	102.0	100.5	97.5	93.0	89.3	-0.7%
Natural Gas	276.9	265.5	281.4	291.6	299.7	303.3	307.3	0.6%
Coal	1.0	1.0	1.1	1.0	1.0	1.0	0.9	-0.4%
Electricity	827.8	833.2	930.5	975.8	1035.6	1100.1	1178.4	1.3%
Total	**1209.0**	**1207.8**	**1315.0**	**1369.0**	**1433.9**	**1497.4**	**1575.9**	**1.0%**
Commercial								
Petroleum	53.9	57.9	55.2	56.4	57.1	57.8	58.7	0.1%
Natural Gas	175.4	162.7	167.9	182.7	194.6	205.4	217.1	1.1%
Coal	8.0	8.2	8.2	8.2	8.2	8.2	8.2	-0.0%
Electricity	779.8	791.6	910.6	985.6	1079.2	1197.1	1335.9	2.0%
Total	**1017.1**	**1020.4**	**1141.8**	**1232.9**	**1339.0**	**1468.5**	**1620.0**	**1.8%**
Industrial[1]								
Petroleum	409.4	440.6	441.5	456.9	475.1	497.5	523.8	0.7%
Natural Gas[2]	428.8	441.9	477.9	497.1	510.4	521.8	535.9	0.7%
Coal	188.9	186.8	192.9	206.4	236.2	303.4	340.6	2.3%
Electricity	655.2	657.7	674.9	682.8	702.6	735.8	784.1	0.7%
Total	**1682.3**	**1727.1**	**1787.2**	**1843.2**	**1924.3**	**2058.4**	**2184.5**	**0.9%**
Transportation								
Petroleum[3]	1833.8	1891.3	2067.1	2212.4	2356.6	2496.3	2667.1	1.3%
Natural Gas[4]	37.3	37.4	37.1	43.0	47.4	47.5	47.5	0.9%
Electricity	15.9	16.0	16.7	17.1	17.7	18.6	19.6	0.8%
Total	**1887.0**	**1944.7**	**2121.0**	**2272.4**	**2421.8**	**2562.4**	**2734.1**	**1.3%**
Electric Power[5]								
Petroleum	97.1	97.4	74.5	73.6	74.5	76.4	81.8	-0.7%
Natural Gas	277.6	295.9	297.4	385.7	402.8	380.7	344.3	0.6%
Coal	1892.4	1893.9	2147.8	2188.4	2343.5	2579.4	2876.6	1.6%
Other[6]	11.7	11.4	13.0	13.6	14.3	15.0	15.3	1.1%
Total	**2278.8**	**2298.6**	**2532.7**	**2661.3**	**2835.2**	**3051.6**	**3318.0**	**1.4%**
Carbon Dioxide Emissions by Primary Fuel[7]								
Petroleum[3]	2497.5	2595.2	2740.3	2899.8	3060.8	3221.0	3420.8	1.1%
Natural Gas	1196.0	1203.4	1261.6	1400.1	1454.9	1458.7	1452.1	0.7%
Coal	2090.2	2089.9	2350.0	2404.0	2589.0	2892.0	3226.3	1.7%
Other[6]	11.7	11.4	13.0	13.6	14.3	15.0	15.3	1.1%
Total	**5795.5**	**5899.9**	**6364.9**	**6717.6**	**7119.0**	**7586.7**	**8114.5**	**1.2%**
Carbon Dioxide Emissions (ton per person)	**19.9**	**20.1**	**20.5**	**20.8**	**21.1**	**21.6**	**22.2**	**0.4%**

[1]Fuel consumption includes energy for combined heat and power plants (CHP), except those plants whose primary business is to sell electricity, or electricity and heat, to the public.
[2]Includes lease and plant fuel.
[3]This includes carbon dioxide from international bunker fuels, both civilian and military, which are excluded from the accounting of carbon dioxide emissions under the United Nations convention. From 1990 through 2003, international bunker fuels accounted for 83 to 115 million metric tons annually.
[4]Includes pipeline fuel natural gas and compressed natural gas used as vehicle fuel.
[5]Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Does not include emissions from the nonbiogenic component of municipal solid waste because under international guidelines these are accounted for as waste, not energy.
[6]Includes emissions from geothermal power and nonbiogenic emissions from municipal solid waste.
[7]Emissions from the electric power sector are distributed to the primary fuels.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 emissions and emission factors: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2004,* DOE/EIA-0573(2004) (Washington, DC, December 2005). **Projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A19. Macroeconomic Indicators
(Billion 2000 Chain-Weighted Dollars, Unless Otherwise Noted)

Indicators	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Real Gross Domestic Product	**10321**	**10756**	**13043**	**15082**	**17541**	**20123**	**23112**	**3.0%**
Real Potential Gross Domestic Product	**10686**	**11030**	**13367**	**15073**	**17176**	**19765**	**22738**	**2.8%**
Components of Real Gross Domestic Product								
Real Consumption	7307	7589	9128	10373	11916	13555	15352	2.7%
Real Investment	1617	1810	2259	2713	3293	4025	4985	4.0%
Real Government Spending	1911	1952	2150	2296	2464	2631	2838	1.4%
Real Exports	1031	1118	1831	2671	3776	5083	6833	7.2%
Real Imports	1553	1719	2295	2857	3659	4734	6156	5.0%
Energy Intensity								
(thousand Btu per 2000 dollar of GDP)								
Delivered Energy	6.97	6.81	6.03	5.54	5.03	4.63	4.26	-1.8%
Total Energy	9.51	9.27	8.28	7.58	6.88	6.32	5.80	-1.8%
Price Indices								
GDP Chain-Type Price Index (2000=1.000)	1.063	1.091	1.235	1.398	1.597	1.818	2.048	2.5%
Consumer Price Index (1982-4=1)								
All-Urban	1.84	1.89	2.15	2.46	2.86	3.31	3.78	2.7%
Energy Commodities and Services	1.36	1.51	1.67	1.86	2.19	2.57	2.96	2.6%
Wholesale Price Index (1982=1.00)								
All Commodities	1.38	1.47	1.55	1.66	1.82	1.98	2.13	1.5%
Fuel and Power	1.13	1.27	1.36	1.49	1.77	2.12	2.49	2.6%
Interest Rates (percent, nominal)								
Federal Funds Rate	1.13	1.35	5.30	5.46	5.24	5.01	5.04	N/A
10-Year Treasury Note	4.01	4.27	5.92	6.11	6.21	6.14	6.13	N/A
AA Utility Bond Rate	6.39	6.04	7.55	7.69	8.15	8.35	8.52	N/A
Value of Shipments (billion 2000 dollars)								
Total Industrial	5378	5643	6355	7036	7778	8589	9578	2.1%
Non-manufacturing	1393	1439	1572	1689	1808	1926	2069	1.4%
Manufacturing	3985	4204	4783	5347	5969	6664	7509	2.3%
Energy-Intensive	1117	1161	1265	1350	1441	1529	1627	1.3%
Non-Energy Intensive	2868	3044	3518	3997	4528	5135	5882	2.6%
Population and Employment (millions)								
Population, with Armed Forces Overseas	291.4	294.1	310.1	323.5	337.0	350.6	364.8	0.8%
Population, aged 16 and over	226.5	229.1	244.1	254.5	265.3	276.6	288.5	0.9%
Population, over age 65	36.0	36.4	40.4	47.0	54.9	63.8	71.6	2.6%
Employment, Nonfarm	129.9	131.4	142.1	147.6	156.2	164.2	173.6	1.1%
Employment, Manufacturing	14.5	14.3	14.0	13.5	13.3	12.9	12.6	-0.5%
Key Labor Indicators								
Labor Force (millions)	146.5	147.4	158.9	162.9	167.7	173.1	180.8	0.8%
Non-farm Labor Productivity (1992=1.00)	1.29	1.34	1.52	1.73	1.93	2.15	2.42	2.3%
Unemployment Rate (percent)	5.99	5.53	4.69	4.58	4.37	4.80	4.90	N/A
Key Indicators for Energy Demand								
Real Disposable Personal Income	7742	8004	9622	11058	13057	15182	17562	3.1%
Housing Starts (millions)	1.98	2.08	1.97	1.95	1.89	1.83	1.82	-0.5%
Commercial Floorspace (billion square feet)	73.7	75.0	82.3	88.9	96.0	103.7	112.0	1.6%
Unit Sales of Light-Duty Vehicles (millions)	16.64	16.87	17.61	18.00	18.90	20.31	21.75	1.0%

GDP = Gross domestic product.
Btu = British thermal unit.
N/A = Not applicable.
Sources: 2003 and 2004: Global Insight macroeconomic model CTL0805 and Global Insight industry model, July 2004. **Projections:** Energy Information Administration, AEO2006 National Energy Modeling System run AEO2006.D111905A.

Table A20. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Crude Oil Prices (2004 dollars per barrel)								
Imported Low Sulfur Light Crude Oil Price[1]	31.72	40.49	47.29	47.79	50.70	54.08	56.97	1.3%
Imported Crude Oil Price[1]	28.46	35.99	43.99	43.00	44.99	47.99	49.99	1.3%
Production (Conventional)[2]								
Mature Market Economies								
United States (50 states)	8.64	8.41	9.39	9.62	9.51	9.13	8.92	0.2%
Canada	2.37	2.40	1.66	1.43	1.45	1.45	1.43	-2.0%
Mexico	4.00	4.10	3.97	4.19	4.48	4.78	5.01	0.8%
Western Europe[3]	7.04	6.85	5.88	5.32	5.22	4.83	4.37	-1.7%
Japan	0.14	0.14	0.09	0.07	0.07	0.07	0.07	-2.8%
Australia and New Zealand	0.70	0.67	0.89	0.83	0.84	0.83	0.81	0.7%
Total Mature Market Economies	**22.88**	**22.57**	**21.88**	**21.46**	**21.58**	**21.09**	**20.60**	**-0.3%**
Transitional Economies								
Former Soviet Union								
Russia	8.81	9.29	9.50	9.88	10.66	11.06	11.26	0.7%
Caspian Area[4]	1.92	2.32	2.99	4.18	5.16	6.25	7.43	4.6%
Eastern Europe[5]	0.24	0.25	0.31	0.34	0.39	0.44	0.48	2.5%
Total Transitional Economies	**10.96**	**11.86**	**12.80**	**14.40**	**16.21**	**17.74**	**19.17**	**1.9%**
Emerging Economies								
OPEC[6]								
Asia	1.33	1.39	1.49	1.39	1.26	1.17	1.09	-0.9%
Middle East	20.25	21.25	24.76	25.57	26.99	28.88	31.07	1.5%
North Africa	2.89	2.98	3.48	3.53	3.70	3.59	3.50	0.6%
West Africa	1.91	1.96	2.39	2.51	2.61	2.81	3.05	1.7%
South America	2.75	2.82	3.38	3.63	3.70	3.90	4.14	1.5%
Non-OPEC								
China	3.26	3.25	3.38	3.18	3.33	3.30	3.22	-0.0%
Other Asia	2.73	2.88	2.48	2.53	2.61	2.58	2.51	-0.5%
Middle East[7]	1.90	1.76	2.09	2.24	2.45	2.69	2.91	1.9%
Africa	3.10	3.54	3.62	4.49	5.41	6.65	8.03	3.2%
South and Central America	4.14	4.22	4.34	5.04	5.83	6.45	7.00	2.0%
Total Emerging Economies	**44.26**	**46.07**	**51.41**	**54.12**	**57.89**	**62.03**	**66.52**	**1.4%**
Total Production (Conventional)	**78.10**	**80.50**	**86.09**	**89.98**	**95.68**	**100.87**	**106.29**	**1.1%**
Production (Nonconventional)[8]								
United States (50 states)	0.18	0.22	0.48	0.72	0.94	1.31	1.50	7.6%
Other North America	0.79	0.92	1.79	2.32	2.67	3.16	3.58	5.4%
Western Europe	0.03	0.03	0.09	0.11	0.12	0.12	0.13	6.4%
Asia	0.20	0.20	0.68	1.07	1.25	1.54	2.06	9.4%
Middle East[7]	0.01	0.01	0.53	0.64	0.73	0.86	1.08	18.3%
Africa.	0.08	0.08	0.21	0.41	0.53	0.67	0.85	9.4%
South and Central America	0.49	0.49	1.13	1.65	1.78	2.07	2.31	6.1%
Total Production (Nonconventional)	**1.79**	**1.96**	**4.91**	**6.92**	**8.02**	**9.73**	**11.52**	**7.1%**
Total Production	**79.89**	**82.46**	**91.00**	**96.90**	**103.70**	**110.60**	**117.80**	**1.4%**

Table A20. International Petroleum Supply and Disposition Summary (Continued)
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	Reference Case							Annual Growth 2004-2030 (percent)
	2003	2004	2010	2015	2020	2025	2030	
Consumption[9]								
Mature Market Economies								
United States (50 states)	20.05	20.76	22.17	23.53	24.81	26.05	27.57	1.1%
United States Territories	0.31	0.33	0.34	0.35	0.38	0.41	0.45	1.2%
Canada	2.11	2.15	2.13	2.18	2.25	2.30	2.34	0.3%
Mexico	1.98	2.00	2.13	2.18	2.24	2.27	2.29	0.5%
Western Europe[3]	13.66	13.63	13.44	13.37	13.52	13.95	14.27	0.2%
Japan	5.24	5.22	4.85	4.57	4.40	4.27	4.13	-0.9%
Australia and New Zealand	1.04	1.07	1.16	1.21	1.28	1.37	1.45	1.2%
Total Mature Market Economies	**44.40**	**45.16**	**46.22**	**47.39**	**48.89**	**50.62**	**52.50**	**0.6%**
Transitional Economies								
Former Soviet Union	4.11	4.14	4.55	4.66	4.93	5.19	5.41	1.0%
Eastern Europe[5]	1.41	1.42	1.58	1.72	1.87	2.01	2.15	1.6%
Total Transitional Economies	**5.52**	**5.56**	**6.13**	**6.38**	**6.81**	**7.20**	**7.57**	**1.2%**
Emerging Economies								
China	5.87	6.63	8.64	9.82	11.38	13.08	14.93	3.2%
India	2.29	2.42	2.92	3.33	3.81	4.30	4.85	2.7%
South Korea	2.20	2.23	2.41	2.50	2.57	2.62	2.66	0.7%
Other Asia	5.84	6.10	7.64	8.69	9.85	10.93	12.05	2.6%
Middle East[7]	5.86	6.09	7.16	7.75	8.34	8.85	9.34	1.7%
Africa	2.81	2.96	3.63	4.00	4.31	4.56	4.81	1.9%
South and Central America	5.11	5.30	6.25	7.02	7.75	8.42	9.10	2.1%
Total Emerging Economies	**29.98**	**31.74**	**38.65**	**43.13**	**48.01**	**52.78**	**57.74**	**2.3%**
Total Consumption	**79.89**	**82.46**	**91.00**	**96.90**	**103.70**	**110.60**	**117.80**	**1.4%**
OPEC Production[10]	29.50	30.78	36.67	38.34	40.27	42.82	45.82	1.5%
Non-OPEC Production[10]	50.39	51.68	54.33	58.56	63.43	67.78	71.98	1.3%
Net Eurasia Exports	5.44	6.31	6.67	8.02	9.40	10.54	11.60	2.4%
OPEC Market Share	0.37	0.37	0.40	0.40	0.39	0.39	0.39	0.2%

[1]Weighted average price delivered to U.S. refiners.
[2]Includes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, alcohol and other sources, and refinery gains.
[3]Western Europe = Austria, Belgium, Bosnia and Herzegovina, Croatia, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Macedonia, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and Yugoslavia.
[4]Caspian area includes Other Former Soviet Union.
[5]Eastern Europe = Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, and Slovakia.
[6]OPEC = Organization of Petroleum Exporting Countries - Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
[7]Non-OPEC Middle East includes Turkey.
[8]Includes liquids produced from energy crops, natural gas, coal, oil sands, and shale. Includes both OPEC and non-OPEC producers in the regional breakdown.
[9]Includes both OPEC and non-OPEC consumers in the regional breakdown.
[10]Includes both conventional and nonconventional liquids production.
Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports.
Sources: 2003 and 2004 low sulfur light crude oil price: Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." 2003 and 2004 imported crude oil price: EIA, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005). 2003 quantities derived from: EIA, *International Energy Annual 2003*, DOE/EIA-0219(2003) (Washington, DC, May-July 2005). **2004 quantities and projections:** EIA, AEO2006 National Energy Modeling System run AEO2006.D111905A.