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

Supply, Disposition, and Prices	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Production							
Crude Oil and Lease Condensate	12.15	12.03	12.75	11.63	11.03	10.01	-0.8%
Natural Gas Plant Liquids	2.56	2.34	2.66	2.67	2.80	2.81	0.8%
Dry Natural Gas	19.48	19.58	20.97	21.33	22.48	22.42	0.6%
Coal	22.70	22.66	25.10	25.56	27.04	29.90	1.3%
Nuclear Power	8.14	7.97	8.49	8.62	8.67	8.67	0.4%
Renewable Energy[1]	5.79	5.89	6.85	7.13	7.57	8.10	1.5%
Other[2]	1.12	0.93	0.97	0.78	0.77	0.82	-0.5%
Total	**71.94**	**71.42**	**77.79**	**77.73**	**80.35**	**82.73**	**0.7%**
Imports							
Crude Oil[3]	19.93	21.08	24.69	28.98	32.29	35.16	2.4%
Petroleum Products[4]	4.75	5.16	6.06	6.32	6.83	8.27	2.2%
Natural Gas	4.11	4.02	5.71	8.00	8.95	9.70	4.1%
Other Imports[5]	0.56	0.69	0.92	1.07	1.15	1.23	2.6%
Total	**29.35**	**30.95**	**37.38**	**44.37**	**49.22**	**54.36**	**2.6%**
Exports							
Petroleum[6]	2.05	2.13	2.14	2.21	2.26	2.32	0.4%
Natural Gas	0.52	0.70	0.65	0.81	0.86	0.83	0.8%
Coal	1.03	1.12	1.06	0.88	0.89	0.65	-2.5%
Total	**3.60**	**3.95**	**3.86**	**3.90**	**4.01**	**3.80**	**-0.2%**
Discrepancy[7]	**-0.30**	**0.18**	**0.05**	**-0.09**	**-0.05**	**0.10**	**N/A**
Consumption							
Petroleum Products[8]	38.41	39.09	44.84	48.07	51.30	54.42	1.5%
Natural Gas	23.59	22.54	26.11	28.69	30.73	31.47	1.5%
Coal	21.98	22.71	24.95	25.71	27.27	30.48	1.3%
Nuclear Power	8.14	7.97	8.49	8.62	8.67	8.67	0.4%
Renewable Energy[1]	5.79	5.89	6.85	7.13	7.57	8.10	1.5%
Other[9]	0.07	0.02	0.03	0.07	0.05	0.04	4.1%
Total	**97.99**	**98.22**	**111.27**	**118.29**	**125.60**	**133.18**	**1.4%**
Net Imports - Petroleum	**22.64**	**24.10**	**28.61**	**33.10**	**36.87**	**41.11**	**2.5%**
Prices (2003 dollars per unit)							
World Oil Price (dollars per barrel)[10]	24.10	27.73	25.00	26.75	28.50	30.31	0.4%
Natural Gas Wellhead Price (dollars per thousand cubic feet)[11]	3.06	4.98	3.64	4.16	4.53	4.79	-0.2%
Coal Minemouth Price (dollars per ton)	18.23	17.93	17.30	16.89	17.25	18.26	0.1%
Average Electricity Price (cents per kilowatthour)	7.4	7.4	6.6	6.9	7.2	7.3	-0.1%

[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 A18 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]Average refiner acquisition cost for imported crude oil.
[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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 natural gas supply values: Energy Information Administration (EIA), *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2003 natural gas supply values and natural gas wellhead price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 natural gas wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2002 coal minemouth prices: EIA, *Annual Coal Report 2003*, DOE/EIA-0584(2003) (Washington, DC, September 2004). 2003 petroleum supply values and 2002 crude oil and lease condensate production: EIA, *Petroleum Supply Annual 2003*, DOE/EIA-0340(2003)/1 (Washington, DC, July 2004). Other 2002 petroleum supply values: EIA, *Petroleum Supply Annual 2002*, DOE/EIA-0340(2002)/1 (Washington, DC, June 2003). Other 2002 and 2003 values: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004) and EIA, *Quarterly Coal Report, October-December 2003*, DOE/EIA-0121(2003/4Q) (Washington, DC, March 2004).
Projections: EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Energy Consumption							
Residential							
Distillate Fuel	0.92	0.96	0.90	0.88	0.83	0.77	-1.0%
Kerosene	0.06	0.07	0.09	0.09	0.09	0.09	0.8%
Liquefied Petroleum Gas	0.57	0.54	0.57	0.61	0.64	0.67	0.9%
Petroleum Subtotal	1.54	1.58	1.56	1.58	1.56	1.53	-0.1%
Natural Gas	5.04	5.25	5.68	5.90	6.05	6.17	0.7%
Coal	0.01	0.01	0.01	0.01	0.01	0.01	-1.0%
Renewable Energy[1]	0.39	0.40	0.40	0.39	0.39	0.38	-0.3%
Electricity	4.32	4.37	5.02	5.40	5.79	6.18	1.6%
Delivered Energy	**11.30**	**11.61**	**12.67**	**13.29**	**13.80**	**14.26**	**0.9%**
Electricity Related Losses	9.62	9.71	10.80	11.29	11.77	12.35	1.1%
Total	**20.92**	**21.31**	**23.47**	**24.58**	**25.56**	**26.62**	**1.0%**
Commercial							
Distillate Fuel	0.50	0.52	0.62	0.66	0.71	0.77	1.8%
Residual Fuel	0.08	0.07	0.07	0.07	0.08	0.08	0.2%
Kerosene	0.02	0.02	0.03	0.03	0.03	0.03	0.5%
Liquefied Petroleum Gas	0.10	0.10	0.10	0.10	0.11	0.11	0.5%
Motor Gasoline[2]	0.04	0.04	0.04	0.04	0.04	0.04	0.2%
Petroleum Subtotal	0.74	0.75	0.86	0.91	0.96	1.02	1.4%
Natural Gas	3.20	3.22	3.49	3.69	3.91	4.17	1.2%
Coal	0.09	0.10	0.10	0.10	0.10	0.10	-0.1%
Renewable Energy[3]	0.08	0.09	0.09	0.09	0.09	0.09	0.0%
Electricity	4.12	4.13	5.00	5.63	6.33	7.12	2.5%
Delivered Energy	**8.23**	**8.29**	**9.53**	**10.41**	**11.38**	**12.49**	**1.9%**
Electricity Related Losses	9.18	9.18	10.76	11.77	12.86	14.25	2.0%
Total	**17.40**	**17.46**	**20.29**	**22.18**	**24.24**	**26.74**	**2.0%**
Industrial[4]							
Distillate Fuel	0.99	1.03	1.04	1.08	1.14	1.19	0.7%
Liquefied Petroleum Gas	2.17	2.09	2.30	2.44	2.59	2.74	1.2%
Petrochemical Feedstock	1.22	1.32	1.48	1.52	1.55	1.57	0.8%
Residual Fuel	0.21	0.28	0.34	0.38	0.38	0.38	1.4%
Motor Gasoline[2]	0.30	0.31	0.31	0.33	0.35	0.37	0.9%
Other Petroleum[5]	4.26	4.30	4.69	4.69	5.02	5.23	0.9%
Petroleum Subtotal	9.15	9.31	10.17	10.43	11.03	11.47	1.0%
Natural Gas	7.75	7.19	8.10	8.50	8.89	9.26	1.2%
Lease and Plant Fuel[6]	1.14	1.15	1.20	1.23	1.32	1.31	0.6%
Natural Gas Subtotal	8.90	8.34	9.31	9.73	10.21	10.57	1.1%
Metallurgical Coal	0.65	0.67	0.55	0.48	0.42	0.37	-2.7%
Steam Coal	1.37	1.39	1.42	1.42	1.42	1.42	0.1%
Net Coal Coke Imports	0.06	0.05	0.06	0.05	0.05	0.05	-0.2%
Coal Subtotal	2.08	2.11	2.03	1.95	1.89	1.83	-0.6%
Renewable Energy[7]	1.78	1.79	2.07	2.19	2.34	2.50	1.5%
Electricity	3.32	3.31	3.78	3.98	4.19	4.39	1.3%
Delivered Energy	**25.23**	**24.86**	**27.35**	**28.27**	**29.66**	**30.76**	**1.0%**
Electricity Related Losses	7.38	7.35	8.13	8.31	8.52	8.78	0.8%
Total	**32.61**	**32.21**	**35.47**	**36.58**	**38.19**	**39.53**	**0.9%**

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

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Transportation							
Distillate Fuel[8]	5.42	5.54	6.95	7.67	8.35	9.05	2.3%
Jet Fuel[9]	3.34	3.26	4.04	4.45	4.74	4.89	1.9%
Motor Gasoline[2]	16.48	16.64	19.14	20.81	22.31	24.04	1.7%
Residual Fuel	0.65	0.62	0.56	0.57	0.58	0.58	-0.3%
Liquefied Petroleum Gas	0.02	0.02	0.06	0.07	0.08	0.09	6.0%
Other Petroleum[10]	0.20	0.24	0.26	0.27	0.29	0.31	1.2%
Petroleum Subtotal	26.10	26.31	31.00	33.84	36.35	38.97	1.8%
Pipeline Fuel Natural Gas	0.69	0.65	0.70	0.73	0.82	0.84	1.2%
Compressed Natural Gas	0.01	0.02	0.06	0.08	0.10	0.11	7.6%
Renewable Energy (E85)[11]	0.00	0.00	0.00	0.00	0.00	0.00	6.7%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	0.08	0.08	0.09	0.10	0.11	0.12	2.0%
Delivered Energy	**26.88**	**27.07**	**31.85**	**34.75**	**37.39**	**40.04**	**1.8%**
Electricity Related Losses	0.17	0.17	0.19	0.21	0.22	0.24	1.5%
Total	**27.05**	**27.24**	**32.04**	**34.96**	**37.61**	**40.28**	**1.8%**
Delivered Energy Consumption for All Sectors							
Distillate Fuel	7.83	8.04	9.51	10.28	11.03	11.78	1.8%
Kerosene	0.09	0.11	0.14	0.14	0.14	0.13	0.6%
Jet Fuel[9]	3.34	3.26	4.04	4.45	4.74	4.89	1.9%
Liquefied Petroleum Gas	2.86	2.75	3.03	3.22	3.42	3.60	1.2%
Motor Gasoline[2]	16.82	16.98	19.49	21.18	22.70	24.45	1.7%
Petrochemical Feedstock	1.22	1.32	1.48	1.52	1.55	1.57	0.8%
Residual Fuel	0.93	0.97	0.97	1.02	1.03	1.03	0.3%
Other Petroleum[12]	4.45	4.52	4.93	4.94	5.30	5.53	0.9%
Petroleum Subtotal	37.53	37.96	43.58	46.75	49.90	52.98	1.5%
Natural Gas	16.00	15.68	17.33	18.17	18.94	19.70	1.0%
Lease and Plant Fuel[6]	1.14	1.15	1.20	1.23	1.32	1.31	0.6%
Pipeline Natural Gas	0.69	0.65	0.70	0.73	0.82	0.84	1.2%
Natural Gas Subtotal	17.83	17.48	19.23	20.13	21.09	21.85	1.0%
Metallurgical Coal	0.65	0.67	0.55	0.48	0.42	0.37	-2.7%
Steam Coal	1.47	1.50	1.53	1.52	1.52	1.52	0.1%
Net Coal Coke Imports	0.06	0.05	0.06	0.05	0.05	0.05	-0.2%
Coal Subtotal	2.18	2.22	2.14	2.06	2.00	1.94	-0.6%
Renewable Energy[13]	2.25	2.28	2.55	2.67	2.82	2.97	1.2%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	11.84	11.88	13.89	15.11	16.41	17.81	1.9%
Delivered Energy	**71.63**	**71.82**	**81.39**	**86.73**	**92.23**	**97.56**	**1.4%**
Electricity Related Losses	26.35	26.40	29.88	31.57	33.37	35.62	1.4%
Total	**97.99**	**98.22**	**111.27**	**118.29**	**125.60**	**133.18**	**1.4%**
Electric Power[14]							
Distillate Fuel	0.20	0.33	0.39	0.40	0.42	0.45	1.4%
Residual Fuel	0.68	0.80	0.87	0.92	0.98	0.98	0.9%
Petroleum Subtotal	0.88	1.13	1.26	1.32	1.40	1.43	1.1%
Natural Gas	5.76	5.06	6.87	8.56	9.64	9.61	3.0%
Steam Coal	19.80	20.49	22.81	23.65	25.28	28.54	1.5%
Nuclear Power	8.14	7.97	8.49	8.62	8.67	8.67	0.4%
Renewable Energy[15]	3.54	3.62	4.30	4.46	4.75	5.14	1.6%
Electricity Imports	0.07	0.02	0.03	0.07	0.05	0.04	4.1%
Total	**38.19**	**38.28**	**43.77**	**46.68**	**49.79**	**53.43**	**1.5%**

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

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Total Energy Consumption							
Distillate Fuel	8.03	8.37	9.90	10.68	11.45	12.23	1.7%
Kerosene	0.09	0.11	0.14	0.14	0.14	0.13	0.6%
Jet Fuel[9]	3.34	3.26	4.04	4.45	4.74	4.89	1.9%
Liquefied Petroleum Gas	2.86	2.75	3.03	3.22	3.42	3.60	1.2%
Motor Gasoline[2]	16.82	16.98	19.49	21.18	22.70	24.45	1.7%
Petrochemical Feedstock	1.22	1.32	1.48	1.52	1.55	1.57	0.8%
Residual Fuel	1.61	1.77	1.84	1.94	2.01	2.02	0.6%
Other Petroleum[12]	4.45	4.52	4.93	4.94	5.30	5.53	0.9%
Petroleum Subtotal	38.41	39.09	44.84	48.07	51.30	54.42	1.5%
Natural Gas	21.76	20.74	24.21	26.73	28.59	29.32	1.6%
Lease and Plant Fuel[6]	1.14	1.15	1.20	1.23	1.32	1.31	0.6%
Pipeline Natural Gas	0.69	0.65	0.70	0.73	0.82	0.84	1.2%
Natural Gas Subtotal	23.59	22.54	26.11	28.69	30.73	31.47	1.5%
Metallurgical Coal	0.65	0.67	0.55	0.48	0.42	0.37	-2.7%
Steam Coal	21.27	21.99	24.34	25.17	26.80	30.07	1.4%
Net Coal Coke Imports	0.06	0.05	0.06	0.05	0.05	0.05	-0.2%
Coal Subtotal	21.98	22.71	24.95	25.71	27.27	30.48	1.3%
Nuclear Power	8.14	7.97	8.49	8.62	8.67	8.67	0.4%
Renewable Energy[16]	5.79	5.89	6.85	7.13	7.57	8.10	1.5%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity Imports	0.07	0.02	0.03	0.07	0.05	0.04	4.1%
Total	**97.99**	**98.22**	**111.27**	**118.29**	**125.60**	**133.18**	**1.4%**
Energy Use and Related Statistics							
Delivered Energy Use	71.63	71.82	81.39	86.73	92.23	97.56	1.4%
Total Energy Use	97.99	98.22	111.27	118.29	125.60	133.18	1.4%
Population (millions)	288.60	291.39	310.12	323.55	336.99	350.64	0.8%
Gross Domestic Product (billion 1996 dollars)	10075	10381	13084	15216	17634	20292	3.1%
Carbon Dioxide Emissions (million metric tons)	5750.5	5788.7	6626.8	7052.4	7519.6	8062.3	1.5%

[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 containing 500 parts per million (ppm) or 15 ppm sulfur.
[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 2002 and 2003 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: 2002 and 2003 consumption based on: Energy Information Administration (EIA), *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 and 2003 population and gross domestic product: Global Insight macroeconomic model CTL0804, modified by EIA. 2002 and 2003 carbon dioxide emissions: EIA, *Emissions of Greenhouse Gases in the United States 2003,* DOE/EIA-0573(2003) (Washington, DC, December 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A3. Energy Prices by Sector and Source
(2003 Dollars per Million Btu, Unless Otherwise Noted)

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Residential	**15.02**	**15.81**	**14.33**	**14.98**	**15.64**	**16.13**	**0.1%**
Primary Energy[1]	8.33	9.68	8.35	8.74	9.21	9.62	-0.0%
Petroleum Products[2]	10.04	11.27	10.44	10.76	11.36	11.93	0.3%
Distillate Fuel	8.37	9.57	8.29	8.49	8.85	9.12	-0.2%
Liquefied Petroleum Gas	12.98	14.58	14.25	14.45	15.06	15.65	0.3%
Natural Gas	7.82	9.22	7.79	8.21	8.66	9.07	-0.1%
Electricity	25.22	25.42	22.96	23.63	24.12	24.24	-0.2%
Commercial	**15.06**	**15.63**	**13.76**	**14.87**	**15.70**	**16.20**	**0.2%**
Primary Energy[1]	6.57	7.92	6.81	7.20	7.54	7.82	-0.1%
Petroleum Products[2]	6.95	8.03	7.13	7.28	7.55	7.84	-0.1%
Distillate Fuel	6.15	7.03	6.30	6.49	6.76	7.06	0.0%
Residual Fuel	4.27	4.96	4.26	4.52	4.81	5.08	0.1%
Natural Gas	6.62	8.08	6.87	7.33	7.68	7.96	-0.1%
Electricity	23.35	23.24	19.93	21.25	22.10	22.40	-0.2%
Industrial[3]	**6.39**	**7.78**	**6.85**	**7.24**	**7.75**	**8.13**	**0.2%**
Primary Energy	4.93	6.49	5.55	5.83	6.27	6.64	0.1%
Petroleum Products[2]	6.53	8.29	7.24	7.42	7.88	8.36	0.0%
Distillate Fuel	6.33	7.24	6.78	7.19	7.37	7.73	0.3%
Liquefied Petroleum Gas	8.48	12.57	10.02	10.22	10.74	11.35	-0.5%
Residual Fuel	3.94	4.59	3.87	4.10	4.34	4.62	0.0%
Natural Gas[4]	3.89	5.56	4.37	4.82	5.23	5.47	-0.1%
Metallurgical Coal	1.88	1.85	1.82	1.76	1.75	1.68	-0.4%
Steam Coal	1.60	1.55	1.56	1.55	1.56	1.60	0.1%
Electricity	14.73	15.03	13.84	14.62	15.47	15.75	0.2%
Transportation	**10.07**	**11.46**	**10.95**	**10.95**	**11.16**	**11.46**	**0.0%**
Primary Energy	10.04	11.43	10.93	10.92	11.13	11.44	0.0%
Petroleum Products[2]	10.04	11.43	10.93	10.93	11.13	11.44	0.0%
Distillate Fuel[5]	9.55	10.92	10.76	10.71	10.66	10.85	-0.0%
Jet Fuel[6]	6.05	6.46	6.25	6.29	6.58	6.93	0.3%
Motor Gasoline[7]	11.32	12.93	12.32	12.26	12.52	12.81	-0.0%
Residual Fuel	3.83	4.49	3.74	4.01	4.28	4.56	0.1%
Liquefied Petroleum Gas[8]	15.15	16.65	15.24	15.28	15.66	16.24	-0.1%
Natural Gas[9]	7.23	9.04	8.56	9.11	9.45	9.69	0.3%
Ethanol (E85)[10]	14.65	16.23	17.11	17.37	17.22	18.13	0.5%
Electricity	20.03	20.64	18.81	19.59	19.99	19.96	-0.2%
Average End-Use Energy	**10.26**	**11.50**	**10.56**	**10.95**	**11.42**	**11.83**	**0.1%**
Primary Energy	7.85	9.32	8.61	8.83	9.18	9.55	0.1%
Electricity	21.60	21.74	19.36	20.35	21.11	21.38	-0.1%
Electric Power[11]							
Fossil Fuel Average	1.90	2.24	2.06	2.28	2.45	2.46	0.4%
Petroleum Products	4.37	5.28	4.55	4.77	5.10	5.42	0.1%
Distillate Fuel	5.69	6.48	5.36	5.53	6.01	6.33	-0.1%
Residual Fuel	3.99	4.79	4.19	4.44	4.71	5.00	0.2%
Natural Gas	3.69	5.46	4.27	4.81	5.20	5.44	-0.0%
Steam Coal	1.27	1.28	1.25	1.23	1.25	1.31	0.1%

Table A3. Energy Prices by Sector and Source (Continued)
(2003 Dollars per Million Btu, Unless Otherwise Noted)

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Average Price to All Users[12]							
Petroleum Products[2]	9.09	10.51	9.91	10.00	10.29	10.66	0.1%
Distillate Fuel	8.71	9.90	9.53	9.72	9.79	10.03	0.1%
Jet Fuel	6.05	6.46	6.25	6.29	6.58	6.93	0.3%
Liquefied Petroleum Gas	9.52	13.04	10.99	11.21	11.74	12.34	-0.3%
Motor Gasoline[7]	11.32	12.93	12.31	12.25	12.51	12.80	-0.0%
Residual Fuel	3.93	4.66	3.99	4.25	4.52	4.81	0.1%
Natural Gas	5.15	6.86	5.52	5.92	6.30	6.59	-0.2%
Coal	1.29	1.30	1.27	1.25	1.27	1.32	0.1%
Ethanol (E85)[10]	14.65	16.23	17.11	17.37	17.22	18.13	0.5%
Electricity	21.60	21.74	19.36	20.35	21.11	21.38	-0.1%
Non-Renewable Energy Expenditures by Sector (billion 2003 dollars)							
Residential	163.90	177.17	175.88	193.21	209.76	223.86	1.1%
Commercial	122.69	128.15	129.92	153.52	177.28	200.93	2.1%
Industrial	124.40	147.11	139.57	152.35	169.93	184.96	1.0%
Transportation	263.73	302.59	341.13	372.46	407.83	449.31	1.8%
Total Non-Renewable Expenditures	674.72	755.02	786.50	871.55	964.80	1059.05	1.5%
Transportation Renewable Expenditures	0.01	0.02	0.03	0.05	0.07	0.08	7.2%
Total Expenditures	**674.73**	**755.04**	**786.54**	**871.60**	**964.87**	**1059.13**	**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]Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur for on-road use. Includes Federal and State taxes while excluding county and local taxes.
[6]Kerosene-type jet fuel. Includes Federal and State taxes while excluding county and local taxes.
[7]Sales weighted-average price for all grades. Includes Federal, State and local taxes.
[8]Includes Federal and State taxes while excluding county and local taxes.
[9]Compressed natural gas used as a vehicle fuel. Includes estimated motor vehicle fuel taxes.
[10]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.
[11]Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
[12]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.
Note: Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 prices for motor gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2003*, DOE/EIA-0487(2003) (Washington, DC, August 2004). 2002 residential and commercial natural gas delivered prices: EIA,*Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2003 residential and commercial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 and 2003 electric power sector natural gas prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, May 2003 through April 2004, Table 4.11.A. 2002 and 2003 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 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 transportation sector natural gas delivered prices are based on EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004) and estimated state and federal taxes. 2003 transportation sector natural gas delivered prices are model results. 2002 and 2003 coal prices based on: EIA, *Quarterly Coal Report, October-December 2003*, DOE/EIA-0121(2003/4Q) (Washington, DC, March 2004) and EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A. 2002 and 2003 electricity prices: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 and 2003 ethanol prices derived from weekly spot prices in the Oxy Fuel News. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Key Indicators and Consumption	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Key Indicators							
Households (millions)							
Single-Family	74.87	76.15	84.29	89.62	94.55	99.50	1.2%
Multifamily	29.22	29.51	31.12	32.34	33.69	35.08	0.8%
Mobile Homes	6.38	6.35	6.63	7.15	7.55	7.90	1.0%
Total	**110.47**	**112.01**	**122.03**	**129.11**	**135.78**	**142.48**	**1.1%**
Average House Square Footage	**1730**	**1742**	**1823**	**1871**	**1912**	**1950**	**0.5%**
Energy Intensity							
(million Btu per household)							
Delivered Energy Consumption	102.3	103.6	103.8	102.9	101.6	100.1	-0.2%
Total Energy Consumption	189.4	190.3	192.4	190.4	188.3	186.8	-0.1%
(thousand Btu per square foot)							
Delivered Energy Consumption	59.1	59.5	57.0	55.0	53.1	51.3	-0.7%
Total Energy Consumption	109.5	109.2	105.5	101.8	98.5	95.8	-0.6%
Delivered Energy Consumption by Fuel							
Electricity							
Space Heating	0.39	0.40	0.44	0.45	0.46	0.47	0.7%
Space Cooling	0.71	0.65	0.71	0.73	0.76	0.80	0.9%
Water Heating	0.37	0.37	0.38	0.38	0.38	0.37	0.1%
Refrigeration	0.41	0.40	0.36	0.35	0.35	0.36	-0.5%
Cooking	0.10	0.10	0.11	0.12	0.13	0.13	1.1%
Clothes Dryers	0.24	0.24	0.26	0.26	0.27	0.29	0.8%
Freezers	0.13	0.13	0.12	0.12	0.12	0.13	-0.1%
Lighting	0.76	0.78	0.92	0.99	1.06	1.13	1.7%
Clothes Washers[1]	0.03	0.03	0.04	0.05	0.06	0.06	3.3%
Dishwashers[1]	0.02	0.02	0.03	0.03	0.03	0.03	1.2%
Color Televisions	0.12	0.13	0.19	0.23	0.27	0.28	3.5%
Personal Computers	0.07	0.07	0.10	0.12	0.13	0.15	3.5%
Furnace Fans	0.08	0.08	0.10	0.10	0.11	0.12	1.5%
Other Uses[2]	0.88	0.95	1.26	1.46	1.65	1.85	3.1%
Delivered Energy	**4.32**	**4.37**	**5.02**	**5.40**	**5.79**	**6.18**	**1.6%**
Natural Gas							
Space Heating	3.52	3.70	4.00	4.17	4.28	4.36	0.8%
Space Cooling	0.00	0.00	0.00	0.00	0.00	0.00	12.9%
Water Heating	1.14	1.17	1.27	1.29	1.30	1.32	0.6%
Cooking	0.21	0.21	0.23	0.25	0.26	0.27	1.2%
Clothes Dryers	0.07	0.07	0.09	0.10	0.11	0.12	2.3%
Other Uses[3]	0.10	0.10	0.10	0.10	0.10	0.09	-0.3%
Delivered Energy	**5.04**	**5.25**	**5.68**	**5.90**	**6.05**	**6.17**	**0.7%**
Distillate							
Space Heating	0.79	0.84	0.78	0.77	0.73	0.68	-1.0%
Water Heating	0.13	0.12	0.12	0.11	0.10	0.10	-1.0%
Other Uses[4]	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Delivered Energy	**0.92**	**0.96**	**0.90**	**0.88**	**0.83**	**0.77**	**-1.0%**
Liquefied Petroleum Gas							
Space Heating	0.31	0.30	0.29	0.30	0.31	0.30	0.1%
Water Heating	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	0.6%
Other Uses[3]	0.18	0.17	0.20	0.23	0.26	0.28	2.4%
Delivered Energy	**0.57**	**0.54**	**0.57**	**0.61**	**0.64**	**0.67**	**0.9%**
Marketed Renewables (wood)[5]	0.39	0.40	0.40	0.39	0.39	0.38	-0.3%
Other Fuels[6]	0.07	0.08	0.10	0.10	0.10	0.10	0.6%

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

Key Indicators and Consumption	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Delivered Energy Consumption by End-Use							
Space Heating	5.46	5.72	6.00	6.19	6.26	6.29	0.4%
Space Cooling	0.71	0.65	0.71	0.73	0.76	0.80	0.9%
Water Heating	1.69	1.71	1.82	1.83	1.84	1.85	0.3%
Refrigeration	0.41	0.40	0.36	0.35	0.35	0.36	-0.5%
Cooking	0.34	0.34	0.37	0.39	0.42	0.44	1.1%
Clothes Dryers	0.31	0.31	0.35	0.37	0.38	0.40	1.2%
Freezers	0.13	0.13	0.12	0.12	0.12	0.13	-0.1%
Lighting	0.76	0.78	0.92	0.99	1.06	1.13	1.7%
Clothes Washers	0.03	0.03	0.04	0.05	0.06	0.06	3.3%
Dishwashers	0.02	0.02	0.03	0.03	0.03	0.03	1.2%
Color Televisions	0.12	0.13	0.19	0.23	0.27	0.28	3.5%
Personal Computers	0.07	0.07	0.10	0.12	0.13	0.15	3.5%
Furnace Fans	0.08	0.08	0.10	0.10	0.11	0.12	1.5%
Other Uses[7]	1.16	1.22	1.56	1.79	2.00	2.23	2.8%
Delivered Energy	**11.30**	**11.61**	**12.67**	**13.29**	**13.80**	**14.26**	**0.9%**
Electricity Related Losses	**9.62**	**9.71**	**10.80**	**11.29**	**11.77**	**12.35**	**1.1%**
Total Energy Consumption by End-Use							
Space Heating	6.32	6.61	6.94	7.13	7.21	7.22	0.4%
Space Cooling	2.29	2.11	2.24	2.27	2.32	2.41	0.6%
Water Heating	2.51	2.53	2.64	2.63	2.61	2.60	0.1%
Refrigeration	1.33	1.30	1.15	1.08	1.07	1.08	-0.8%
Cooking	0.56	0.57	0.61	0.64	0.67	0.70	0.9%
Clothes Dryers	0.84	0.85	0.91	0.92	0.94	0.97	0.6%
Freezers	0.43	0.42	0.37	0.37	0.37	0.38	-0.4%
Lighting	2.45	2.51	2.91	3.07	3.21	3.39	1.4%
Clothes Washers	0.10	0.10	0.13	0.15	0.18	0.19	2.9%
Dishwashers	0.08	0.08	0.08	0.09	0.09	0.09	0.8%
Color Televisions	0.40	0.43	0.60	0.70	0.81	0.85	3.2%
Personal Computers	0.22	0.23	0.32	0.37	0.41	0.45	3.2%
Furnace Fans	0.26	0.27	0.31	0.32	0.33	0.35	1.2%
Other Uses[7]	3.13	3.32	4.28	4.83	5.35	5.93	2.7%
Total	**20.92**	**21.31**	**23.47**	**24.58**	**25.56**	**26.62**	**1.0%**
Non-Marketed Renewables							
Geothermal[8]	0.00	0.00	0.00	0.01	0.01	0.01	7.6%
Solar[9]	0.02	0.02	0.03	0.03	0.04	0.04	2.7%
Total	**0.02**	**0.02**	**0.03**	**0.04**	**0.04**	**0.05**	**3.3%**

[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.
N/A = Not applicable.
Btu = British thermal unit.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 based on: Energy Information Administration (EIA), *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Key Indicators and Consumption	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Key Indicators							
Total Floorspace (billion square feet)							
Surviving	68.8	70.1	79.0	85.9	93.6	101.8	1.7%
New Additions	2.1	2.1	2.3	2.5	2.6	3.0	1.6%
Total	**70.9**	**72.1**	**81.2**	**88.4**	**96.2**	**104.8**	**1.7%**
Energy Consumption Intensity (thousand Btu per square foot)							
Delivered Energy Consumption	116.0	114.8	117.3	117.7	118.3	119.2	0.2%
Electricity Related Losses	129.4	127.2	132.5	133.1	133.7	136.0	0.3%
Total Energy Consumption	245.4	242.0	249.7	250.8	252.0	255.2	0.2%
Delivered Energy Consumption by Fuel							
Purchased Electricity							
Space Heating[1]	0.14	0.15	0.16	0.16	0.16	0.16	0.4%
Space Cooling[1]	0.46	0.42	0.45	0.48	0.51	0.54	1.2%
Water Heating[1]	0.14	0.14	0.15	0.15	0.16	0.16	0.7%
Ventilation	0.16	0.16	0.17	0.18	0.19	0.20	0.9%
Cooking	0.03	0.03	0.03	0.03	0.03	0.03	-0.1%
Lighting	1.09	1.10	1.28	1.37	1.44	1.52	1.5%
Refrigeration	0.20	0.20	0.23	0.24	0.26	0.28	1.6%
Office Equipment (PC)	0.13	0.14	0.24	0.29	0.33	0.36	4.5%
Office Equipment (non-PC)	0.31	0.31	0.45	0.57	0.70	0.87	4.8%
Other Uses[2]	1.47	1.48	1.84	2.17	2.56	3.00	3.3%
Delivered Energy	**4.12**	**4.13**	**5.00**	**5.63**	**6.33**	**7.12**	**2.5%**
Natural Gas							
Space Heating[1]	1.32	1.36	1.43	1.47	1.51	1.56	0.7%
Space Cooling[1]	0.01	0.01	0.02	0.02	0.02	0.03	4.0%
Water Heating[1]	0.57	0.57	0.66	0.72	0.78	0.85	1.8%
Cooking	0.26	0.26	0.31	0.34	0.37	0.40	2.0%
Other Uses[3]	1.03	1.02	1.08	1.15	1.23	1.33	1.2%
Delivered Energy	**3.20**	**3.22**	**3.49**	**3.69**	**3.91**	**4.17**	**1.2%**
Distillate							
Space Heating[1]	0.20	0.22	0.32	0.37	0.42	0.47	3.5%
Water Heating[1]	0.07	0.07	0.07	0.07	0.08	0.08	0.4%
Other Uses[4]	0.23	0.23	0.22	0.22	0.21	0.21	-0.3%
Delivered Energy	**0.50**	**0.52**	**0.62**	**0.66**	**0.71**	**0.77**	**1.8%**
Marketed Renewables (biomass)	0.08	0.09	0.09	0.09	0.09	0.09	0.0%
Other Fuels[5]	0.33	0.33	0.34	0.34	0.34	0.35	0.2%
Delivered Energy Consumption by End-Use							
Space Heating[1]	1.66	1.73	1.90	2.00	2.09	2.20	1.1%
Space Cooling[1]	0.47	0.43	0.47	0.49	0.53	0.57	1.3%
Water Heating[1]	0.77	0.78	0.88	0.94	1.01	1.09	1.5%
Ventilation	0.16	0.16	0.17	0.18	0.19	0.20	0.9%
Cooking	0.29	0.29	0.34	0.37	0.40	0.43	1.8%
Lighting	1.09	1.10	1.28	1.37	1.44	1.52	1.5%
Refrigeration	0.20	0.20	0.23	0.24	0.26	0.28	1.6%
Office Equipment (PC)	0.13	0.14	0.24	0.29	0.33	0.36	4.5%
Office Equipment (non-PC)	0.31	0.31	0.45	0.57	0.70	0.87	4.8%
Other Uses[6]	3.14	3.15	3.56	3.96	4.43	4.98	2.1%
Delivered Energy	**8.23**	**8.29**	**9.53**	**10.41**	**11.38**	**12.49**	**1.9%**

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

Key Indicators and Consumption	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Electricity Related Losses	**9.18**	**9.18**	**10.76**	**11.77**	**12.86**	**14.25**	**2.0%**
Total Energy Consumption by End-Use							
Space Heating[1]	1.98	2.06	2.24	2.32	2.41	2.52	0.9%
Space Cooling[1]	1.48	1.37	1.44	1.49	1.56	1.66	0.9%
Water Heating[1]	1.08	1.08	1.20	1.26	1.33	1.41	1.2%
Ventilation	0.52	0.52	0.55	0.55	0.56	0.59	0.6%
Cooking	0.36	0.36	0.41	0.43	0.46	0.49	1.4%
Lighting	3.51	3.55	4.04	4.23	4.36	4.56	1.1%
Refrigeration	0.64	0.65	0.71	0.75	0.80	0.85	1.2%
Office Equipment (PC)	0.43	0.44	0.76	0.90	1.01	1.08	4.2%
Office Equipment (non-PC)	0.99	1.00	1.41	1.75	2.13	2.61	4.5%
Other Uses[6]	6.41	6.44	7.52	8.49	9.63	10.98	2.5%
Total	**17.40**	**17.46**	**20.29**	**22.18**	**24.24**	**26.74**	**2.0%**
Non-Marketed Renewable Fuels							
Solar[7]	0.02	0.02	0.03	0.03	0.03	0.04	2.1%

[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.
N/A = Not applicable.
Btu = British thermal unit.
PC = Personal computer.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 based on: Energy Information Administration (EIA), *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A6. Industrial Sector Key Indicators and Consumption

Key Indicators and Consumption	Reference Case						Annual Growth 2002-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Key Indicators							
Value of Shipments (billion 1996 dollars)							
Manufacturing	3826	3851	4836	5392	6046	6733	2.6%
Nonmanufacturing	1240	1254	1329	1458	1587	1736	1.5%
Total	**5067**	**5105**	**6165**	**6850**	**7633**	**8469**	**2.3%**
Energy Prices (2003 dollars per million Btu)							
Distillate Oil	6.33	7.24	6.78	7.19	7.37	7.73	0.3%
Liquefied Petroleum Gas	8.48	12.57	10.02	10.22	10.74	11.35	-0.5%
Residual Oil	3.94	4.59	3.87	4.10	4.34	4.62	0.0%
Motor Gasoline	11.22	12.79	11.68	11.62	11.90	12.21	-0.2%
Natural Gas	3.89	5.56	4.37	4.82	5.23	5.47	-0.1%
Metallurgical Coal	1.88	1.85	1.82	1.76	1.75	1.68	-0.4%
Steam Coal	1.60	1.55	1.56	1.55	1.56	1.60	0.1%
Electricity	14.73	15.03	13.84	14.62	15.47	15.75	0.2%
Energy Consumption (quadrillion Btu)[1]							
Distillate	0.99	1.03	1.04	1.08	1.14	1.19	0.7%
Liquefied Petroleum Gas	2.17	2.09	2.30	2.44	2.59	2.74	1.2%
Petrochemical Feedstocks	1.22	1.32	1.48	1.52	1.55	1.57	0.8%
Residual Fuel	0.21	0.28	0.34	0.38	0.38	0.38	1.4%
Motor Gasoline	0.30	0.31	0.31	0.33	0.35	0.37	0.9%
Petroleum Coke	1.02	1.00	1.07	1.17	1.30	1.38	1.5%
Still Gas	1.40	1.48	1.77	1.57	1.65	1.68	0.6%
Asphalt and Road Oil	1.24	1.22	1.16	1.21	1.30	1.43	0.7%
Miscellaneous Petroleum[2]	0.60	0.61	0.69	0.73	0.77	0.75	1.0%
Petroleum Subtotal	9.15	9.31	10.17	10.43	11.03	11.47	1.0%
Natural Gas	7.75	7.19	8.10	8.50	8.89	9.26	1.2%
Lease and Plant Fuel[3]	1.14	1.15	1.20	1.23	1.32	1.31	0.6%
Natural Gas Subtotal	8.90	8.34	9.31	9.73	10.21	10.57	1.1%
Metallurgical Coal and Coke[4]	0.71	0.72	0.61	0.53	0.47	0.42	-2.4%
Steam Coal	1.37	1.39	1.42	1.42	1.42	1.42	0.1%
Coal Subtotal	2.08	2.11	2.03	1.95	1.89	1.83	-0.6%
Renewables[5]	1.78	1.79	2.07	2.19	2.34	2.50	1.5%
Purchased Electricity	3.32	3.31	3.78	3.98	4.19	4.39	1.3%
Delivered Energy	**25.23**	**24.86**	**27.35**	**28.27**	**29.66**	**30.76**	**1.0%**
Electricity Related Losses	7.38	7.35	8.13	8.31	8.52	8.78	0.8%
Total	**32.61**	**32.21**	**35.47**	**36.58**	**38.19**	**39.53**	**0.9%**
Energy Consumption per dollar of Shipments[1] (thousand Btu per 1996 dollars)							
Distillate	0.19	0.20	0.17	0.16	0.15	0.14	-1.6%
Liquefied Petroleum Gas	0.43	0.41	0.37	0.36	0.34	0.32	-1.1%
Petrochemical Feedstocks	0.24	0.26	0.24	0.22	0.20	0.19	-1.5%
Residual Fuel	0.04	0.05	0.05	0.06	0.05	0.04	-0.9%
Motor Gasoline	0.06	0.06	0.05	0.05	0.05	0.04	-1.4%
Petroleum Coke	0.20	0.20	0.17	0.17	0.17	0.16	-0.8%
Still Gas	0.28	0.29	0.29	0.23	0.22	0.20	-1.7%
Asphalt and Road Oil	0.24	0.24	0.19	0.18	0.17	0.17	-1.6%
Miscellaneous Petroleum[2]	0.12	0.12	0.11	0.11	0.10	0.09	-1.3%
Petroleum Subtotal	1.81	1.82	1.65	1.52	1.44	1.35	-1.3%
Natural Gas	1.53	1.41	1.31	1.24	1.16	1.09	-1.1%
Lease and Plant Fuel[3]	0.23	0.23	0.20	0.18	0.17	0.15	-1.7%
Natural Gas Subtotal	1.76	1.63	1.51	1.42	1.34	1.25	-1.2%
Metallurgical Coal and Coke[4]	0.14	0.14	0.10	0.08	0.06	0.05	-4.7%
Steam Coal	0.27	0.27	0.23	0.21	0.19	0.17	-2.2%
Coal Subtotal	0.41	0.41	0.33	0.28	0.25	0.22	-2.9%
Renewables[5]	0.35	0.35	0.34	0.32	0.31	0.29	-0.8%
Purchased Electricity	0.65	0.65	0.61	0.58	0.55	0.52	-1.0%
Delivered Energy	**4.98**	**4.87**	**4.44**	**4.13**	**3.89**	**3.63**	**-1.3%**
Electricity Related Losses	1.46	1.44	1.32	1.21	1.12	1.04	-1.5%
Total	**6.44**	**6.31**	**5.75**	**5.34**	**5.00**	**4.67**	**-1.4%**

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

Key Indicators and Consumption	Reference Case						Annual Growth 2002-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Industrial Combined Heat and Power							
Capacity (gigawatts)	24.95	24.87	29.50	32.23	36.03	40.09	2.2%
Generation (billion kilowatthours)	147.19	139.59	171.71	192.47	220.64	250.10	2.7%

[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.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 prices for motor gasoline and distillate are based on: Energy Information Administration (EIA), *Petroleum Marketing Annual 2003*, DOE/EIA-0487(2003) (Washington, DC, August 2004). 2002 and 2003 coal prices are based on: EIA, *Quarterly Coal Report, October-December 2003*, DOE/EIA-0121(2003/4Q) (Washington, DC, March 2004) and EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A. 2002 and 2003 electricity prices: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 and 2003 natural gas prices based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 and 2003 consumption values based on: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 and 2003 shipments: Global Insight industry model, August 2004. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A7. Transportation Sector Key Indicators and Delivered Energy Consumption

Key Indicators and Consumption	Reference Case						Annual Growth 2002-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Key Indicators							
Level of Travel							
(billion vehicle miles traveled)							
Light-Duty Vehicles less than 8,500 pounds	2557	2602	3017	3354	3680	4053	2.0%
Commercial Light Trucks[1]	64	65	78	87	96	107	2.3%
Freight Trucks greater than 10,000 pounds	210	214	268	300	336	373	2.6%
(billion seat miles available)							
Air	908	932	1152	1327	1455	1520	2.2%
(billion ton miles traveled)							
Rail	1328	1352	1576	1690	1833	2001	1.8%
Domestic Shipping	606	592	649	669	706	733	1.0%
Energy Efficiency Indicators							
(miles per gallon)							
New Light-Duty Vehicle[2]	24.6	25.1	25.7	26.1	26.5	26.9	0.3%
New Car[2]	28.9	29.5	29.7	30.3	30.6	31.0	0.2%
New Light Truck[2]	21.3	21.8	22.9	23.4	24.1	24.6	0.6%
Light-Duty Stock[3]	20.0	20.0	20.1	20.4	20.7	21.0	0.2%
New Commercial Light Truck[1]	14.1	14.6	15.2	15.6	16.0	16.4	0.5%
Stock Commercial Light Truck[1]	13.8	14.0	14.7	15.1	15.5	15.9	0.6%
Freight Truck	6.0	6.0	6.0	6.2	6.4	6.6	0.4%
(seat miles per gallon)							
Aircraft	55.2	55.3	59.2	62.1	65.2	68.5	1.0%
(ton miles per thousand Btu)							
Rail	2.9	2.9	3.1	3.3	3.4	3.6	1.0%
Domestic Shipping	2.3	2.3	2.3	2.4	2.4	2.4	0.2%
Energy Use by Mode							
(quadrillion Btu)							
Light-Duty Vehicles	15.58	15.78	18.45	20.24	21.85	23.69	1.9%
Commercial Light Trucks[1]	0.58	0.58	0.67	0.72	0.78	0.84	1.7%
Bus Transportation	0.24	0.25	0.26	0.27	0.27	0.27	0.3%
Freight Trucks	4.39	4.46	5.56	6.11	6.60	7.10	2.1%
Rail, Passenger	0.11	0.12	0.13	0.15	0.16	0.17	1.7%
Rail, Freight	0.47	0.47	0.51	0.52	0.54	0.56	0.8%
Shipping, Domestic	0.26	0.26	0.28	0.29	0.30	0.31	0.8%
Shipping, International	0.59	0.56	0.51	0.52	0.52	0.52	-0.3%
Recreational Boats	0.31	0.31	0.33	0.35	0.37	0.39	1.0%
Air	2.87	2.74	3.43	3.83	4.11	4.25	2.0%
Military Use	0.64	0.69	0.80	0.81	0.82	0.83	0.9%
Lubricants	0.20	0.20	0.21	0.23	0.25	0.27	1.4%
Pipeline Fuel	0.69	0.65	0.70	0.73	0.82	0.84	1.2%
Total	**26.92**	**27.07**	**31.85**	**34.75**	**37.39**	**40.04**	**1.8%**
(million barrels per day oil equivalent)							
Light-Duty Vehicles	8.19	8.29	9.72	10.65	11.49	12.45	1.9%
Commercial Light Trucks[1]	0.30	0.30	0.35	0.38	0.41	0.44	1.7%
Bus Transportation	0.12	0.12	0.13	0.13	0.13	0.13	0.3%
Freight Trucks	2.09	2.13	2.66	2.92	3.16	3.40	2.2%
Rail, Passenger	0.05	0.06	0.06	0.07	0.07	0.08	1.7%
Rail, Freight	0.22	0.22	0.24	0.25	0.25	0.26	0.8%
Shipping, Domestic	0.12	0.12	0.13	0.13	0.14	0.14	0.8%
Shipping, International	0.26	0.25	0.22	0.23	0.23	0.23	-0.3%
Recreational Boats	0.16	0.16	0.18	0.19	0.19	0.20	1.0%
Air	1.39	1.33	1.66	1.85	1.99	2.06	2.0%
Military Use	0.31	0.33	0.39	0.39	0.40	0.40	0.9%
Lubricants	0.09	0.09	0.10	0.11	0.12	0.13	1.4%
Pipeline Fuel	0.35	0.33	0.35	0.37	0.42	0.43	1.2%
Total	**13.65**	**13.73**	**16.19**	**17.67**	**19.00**	**20.36**	**1.8%**

[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 2002 and 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003: Energy Information Administration (EIA), *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004); Federal Highway Administration, *Highway Statistics 2001* (Washington, DC, November 2002); Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 22 and Annual* (Oak Ridge, TN, September 2002); National Highway Traffic and Safety Administration, *Summary of Fuel Economy Performance* (Washington, DC, February 2000); EIA, *Household Vehicle Energy Consumption 1994*, DOE/EIA-0464(94) (Washington, DC, August 1997); 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 1998*, http://www.eia.doe.gov/cneaf/alt_trans98/table1.html; EIA, *State Energy Data Report 2001*, DOE/EIA-0214(2001) (Washington, DC, November 2004) U.S. Department of Transportation, Research and Special Programs Administration, *Air Carrier Statistics Monthly, December 2003/2002* (Washington, DC, 2003); EIA, *Fuel Oil and Kerosene Sales 2002*, DOE/EIA-0535(2002) (Washington, DC, November 2003); and United States Department of Defense, Defense Fuel Supply Center. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Supply, Disposition, and Prices	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Generation by Fuel Type							
Electric Power Sector[1]							
Power Only[2]							
Coal	1881	1916	2169	2251	2440	2836	1.8%
Petroleum	83	106	112	118	124	128	0.9%
Natural Gas[3]	457	407	634	854	1038	1048	4.4%
Nuclear Power	780	764	813	826	830	830	0.4%
Pumped Storage/Other	-9	-9	-9	-9	-9	-9	0.1%
Renewable Sources[4]	311	318	389	398	412	430	1.4%
Distributed Generation (Natural Gas)	0	0	0	0	1	3	N/A
Total	**3503**	**3501**	**4109**	**4438**	**4836**	**5267**	**1.9%**
Combined Heat and Power[5]							
Coal	31	34	33	34	34	33	-0.1%
Petroleum	7	7	6	7	7	7	0.1%
Natural Gas	151	149	188	200	196	186	1.0%
Renewable Sources	6	6	4	4	4	4	-1.7%
Total	**197**	**197**	**230**	**244**	**240**	**230**	**0.7%**
Total Net Generation	**3700**	**3699**	**4339**	**4683**	**5076**	**5497**	**1.8%**
Less Direct Use	50	50	66	65	65	65	1.2%
Net Available to the Grid	**3650**	**3649**	**4273**	**4617**	**5011**	**5432**	**1.8%**
Commercial and Industrial Generation[6]							
Coal	21	21	21	21	21	21	N/A
Petroleum	5	6	9	10	12	13	3.8%
Natural Gas	83	76	100	117	141	169	3.7%
Other Gaseous Fuels[7]	6	6	4	5	5	5	-0.4%
Renewable Sources[4]	34	35	43	45	50	55	2.0%
Other[8]	9	10	10	10	10	10	-0.0%
Total	**159**	**153**	**187**	**208**	**238**	**273**	**2.7%**
Less Direct Use	131	126	139	149	164	182	1.7%
Total Sales to the Grid	**28**	**28**	**48**	**59**	**74**	**91**	**5.5%**
Total Electricity Generation	**3860**	**3852**	**4526**	**4890**	**5314**	**5770**	**1.9%**
Total Net Generation to the Grid	**3678**	**3677**	**4322**	**4676**	**5085**	**5522**	**1.9%**
Net Imports	**22**	**5**	**9**	**21**	**15**	**11**	**4.1%**
Electricity Sales by Sector							
Residential	1267	1280	1471	1584	1696	1810	1.6%
Commercial	1208	1210	1466	1651	1854	2088	2.5%
Industrial	972	969	1107	1166	1229	1286	1.3%
Transportation	22	23	26	29	32	35	2.0%
Total	**3469**	**3481**	**4070**	**4430**	**4811**	**5220**	**1.9%**
Direct Use	182	175	204	214	229	248	1.6%
Total Electricity Use	**3651**	**3657**	**4274**	**4644**	**5040**	**5467**	**1.8%**
End-Use Prices[9]							
(2003 cents per kilowatthour)							
Residential	8.6	8.7	7.8	8.1	8.2	8.3	-0.2%
Commercial	8.0	7.9	6.8	7.3	7.5	7.6	-0.2%
Industrial	5.0	5.1	4.7	5.0	5.3	5.4	0.2%
Transportation	6.8	7.0	6.4	6.7	6.8	6.8	-0.2%
All Sectors Average	**7.4**	**7.4**	**6.6**	**6.9**	**7.2**	**7.3**	**-0.1%**
Prices by Service Category[9]							
(2003 cents per kilowatthour)							
Generation	4.7	4.8	4.1	4.5	4.7	4.9	0.1%
Transmission	0.6	0.5	0.6	0.6	0.7	0.7	1.0%
Distribution	2.1	2.1	2.0	1.9	1.8	1.8	-0.7%

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

Supply, Disposition, and Prices	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Electric Power Sector Emissions[1]							
Sulfur Dioxide (million tons)	10.19	10.59	9.29	8.97	8.95	8.95	-0.8%
Nitrogen Oxide (million tons)	4.37	4.12	3.99	4.09	4.18	4.29	0.2%
Mercury (tons)	50.08	49.70	54.08	55.12	55.45	55.97	0.5%

[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 NAICS 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.
[9]Prices represent average revenue per kilowatthour.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 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 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004), and supporting databases. 2002 and 2003 commercial and transportation electricity sales: EIA estimates based on Oak Ridge National Laboratory, *Transportation Energy Data Book 21* (Oak Ridge, TN, September 2001). 2002 and 2003 prices: EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A. **Projections**: EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A9. Electricity Generating Capacity
(Gigawatts)

Net Summer Capacity[1]	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Electric Power Sector[2]							
Power Only[3]							
Coal Steam	305.8	305.2	304.6	310.6	334.6	389.2	1.1%
Other Fossil Steam[4]	131.5	128.6	119.4	101.1	100.0	99.4	-1.2%
Combined Cycle	70.3	106.9	136.4	147.9	176.8	189.4	2.6%
Combustion Turbine/Diesel	118.6	124.8	132.7	141.8	168.0	188.6	1.9%
Nuclear Power[5]	98.9	99.2	100.6	102.2	102.7	102.7	0.2%
Pumped Storage	20.7	20.8	20.9	20.9	20.9	20.9	0.0%
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	90.2	92.0	95.0	96.3	99.0	102.9	0.5%
Distributed Generation[7]	0.0	0.0	0.4	1.1	3.1	6.9	N/A
Total	**836.1**	**877.5**	**909.9**	**921.9**	**1005.0**	**1100.0**	**1.0%**
Combined Heat and Power[8]							
Coal Steam	5.1	5.1	5.1	5.0	5.0	5.0	0.0%
Other Fossil Steam[4]	1.1	1.1	1.1	1.1	1.1	1.1	N/A
Combined Cycle	29.1	31.3	33.5	33.5	33.5	33.5	0.3%
Combustion Turbine/Diesel	5.1	5.1	5.1	5.1	5.1	5.1	0.0%
Renewable Sources[6]	0.3	0.3	0.3	0.3	0.3	0.3	N/A
Total	**40.6**	**42.8**	**45.1**	**45.0**	**45.0**	**45.0**	**0.2%**
Cumulative Planned Additions[9]							
Coal Steam	0.0	0.0	1.8	1.8	1.8	1.8	N/A
Other Fossil Steam[4]	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Combined Cycle	0.0	0.0	28.3	28.3	28.3	28.3	N/A
Combustion Turbine/Diesel	0.0	0.0	3.9	3.9	3.9	3.9	N/A
Nuclear Power	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	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	0.0	0.0	2.7	2.8	2.9	3.0	N/A
Distributed Generation[7]	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total	**0.0**	**0.0**	**36.7**	**36.8**	**36.9**	**37.0**	**N/A**
Cumulative Unplanned Additions[9]							
Coal Steam	0.0	0.0	0.0	6.5	30.6	85.1	N/A
Other Fossil Steam[4]	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Combined Cycle	0.0	0.0	3.5	15.3	44.2	56.8	N/A
Combustion Turbine/Diesel	0.0	0.0	5.9	19.7	47.4	69.9	N/A
Nuclear Power	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	N/A
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Renewable Sources[6]	0.0	0.0	0.2	1.3	4.0	7.7	N/A
Distributed Generation[7]	0.0	0.0	0.4	1.1	3.1	6.9	N/A
Total	**0.0**	**0.0**	**9.9**	**44.0**	**129.1**	**226.4**	**N/A**
Cumulative Electric Power Sector Additions	**0.0**	**0.0**	**46.6**	**80.8**	**166.0**	**263.4**	**N/A**
Cumulative Retirements[10]							
Coal Steam	0.0	0.0	2.4	3.0	3.0	3.0	N/A
Other Fossil Steam[4]	0.0	0.0	9.3	27.5	28.6	29.2	N/A
Combined Cycle	0.0	0.0	0.1	0.4	0.4	0.4	N/A
Combustion Turbine/Diesel	0.0	0.0	1.9	6.6	8.1	9.9	N/A
Nuclear Power	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	N/A
Fuel Cells	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	N/A
Total	**0.0**	**0.0**	**13.8**	**37.6**	**40.1**	**42.6**	**N/A**
Total Electric Power Sector Capacity	**876.7**	**920.3**	**954.9**	**966.9**	**1050.0**	**1145.0**	**1.0%**

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

Net Summer Capacity[1]	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Commercial and Industrial Generators[11]							
Coal	4.2	4.1	4.1	4.1	4.1	4.1	-0.0%
Petroleum	1.0	0.7	1.5	1.5	1.7	1.7	4.2%
Natural Gas	14.2	14.4	17.4	19.7	22.8	26.7	2.9%
Other Gaseous Fuels	1.8	1.8	1.5	1.6	1.6	1.7	-0.3%
Renewable Sources[6]	5.4	5.4	6.8	7.3	8.3	9.9	2.7%
Other	0.7	0.7	0.7	0.7	0.7	0.7	N/A
Total	**27.2**	**27.1**	**32.1**	**34.9**	**39.2**	**44.8**	**2.3%**
Cumulative Capacity Additions[9]	**0.0**	**0.0**	**5.0**	**7.8**	**12.1**	**17.7**	**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 reflects operating capacity of existing units, including 3.5 gigawatts of uprates through 2025.
[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 NAICS code 22).
[9]Cumulative additions after December 31, 2003.
[10]Cumulative retirements after December 31, 2003.
[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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 electric generating capacity and projected planned additions: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Electricity Trade	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Interregional Electricity Trade							
Gross Domestic Firm Power Trade	138.9	136.7	105.5	82.4	50.6	37.9	-5.7%
Gross Domestic Economy Trade	173.9	198.5	206.9	178.8	133.2	101.6	-3.0%
Gross Domestic Trade	**312.8**	**335.2**	**312.3**	**261.2**	**183.8**	**139.5**	**-3.9%**
Gross Domestic Firm Power Sales (million 2003 dollars)	7037.4	6926.5	5344.6	4176.6	2564.5	1919.7	-5.7%
Gross Domestic Economy Sales (million 2003 dollars)	5357.4	7959.8	7280.2	7408.5	5938.8	4682.6	-2.4%
Gross Domestic Sales (million 2003 dollars)	**12394.7**	**14886.3**	**12624.9**	**11585.1**	**8503.3**	**6602.3**	**-3.6%**
International Electricity Trade							
Firm Power Imports From Canada and Mexico	9.5	11.3	2.2	1.5	0.5	0.0	-23.4%
Economy Imports From Canada and Mexico	26.8	18.2	29.3	38.7	31.0	25.1	1.5%
Gross Imports From Canada and Mexico	**36.3**	**29.5**	**31.4**	**40.2**	**31.5**	**25.2**	**-0.7%**
Firm Power Exports To Canada and Mexico	5.6	5.5	1.0	0.7	0.2	0.0	N/A
Economy Exports To Canada and Mexico	8.7	19.5	21.3	18.3	15.9	14.0	-1.5%
Gross Exports To Canada and Mexico	**14.3**	**24.9**	**22.3**	**18.9**	**16.1**	**14.0**	**-2.6%**

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 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: 2002 and 2003 interregional firm electricity trade data: North American Electric Reliability Council (NERC), Electricity Sales and Demand Database 1999. 2002 and 2003 Mexican electricity trade data: DOE Form FE-718R, "Annual Report of International Electrical Export/Import Data." 2002 Canadian international electricity trade data: National Energy Board, *Annual Report 2001*. 2003 Canadian electricity trade data: National Energy Board, *Annual Report 2002*. **Projections:** Energy Information Administration, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Supply and Disposition	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Crude Oil							
Domestic Crude Production[1]	5.74	5.68	6.02	5.49	5.21	4.73	-0.8%
Alaska	0.98	0.97	0.81	0.88	0.86	0.61	-2.1%
Lower 48 States	4.75	4.71	5.22	4.61	4.35	4.12	-0.6%
Net Imports	9.13	9.65	11.31	13.28	14.80	16.11	2.4%
Gross Imports	9.14	9.66	11.32	13.29	14.81	16.12	2.4%
Exports	0.01	0.01	0.01	0.01	0.01	0.01	-0.9%
Other Crude Supply[2]	0.07	-0.03	0.00	0.00	0.00	0.00	N/A
Total Crude Supply	**14.94**	**15.31**	**17.33**	**18.77**	**20.01**	**20.84**	**1.4%**
Other Petroleum Supply							
Natural Gas Plant Liquids	1.88	1.72	1.96	1.96	2.04	2.04	0.8%
Net Product Imports	1.41	1.58	2.06	2.12	2.31	3.00	2.9%
Gross Refined Product Imports[3]	1.61	1.85	1.99	1.87	1.90	2.47	1.3%
Unfinished Oil Imports	0.41	0.34	0.59	0.76	0.91	1.02	5.2%
Blending Components	0.37	0.41	0.48	0.52	0.55	0.60	1.7%
Exports	0.97	1.01	0.99	1.03	1.05	1.08	0.3%
Refinery Processing Gain[4]	0.98	1.00	1.11	1.36	1.50	1.56	2.0%
Other Inputs[5]	0.67	0.69	0.53	0.46	0.46	0.50	-1.5%
Total Primary Supply[6]	**19.89**	**20.30**	**22.98**	**24.67**	**26.32**	**27.93**	**1.5%**
Refined Petroleum Products Supplied							
Motor Gasoline[7]	8.85	8.93	10.28	11.17	11.97	12.89	1.7%
Jet Fuel[8]	1.61	1.57	1.95	2.15	2.29	2.36	1.9%
Distillate Fuel[9]	3.79	3.95	4.70	5.07	5.44	5.81	1.8%
Residual Fuel	0.70	0.77	0.80	0.85	0.88	0.88	0.6%
Other[10]	4.75	4.77	5.25	5.42	5.74	5.98	1.0%
Total	**19.71**	**20.00**	**22.98**	**24.67**	**26.32**	**27.93**	**1.5%**
Refined Petroleum Products Supplied							
Residential and Commercial	1.26	1.28	1.33	1.38	1.41	1.42	0.5%
Industrial[11]	4.82	4.87	5.33	5.49	5.81	6.05	1.0%
Transportation	13.24	13.35	15.76	17.21	18.48	19.82	1.8%
Electric Power[12]	0.39	0.50	0.56	0.59	0.62	0.64	1.1%
Total	**19.71**	**20.00**	**22.98**	**24.67**	**26.32**	**27.93**	**1.5%**
Discrepancy[13]	**0.18**	**0.29**	**-0.00**	**0.00**	**0.00**	**-0.00**	**N/A**
World Oil Price (2003 dollars per barrel)[14]	24.10	27.73	25.00	26.75	28.50	30.31	0.4%
Import Share of Product Supplied	0.54	0.56	0.58	0.62	0.65	0.68	0.9%
Net Expenditures for Imported Crude Oil and Petroleum Products (billion 2003 dollars)	91.94	113.78	125.14	153.97	180.07	215.89	3.0%
Domestic Refinery Distillation Capacity[15]	16.8	16.8	18.7	20.2	21.4	22.3	1.3%
Capacity Utilization Rate (percent)	91.0	93.0	94.0	94.2	94.8	94.9	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; natural gas converted to liquid fuel; and coal converted to liquid fuel.
[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, which produces electricity and other useful thermal energy.
[12]Includes consumption of energy by electricity-only and combined heat and power (CHP) 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]Average refiner acquisition cost for imported crude oil.
[15]End-of-year operable capacity.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 product supplied based on: Energy Information Administration (EIA), *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). Other 2002 data: EIA, *Petroleum Supply Annual 2002*, DOE/EIA-0340(2002)/1 (Washington, DC, June 2003). Other 2003 data: EIA, *Petroleum Supply Annual 2003*, DOE/EIA-0340(2003)/1 (Washington, DC, July 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A12. Petroleum Product Prices
(2003 Cents per Gallon, Unless Otherwise Noted)

Sector and Fuel	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
World Oil Price (2003 dollars per barrel)	**24.10**	**27.73**	**25.00**	**26.75**	**28.50**	**30.31**	**0.4%**
Delivered Sector Product Prices							
Residential							
Distillate Fuel	116.1	132.7	114.9	117.7	122.7	126.4	-0.2%
Liquefied Petroleum Gas	111.6	125.4	122.6	124.2	129.5	134.6	0.3%
Commercial							
Distillate Fuel	85.1	97.3	86.9	89.5	93.2	97.3	0.0%
Residual Fuel	63.9	74.3	63.7	67.7	71.9	76.0	0.1%
Residual Fuel (2003 dollars per barrel)	26.84	31.21	26.77	28.44	30.21	31.92	0.1%
Industrial[1]							
Distillate Fuel	87.7	100.2	93.3	98.8	101.2	106.2	0.3%
Liquefied Petroleum Gas	73.0	108.1	86.1	87.9	92.3	97.6	-0.5%
Residual Fuel	59.0	68.7	57.9	61.4	64.9	69.1	0.0%
Residual Fuel (2003 dollars per barrel)	24.76	28.84	24.33	25.77	27.27	29.02	0.0%
Transportation							
Diesel Fuel (distillate)[2]	131.6	150.4	147.5	146.8	146.1	148.6	-0.1%
Jet Fuel[3]	81.7	87.2	84.3	85.0	88.8	93.5	0.3%
Motor Gasoline[4]	140.4	160.3	152.4	151.6	154.9	158.5	-0.1%
Liquid Petroleum Gas	130.3	143.2	131.1	131.4	134.7	139.7	-0.1%
Residual Fuel	57.4	67.3	56.0	60.0	64.1	68.3	0.1%
Residual Fuel (2003 dollars per barrel)	24.09	28.25	23.50	25.21	26.92	28.68	0.1%
Ethanol (E85)[5]	137.6	152.4	160.5	163.0	161.6	170.1	0.5%
Electric Power[6]							
Distillate Fuel	79.0	89.8	74.4	76.7	83.3	87.8	-0.1%
Residual Fuel	59.7	71.7	62.7	66.5	70.5	74.9	0.2%
Residual Fuel (2003 dollars per barrel)	25.05	30.12	26.32	27.91	29.63	31.45	0.2%
Refined Petroleum Product Prices[7]							
Distillate Fuel	120.3	136.7	131.0	133.4	134.4	137.7	0.0%
Jet Fuel[3]	81.7	87.2	84.3	85.0	88.8	93.5	0.3%
Liquefied Petroleum Gas	81.8	112.1	94.5	96.4	101.0	106.1	-0.3%
Motor Gasoline[4]	140.4	160.3	152.2	151.5	154.8	158.4	-0.1%
Residual Fuel	58.8	69.8	59.8	63.6	67.7	72.0	0.1%
Residual Fuel (2003 dollars per barrel)	24.71	29.32	25.11	26.72	28.43	30.22	0.1%
Average	**118.2**	**136.6**	**128.3**	**129.1**	**132.4**	**136.8**	**0.0%**

[1]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]Diesel fuel containing 500 part per million (ppm) or 15 ppm sulfur for on-road use. Includes Federal and State taxes while excluding county and local taxes.
[3]Includes only kerosene type.
[4]Sales weighted-average price for all grades. Includes Federal, State and local taxes.
[5]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.
[6]Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
[7]Weighted averages of end-use fuel prices are derived from the prices in each sector and the corresponding sectoral consumption.
Note: Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 prices for motor gasoline, distillate, and jet fuel are based on: Energy Information Administration (EIA), *Petroleum Marketing Annual 2003*, DOE/EIA-0487(2003) (Washington, DC, August 2004). 2002 and 2003 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." 2002 and 2003 electric power prices based on: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2002 and 2003 ethanol prices derived from weekly spot prices in the Oxy Fuel News. 2002 and 2003 world oil price: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A13. Natural Gas Supply and Disposition
(Trillion Cubic Feet per Year)

Supply and Disposition	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Production							
Dry Gas Production[1]	18.96	19.07	20.42	20.77	21.89	21.83	0.6%
Supplemental Natural Gas[2]	0.07	0.06	0.08	0.08	0.08	0.08	0.7%
Net Imports	**3.50**	**3.24**	**4.94**	**7.02**	**7.89**	**8.66**	**4.6%**
Canada	3.60	3.13	2.57	2.98	2.69	2.55	-0.9%
Mexico	-0.26	-0.33	-0.14	-0.29	-0.35	-0.25	-1.2%
Liquefied Natural Gas[3]	0.17	0.44	2.50	4.33	5.54	6.37	12.9%
Total Supply	**22.53**	**22.37**	**25.44**	**27.86**	**29.85**	**30.56**	**1.4%**
Consumption by Sector							
Residential	4.89	5.10	5.52	5.74	5.88	5.99	0.7%
Commercial	3.11	3.13	3.39	3.58	3.80	4.05	1.2%
Industrial[4]	7.53	6.99	7.87	8.26	8.64	9.00	1.2%
Electric Power[5]	5.65	4.96	6.74	8.39	9.45	9.43	3.0%
Transportation[6]	0.01	0.02	0.06	0.08	0.10	0.11	7.8%
Pipeline Fuel	0.67	0.64	0.68	0.71	0.80	0.82	1.2%
Lease and Plant Fuel[7]	1.11	1.12	1.17	1.20	1.29	1.27	0.6%
Total	**22.98**	**21.95**	**25.44**	**27.96**	**29.95**	**30.67**	**1.5%**
Natural Gas to Liquids	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Discrepancy[8]	**-0.45**	**0.42**	**-0.00**	**-0.09**	**-0.10**	**-0.11**	**N/A**
Natural Gas Prices (2003 dollars per thousand cubic feet)							
Average Lower 48 Wellhead Price[9]	**3.06**	**4.98**	**3.64**	**4.16**	**4.53**	**4.79**	**-0.2%**
Delivered Prices							
Residential	8.04	9.49	8.02	8.45	8.91	9.33	-0.1%
Commercial	6.81	8.31	7.07	7.54	7.90	8.19	-0.1%
Industrial[4]	4.00	5.72	4.50	4.96	5.38	5.63	-0.1%
Electric Power[5]	3.76	5.57	4.36	4.90	5.31	5.55	-0.0%
Transportation[10]	7.44	9.31	8.81	9.38	9.72	9.98	0.3%
Average[11]	**5.29**	**7.04**	**5.67**	**6.08**	**6.47**	**6.77**	**-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 (CHP) 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, 2000 and 2001 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 and margins. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.
Btu = British thermal unit.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 supply values; and lease, plant, and pipeline fuel consumption: Energy Information Administration (EIA), *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2003 supply values; and lease, plant, and pipeline fuel consumption; and wellhead price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). Other 2002 and 2003 consumption based on: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2002 residential and commercial delivered prices: EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2003 residential and commercial delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 and 2003 electric power sector prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, May 2003 through April 2004. 2002 and 2003 industrial delivered prices are estimated based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004) and the *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 transportation sector delivered prices are based on: EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004) and estimated state and federal taxes. 2003 transportation sector delivered prices are model results. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A14. Oil and Gas Supply

Production and Supply	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Crude Oil							
Lower 48 Average Wellhead Price[1] (2003 dollars per barrel)	**24.91**	**28.60**	**24.50**	**26.27**	**28.06**	**30.00**	**0.2%**
Production (million barrels per day)[2]							
U.S. Total	5.74	5.68	6.02	5.49	5.21	4.73	-0.8%
Lower 48 Onshore	3.06	2.99	2.63	2.42	2.24	2.09	-1.6%
Lower 48 Offshore	1.69	1.72	2.58	2.19	2.11	2.03	0.8%
Alaska	0.98	0.97	0.81	0.88	0.86	0.61	-2.1%
Lower 48 End of Year Reserves (billion barrels)[2]	**19.34**	**18.94**	**21.23**	**18.89**	**17.79**	**16.47**	**-0.6%**
Natural Gas							
Lower 48 Average Wellhead Price[1] (2003 dollars per thousand cubic feet)	**3.06**	**4.98**	**3.64**	**4.16**	**4.53**	**4.79**	**-0.2%**
Dry Production (trillion cubic feet)[3]							
U.S. Total	18.96	19.07	20.42	20.77	21.89	21.83	0.6%
Lower 48 Onshore	13.69	13.89	14.98	15.38	15.30	14.71	0.3%
Associated-Dissolved[4]	1.54	1.54	1.32	1.22	1.15	1.08	-1.6%
Non-Associated	12.15	12.36	13.66	14.16	14.16	13.63	0.4%
Conventional	5.66	5.77	5.60	5.62	5.40	5.02	-0.6%
Unconventional	6.49	6.59	8.06	8.54	8.75	8.61	1.2%
Lower 48 Offshore	4.85	4.73	5.19	5.12	4.70	4.89	0.1%
Associated-Dissolved[4]	1.02	0.99	1.81	1.48	1.39	1.34	1.4%
Non-Associated	3.83	3.74	3.38	3.64	3.31	3.56	-0.2%
Alaska	0.43	0.44	0.25	0.27	1.89	2.23	7.6%
Lower 48 End of Year Dry Reserves[3] (trillion cubic feet)	**178.48**	**180.77**	**204.21**	**194.93**	**186.10**	**178.29**	**-0.1%**
Supplemental Gas Supplies (trillion cubic feet)[5]	**0.07**	**0.06**	**0.08**	**0.08**	**0.08**	**0.08**	**0.7%**
Total Lower 48 Wells Drilled (thousands)	**25.45**	**30.08**	**27.67**	**29.33**	**29.59**	**26.96**	**-0.5%**

[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 reserves 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 2002 and 2003 are model results and may differ slightly from official EIA data reports.

Sources: 2002 and 2003 lower 48 onshore, lower 48 offshore, and Alaska crude oil production: Energy Information Administration (EIA), *Petroleum Supply Annual 2003*, DOE/EIA-0340(2003)/1 (Washington, DC, July 2004). 2002 U.S. crude oil and natural gas reserves: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, DOE/EIA-0216(2002) (Washington, DC, December 2003). 2002 Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2002 natural gas lower 48 average wellhead price: Mineral Management Service and EIA, *Natural Gas Annual 2002*, DOE/EIA-0131(2002) (Washington, DC, January 2004). 2003 natural gas lower 48 average wellhead price, Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2004/07) (Washington, DC, July 2004). 2002 and 2003 crude oil lower 48 average wellhead price: EIA, *Petroleum Marketing Annual 2003*, DOE/EIA-0487(2003) (Washington, DC, August 2004). Other 2002 and 2003 values: EIA, Office of Integrated Analysis and Forecasting. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Supply, Disposition, and Prices	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Production[1]							
Appalachia	408	388	403	385	384	406	0.2%
Interior	147	146	159	157	164	182	1.0%
West	550	549	676	727	797	900	2.3%
East of the Mississippi	504	481	510	493	499	538	0.5%
West of the Mississippi	601	603	729	777	846	950	2.1%
Total	**1105**	**1083**	**1238**	**1270**	**1345**	**1488**	**1.5%**
Net Imports							
Imports	17	25	33	38	42	46	2.8%
Exports	40	43	42	35	35	26	-2.2%
Total	**-23**	**-18**	**-9**	**3**	**7**	**20**	**N/A**
Total Supply[2]	**1083**	**1065**	**1229**	**1273**	**1352**	**1507**	**1.6%**
Consumption by Sector							
Residential and Commercial	4	4	5	5	5	5	0.4%
Industrial[3]	63	62	66	66	66	66	0.3%
Coke Plants	22	24	20	18	15	13	-2.7%
Electric Power[4]	976	1004	1139	1185	1267	1425	1.6%
Total Sectoral Consumption	**1066**	**1095**	**1229**	**1273**	**1352**	**1508**	**1.5%**
Coal to Liquids							
Heat and Power (included in Industrial)	0	0	0	0	0	0	N/A
Liquids Production	0	0	0	0	0	0	N/A
Total Coal Use	**1066**	**1095**	**1229**	**1273**	**1352**	**1508**	**1.5%**
Discrepancy and Stock Change[5]	**17**	**-29**	**0**	**-0**	**-1**	**-1**	**N/A**
Average Minemouth Price							
(2003 dollars per short ton)	18.23	17.93	17.30	16.89	17.25	18.26	0.1%
(2003 dollars per million Btu)	0.89	0.86	0.85	0.84	0.86	0.91	0.2%
Delivered Prices (2003 dollars per short ton)[6]							
Industrial	36.08	34.74	33.80	33.44	33.77	34.60	-0.0%
Coke Plants	51.60	50.63	49.87	48.38	48.03	46.14	-0.4%
Electric Power							
(2003 dollars per short ton)	26.26	25.86	24.89	24.42	24.66	25.95	0.0%
(2003 dollars per million Btu)	1.27	1.28	1.25	1.23	1.25	1.31	0.1%
Coal to Liquids	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	**27.38**	**26.91**	**25.78**	**25.22**	**25.37**	**26.51**	**-0.1%**
Exports[7]	41.18	39.80	39.29	37.40	37.20	36.06	-0.4%

[1]Includes anthracite, bituminous coal, lignite, and waste coal delivered to independent power producers. Waste coal deliveries totaled 11.1 million tons in 2002 and 11.6 million tons in 2003.
[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.
[4]Includes all electricity-only and combined heat and power (CHP) 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]Sectoral prices weighted by consumption tonnage; weighted average excludes residential and commercial 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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002: Energy Information Administration (EIA), *Annual Coal Report 2002*, DOE/EIA-0584(2002) (Washington, DC, November 2003) and EIA, *Quarterly Coal Report, October-December 2003*, DOE/EIA-0121(2003/4Q) (Washington, DC, March 2004). 2003 data based on: EIA, *Annual Coal Report 2003*, DOE/EIA-0584(2003) (Washington, DC, September 2004); EIA, *Quarterly Coal Report, October-December 2003*, DOE/EIA-0121(2003/4Q) (Washington, DC, March 2004); and EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Capacity and Generation	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Electric Power Sector[1]							
Net Summer Capacity							
Conventional Hydropower	77.80	77.93	78.18	78.18	78.18	78.18	0.0%
Geothermal[2]	2.17	2.18	2.21	2.66	3.45	4.62	3.5%
Municipal Solid Waste[3]	3.26	3.34	3.57	3.63	3.66	3.67	0.4%
Wood and Other Biomass[4,5]	1.77	1.77	1.83	2.06	2.75	4.50	4.3%
Solar Thermal	0.39	0.39	0.45	0.47	0.49	0.51	1.3%
Solar Photovoltaic[6]	0.03	0.04	0.15	0.23	0.32	0.40	10.9%
Wind	5.01	6.56	8.88	9.29	10.45	11.25	2.5%
Total	**90.42**	**92.21**	**95.27**	**96.50**	**99.29**	**103.13**	**0.5%**
Generation (billion kilowatthours)							
Conventional Hydropower	260.67	269.29	300.39	300.55	300.81	301.09	0.5%
Geothermal[2]	14.49	13.15	12.33	16.09	22.83	32.78	4.2%
Municipal Solid Waste[3]	20.46	20.28	25.58	26.07	26.36	26.49	1.2%
Wood and Other Biomass[5]	9.74	9.40	27.61	30.01	32.35	37.35	6.5%
Dedicated Plants	7.06	5.73	10.32	11.67	16.21	27.29	7.4%
Cofiring	2.68	3.66	17.29	18.34	16.13	10.06	4.7%
Solar Thermal	0.55	0.53	0.80	0.86	0.92	0.99	2.9%
Solar Photovoltaic[6]	0.00	0.00	0.32	0.52	0.74	0.96	30.0%
Wind	10.35	10.73	25.89	27.34	31.61	34.52	5.5%
Total	**316.27**	**323.38**	**392.90**	**401.44**	**415.61**	**434.19**	**1.3%**
End-Use Sector[7]							
Net Summer Capacity							
Conventional Hydropower[8]	1.02	1.03	1.03	1.03	1.03	1.03	0.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	0.22	0.26	0.26	0.26	0.26	0.26	0.0%
Biomass	4.08	4.08	5.14	5.55	6.18	6.75	2.3%
Solar Photovoltaic[6]	0.04	0.06	0.39	0.44	0.80	1.80	17.0%
Total	**5.37**	**5.43**	**6.82**	**7.30**	**8.27**	**9.85**	**2.7%**
Generation (billion kilowatthours)							
Conventional Hydropower[8]	3.67	5.82	5.82	5.82	5.82	5.82	0.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Municipal Solid Waste	1.65	1.86	2.24	2.24	2.24	2.24	0.8%
Biomass	29.04	27.59	33.76	36.19	39.86	43.21	2.1%
Solar Photovoltaic[6]	0.09	0.12	0.83	0.95	1.68	3.74	16.9%
Total	**34.45**	**35.39**	**42.64**	**45.20**	**49.60**	**55.00**	**2.0%**

[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 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 2002, EIA estimates that as much as 134 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2002, plus an additional 362 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Annual Energy Review 2003, Table 10.6 (annual PV shipments, 1989-2002). 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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 capacity: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). 2002 and 2003 generation: EIA, *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Marketed Renewable Energy[2]							
Residential (wood)	**0.39**	**0.40**	**0.40**	**0.39**	**0.39**	**0.38**	**-0.3%**
Commercial (biomass)	**0.08**	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.0%**
Industrial[3]	**1.78**	**1.79**	**2.07**	**2.19**	**2.34**	**2.50**	**1.5%**
Conventional Hydroelectric	0.04	0.06	0.06	0.06	0.06	0.06	0.0%
Municipal Solid Waste	0.01	0.01	0.01	0.01	0.01	0.01	0.0%
Biomass	1.73	1.72	1.99	2.12	2.27	2.42	1.6%
Transportation	**0.17**	**0.24**	**0.32**	**0.33**	**0.36**	**0.38**	**2.2%**
Ethanol used in E85[4]	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Ethanol used in Gasoline Blending	0.17	0.24	0.32	0.33	0.35	0.38	2.2%
Electric Power[5]	**3.54**	**3.62**	**4.30**	**4.46**	**4.75**	**5.14**	**1.6%**
Conventional Hydroelectric	2.64	2.72	3.08	3.08	3.08	3.08	0.6%
Geothermal	0.30	0.28	0.27	0.39	0.61	0.92	5.6%
Municipal Solid Waste[6]	0.31	0.32	0.34	0.35	0.35	0.35	0.4%
Biomass	0.17	0.18	0.32	0.35	0.36	0.40	3.6%
Dedicated Plants	0.11	0.09	0.10	0.12	0.17	0.28	5.4%
Cofiring	0.06	0.09	0.22	0.23	0.19	0.11	0.9%
Solar Thermal	0.01	0.01	0.01	0.01	0.02	0.02	6.2%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Wind	0.10	0.11	0.27	0.28	0.33	0.36	5.5%
Total Marketed Renewable Energy	**5.96**	**6.13**	**7.17**	**7.46**	**7.93**	**8.48**	**1.5%**
Sources of Ethanol							
From Corn	0.17	0.24	0.32	0.33	0.34	0.34	1.7%
From Cellulose	0.00	0.00	0.00	0.01	0.02	0.04	N/A
Total	**0.17**	**0.24**	**0.32**	**0.33**	**0.36**	**0.38**	**2.2%**
Non-Marketed Renewable Energy[7]							
Selected Consumption							
Residential	**0.02**	**0.02**	**0.03**	**0.04**	**0.04**	**0.05**	**3.3%**
Solar Hot Water Heating	0.02	0.02	0.03	0.03	0.03	0.04	2.4%
Geothermal Heat Pumps	0.00	0.00	0.00	0.01	0.01	0.01	7.6%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	17.5%
Commercial	**0.02**	**0.02**	**0.03**	**0.03**	**0.03**	**0.04**	**2.1%**
Solar Thermal	0.02	0.02	0.03	0.03	0.03	0.03	0.7%
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.01	16.7%

[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 (CHP) 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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 ethanol: Energy Information Administration (EIA), *Annual Energy Review 2003*, DOE/EIA-0384(2003) (Washington, DC, September 2004). 2002 and 2003 electric power sector: EIA, Form EIA-860, "Annual Electric Generator Report" (preliminary). Other 2002 and 2003 values: EIA, Office of Integrated Analysis and Forecasting. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table A18. Carbon Dioxide Emissions by Sector and Source
(Million Metric Tons)

Sector and Source	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Residential							
Petroleum	104.1	106.2	107.4	108.4	107.0	104.1	-0.1%
Natural Gas	265.9	277.3	300.2	311.7	319.4	325.6	0.7%
Coal	1.0	1.1	1.1	1.0	1.0	0.9	-1.0%
Electricity	823.7	840.3	946.5	998.0	1060.3	1149.4	1.4%
Total	**1194.7**	**1225.0**	**1355.2**	**1419.1**	**1487.6**	**1580.0**	**1.2%**
Commercial							
Petroleum	52.6	53.8	61.3	64.9	68.7	72.8	1.4%
Natural Gas	168.7	170.6	184.0	194.7	206.4	220.1	1.2%
Coal	8.6	9.4	9.2	9.2	9.1	9.1	-0.1%
Electricity	785.4	794.3	943.0	1040.3	1159.3	1325.8	2.4%
Total	**1015.4**	**1028.1**	**1197.6**	**1309.1**	**1443.5**	**1627.9**	**2.1%**
Industrial[1]							
Petroleum	412.5	421.8	466.7	476.1	503.6	520.7	1.0%
Natural Gas[2]	449.9	419.8	483.8	506.0	531.6	550.2	1.2%
Coal	183.9	186.1	189.5	181.9	176.2	171.1	-0.4%
Electricity	632.0	636.1	712.2	734.6	768.2	816.6	1.1%
Total	**1678.4**	**1663.8**	**1852.3**	**1898.7**	**1979.6**	**2058.6**	**1.0%**
Transportation							
Petroleum[3]	1810.6	1821.6	2165.0	2364.4	2540.2	2723.1	1.8%
Natural Gas[4]	37.1	35.4	40.0	42.9	48.7	50.4	1.6%
Electricity	14.4	14.9	16.9	18.2	19.9	22.3	1.8%
Total	**1862.1**	**1871.9**	**2221.8**	**2425.5**	**2608.9**	**2795.8**	**1.8%**
Electric Power[5]							
Petroleum	76.9	95.8	96.3	100.7	106.9	109.2	0.6%
Natural Gas	305.6	266.6	362.1	450.8	508.0	506.5	3.0%
Coal	1855.8	1906.0	2139.8	2218.8	2371.5	2676.8	1.6%
Other[6]	17.3	17.3	20.4	20.9	21.2	21.5	1.0%
Total	**2255.6**	**2285.7**	**2618.6**	**2791.1**	**3007.6**	**3314.1**	**1.7%**
Total Carbon Dioxide Emissions by Primary Fuel[7]							
Petroleum[3]	2456.7	2499.2	2896.7	3114.5	3326.5	3530.0	1.6%
Natural Gas	1227.1	1169.7	1370.2	1506.1	1614.0	1652.9	1.6%
Coal	2049.4	2102.5	2339.5	2410.9	2557.9	2857.9	1.4%
Other[6]	17.3	17.3	20.4	20.9	21.2	21.5	1.0%
Total	**5750.5**	**5788.7**	**6626.8**	**7052.4**	**7519.6**	**8062.3**	**1.5%**
Carbon Dioxide Emissions (ton per person)	**19.9**	**19.9**	**21.4**	**21.8**	**22.3**	**23.0**	**0.7%**

[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 international bunker fuel, which by convention are excluded from the international accounting of carbon dioxide emissions. In the years from 1990 through 2002, international bunker fuels accounted for 82 to 100 million metric tons of carbon dioxide 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.
N/A = Not applicable
Note: Totals may not equal sum of components due to independent rounding. Data for 2002 and 2003 are model results and may differ slightly from official EIA data reports.
Sources: 2002 and 2003 emissions and emission factors: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2003,* DOE/EIA-0573(2003) (Washington, DC, December 2004). **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Indicators	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Real Gross Domestic Product	**10075**	**10381**	**13084**	**15216**	**17634**	**20292**	**3.1%**
Real Potential Gross Domestic Product	**10396**	**10736**	**13464**	**15188**	**17491**	**20462**	**3.0%**
Real Disposable Personal Income	**7560**	**7734**	**9594**	**11192**	**12783**	**14990**	**3.1%**
Components of Real Gross Domestic Product							
Real Consumption	7123	7356	9031	10389	11826	13352	2.7%
Real Investment	1561	1629	2324	2977	3805	4868	5.1%
Real Government Spending	1858	1909	2135	2302	2486	2647	1.5%
Real Exports	1012	1032	1917	2640	3633	4956	7.4%
Real Imports	1484	1550	2287	2991	3883	5094	5.6%
Energy Intensity (thousand Btu per 2000 dollar of GDP)							
Delivered Energy	7.11	6.92	6.23	5.70	5.23	4.81	-1.6%
Total Energy	9.73	9.47	8.51	7.78	7.13	6.57	-1.6%
Price Indices							
GDP Chain-Type Price Index (2000=1.000)	1.041	1.060	1.218	1.373	1.563	1.814	2.5%
Consumer Price Index (1982-4=1)	1.80	1.84	2.12	2.41	2.78	3.26	2.6%
Wholesale Price Index (1982=1.00)							
All Commodities	1.31	1.38	1.50	1.61	1.74	1.91	1.5%
Fuel and Power	0.93	1.13	1.13	1.35	1.61	1.93	2.5%
Interest Rates (percent, nominal)							
Federal Funds Rate	1.67	1.13	5.51	5.56	5.52	5.91	N/A
10-Year Treasury Note	4.61	4.01	6.61	6.47	6.43	6.57	N/A
AA Utility Bond Rate	7.19	6.39	7.66	8.07	8.34	8.59	N/A
Unemployment Rate (percent)	**5.78**	**5.99**	**5.57**	**4.89**	**4.48**	**4.55**	**N/A**
Housing Starts (millions)	**1.88**	**1.98**	**1.89**	**1.89**	**1.88**	**1.89**	**-0.2%**
Commercial Floorspace, Total (billion square feet)	**70.9**	**72.1**	**81.2**	**88.4**	**96.2**	**104.8**	**1.7%**
Unit Sales of Light-Duty Vehicles (millions)	**16.78**	**16.63**	**18.06**	**18.49**	**19.66**	**21.11**	**1.1%**
Value of Shipments (billion 1996 dollars)							
Total Industrial	5067	5105	6165	6850	7633	8469	2.3%
Non-manufacturing	1240	1254	1329	1458	1587	1736	1.5%
Manufacturing	3826	3851	4836	5392	6046	6733	2.6%
Energy-Intensive	1057	1048	1219	1298	1384	1462	1.5%
Non-Energy Intensive	2769	2803	3617	4094	4662	5271	2.9%
Population and Employment (millions)							
Population, with Armed Forces Overseas	288.6	291.4	310.1	323.5	337.0	350.6	0.8%
Population, aged 16 and over	223.9	226.5	244.1	254.5	265.3	276.5	0.9%
Employment, Nonfarm	130.3	129.9	140.7	148.8	159.7	169.1	1.2%
Employment, Manufacturing	15.3	14.5	14.0	13.3	13.0	12.7	-0.6%
Labor Force	145.1	146.5	159.3	163.4	169.8	176.8	0.9%

GDP = Gross domestic product.
Btu = British thermal unit.
N/A = Not applicable.
Sources: 2002 and 2003: Global Insight macroeconomic model CTL0804, modified by Energy Information Administration (EIA); and Global Insight industry model, August 2004. **Projections:** EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

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

Supply and Disposition	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
World Oil Price (2003 dollars per barrel)[1]	**24.10**	**27.73**	**25.00**	**26.75**	**28.50**	**30.31**	**0.4%**
Production (Conventional)[2]							
Industrialized Countries							
U.S. (50 states)	9.27	9.09	9.61	9.27	9.21	8.82	-0.1%
Canada	2.14	2.25	1.83	1.64	1.60	1.57	-1.6%
Mexico	3.61	3.80	4.21	4.55	4.62	4.85	1.1%
Western Europe[3]	6.87	6.69	6.35	5.89	5.51	5.00	-1.3%
Japan	0.20	0.13	0.08	0.07	0.06	0.06	-3.3%
Australia and New Zealand	0.75	0.66	0.96	0.91	0.89	0.86	1.2%
Total Industrialized	**22.85**	**22.62**	**23.05**	**22.33**	**21.89**	**21.16**	**-0.3%**
Eurasia							
Former Soviet Union							
Russia	7.67	8.34	9.98	10.62	10.90	11.11	1.3%
Caspian Area[4]	1.66	1.87	3.14	4.46	5.23	6.22	5.6%
Eastern Europe[5]	0.17	0.22	0.33	0.38	0.41	0.45	3.2%
Total Eurasia	**9.50**	**10.44**	**13.46**	**15.46**	**16.54**	**17.78**	**2.5%**
Developing Countries							
OPEC[6]							
Asia	1.39	1.38	1.47	1.47	1.51	1.56	0.6%
Middle East	20.90	20.95	24.45	26.87	32.37	38.47	2.8%
North Africa	3.03	2.99	3.44	3.71	4.44	4.78	2.2%
West Africa	2.01	1.98	2.36	2.64	3.13	3.74	2.9%
South America	2.91	2.85	3.34	3.81	4.44	5.20	2.8%
Non-OPEC							
China	2.99	3.10	3.64	3.50	3.49	3.41	0.4%
Other Asia	2.38	2.59	2.65	2.76	2.71	2.64	0.1%
Middle East[7]	1.91	1.81	2.24	2.47	2.57	2.78	2.0%
Africa	2.89	2.94	3.75	4.75	5.44	6.56	3.7%
South and Central America	3.79	3.93	4.53	5.38	5.91	6.42	2.3%
Total Developing Countries	**44.20**	**44.52**	**51.87**	**57.35**	**66.02**	**75.57**	**2.4%**
Total Production (Conventional)	**76.55**	**77.58**	**88.38**	**95.14**	**104.45**	**114.51**	**1.8%**
Production (Nonconventional)[8]							
U.S. (50 states)	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Other North America	0.81	0.93	1.73	3.09	3.33	3.46	6.2%
Western Europe	0.04	0.04	0.04	0.05	0.05	0.05	1.8%
Asia	0.03	0.03	0.04	0.04	0.05	0.07	4.4%
Middle East[7]	0.01	0.03	0.12	0.16	0.21	0.25	10.8%
Africa.	0.20	0.21	0.23	0.25	0.28	0.32	2.0%
South and Central America	0.54	0.57	0.82	1.36	1.48	1.50	4.5%
Total Production (Nonconventional)	**1.63**	**1.79**	**2.98**	**4.94**	**5.40**	**5.65**	**5.4%**
Total Production	**78.18**	**79.37**	**91.35**	**100.08**	**109.85**	**120.17**	**1.9%**

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

Supply and Disposition	Reference Case						Annual Growth 2003-2025 (percent)
	2002	2003	2010	2015	2020	2025	
Consumption[9]							
Industrialized Countries							
U.S. (50 states)	19.71	20.00	22.98	24.67	26.32	27.93	1.5%
U.S. Territories	0.32	0.36	0.38	0.40	0.43	0.47	1.2%
Canada	2.09	2.17	2.30	2.46	2.62	2.80	1.2%
Mexico	1.98	2.02	2.36	2.63	2.88	3.48	2.5%
Western Europe[3]	13.81	14.22	14.72	15.08	15.45	15.71	0.5%
Japan	5.30	5.58	5.70	5.72	5.69	5.84	0.2%
Australia and New Zealand	1.01	1.04	1.27	1.40	1.54	1.69	2.2%
Total Industrialized	**44.23**	**45.38**	**49.72**	**52.36**	**54.93**	**57.92**	**1.1%**
Eurasia							
Former Soviet Union	4.11	4.18	4.39	5.02	5.74	6.45	2.0%
Eastern Europe[5]	1.41	1.42	1.56	1.68	1.89	2.09	1.8%
Total Eurasia	**5.52**	**5.59**	**5.95**	**6.70**	**7.63**	**8.54**	**1.9%**
Developing Countries							
China	5.16	5.54	7.63	9.20	11.06	12.79	3.9%
India	2.18	2.19	2.79	3.48	4.37	5.29	4.1%
South Korea	2.18	2.17	2.51	2.65	2.75	2.93	1.4%
Other Asia	5.59	5.74	7.28	8.36	9.47	10.66	2.9%
Middle East[7]	5.68	5.58	6.83	7.53	8.34	9.08	2.2%
Africa	2.67	2.72	3.13	3.57	4.13	4.66	2.5%
South and Central America	4.88	4.69	5.81	6.53	7.48	8.61	2.8%
Total Developing Countries	**28.35**	**28.64**	**35.98**	**41.31**	**47.59**	**54.01**	**2.9%**
Total Consumption	**78.10**	**79.60**	**91.65**	**100.38**	**110.14**	**120.47**	**1.9%**
OPEC Production[10]	30.65	30.60	35.79	39.67	47.21	55.13	2.7%
Non-OPEC Production[10]	47.52	48.77	55.56	60.41	62.64	65.04	1.3%
Net Eurasia Exports	3.99	4.84	7.51	8.75	8.92	9.25	3.0%
OPEC Market Share	0.39	0.39	0.39	0.40	0.43	0.46	0.8%

[1]Average refiner acquisition cost of imported crude oil.
[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, the unified 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 2002 and 2003 are model results and may differ slightly from official EIA data reports.
N/A = Not applicable.
Sources: 2002 data derived from: Energy Information Administration (EIA), *International Energy Annual 2002*, DOE/EIA-0219(2002) (Washington, DC, March 2004).
2003 and projections: EIA, AEO2005 National Energy Modeling System run AEO2005.D102004A.

Table 34. Transportation Sector Energy Use by Fuel Type Within a Mode (Trillion Btu)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Light-Duty Vehicle													
Motor Gasoline	15332.45	15500.36	15790.56	16038.74	16367.84	16753.22	17139.00	17522.71	17884.82	18207.72	18527.12	18844.28	19163.88
Ethanol	0.80	1.06	1.05	1.17	1.20	1.40	1.56	1.75	2.04	2.28	2.46	2.57	2.71
Compressed Natural Gas	11.98	18.53	22.03	25.76	28.36	30.77	33.21	35.65	37.93	40.08	42.18	44.21	46.14
Liquefied Petroleum Gas	10.97	15.10	17.42	26.34	34.98	37.45	40.56	43.48	45.94	48.84	50.75	52.95	55.60
Electricity	1.89	2.43	2.90	3.38	3.67	3.88	4.08	4.32	4.54	4.75	5.02	5.28	5.53
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.09	0.13	0.23	0.30	0.37
Distillate (diesel)	224.53	241.75	276.15	311.39	345.52	377.51	409.71	440.48	474.68	507.00	539.33	571.77	605.16
Total	15582.63	15779.25	16110.15	16406.78	16781.58	17204.23	17628.14	18048.44	18450.04	18810.79	19167.10	19521.38	19879.39
Commercial Light Trucks Gasoline 1/	578.04	577.66	599.06	610.09	615.94	626.47	640.09	654.45	665.58	676.04	686.97	697.41	710.98
Freight Trucks 2/													
Motor Gasoline	250.05	242.42	246.22	247.79	244.75	243.37	243.86	243.77	242.29	241.81	241.92	242.45	244.62
Distillate (diesel)	4126.35	4207.39	4421.79	4608.17	4702.22	4828.50	5001.63	5163.63	5282.49	5400.17	5505.46	5601.00	5721.73
Compressed Natural Gas	2.01	2.78	4.14	5.92	7.99	10.54	13.64	17.06	20.49	23.83	26.94	29.78	32.51
Liquefied Petroleum Gas	9.27	8.95	8.98	9.08	9.08	9.23	9.70	10.18	10.60	10.99	11.35	11.66	11.99
Total	4387.68	4461.53	4681.13	4870.97	4964.03	5091.63	5268.83	5434.64	5555.86	5676.81	5785.66	5884.88	6010.85
Freight Rail 3/													
Distillate (diesel)	465.45	469.24	480.06	493.13	495.31	500.29	507.13	510.57	509.60	513.60	514.63	515.18	517.70
Total	465.45	469.24	480.06	493.13	495.31	500.29	507.13	510.57	509.60	513.60	514.63	515.18	517.70
Domestic Shipping													
Distillate (diesel)	187.89	184.31	190.14	196.40	197.63	199.70	204.90	208.99	209.00	210.73	211.99	211.90	213.35
Residual Oil	76.51	73.33	65.07	67.21	67.64	68.35	70.13	71.54	71.55	72.14	72.58	72.55	73.05
Motor Gasoline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	264.40	257.64	255.22	263.61	265.26	268.05	275.03	280.53	280.54	282.87	284.57	284.46	286.40
International Shipping													
Distillate (diesel)	39.01	37.93	39.39	39.46	39.52	39.59	39.65	39.71	39.77	39.83	39.88	39.94	40.00
Residual Oil	550.32	522.89	467.04	467.87	468.62	469.46	470.19	470.94	471.70	472.40	473.09	473.78	474.52
Total	589.33	560.82	506.43	507.32	508.14	509.05	509.84	510.65	511.47	512.23	512.97	513.72	514.52
Air Transportation													
Jet Fuel	2825.34	2702.18	2801.79	2883.91	2979.65	3088.44	3161.96	3255.03	3383.31	3492.78	3581.99	3653.52	3725.75
Aviation Gasoline	42.48	42.35	42.30	42.26	42.23	42.20	42.18	42.16	42.14	42.13	42.12	42.11	42.10
Total	2867.82	2744.53	2844.08	2926.17	3021.88	3130.63	3204.13	3297.18	3425.45	3534.91	3624.10	3695.63	3767.85
Miscellaneous Transportation													
Military Use													
Jet Fuel	514.66	554.82	621.81	642.21	649.92	651.44	652.48	653.52	653.53	654.03	654.71	655.41	656.39
Residual Fuel	19.17	20.78	19.34	19.98	20.22	20.26	20.29	20.32	20.32	20.33	20.35	20.38	20.41
Distillate	102.13	113.31	122.61	126.65	128.16	128.43	128.62	128.81	128.78	128.85	128.97	129.10	129.28
Total	635.96	688.91	763.76	788.84	798.30	800.13	801.39	802.66	802.63	803.22	804.03	804.88	806.08
Bus Transportation													
Transit Bus (motor gasoline)	4.35	4.35	4.42	4.44	4.47	4.51	4.56	4.60	4.63	4.66	4.69	4.70	4.71
Transit Bus (diesel)	91.72	93.67	94.78	95.28	95.97	96.84	97.72	98.58	99.35	99.97	100.46	100.80	100.98
Intercity Bus (diesel)	35.45	36.20	36.63	36.82	37.09	37.43	37.77	38.10	38.40	38.64	38.83	38.96	39.03
School Bus (motor gasoline)	5.09	5.09	5.16	5.19	5.23	5.28	5.33	5.38	5.42	5.45	5.48	5.50	5.51
School Bus (diesel)	107.26	109.54	110.83	111.41	112.22	113.24	114.27	115.28	116.18	116.90	117.48	117.87	118.09
Total	243.87	248.85	251.81	253.14	254.98	257.30	259.64	261.93	263.97	265.62	266.93	267.84	268.32
Rail Transportation													
Intercity Rail (electricity)	10.32	10.50	10.64	10.82	11.02	11.23	11.45	11.67	11.88	12.10	12.31	12.52	12.74
Intercity Rail (diesel)	15.94	16.50	16.90	17.18	17.49	17.83	18.17	18.52	18.86	19.19	19.53	19.86	20.20
Transit Rail (electricity)	47.05	47.84	48.51	49.32	50.22	51.20	52.19	53.18	54.17	55.13	56.10	57.07	58.05

Table 34. Transportation Sector Energy Use by Fuel Type Within a Mode (Trillion Btu)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Commuter Rail (electricity)	16.37	16.64	16.87	17.16	17.47	17.81	18.15	18.50	18.84	19.18	19.51	19.85	20.19
Commuter Rail (diesel)	25.27	26.16	26.79	27.23	27.72	28.27	28.81	29.35	29.90	30.42	30.96	31.49	32.03
Total	114.95	117.63	119.71	121.71	123.92	126.34	128.78	131.22	133.64	136.02	138.40	140.79	143.21
Recreation Boats	307.01	308.13	315.78	318.60	321.91	325.32	328.42	331.44	334.55	337.66	340.88	344.43	348.23
Lubricants	200.00	199.11	200.95	201.10	202.54	204.96	208.15	211.33	213.59	216.03	218.82	221.82	225.79
Pipeline Fuel Natural Gas	685.03	653.30	656.31	668.72	667.80	668.32	687.46	696.60	699.21	711.68	720.42	722.07	730.31
Total Miscellaneous	2186.83	2215.91	2308.34	2352.11	2369.44	2382.38	2413.84	2435.18	2447.61	2470.23	2489.49	2501.83	2521.94
Total Consumption	26922.18	27066.60	27784.47	28430.18	29021.58	29712.73	30447.03	31171.63	31846.17	32477.49	33065.47	33614.49	34209.64

Table 34. Transportation Sector Energy Use by Fuel Type Within a Mode (Trillion Btu)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Light-Duty Vehicle												
Motor Gasoline	19481.96	19779.72	20073.01	20352.70	20628.10	20896.28	21182.34	21481.50	21799.88	22156.42	22521.06	1.7%
Ethanol	2.85	3.10	3.34	3.56	3.52	3.87	3.85	3.97	4.14	4.23	4.41	6.7%
Compressed Natural Gas	47.98	49.73	51.42	53.03	54.56	56.03	57.46	58.87	60.23	61.65	63.08	5.7%
Liquefied Petroleum Gas	57.49	59.43	61.88	63.84	65.27	66.64	67.92	69.54	70.76	72.02	73.61	7.5%
Electricity	5.88	6.24	6.61	7.17	7.71	8.24	8.78	9.31	9.81	10.35	10.88	7.1%
Liquid Hydrogen	0.51	0.67	0.83	1.16	1.48	1.78	2.10	2.40	2.70	3.02	3.33	N/A
Distillate (diesel)	639.95	674.79	710.57	745.87	780.97	818.88	857.48	896.96	937.61	978.74	1019.40	6.8%
Total	20236.61	20573.69	20907.67	21227.33	21541.62	21851.71	22179.93	22522.55	22885.13	23286.44	23695.77	1.9%
Commercial Light Trucks Gasoline 1/	721.32	729.54	741.61	754.98	768.12	780.27	791.77	803.86	817.10	830.64	843.91	1.7%
Freight Trucks 2/												
Motor Gasoline	246.20	247.45	250.73	254.30	257.57	260.79	264.15	267.97	272.51	277.09	281.67	0.7%
Distillate (diesel)	5812.42	5878.03	5983.46	6092.56	6192.31	6285.34	6363.99	6452.14	6555.35	6656.74	6753.41	2.2%
Compressed Natural Gas	34.83	36.71	38.66	40.51	42.12	43.51	44.70	45.84	47.03	48.16	49.22	14.0%
Liquefied Petroleum Gas	12.23	12.37	12.57	12.78	12.97	13.12	13.20	13.31	13.41	13.49	13.55	1.9%
Total	6105.68	6174.56	6285.43	6400.16	6504.97	6602.76	6686.04	6779.26	6888.31	6995.48	7097.85	2.1%
Freight Rail 3/												
Distillate (diesel)	519.56	522.70	525.81	528.83	532.27	535.53	537.80	541.34	547.08	551.58	555.85	0.8%
Total	519.56	522.70	525.81	528.83	532.27	535.53	537.80	541.34	547.08	551.58	555.85	0.8%
Domestic Shipping												
Distillate (diesel)	213.24	213.98	217.89	220.78	221.89	222.61	222.96	223.34	225.12	227.54	228.60	1.0%
Residual Oil	73.02	73.28	74.62	75.62	76.01	76.26	76.39	76.52	77.14	77.97	78.34	0.3%
Motor Gasoline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total	286.26	287.26	292.51	296.40	297.89	298.87	299.35	299.86	302.25	305.52	306.95	0.8%
International Shipping												
Distillate (diesel)	40.06	40.11	40.17	40.22	40.28	40.34	40.39	40.45	40.50	40.56	40.62	0.3%
Residual Oil	475.23	475.90	476.61	477.35	478.06	478.75	479.43	480.13	480.85	481.59	482.32	-0.4%
Total	515.29	516.01	516.78	517.57	518.34	519.08	519.82	520.57	521.35	522.15	522.94	-0.3%
Air Transportation												
Jet Fuel	3790.05	3840.63	3901.11	3964.69	4026.13	4071.18	4106.94	4137.20	4166.31	4194.66	4211.78	2.0%
Aviation Gasoline	42.10	42.09	42.09	42.08	42.08	42.08	42.08	42.07	42.07	42.07	42.07	0.0%
Total	3832.14	3882.72	3943.20	4006.78	4068.21	4113.26	4149.01	4179.28	4208.38	4236.74	4253.85	2.0%
Miscellaneous Transportation												
Military Use												
Jet Fuel	658.34	660.91	663.28	665.48	667.52	669.41	671.18	672.83	674.41	675.91	677.35	0.9%
Residual Fuel	20.47	20.55	20.62	20.69	20.76	20.82	20.87	20.93	20.98	21.02	21.07	0.1%
Distillate	129.66	130.16	130.63	131.06	131.45	131.82	132.17	132.49	132.80	133.10	133.38	0.7%
Total	808.47	811.62	814.53	817.23	819.73	822.05	824.22	826.25	828.19	830.03	831.80	0.9%
Bus Transportation												
Transit Bus (motor gasoline)	4.72	4.72	4.71	4.71	4.70	4.70	4.69	4.69	4.69	4.70	4.71	0.4%
Transit Bus (diesel)	101.00	100.97	100.87	100.71	100.59	100.53	100.37	100.30	100.29	100.37	100.51	0.3%
Intercity Bus (diesel)	39.04	39.02	38.98	38.92	38.87	38.85	38.79	38.76	38.76	38.79	38.85	0.3%
School Bus (motor gasoline)	5.52	5.52	5.51	5.50	5.50	5.50	5.49	5.49	5.49	5.49	5.50	0.4%
School Bus (diesel)	118.11	118.08	117.96	117.76	117.62	117.56	117.37	117.29	117.27	117.37	117.53	0.3%
Total	268.38	268.31	268.04	267.60	267.28	267.13	266.72	266.54	266.50	266.73	267.10	0.3%
Rail Transportation												
Intercity Rail (electricity)	12.95	13.17	13.39	13.61	13.83	14.05	14.27	14.51	14.74	14.99	15.24	1.7%
Intercity Rail (diesel)	20.55	20.89	21.23	21.58	21.92	22.27	22.63	22.99	23.37	23.76	24.16	1.7%
Transit Rail (electricity)	59.05	60.04	61.03	62.02	63.02	64.02	65.05	66.12	67.20	68.33	69.48	1.7%

Table 34. Transportation Sector Energy Use by Fuel Type Within a Mode (Trillion Btu)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Commuter Rail (electricity)	20.54	20.88	21.23	21.57	21.92	22.27	22.63	23.00	23.38	23.77	24.17	1.7%
Commuter Rail (diesel)	32.57	33.12	33.66	34.21	34.75	35.30	35.87	36.45	37.05	37.67	38.30	1.7%
Total	145.66	148.10	150.55	152.99	155.44	157.91	160.45	163.07	165.74	168.52	171.36	1.7%
Recreation Boats	351.78	355.16	358.24	361.26	364.22	367.36	370.91	374.55	378.47	382.69	386.86	1.0%
Lubricants	229.19	232.29	236.57	241.25	245.72	250.00	254.08	258.32	263.03	267.82	272.56	1.4%
Pipeline Fuel Natural Gas	730.48	762.87	808.44	818.71	825.99	823.73	826.94	834.28	833.53	840.52	842.75	1.2%
Total Miscellaneous	2533.97	2578.35	2636.36	2659.05	2678.38	2688.19	2703.32	2723.01	2735.46	2756.31	2772.42	1.0%
Total Consumption	34750.84	35264.83	35849.38	36391.09	36909.81	37389.66	37867.04	38369.73	38905.07	39484.85	40049.55	1.8%

Table 34. Transportation Sector Energy Use by Fuel Type Within a Mode (Trillion Btu)

1/ Commercial trucks from 8,500 to 10,000 pounds.
2/ Does not include military distillate. Does not include commercial buses.
3/ Does not include passenger rail.
Btu = British thermal unit.
N/A = Not applicable.
Note: Totals may not equal sum of components due to independent rounding.
Sources: 2003 compressed natural gas volumes: Energy Information Administration (EIA), AEO2005 National Energy Modeling System run supple3.d102004a. Other 2003 values derived using: EIA, Short-Term Energy Outlook, September 2004, http:/www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep04.pdf; EIA, Fuel Oil and Kerosene Sales 2002, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/fuel_oil_and_kerosene_sales/historical/2002/foks_2002.html; EIA, State Energy Data 2001, DOE/EIA-0214(2001) (Washington, DC, November 2004); Oak Ridge National Laboratory, Transportation Energy Data Book: 17, 18, 19, 20, 21, 22, and 23 and Annual (Oak Ridge, TN, September 2003); Department of Defense, Defense Fuel Supply Center; and EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.
Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.