

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Production										
Crude Oil and Lease Condensate	10.73	11.98	11.98	12.19	12.71	12.57	14.06	15.62	15.47	15.96
Natural Gas Plant Liquids	2.41	2.54	2.53	2.58	2.47	2.45	2.57	2.59	2.53	2.61
Dry Natural Gas	19.84	20.66	20.58	20.95	21.15	20.13	22.08	24.13	23.67	24.26
Coal ¹	23.50	23.32	23.32	24.21	24.16	24.56	24.43	24.88	25.42	26.93
Nuclear Power	8.41	8.45	8.45	8.45	9.34	9.14	8.99	9.69	9.29	9.47
Hydropower	2.46	2.67	2.67	2.67	2.95	2.95	2.95	2.97	2.96	2.97
Biomass ²	3.23	4.04	4.05	4.20	5.89	6.19	6.52	8.14	8.58	8.25
Other Renewable Energy ³	0.97	1.59	1.91	1.54	1.76	2.97	1.74	2.12	3.08	2.19
Other ⁴	0.94	0.70	0.70	0.85	0.96	0.93	1.07	1.07	1.01	1.15
Total	72.49	75.95	76.19	77.64	81.39	81.88	84.41	91.21	92.02	93.79
Imports										
Crude Oil	21.90	18.07	18.23	17.76	17.58	17.54	16.09	15.56	15.25	15.39
Liquid Fuels and Other Petroleum ⁵	6.97	5.88	6.01	5.59	5.79	5.76	5.67	6.07	5.95	6.33
Natural Gas	4.72	3.17	3.10	3.27	3.30	3.39	3.37	2.74	2.35	2.58
Other Imports ⁶	0.99	0.88	0.88	0.89	1.45	1.48	1.19	1.42	1.45	1.35
Total	34.59	27.99	28.22	27.51	28.11	28.17	26.31	25.78	25.01	25.65
Exports										
Petroleum ⁷	2.84	2.70	2.68	2.56	2.96	2.96	2.90	3.28	3.30	3.17
Natural Gas	0.83	0.69	0.69	0.70	1.44	1.47	1.44	1.89	1.93	1.87
Coal	1.51	1.80	1.80	2.05	1.37	1.37	1.33	0.92	0.99	1.08
Total	5.18	5.19	5.17	5.31	5.77	5.79	5.66	6.08	6.22	6.12
Discrepancy⁸	0.00	0.20	0.18	-0.02	-0.40	-0.42	-0.39	-0.15	-0.16	-0.25
Consumption										
Liquid Fuels and Other Petroleum ⁹	40.75	37.91	38.21	37.89	38.57	38.67	38.93	40.57	40.30	41.60
Natural Gas	23.70	22.63	22.50	23.20	23.09	22.13	24.09	25.04	24.15	25.04
Coal ¹⁰	22.74	22.27	22.27	22.91	24.04	24.36	23.98	25.02	25.42	26.56
Nuclear Power	8.41	8.45	8.45	8.45	9.34	9.14	8.99	9.69	9.29	9.47
Hydropower	2.46	2.67	2.67	2.67	2.95	2.95	2.95	2.97	2.96	2.97
Biomass ¹¹	2.62	2.83	2.84	2.99	4.21	4.28	4.58	5.42	5.60	5.51
Other Renewable Energy ³	0.97	1.59	1.91	1.54	1.76	2.97	1.74	2.12	3.08	2.19
Other ¹²	0.23	0.21	0.21	0.21	0.18	0.18	0.19	0.22	0.16	0.22
Total	101.90	98.56	99.06	99.85	104.13	104.67	105.44	111.06	110.96	113.56
Prices (2007 dollars per unit)										
Petroleum (dollars per barrel)										
Imported Low Sulfur Light Crude Oil Price ¹³	72.33	52.13	52.16	80.16	116.56	116.79	115.45	130.50	130.92	130.43
Imported Crude Oil Price ¹³	63.83	49.05	48.99	77.56	114.35	114.50	112.05	124.45	124.36	124.60
Natural Gas (dollars per million Btu)										
Price at Henry Hub	6.96	5.14	5.11	6.66	7.53	7.47	7.43	8.91	8.83	9.25
Wellhead Price ¹⁴	6.22	4.55	4.51	5.88	6.65	6.60	6.56	7.87	7.80	8.17
Natural Gas (dollars per thousand cubic feet)										
Wellhead Price ¹⁴	6.39	4.67	4.64	6.05	6.84	6.79	6.75	8.09	8.01	8.40
Coal (dollars per ton)										
Minemouth Price ¹⁵	25.82	26.59	26.65	29.45	27.44	27.38	27.90	27.91	27.87	29.10
Coal (dollars per million Btu)										
Minemouth Price ¹⁵	1.27	1.31	1.32	1.44	1.37	1.37	1.39	1.40	1.40	1.46
Average Delivered Price ¹⁶	1.86	1.93	1.94	1.99	2.02	2.02	1.99	2.09	2.09	2.08
Average Electricity Price (cents per kilowatthour)										
	9.1	8.3	8.3	9.0	9.6	9.3	9.4	10.4	10.1	10.4

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Prices (nominal dollars per unit)										
Petroleum (dollars per barrel)										
Imported Low Sulfur Light Crude Oil Price ¹³	72.33	54.00	54.13	84.42	146.20	148.30	149.14	202.00	207.19	189.10
Imported Crude Oil Price ¹³	63.83	50.81	50.84	81.69	143.44	145.39	144.74	192.63	196.81	180.66
Natural Gas (dollars per million Btu)										
Price at Henry Hub	6.96	5.33	5.30	7.01	9.44	9.49	9.60	13.79	13.97	13.42
Wellhead Price ¹⁴	6.22	4.71	4.68	6.19	8.34	8.38	8.48	12.18	12.34	11.85
Natural Gas (dollars per thousand cubic feet)										
Wellhead Price ¹⁴	6.39	4.84	4.81	6.37	8.58	8.62	8.72	12.52	12.68	12.18
Coal (dollars per ton)										
Minemouth Price ¹⁵	25.82	27.55	27.65	31.02	34.42	34.77	36.04	43.20	44.10	42.20
Coal (dollars per million Btu)										
Minemouth Price ¹⁵	1.27	1.36	1.37	1.52	1.72	1.74	1.80	2.17	2.22	2.11
Average Delivered Price ¹⁶	1.86	2.00	2.01	2.10	2.53	2.57	2.57	3.24	3.30	3.01
Average Electricity Price (cents per kilowatthour)										
	9.1	8.6	8.6	9.5	12.0	11.8	12.2	16.2	15.9	15.1

¹Includes waste coal.

²Includes grid-connected electricity from wood and waste; biomass, such as corn, used for liquid fuels production; and non-electric energy demand from wood. Refer to Table A17 for details.

³Includes grid-connected electricity from landfill gas; biogenic municipal waste; wind; photovoltaic and solar thermal sources; and non-electric energy from renewable sources, such as active and passive solar systems. Excludes electricity imports using renewable sources and nonmarketed renewable energy. See Table A17 for selected nonmarketed residential and commercial renewable energy.

⁴Includes non-biogenic municipal waste, liquid hydrogen, methanol, and some domestic inputs to refineries.

⁵Includes imports of finished petroleum products, unfinished oils, alcohols, ethers, blending components, and renewable fuels such as ethanol.

⁶Includes coal, coal coke (net), and electricity (net).

⁷Includes crude oil and petroleum products.

⁸Balancing item. Includes unaccounted for supply, losses, gains, and net storage withdrawals.

⁹Includes petroleum-derived fuels and non-petroleum derived fuels, such as ethanol and biodiesel, and coal-based synthetic liquids. Petroleum coke, which is a solid, is included. Also included are natural gas plant liquids, crude oil consumed as a fuel, and liquid hydrogen. Refer to Table A17 for detailed renewable liquid fuels consumption.

¹⁰Excludes coal converted to coal-based synthetic liquids.

¹¹Includes grid-connected electricity from wood and wood waste, non-electric energy from wood, and biofuels heat and coproducts used in the production of liquid fuels, but excludes the energy content of the liquid fuels.

¹²Includes non-biogenic municipal waste and net electricity imports.

¹³Weighted average price delivered to U.S. refiners.

¹⁴Represents lower 48 onshore and offshore supplies.

¹⁵Includes reported prices for both open market and captive mines.

¹⁶Prices weighted by consumption; weighted average excludes residential and commercial prices, and export free-alongside-ship (f.a.s.) prices.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 natural gas supply values and natural gas wellhead price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 coal minemouth and delivered coal prices: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 petroleum supply values: EIA, *Petroleum Supply Annual 2007*, DOE/EIA-0340(2007)/1 (Washington, DC, July 2008). 2007 low sulfur light crude oil price: EIA, Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." Other 2007 coal values: *Quarterly Coal Report, October-December 2007*, DOE/EIA-0121(2007/4Q) (Washington, DC, March 2008). Other 2007 values: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Energy Consumption										
Residential										
Liquefied Petroleum Gases	0.50	0.51	0.50	0.49	0.49	0.48	0.49	0.52	0.51	0.52
Kerosene	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07
Distillate Fuel Oil	0.78	0.77	0.77	0.72	0.60	0.59	0.60	0.51	0.50	0.51
Liquid Fuels and Other Petroleum Subtotal	1.36	1.36	1.35	1.29	1.16	1.14	1.16	1.10	1.09	1.10
Natural Gas	4.86	5.11	5.06	4.92	5.03	4.99	5.10	5.06	5.01	5.07
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Energy ¹	0.43	0.42	0.42	0.43	0.48	0.48	0.48	0.50	0.50	0.50
Electricity	4.75	4.81	4.79	4.80	5.10	5.04	5.12	5.78	5.67	5.69
Delivered Energy	11.40	11.72	11.62	11.44	11.78	11.66	11.86	12.46	12.28	12.36
Electricity Related Losses	10.36	10.46	10.43	10.44	10.89	10.82	10.81	11.87	11.73	11.69
Total	21.76	22.18	22.05	21.88	22.67	22.48	22.67	24.33	24.01	24.05
Commercial										
Liquefied Petroleum Gases	0.09	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10
Motor Gasoline ²	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Kerosene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Distillate Fuel Oil	0.41	0.39	0.38	0.36	0.34	0.33	0.34	0.34	0.33	0.34
Residual Fuel Oil	0.08	0.09	0.09	0.07	0.08	0.08	0.08	0.08	0.08	0.08
Liquid Fuels and Other Petroleum Subtotal	0.63	0.63	0.62	0.58	0.58	0.57	0.58	0.59	0.58	0.59
Natural Gas	3.10	3.27	3.27	3.14	3.33	3.32	3.34	3.59	3.53	3.54
Coal	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Renewable Energy ³	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Electricity	4.58	4.79	4.78	4.75	5.51	5.53	5.57	6.36	6.36	6.31
Delivered Energy	8.50	8.87	8.86	8.66	9.61	9.61	9.69	10.73	10.66	10.62
Electricity Related Losses	9.99	10.41	10.43	10.35	11.76	11.87	11.77	13.07	13.16	12.96
Total	18.49	19.29	19.29	19.01	21.37	21.49	21.46	23.80	23.82	23.59
Industrial⁴										
Liquefied Petroleum Gases	2.35	1.79	1.86	2.02	1.69	1.72	1.79	1.41	1.44	1.66
Motor Gasoline ²	0.36	0.33	0.34	0.34	0.34	0.34	0.34	0.36	0.35	0.36
Distillate Fuel Oil	1.28	1.14	1.15	1.17	1.19	1.20	1.18	1.24	1.23	1.23
Residual Fuel Oil	0.25	0.17	0.17	0.15	0.16	0.16	0.16	0.15	0.15	0.16
Petrochemical Feedstocks	1.30	1.01	1.05	1.01	1.04	1.05	1.13	0.85	0.88	1.05
Other Petroleum ⁵	4.42	3.81	3.77	3.74	3.77	3.77	3.72	3.78	3.70	3.84
Liquid Fuels and Other Petroleum Subtotal	9.96	8.25	8.34	8.42	8.20	8.24	8.32	7.79	7.76	8.30
Natural Gas	6.82	5.99	6.16	6.77	6.48	6.54	6.84	6.54	6.52	7.04
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease and Plant Fuel ⁶	1.20	1.28	1.28	1.27	1.29	1.23	1.33	1.46	1.44	1.47
Natural Gas Subtotal	8.02	7.27	7.44	8.05	7.77	7.77	8.17	7.99	7.96	8.51
Metallurgical Coal	0.60	0.50	0.51	0.55	0.48	0.49	0.49	0.38	0.39	0.48
Other Industrial Coal	1.21	0.99	1.00	1.24	1.10	1.10	1.15	1.09	1.09	1.16
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.12	0.25	0.24	0.25	0.46	0.58
Net Coal Coke Imports	0.03	0.01	0.01	0.01	0.01	0.01	0.01	-0.00	-0.00	0.01
Coal Subtotal	1.83	1.50	1.52	1.80	1.70	1.85	1.89	1.73	1.93	2.23
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Renewable Energy ⁷	1.64	1.55	1.57	1.48	1.64	1.68	1.64	1.92	1.94	1.96
Electricity	3.43	3.14	3.16	3.34	3.45	3.48	3.48	3.38	3.37	3.67
Delivered Energy	25.29	22.46	22.79	23.83	23.78	24.24	24.73	24.50	24.89	26.33
Electricity Related Losses	7.48	6.82	6.89	7.27	7.37	7.48	7.36	6.95	6.96	7.55
Total	32.77	29.28	29.68	31.10	31.15	31.72	32.09	31.44	31.86	33.87

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Transportation										
Liquefied Petroleum Gases	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
E85 ⁸	0.00	0.00	0.00	0.00	0.51	0.75	0.85	1.62	1.75	2.18
Motor Gasoline ²	17.29	17.05	17.11	16.93	15.86	15.68	15.56	15.09	14.87	14.49
Jet Fuel ⁹	3.23	2.94	3.01	3.00	3.36	3.38	3.42	4.08	4.02	4.12
Distillate Fuel Oil ¹⁰	6.48	6.01	6.11	6.13	7.21	7.24	7.36	8.56	8.52	9.09
Residual Fuel Oil	0.95	0.89	0.89	0.86	0.97	0.97	0.98	0.99	0.99	1.00
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Petroleum ¹¹	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18
Liquid Fuels and Other Petroleum Subtotal	28.14	27.07	27.30	27.11	28.10	28.20	28.36	30.54	30.34	31.09
Pipeline Fuel Natural Gas	0.64	0.64	0.63	0.64	0.67	0.62	0.69	0.71	0.70	0.72
Compressed Natural Gas	0.02	0.03	0.03	0.03	0.06	0.07	0.07	0.08	0.08	0.09
Electricity	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.05	0.05	0.05
Delivered Energy	28.82	27.76	27.99	27.81	28.87	28.92	29.15	31.38	31.17	31.94
Electricity Related Losses	0.05	0.05	0.05	0.05	0.07	0.07	0.07	0.10	0.10	0.10
Total	28.87	27.81	28.04	27.86	28.93	28.99	29.22	31.48	31.27	32.05
Delivered Energy Consumption for All Sectors										
Liquefied Petroleum Gases	2.95	2.40	2.47	2.61	2.29	2.31	2.39	2.05	2.07	2.29
E85 ⁸	0.00	0.00	0.00	0.00	0.51	0.75	0.85	1.62	1.75	2.18
Motor Gasoline ²	17.70	17.43	17.49	17.33	16.25	16.07	15.95	15.50	15.27	14.90
Jet Fuel ⁹	3.23	2.94	3.01	3.00	3.36	3.38	3.42	4.08	4.02	4.12
Kerosene	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Distillate Fuel Oil	8.94	8.31	8.41	8.38	9.35	9.35	9.49	10.65	10.58	11.17
Residual Fuel Oil	1.28	1.15	1.16	1.07	1.21	1.21	1.22	1.23	1.23	1.25
Petrochemical Feedstocks	1.30	1.01	1.05	1.01	1.04	1.05	1.13	0.85	0.88	1.05
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Petroleum ¹²	4.57	3.96	3.92	3.89	3.93	3.93	3.89	3.94	3.87	4.01
Liquid Fuels and Other Petroleum Subtotal	40.08	37.31	37.61	37.40	38.04	38.15	38.42	40.02	39.77	41.07
Natural Gas	14.80	14.40	14.52	14.86	14.91	14.92	15.34	15.27	15.13	15.73
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease and Plant Fuel ⁵	1.20	1.28	1.28	1.27	1.29	1.23	1.33	1.46	1.44	1.47
Pipeline Natural Gas	0.64	0.64	0.63	0.64	0.67	0.62	0.69	0.71	0.70	0.72
Natural Gas Subtotal	16.64	16.32	16.43	16.78	16.87	16.77	17.36	17.44	17.27	17.92
Metallurgical Coal	0.60	0.50	0.51	0.55	0.48	0.49	0.49	0.38	0.39	0.48
Other Coal	1.28	1.06	1.07	1.31	1.17	1.18	1.22	1.16	1.16	1.23
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.12	0.25	0.24	0.25	0.46	0.58
Net Coal Coke Imports	0.03	0.01	0.01	0.01	0.01	0.01	0.01	-0.00	-0.00	0.01
Coal Subtotal	1.91	1.57	1.60	1.87	1.78	1.93	1.97	1.80	2.01	2.30
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Renewable Energy ¹³	2.19	2.09	2.11	2.03	2.24	2.28	2.24	2.54	2.57	2.58
Electricity	12.79	12.75	12.75	12.91	14.09	14.08	14.20	15.57	15.45	15.73
Delivered Energy	74.01	70.81	71.26	71.74	74.04	74.43	75.42	79.06	79.00	81.26
Electricity Related Losses	27.88	27.75	27.80	28.11	30.09	30.24	30.02	31.99	31.96	32.30
Total	101.90	98.56	99.06	99.85	104.13	104.67	105.44	111.05	110.95	113.56
Electric Power¹⁴										
Distillate Fuel Oil	0.11	0.11	0.11	0.11	0.13	0.13	0.12	0.13	0.13	0.13
Residual Fuel Oil	0.56	0.49	0.49	0.38	0.40	0.39	0.39	0.41	0.40	0.40
Liquid Fuels and Other Petroleum Subtotal	0.67	0.60	0.60	0.49	0.53	0.52	0.51	0.54	0.53	0.53
Natural Gas	7.06	6.30	6.07	6.42	6.21	5.36	6.73	7.60	6.88	7.12
Steam Coal	20.84	20.70	20.67	21.03	22.26	22.43	22.01	23.22	23.42	24.25
Nuclear Power	8.41	8.45	8.45	8.45	9.34	9.14	8.99	9.69	9.29	9.47
Renewable Energy ¹⁵	3.45	4.24	4.56	4.42	5.65	6.69	5.79	6.28	7.13	6.43
Electricity Imports	0.11	0.08	0.08	0.08	0.05	0.05	0.06	0.09	0.03	0.10
Total¹⁶	40.67	40.50	40.55	41.02	44.17	44.32	44.22	47.56	47.40	48.03

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Total Energy Consumption										
Liquefied Petroleum Gases	2.95	2.40	2.47	2.61	2.29	2.31	2.39	2.05	2.07	2.29
E85 ⁸	0.00	0.00	0.00	0.00	0.51	0.75	0.85	1.62	1.75	2.18
Motor Gasoline ²	17.70	17.43	17.49	17.33	16.25	16.07	15.95	15.50	15.27	14.90
Jet Fuel ⁹	3.23	2.94	3.01	3.00	3.36	3.38	3.42	4.08	4.02	4.12
Kerosene	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Distillate Fuel Oil	9.05	8.42	8.52	8.49	9.47	9.48	9.61	10.78	10.71	11.31
Residual Fuel Oil	1.84	1.64	1.65	1.45	1.61	1.60	1.60	1.64	1.63	1.64
Petrochemical Feedstocks	1.30	1.01	1.05	1.01	1.04	1.05	1.13	0.85	0.88	1.05
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Petroleum ¹²	4.57	3.96	3.92	3.89	3.93	3.93	3.89	3.94	3.87	4.01
Liquid Fuels and Other Petroleum Subtotal	40.75	37.91	38.21	37.89	38.57	38.67	38.93	40.57	40.30	41.60
Natural Gas	21.86	20.71	20.59	21.29	21.12	20.28	22.07	22.87	22.02	22.86
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease and Plant Fuel ⁶	1.20	1.28	1.28	1.27	1.29	1.23	1.33	1.46	1.44	1.47
Pipeline Natural Gas	0.64	0.64	0.63	0.64	0.67	0.62	0.69	0.71	0.70	0.72
Natural Gas Subtotal	23.70	22.63	22.50	23.20	23.09	22.13	24.09	25.04	24.15	25.04
Metallurgical Coal	0.60	0.50	0.51	0.55	0.48	0.49	0.49	0.38	0.39	0.48
Other Coal	22.12	21.76	21.75	22.34	23.43	23.61	23.24	24.38	24.58	25.49
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.12	0.25	0.24	0.25	0.46	0.58
Net Coal Coke Imports	0.03	0.01	0.01	0.01	0.01	0.01	0.01	-0.00	-0.00	0.01
Coal Subtotal	22.74	22.27	22.27	22.91	24.04	24.36	23.98	25.02	25.42	26.56
Nuclear Power	8.41	8.45	8.45	8.45	9.34	9.14	8.99	9.69	9.29	9.47
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Renewable Energy ¹⁷	5.65	6.34	6.66	6.45	7.89	8.97	8.03	8.83	9.70	9.01
Electricity Imports	0.11	0.08	0.08	0.08	0.05	0.05	0.06	0.09	0.03	0.10
Total	101.90	98.56	99.06	99.85	104.13	104.67	105.44	111.05	110.95	113.56
Energy Use and Related Statistics										
Delivered Energy Use	74.01	70.81	71.26	71.74	74.04	74.43	75.42	79.06	79.00	81.26
Total Energy Use	101.90	98.56	99.06	99.85	104.13	104.67	105.44	111.05	110.95	113.56
Ethanol Consumed in Motor Gasoline and E85	0.56	1.09	1.09	1.08	1.45	1.59	1.66	2.15	2.22	2.47
Population (millions)	302.41	311.37	311.37	311.37	342.55	342.55	342.61	374.67	374.67	375.12
Gross Domestic Product (billion 2000 dollars)	11524	11373	11599	11779	15315	15398	15524	20193	19875	20114
Carbon Dioxide Emissions (million metric tons)	5990.8	5736.7	5745.9	5801.4	5931.2	5904.6	5982.3	6243.6	6207.1	6414.4

¹Includes 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.

²Includes ethanol (blends of 10 percent or less) and ethers blended into gasoline.

³Excludes ethanol. Includes commercial sector consumption of wood and wood waste, landfill gas, municipal waste, and other biomass for combined heat and power. See Table A5 and/or Table A17 for estimates of nonmarketed renewable energy consumption for solar thermal hot water heating and solar photovoltaic electricity generation.

⁴Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.

⁵Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.

⁶Represents natural gas used in well, field, and lease operations, and in natural gas processing plant machinery.

⁷Includes consumption of energy produced from hydroelectric, wood and wood waste, municipal waste, and other biomass sources. Excludes ethanol blends (10 percent or less) in motor gasoline.

⁸E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.

⁹Includes only kerosene type.

¹⁰Diesel fuel for on- and off- road use.

¹¹Includes aviation gasoline and lubricants.

¹²Includes unfinished oils, natural gasoline, motor gasoline blending components, aviation gasoline, lubricants, still gas, asphalt, road oil, petroleum coke, and miscellaneous petroleum products.

¹³Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Excludes ethanol and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.

¹⁴Includes 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.

¹⁵Includes conventional hydroelectric, geothermal, wood and wood waste, biogenic municipal waste, other biomass, wind, photovoltaic, and solar thermal sources. Excludes net electricity imports.

¹⁶Includes non-biogenic municipal waste not included above.

¹⁷Includes conventional hydroelectric, geothermal, wood and wood waste, biogenic municipal waste, other biomass, wind, photovoltaic, and solar thermal sources. Excludes ethanol, 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.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 consumption based on: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 population and gross domestic product: IHS Global Insight Industry and Employment models, November 2008. 2007 carbon dioxide emissions: EIA, *Emissions of Greenhouse Gases in the United States 2007*, DOE/EIA-0573(2007) (Washington, DC, December 2008). Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A3. Energy Prices by Sector and Source
(2007 Dollars per Million Btu, Unless Otherwise Noted)

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Residential										
Liquefied Petroleum Gases	24.97	20.71	20.70	25.86	33.29	33.34	32.88	35.15	35.16	35.11
Distillate Fuel Oil	19.66	13.34	13.35	18.69	24.41	24.64	24.10	26.81	26.77	26.67
Natural Gas	12.69	11.20	11.19	12.09	12.62	12.56	12.50	14.05	13.96	14.31
Electricity	31.18	28.61	28.62	30.89	33.24	32.43	32.72	35.71	34.49	35.84
Commercial										
Liquefied Petroleum Gases	23.04	17.56	17.54	22.69	30.02	30.07	29.60	31.82	31.84	31.77
Distillate Fuel Oil	16.05	10.73	10.76	16.15	22.29	22.61	22.11	24.68	24.65	24.69
Residual Fuel Oil	10.31	5.79	5.80	10.97	16.85	16.86	16.68	17.89	17.87	17.98
Natural Gas	10.99	9.51	9.47	10.55	11.16	11.08	11.13	12.64	12.52	12.96
Electricity	28.03	24.82	24.84	27.29	28.60	27.62	28.15	30.80	29.65	31.01
Industrial¹										
Liquefied Petroleum Gases	23.38	16.55	16.64	21.84	29.12	29.17	28.78	30.83	30.85	30.99
Distillate Fuel Oil	16.82	10.58	10.62	16.01	22.68	23.06	22.56	25.08	25.07	25.19
Residual Fuel Oil	10.60	9.82	9.84	15.38	20.71	20.73	20.94	22.16	22.08	22.73
Natural Gas ²	7.52	5.56	5.50	6.91	7.56	7.47	7.48	8.80	8.69	9.07
Metallurgical Coal	3.61	3.98	4.00	4.37	4.39	4.39	4.40	4.46	4.43	4.41
Other Industrial Coal	2.43	2.39	2.39	2.54	2.57	2.57	2.53	2.67	2.66	2.67
Coal to Liquids	--	--	--	--	1.15	1.35	1.23	1.24	1.38	1.36
Electricity	18.62	16.82	16.83	18.72	19.54	18.80	19.06	21.46	20.56	21.59
Transportation										
Liquefied Petroleum Gases ³	25.01	20.55	20.53	25.67	33.05	33.10	32.62	34.80	34.82	34.77
E85 ⁴	26.82	18.83	18.87	25.47	29.04	29.59	29.30	31.24	30.94	30.10
Motor Gasoline ⁵	22.98	17.67	17.71	23.47	29.60	29.94	29.75	31.82	31.58	32.10
Jet Fuel ⁶	16.10	10.37	10.41	16.03	22.23	22.36	22.15	24.69	24.67	24.63
Diesel Fuel (distillate fuel oil) ⁷	20.91	14.56	14.63	20.05	26.19	26.59	26.04	28.36	28.34	28.59
Residual Fuel Oil	9.44	6.62	6.59	12.10	17.13	17.16	17.46	18.84	18.84	19.65
Natural Gas ⁸	15.50	13.56	13.50	14.90	15.05	14.95	14.90	15.85	15.70	16.24
Electricity	30.78	27.29	27.33	30.34	30.26	29.14	29.48	33.63	32.48	34.15
Electric Power⁹										
Distillate Fuel Oil	14.77	9.78	9.79	15.09	20.77	20.98	20.45	23.23	23.21	23.11
Residual Fuel Oil	8.57	6.67	6.68	13.21	17.51	17.54	18.55	19.12	19.25	20.67
Natural Gas	7.02	5.21	5.13	6.59	7.17	7.03	7.15	8.45	8.34	8.70
Steam Coal	1.78	1.86	1.86	1.89	1.95	1.96	1.92	2.04	2.04	2.04
Average Price to All Users¹⁰										
Liquefied Petroleum Gases	18.53	16.34	16.30	20.96	28.10	28.11	27.56	30.09	30.05	29.77
E85 ⁴	26.82	18.83	18.87	25.47	29.04	29.59	29.30	31.24	30.94	30.10
Motor Gasoline ⁵	22.82	17.67	17.71	23.47	29.60	29.94	29.75	31.81	31.58	32.10
Jet Fuel	16.10	10.37	10.41	16.03	22.23	22.36	22.15	24.69	24.67	24.63
Distillate Fuel Oil	19.93	13.54	13.60	18.98	25.41	25.80	25.28	27.74	27.71	27.94
Residual Fuel Oil	9.37	6.92	6.91	12.66	17.56	17.59	18.03	19.16	19.19	20.12
Natural Gas	9.01	7.48	7.43	8.56	9.24	9.22	9.11	10.47	10.42	10.75
Metallurgical Coal	3.61	3.98	4.00	4.37	4.39	4.39	4.40	4.46	4.43	4.41
Other Coal	1.82	1.89	1.89	1.93	1.98	1.99	1.95	2.07	2.08	2.07
Coal to Liquids	--	--	--	--	1.15	1.35	1.23	1.24	1.38	1.36
Electricity	26.68	24.29	24.28	26.42	28.07	27.16	27.57	30.60	29.46	30.56
Non-Renewable Energy Expenditures by Sector (billion 2007 dollars)										
Residential	238.40	216.77	215.29	235.27	265.77	258.45	263.30	311.47	298.90	310.03
Commercial	172.89	157.29	157.14	172.88	208.45	203.26	207.76	256.52	247.76	256.75
Industrial	226.89	149.11	151.70	204.25	239.19	239.07	242.68	249.46	245.87	276.26
Transportation	596.77	426.50	430.91	580.97	755.06	759.33	752.82	849.01	835.36	853.25
Total Non-Renewable Expenditures	1234.95	949.68	955.05	1193.36	1468.47	1460.11	1466.55	1666.46	1627.90	1696.29
Transportation Renewable Expenditures	0.04	0.05	0.05	0.07	14.68	22.10	24.83	50.60	54.18	65.71
Total Expenditures	1234.99	949.73	955.10	1193.43	1483.15	1482.21	1491.38	1717.06	1682.08	1762.00

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Residential										
Liquefied Petroleum Gases	24.97	21.45	21.48	27.24	41.76	42.33	42.47	54.41	55.65	50.90
Distillate Fuel Oil	19.66	13.81	13.85	19.68	30.61	31.29	31.14	41.50	42.37	38.67
Natural Gas	12.69	11.60	11.61	12.74	15.83	15.95	16.14	21.75	22.10	20.75
Electricity	31.18	29.64	29.70	32.53	41.70	41.18	42.26	55.28	54.58	51.96
Commercial										
Liquefied Petroleum Gases	23.04	18.18	18.20	23.89	37.66	38.19	38.24	49.25	50.38	46.06
Distillate Fuel Oil	16.05	11.11	11.17	17.01	27.96	28.71	28.56	38.20	39.01	35.80
Residual Fuel Oil	10.31	6.00	6.02	11.55	21.14	21.40	21.55	27.69	28.29	26.07
Natural Gas	10.99	9.85	9.82	11.11	14.00	14.07	14.37	19.56	19.81	18.78
Electricity	28.03	25.71	25.77	28.74	35.87	35.07	36.37	47.67	46.93	44.96
Industrial¹										
Liquefied Petroleum Gases	23.38	17.14	17.27	23.00	36.53	37.04	37.17	47.72	48.82	44.93
Distillate Fuel Oil	16.82	10.96	11.03	16.86	28.44	29.28	29.14	38.83	39.68	36.52
Residual Fuel Oil	10.60	10.17	10.22	16.20	25.98	26.32	27.05	34.29	34.94	32.95
Natural Gas ²	7.52	5.76	5.71	7.27	9.49	9.48	9.66	13.62	13.76	13.16
Metallurgical Coal	3.61	4.12	4.15	4.60	5.51	5.57	5.69	6.91	7.01	6.40
Other Industrial Coal	2.43	2.47	2.48	2.67	3.23	3.26	3.27	4.14	4.22	3.88
Coal to Liquids	--	--	--	--	1.44	1.71	1.59	1.91	2.18	1.98
Electricity	18.62	17.43	17.46	19.72	24.51	23.88	24.63	33.22	32.54	31.30
Transportation										
Liquefied Petroleum Gases ³	25.01	21.28	21.31	27.04	41.46	42.02	42.13	53.87	55.10	50.41
E85 ⁴	26.82	19.50	19.58	26.83	36.43	37.58	37.85	48.36	48.96	43.63
Motor Gasoline ⁵	22.98	18.30	18.38	24.72	37.13	38.02	38.43	49.25	49.98	46.54
Jet Fuel ⁶	16.10	10.74	10.81	16.89	27.88	28.39	28.62	38.22	39.04	35.70
Diesel Fuel (distillate fuel oil) ⁷	20.91	15.09	15.18	21.12	32.86	33.76	33.63	43.90	44.85	41.44
Residual Fuel Oil	9.44	6.85	6.83	12.74	21.48	21.79	22.56	29.16	29.81	28.49
Natural Gas ⁸	15.50	14.04	14.01	15.69	18.87	18.98	19.24	24.53	24.84	23.55
Electricity	30.78	28.27	28.36	31.95	37.95	37.01	38.09	52.05	51.41	49.51
Electric Power⁹										
Distillate Fuel Oil	14.77	10.13	10.16	15.89	26.05	26.64	26.42	35.96	36.73	33.51
Residual Fuel Oil	8.57	6.91	6.93	13.91	21.97	22.28	23.97	29.59	30.46	29.97
Natural Gas	7.02	5.40	5.32	6.94	9.00	8.92	9.24	13.08	13.20	12.61
Steam Coal	1.78	1.93	1.93	1.99	2.44	2.48	2.48	3.16	3.24	2.95

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Average Price to All Users¹⁰										
Liquefied Petroleum Gases	18.53	16.93	16.91	22.07	35.25	35.70	35.61	46.58	47.55	43.16
E85 ⁴	26.82	19.50	19.58	26.83	36.43	37.58	37.85	48.36	48.96	43.63
Motor Gasoline ⁵	22.82	18.30	18.38	24.71	37.13	38.01	38.43	49.24	49.98	46.54
Jet Fuel	16.10	10.74	10.81	16.89	27.88	28.39	28.62	38.22	39.04	35.70
Distillate Fuel Oil	19.93	14.03	14.11	19.99	31.87	32.76	32.65	42.93	43.86	40.51
Residual Fuel Oil	9.37	7.17	7.18	13.34	22.02	22.34	23.29	29.66	30.37	29.16
Natural Gas	9.01	7.75	7.71	9.01	11.59	11.71	11.77	16.21	16.49	15.58
Metallurgical Coal	3.61	4.12	4.15	4.60	5.51	5.57	5.69	6.91	7.01	6.40
Other Coal	1.82	1.95	1.96	2.04	2.48	2.52	2.52	3.21	3.28	3.00
Coal to Liquids	--	--	--	--	1.44	1.71	1.59	1.91	2.18	1.98
Electricity	26.68	25.16	25.19	27.82	35.20	34.49	35.62	47.37	46.62	44.31
Non-Renewable Energy Expenditures by Sector (billion nominal dollars)										
Residential	238.40	224.54	223.41	247.78	333.37	328.18	340.12	482.10	473.03	449.49
Commercial	172.89	162.93	163.07	182.07	261.47	258.11	268.38	397.05	392.10	372.25
Industrial	226.89	154.46	157.43	215.12	300.03	303.57	313.49	386.11	389.11	400.54
Transportation	596.77	441.79	447.16	611.87	947.12	964.21	972.48	1314.12	1322.01	1237.08
Total Non-Renewable Expenditures	1234.95	983.72	991.08	1256.84	1841.99	1854.06	1894.47	2579.39	2576.26	2459.36
Transportation Renewable Expenditures	0.04	0.06	0.06	0.07	18.42	28.06	32.08	78.32	85.74	95.27
Total Expenditures	1234.99	983.78	991.13	1256.91	1860.40	1882.13	1926.55	2657.71	2662.00	2554.63

¹Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
²Excludes use for lease and plant fuel.
³Includes Federal and State taxes while excluding county and local taxes.
⁴E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.
⁵Sales weighted-average price for all grades. Includes Federal, State and local taxes.
⁶Kerosene-type jet fuel. Includes Federal and State taxes while excluding county and local taxes.
⁷Diesel fuel for on-road use. Includes Federal and State taxes while excluding county and local taxes.
⁸Compressed natural gas used as a vehicle fuel. Includes estimated motor vehicle fuel taxes and estimated dispensing costs or charges.
⁹Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
¹⁰Weighted averages of end-use fuel prices are derived from the prices shown in each sector and the corresponding sectoral consumption.
 Btu = British thermal unit.
 -- = Not applicable.
 Note: Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 prices for motor gasoline, distillate fuel oil, and jet fuel are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2007*, DOE/EIA-0487(2007) (Washington, DC, August 2008). 2007 residential and commercial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 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 2006*, DOE/EIA-0131(2006) (Washington, DC, October 2007) and the *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 transportation sector natural gas delivered prices are model results. 2007 electric power sector natural gas prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, April 2007 and April 2008, Table 4.13.B. 2007 coal prices based on: EIA, *Quarterly Coal Report, October-December 2007*, DOE/EIA-0121(2007/4Q) (Washington, DC, March 2008) and EIA, AEO2009 National Energy Modeling System run NOSTIMLS.D041409A. 2007 electricity prices: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report.
Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Key Indicators										
Households (millions)										
Single-Family	81.73	83.38	83.37	83.61	93.49	93.45	93.63	101.98	101.85	101.57
Multifamily	25.17	25.92	25.96	25.97	29.06	29.06	29.17	32.94	32.85	32.47
Mobile Homes	6.85	6.70	6.71	6.73	7.02	7.02	6.96	7.40	7.38	7.09
Total	113.74	116.01	116.05	116.30	129.57	129.53	129.76	142.32	142.08	141.14
Average House Square Footage	1663	1699	1699	1701	1834	1834	1834	1934	1934	1934
Energy Intensity										
(million Btu per household)										
Delivered Energy Consumption	100.2	101.0	100.1	98.4	90.9	90.0	91.4	87.5	86.4	87.6
Total Energy Consumption	191.3	191.2	190.0	188.2	175.0	173.5	174.7	171.0	169.0	170.4
(thousand Btu per square foot)										
Delivered Energy Consumption	60.3	59.4	58.9	57.8	49.6	49.1	49.8	45.3	44.7	45.3
Total Energy Consumption	115.1	112.5	111.8	110.6	95.4	94.6	95.2	88.4	87.4	88.1
Delivered Energy Consumption by Fuel										
Electricity										
Space Heating	0.28	0.30	0.30	0.29	0.30	0.30	0.31	0.31	0.31	0.31
Space Cooling	0.88	0.83	0.82	0.86	0.95	0.93	0.97	1.10	1.06	1.10
Water Heating	0.42	0.43	0.42	0.42	0.50	0.49	0.48	0.50	0.50	0.50
Refrigeration	0.39	0.37	0.37	0.37	0.39	0.39	0.39	0.43	0.43	0.42
Cooking	0.11	0.11	0.11	0.11	0.13	0.13	0.13	0.14	0.14	0.14
Clothes Dryers	0.27	0.27	0.27	0.27	0.28	0.28	0.29	0.31	0.31	0.32
Freezers	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09
Lighting	0.73	0.72	0.72	0.71	0.55	0.55	0.55	0.53	0.53	0.52
Clothes Washers ¹	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Dishwashers ¹	0.10	0.09	0.09	0.09	0.10	0.10	0.10	0.12	0.12	0.12
Color Televisions and Set-Top Boxes	0.36	0.40	0.40	0.40	0.44	0.43	0.44	0.56	0.56	0.56
Personal Computers and Related	0.15	0.18	0.18	0.18	0.20	0.20	0.20	0.23	0.23	0.23
Furnace Fans and Boiler Circulation	0.13	0.14	0.14	0.13	0.15	0.16	0.15	0.17	0.17	0.16
Other Uses ²	0.82	0.84	0.85	0.85	0.99	0.98	1.01	1.26	1.21	1.19
Delivered Energy	4.75	4.81	4.79	4.80	5.10	5.04	5.12	5.78	5.67	5.69
Natural Gas										
Space Heating	3.22	3.47	3.42	3.27	3.39	3.34	3.39	3.44	3.38	3.40
Space Cooling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Heating	1.35	1.35	1.34	1.35	1.35	1.35	1.40	1.31	1.31	1.35
Cooking	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.23	0.23	0.26
Clothes Dryers	0.07	0.07	0.07	0.07	0.08	0.08	0.06	0.08	0.08	0.06
Delivered Energy	4.86	5.11	5.06	4.92	5.03	4.99	5.10	5.06	5.01	5.07
Distillate Fuel Oil										
Space Heating	0.66	0.67	0.66	0.62	0.53	0.52	0.53	0.46	0.46	0.46
Water Heating	0.12	0.10	0.10	0.10	0.07	0.07	0.06	0.05	0.05	0.05
Delivered Energy	0.78	0.77	0.77	0.72	0.60	0.59	0.60	0.51	0.50	0.51
Liquefied Petroleum Gases										
Space Heating	0.22	0.23	0.22	0.21	0.20	0.20	0.20	0.19	0.19	0.19
Water Heating	0.09	0.08	0.08	0.08	0.06	0.06	0.06	0.05	0.05	0.05
Cooking	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.04
Other Uses ³	0.15	0.17	0.17	0.16	0.20	0.20	0.20	0.24	0.24	0.24
Delivered Energy	0.50	0.51	0.50	0.49	0.49	0.48	0.49	0.52	0.51	0.52
Marketed Renewables (wood) ⁴	0.43	0.42	0.42	0.43	0.48	0.48	0.48	0.50	0.50	0.50
Other Fuels ⁵	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Delivered Energy Consumption by End Use										
Space Heating	4.90	5.19	5.11	4.91	4.99	4.92	4.99	5.00	4.91	4.95
Space Cooling	0.88	0.83	0.82	0.86	0.95	0.93	0.97	1.10	1.06	1.10
Water Heating	1.98	1.97	1.95	1.95	1.97	1.97	2.00	1.91	1.92	1.95
Refrigeration	0.39	0.37	0.37	0.37	0.39	0.39	0.39	0.43	0.43	0.42
Cooking	0.35	0.36	0.36	0.37	0.38	0.38	0.41	0.41	0.41	0.43
Clothes Dryers	0.34	0.34	0.34	0.34	0.36	0.36	0.35	0.40	0.39	0.38
Freezers	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09
Lighting	0.73	0.72	0.72	0.71	0.55	0.55	0.55	0.53	0.53	0.52
Clothes Washers ¹	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Dishwashers ¹	0.10	0.09	0.09	0.09	0.10	0.10	0.10	0.12	0.12	0.12
Color Televisions and Set-Top Boxes	0.36	0.40	0.40	0.40	0.44	0.43	0.44	0.56	0.56	0.56
Personal Computers and Related	0.15	0.18	0.18	0.18	0.20	0.20	0.20	0.23	0.23	0.23
Furnace Fans and Boiler Circulation	0.13	0.14	0.14	0.13	0.15	0.16	0.15	0.17	0.17	0.16
Other Uses ⁶	0.97	1.01	1.02	1.01	1.19	1.18	1.21	1.50	1.45	1.43
Delivered Energy	11.40	11.72	11.62	11.44	11.78	11.66	11.86	12.46	12.28	12.36
Electricity Related Losses	10.36	10.46	10.43	10.44	10.89	10.82	10.81	11.87	11.73	11.69
Total Energy Consumption by End Use										
Space Heating	5.51	5.84	5.76	5.53	5.64	5.56	5.64	5.64	5.55	5.59
Space Cooling	2.81	2.64	2.60	2.73	2.98	2.91	3.01	3.35	3.25	3.34
Water Heating	2.90	2.90	2.86	2.87	3.05	3.02	3.01	2.95	2.96	2.98
Refrigeration	1.23	1.18	1.18	1.18	1.21	1.21	1.20	1.30	1.31	1.29
Cooking	0.58	0.59	0.59	0.60	0.65	0.65	0.67	0.70	0.70	0.72
Clothes Dryers	0.92	0.93	0.93	0.92	0.97	0.96	0.96	1.04	1.02	1.03
Freezers	0.26	0.25	0.25	0.25	0.26	0.26	0.26	0.28	0.28	0.28
Lighting	2.33	2.29	2.29	2.27	1.74	1.73	1.73	1.63	1.61	1.59
Clothes Washers ¹	0.11	0.10	0.10	0.10	0.09	0.09	0.08	0.09	0.09	0.09
Dishwashers ¹	0.30	0.30	0.30	0.30	0.32	0.32	0.32	0.36	0.36	0.35
Color Televisions and Set-Top Boxes	1.15	1.29	1.29	1.28	1.37	1.37	1.37	1.72	1.71	1.71
Personal Computers and Related	0.49	0.57	0.57	0.58	0.62	0.62	0.61	0.70	0.70	0.69
Furnace Fans and Boiler Circulation	0.41	0.45	0.45	0.42	0.49	0.49	0.47	0.51	0.51	0.50
Other Uses ⁶	2.76	2.84	2.88	2.85	3.31	3.28	3.34	4.08	3.96	3.88
Total	21.76	22.18	22.05	21.88	22.67	22.48	22.67	24.33	24.01	24.05
Nonmarketed Renewables⁷										
Geothermal Heat Pumps	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
Solar Hot Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Solar Photovoltaic	0.00	0.01	0.01	0.01	0.06	0.05	0.05	0.06	0.06	0.05
Wind	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Total	0.01	0.01	0.01	0.01	0.08	0.08	0.07	0.09	0.09	0.08

¹Does not include water heating portion of load.

²Includes small electric devices, heating elements, and motors not listed above.

³Includes such appliances as outdoor grills and mosquito traps.

⁴Includes wood used for primary and secondary heating in wood stoves or fireplaces as reported in the *Residential Energy Consumption Survey 2005*.

⁵Includes kerosene and coal.

⁶Includes all other uses listed above.

⁷Represents delivered energy displaced.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 based on: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008).

Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Key Indicators										
Total Floorspace (billion square feet)										
Surviving	75.2	79.4	79.4	79.5	89.6	89.6	90.3	102.1	101.7	101.2
New Additions	2.1	1.6	1.6	1.7	1.9	1.9	1.9	2.3	2.2	2.1
Total	77.3	81.0	81.1	81.2	91.6	91.5	92.3	104.4	103.9	103.3
Energy Consumption Intensity (thousand Btu per square foot)										
Delivered Energy Consumption	110.0	109.5	109.3	106.7	104.9	105.0	105.0	102.8	102.5	102.9
Electricity Related Losses	129.3	128.6	128.7	127.5	128.4	129.8	127.6	125.3	126.6	125.5
Total Energy Consumption	239.3	238.1	238.0	234.2	233.4	234.8	232.6	228.0	229.2	228.4
Delivered Energy Consumption by Fuel										
Purchased Electricity										
Space Heating ¹	0.17	0.18	0.18	0.17	0.17	0.17	0.18	0.18	0.18	0.18
Space Cooling ¹	0.55	0.53	0.53	0.54	0.58	0.58	0.60	0.65	0.65	0.65
Water Heating ¹	0.10	0.09	0.09	0.09	0.09	0.10	0.10	0.09	0.10	0.10
Ventilation	0.49	0.53	0.53	0.53	0.63	0.64	0.64	0.71	0.71	0.71
Cooking	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Lighting	1.06	1.06	1.06	1.06	1.12	1.13	1.15	1.21	1.21	1.22
Refrigeration	0.40	0.39	0.40	0.40	0.37	0.38	0.38	0.40	0.40	0.40
Office Equipment (PC)	0.24	0.25	0.25	0.25	0.29	0.29	0.29	0.34	0.34	0.34
Office Equipment (non-PC)	0.21	0.26	0.26	0.26	0.38	0.38	0.38	0.44	0.44	0.43
Other Uses ²	1.34	1.46	1.46	1.43	1.85	1.84	1.83	2.32	2.31	2.27
Delivered Energy	4.58	4.79	4.78	4.75	5.51	5.53	5.57	6.36	6.36	6.31
Natural Gas										
Space Heating ¹	1.45	1.59	1.58	1.50	1.55	1.54	1.56	1.56	1.52	1.53
Space Cooling ¹	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Water Heating ¹	0.44	0.45	0.45	0.44	0.51	0.51	0.51	0.56	0.56	0.56
Cooking	0.16	0.18	0.18	0.18	0.20	0.20	0.20	0.22	0.22	0.22
Other Uses ³	1.00	1.01	1.02	0.99	1.04	1.04	1.04	1.20	1.18	1.19
Delivered Energy	3.10	3.27	3.27	3.14	3.33	3.32	3.34	3.59	3.53	3.54
Distillate Fuel Oil										
Space Heating ¹	0.17	0.17	0.17	0.16	0.15	0.14	0.15	0.15	0.14	0.15
Water Heating ¹	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Other Uses ⁴	0.22	0.19	0.19	0.18	0.17	0.17	0.17	0.17	0.17	0.17
Delivered Energy	0.41	0.39	0.38	0.36	0.34	0.33	0.34	0.34	0.33	0.34
Marketed Renewables (biomass)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Other Fuels ⁵	0.29	0.30	0.31	0.28	0.30	0.30	0.31	0.31	0.31	0.31
Delivered Energy Consumption by End Use										
Space Heating ¹	1.79	1.94	1.93	1.83	1.87	1.86	1.89	1.88	1.84	1.86
Space Cooling ¹	0.59	0.57	0.57	0.58	0.62	0.62	0.63	0.69	0.68	0.69
Water Heating ¹	0.56	0.57	0.57	0.55	0.62	0.62	0.63	0.69	0.68	0.68
Ventilation	0.49	0.53	0.53	0.53	0.63	0.64	0.64	0.71	0.71	0.71
Cooking	0.19	0.20	0.20	0.20	0.22	0.22	0.22	0.25	0.25	0.24
Lighting	1.06	1.06	1.06	1.06	1.12	1.13	1.15	1.21	1.21	1.22
Refrigeration	0.40	0.39	0.40	0.40	0.37	0.38	0.38	0.40	0.40	0.40
Office Equipment (PC)	0.24	0.25	0.25	0.25	0.29	0.29	0.29	0.34	0.34	0.34
Office Equipment (non-PC)	0.21	0.26	0.26	0.26	0.38	0.38	0.38	0.44	0.44	0.43
Other Uses ⁶	2.98	3.09	3.09	3.00	3.48	3.48	3.47	4.13	4.09	4.06
Delivered Energy	8.50	8.87	8.86	8.66	9.61	9.61	9.69	10.73	10.66	10.62

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Electricity Related Losses	9.99	10.41	10.43	10.35	11.76	11.87	11.77	13.07	13.16	12.96
Total Energy Consumption by End Use										
Space Heating ¹	2.15	2.32	2.31	2.20	2.24	2.23	2.27	2.25	2.21	2.23
Space Cooling ¹	1.78	1.73	1.73	1.77	1.86	1.88	1.89	2.02	2.02	2.03
Water Heating ¹	0.76	0.77	0.77	0.76	0.82	0.83	0.83	0.88	0.88	0.87
Ventilation	1.56	1.70	1.70	1.68	1.97	2.01	2.01	2.15	2.19	2.17
Cooking	0.24	0.25	0.25	0.25	0.27	0.27	0.27	0.29	0.30	0.29
Lighting	3.37	3.37	3.37	3.36	3.50	3.54	3.58	3.69	3.73	3.71
Refrigeration	1.28	1.25	1.26	1.26	1.17	1.18	1.18	1.23	1.24	1.22
Office Equipment (PC)	0.77	0.80	0.81	0.80	0.91	0.91	0.91	1.04	1.05	1.03
Office Equipment (non-PC)	0.67	0.82	0.82	0.82	1.18	1.18	1.18	1.33	1.34	1.32
Other Uses ⁶	5.91	6.26	6.27	6.11	7.43	7.44	7.33	8.90	8.87	8.71
Total	18.49	19.29	19.29	19.01	21.37	21.49	21.46	23.80	23.82	23.59
Nonmarketed Renewable Fuels⁷										
Solar Thermal	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04

¹Includes fuel consumption for district services.

²Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, and medical equipment.

³Includes miscellaneous uses, such as pumps, emergency generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings.

⁴Includes miscellaneous uses, such as cooking, emergency generators, and combined heat and power in commercial buildings.

⁵Includes residual fuel oil, liquefied petroleum gases, coal, motor gasoline, and kerosene.

⁶Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, emergency generators, combined heat and power in commercial buildings, manufacturing performed in commercial buildings, and cooking (distillate), plus residual fuel oil, liquefied petroleum gases, coal, motor gasoline, and kerosene.

⁷Represents delivered energy displaced by solar thermal space heating and water heating, and electricity generation by solar photovoltaic systems.

Btu = British thermal unit.

PC = Personal computer.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 based on: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A6. Industrial Sector Key Indicators and Consumption

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Key Indicators										
Value of Shipments (billion 2000 dollars)										
Manufacturing	4261	3683	3757	3963	4946	5019	5150	5735	5631	6671
Nonmanufacturing	1490	1179	1197	1277	1635	1633	1603	1784	1760	1780
Total	5750	4862	4954	5240	6581	6652	6753	7519	7391	8451
Energy Prices										
(2007 dollars per million Btu)										
Liquefied Petroleum Gases	23.38	16.55	16.64	21.84	29.12	29.17	28.78	30.83	30.85	30.99
Motor Gasoline	15.93	17.59	17.63	23.41	29.48	29.82	29.64	31.70	31.49	32.04
Distillate Fuel Oil	16.82	10.58	10.62	16.01	22.68	23.06	22.56	25.08	25.07	25.19
Residual Fuel Oil	10.60	9.82	9.84	15.38	20.71	20.73	20.94	22.16	22.08	22.73
Petrochemical Feedstocks	12.60	7.82	7.80	12.09	17.75	17.86	17.63	18.36	18.24	18.95
Asphalt and Road Oil	5.40	3.81	3.78	6.49	9.68	9.65	9.52	10.51	10.52	10.70
Natural Gas Heat and Power	6.60	4.61	4.56	6.03	6.71	6.61	6.65	8.06	7.94	8.31
Natural Gas Feedstocks	8.24	6.34	6.29	7.70	8.35	8.26	8.25	9.57	9.47	9.83
Metallurgical Coal	3.61	3.98	4.00	4.37	4.39	4.39	4.40	4.46	4.43	4.41
Other Industrial Coal	2.43	2.39	2.39	2.54	2.57	2.57	2.53	2.67	2.66	2.67
Coal for Liquids	--	--	--	--	1.15	1.35	1.23	1.24	1.38	1.36
Electricity	18.62	16.82	16.83	18.72	19.54	18.80	19.06	21.46	20.56	21.59
(nominal dollars per million Btu)										
Liquefied Petroleum Gases	23.38	17.14	17.27	23.00	36.53	37.04	37.17	47.72	48.82	44.93
Motor Gasoline	15.93	18.22	18.29	24.66	36.98	37.86	38.29	49.07	49.83	46.45
Distillate Fuel Oil	16.82	10.96	11.03	16.86	28.44	29.28	29.14	38.83	39.68	36.52
Residual Fuel Oil	10.60	10.17	10.22	16.20	25.98	26.32	27.05	34.29	34.94	32.95
Petrochemical Feedstocks	12.60	8.10	8.09	12.74	22.26	22.68	22.77	28.42	28.86	27.48
Asphalt and Road Oil	5.40	3.94	3.92	6.83	12.15	12.26	12.30	16.26	16.64	15.51
Natural Gas Heat and Power	6.60	4.78	4.74	6.35	8.41	8.39	8.59	12.48	12.56	12.05
Natural Gas Feedstocks	8.24	6.56	6.53	8.11	10.48	10.49	10.66	14.81	14.98	14.26
Metallurgical Coal	3.61	4.12	4.15	4.60	5.51	5.57	5.69	6.91	7.01	6.40
Other Industrial Coal	2.43	2.47	2.48	2.67	3.23	3.26	3.27	4.14	4.22	3.88
Coal for Liquids	0.00	0.00	0.00	--	1.44	1.71	1.59	1.91	2.18	1.98
Electricity	18.62	17.43	17.46	19.72	24.51	23.88	24.63	33.22	32.54	31.30
Energy Consumption (quadrillion Btu)¹										
Industrial Consumption Excluding Refining										
Liquefied Petroleum Gases Heat and	0.18	0.13	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.16
Liquefied Petroleum Gases Feedstocks	2.16	1.59	1.65	1.83	1.48	1.51	1.61	1.23	1.26	1.50
Motor Gasoline	0.36	0.33	0.34	0.34	0.34	0.34	0.34	0.36	0.35	0.36
Distillate Fuel Oil	1.27	1.14	1.15	1.17	1.19	1.20	1.18	1.24	1.23	1.23
Residual Fuel Oil	0.24	0.17	0.17	0.15	0.16	0.16	0.16	0.15	0.15	0.16
Petrochemical Feedstocks	1.30	1.01	1.05	1.01	1.04	1.05	1.13	0.85	0.88	1.05
Petroleum Coke	0.36	0.20	0.20	0.27	0.29	0.29	0.29	0.29	0.29	0.31
Asphalt and Road Oil	1.19	0.86	0.87	0.96	1.14	1.14	1.08	1.13	1.12	1.12
Miscellaneous Petroleum ²	0.62	0.30	0.32	0.30	0.21	0.21	0.21	0.18	0.18	0.21
Petroleum Subtotal	7.68	5.73	5.90	6.18	6.00	6.05	6.15	5.57	5.60	6.10
Natural Gas Heat and Power	5.14	4.62	4.72	5.02	4.75	4.79	4.86	4.73	4.71	5.11
Natural Gas Feedstocks	0.55	0.47	0.47	0.51	0.45	0.46	0.50	0.39	0.40	0.44
Lease and Plant Fuel ³	1.20	1.28	1.28	1.27	1.29	1.23	1.33	1.46	1.44	1.47
Natural Gas Subtotal	6.89	6.37	6.47	6.80	6.50	6.48	6.69	6.57	6.54	7.02
Metallurgical Coal and Coke ⁴	0.62	0.51	0.52	0.56	0.49	0.50	0.50	0.38	0.39	0.49
Other Industrial Coal	1.15	0.93	0.94	1.18	1.04	1.04	1.09	1.03	1.03	1.10
Coal Subtotal	1.77	1.44	1.46	1.74	1.53	1.55	1.60	1.41	1.42	1.59
Renewables ⁵	1.64	1.55	1.57	1.48	1.64	1.68	1.64	1.92	1.94	1.96
Purchased Electricity	3.27	2.95	2.98	3.15	3.24	3.28	3.27	3.15	3.14	3.45
Delivered Energy	21.26	18.04	18.38	19.36	18.91	19.04	19.35	18.63	18.64	20.11
Electricity Related Losses	7.13	6.43	6.49	6.86	6.93	7.04	6.91	6.47	6.50	7.09
Total	28.39	24.47	24.87	26.22	25.84	26.08	26.25	25.10	25.14	27.20

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Refining Consumption										
Liquefied Petroleum Gases Heat and	0.01	0.06	0.06	0.03	0.06	0.06	0.02	0.04	0.04	0.00
Distillate Fuel Oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residual Fuel Oil	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Petroleum Coke	0.55	0.53	0.54	0.54	0.49	0.49	0.53	0.43	0.44	0.53
Still Gas	1.68	1.89	1.81	1.65	1.62	1.61	1.62	1.71	1.66	1.67
Miscellaneous Petroleum ²	0.02	0.03	0.03	0.01	0.03	0.03	0.01	0.03	0.03	0.01
Petroleum Subtotal	2.27	2.52	2.44	2.24	2.20	2.18	2.17	2.22	2.16	2.20
Natural Gas Heat and Power	1.13	0.90	0.97	1.25	1.28	1.28	1.47	1.42	1.41	1.49
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Subtotal	1.13	0.90	0.97	1.25	1.28	1.28	1.47	1.42	1.41	1.49
Other Industrial Coal	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.12	0.25	0.24	0.25	0.46	0.58
Coal Subtotal	0.06	0.06	0.06	0.06	0.17	0.31	0.30	0.31	0.52	0.64
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Purchased Electricity	0.16	0.18	0.18	0.19	0.20	0.20	0.22	0.23	0.22	0.22
Delivered Energy	4.03	4.42	4.41	4.48	4.88	5.20	5.38	5.87	6.25	6.22
Electricity Related Losses	0.35	0.39	0.39	0.41	0.44	0.44	0.46	0.48	0.46	0.46
Total	4.38	4.81	4.81	4.88	5.32	5.64	5.84	6.35	6.72	6.67
Total Industrial Sector Consumption										
Liquefied Petroleum Gases Heat and	0.19	0.19	0.21	0.19	0.21	0.21	0.17	0.18	0.18	0.16
Liquefied Petroleum Gases Feedstocks	2.16	1.59	1.65	1.83	1.48	1.51	1.61	1.23	1.26	1.50
Motor Gasoline	0.36	0.33	0.34	0.34	0.34	0.34	0.34	0.36	0.35	0.36
Distillate Fuel Oil	1.28	1.14	1.15	1.17	1.19	1.20	1.18	1.24	1.23	1.23
Residual Fuel Oil	0.25	0.17	0.17	0.15	0.16	0.16	0.16	0.15	0.15	0.16
Petrochemical Feedstocks	1.30	1.01	1.05	1.01	1.04	1.05	1.13	0.85	0.88	1.05
Petroleum Coke	0.91	0.74	0.75	0.81	0.78	0.78	0.82	0.72	0.72	0.83
Asphalt and Road Oil	1.19	0.86	0.87	0.96	1.14	1.14	1.08	1.13	1.12	1.12
Still Gas	1.68	1.89	1.81	1.65	1.62	1.61	1.62	1.71	1.66	1.67
Miscellaneous Petroleum ²	0.65	0.33	0.34	0.31	0.23	0.24	0.21	0.20	0.21	0.22
Petroleum Subtotal	9.96	8.25	8.34	8.42	8.20	8.24	8.32	7.79	7.76	8.30
Natural Gas Heat and Power	6.27	5.52	5.69	6.27	6.03	6.07	6.34	6.15	6.12	6.60
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Feedstocks	0.55	0.47	0.47	0.51	0.45	0.46	0.50	0.39	0.40	0.44
Lease and Plant Fuel ³	1.20	1.28	1.28	1.27	1.29	1.23	1.33	1.46	1.44	1.47
Natural Gas Subtotal	8.02	7.27	7.44	8.05	7.77	7.77	8.17	7.99	7.96	8.51
Metallurgical Coal and Coke ⁴	0.62	0.51	0.52	0.56	0.49	0.50	0.50	0.38	0.39	0.49
Other Industrial Coal	1.21	0.99	1.00	1.24	1.10	1.10	1.15	1.09	1.09	1.16
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.12	0.25	0.24	0.25	0.46	0.58
Coal Subtotal	1.83	1.50	1.52	1.80	1.70	1.85	1.89	1.73	1.93	2.23
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Renewables ⁵	1.64	1.55	1.57	1.48	1.64	1.68	1.64	1.92	1.94	1.96
Purchased Electricity	3.43	3.14	3.16	3.34	3.45	3.48	3.48	3.38	3.37	3.67
Delivered Energy	25.29	22.46	22.79	23.83	23.78	24.24	24.73	24.50	24.89	26.33
Electricity Related Losses	7.48	6.82	6.89	7.27	7.37	7.48	7.36	6.95	6.96	7.55
Total	32.77	29.28	29.68	31.10	31.15	31.72	32.09	31.44	31.86	33.87

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Energy Consumption per dollar of Shipment (thousand Btu per 2000 dollars)										
Liquefied Petroleum Gases Heat and Liquefied Petroleum Gases Feedstocks	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02
Motor Gasoline	0.06	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.04
Distillate Fuel Oil	0.22	0.23	0.23	0.22	0.18	0.18	0.18	0.16	0.17	0.15
Residual Fuel Oil	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Petrochemical Feedstocks	0.23	0.21	0.21	0.19	0.16	0.16	0.17	0.11	0.12	0.12
Petroleum Coke	0.16	0.15	0.15	0.15	0.12	0.12	0.12	0.10	0.10	0.10
Asphalt and Road Oil	0.21	0.18	0.18	0.18	0.17	0.17	0.16	0.15	0.15	0.13
Still Gas	0.29	0.39	0.36	0.32	0.25	0.24	0.24	0.23	0.22	0.20
Miscellaneous Petroleum ²	0.11	0.07	0.07	0.06	0.04	0.04	0.03	0.03	0.03	0.03
Petroleum Subtotal	1.73	1.70	1.68	1.61	1.25	1.24	1.23	1.04	1.05	0.98
Natural Gas Heat and Power	1.09	1.14	1.15	1.20	0.92	0.91	0.94	0.82	0.83	0.78
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Feedstocks	0.10	0.10	0.10	0.10	0.07	0.07	0.07	0.05	0.05	0.05
Lease and Plant Fuel ³	0.21	0.26	0.26	0.24	0.20	0.18	0.20	0.19	0.19	0.17
Natural Gas Subtotal	1.39	1.50	1.50	1.54	1.18	1.17	1.21	1.06	1.08	1.01
Metallurgical Coal and Coke ⁴	0.11	0.10	0.11	0.11	0.07	0.08	0.07	0.05	0.05	0.06
Other Industrial Coal	0.21	0.20	0.20	0.24	0.17	0.17	0.17	0.15	0.15	0.14
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.02	0.04	0.04	0.03	0.06	0.07
Coal Subtotal	0.32	0.31	0.31	0.34	0.26	0.28	0.28	0.23	0.26	0.26
Biofuels Heat and Coproducts	0.07	0.16	0.15	0.14	0.16	0.18	0.18	0.22	0.26	0.20
Renewables ⁵	0.29	0.32	0.32	0.28	0.25	0.25	0.24	0.25	0.26	0.23
Purchased Electricity	0.60	0.64	0.64	0.64	0.52	0.52	0.52	0.45	0.46	0.43
Delivered Energy	4.40	4.62	4.60	4.55	3.61	3.64	3.66	3.26	3.37	3.12
Electricity Related Losses	1.30	1.40	1.39	1.39	1.12	1.12	1.09	0.92	0.94	0.89
Total	5.70	6.02	5.99	5.94	4.73	4.77	4.75	4.18	4.31	4.01
Industrial Combined Heat and Power										
Capacity (gigawatts)	25.52	27.61	27.70	28.84	31.89	33.67	35.01	40.52	42.90	45.71
Generation (billion kilowatthours)	140.90	150.21	150.89	160.28	180.89	194.63	205.32	246.90	265.55	285.32

¹Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
²Includes lubricants and miscellaneous petroleum products.
³Represents natural gas used in well, field, and lease operations, and in natural gas processing plant machinery.
⁴Includes net coal coke imports.
⁵Includes consumption of energy produced from hydroelectric, wood and wood waste, municipal waste, and other biomass sources.
Btu = British thermal unit.
-- = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2006 and 2007 are model results and may differ slightly from official EIA data reports.
Sources: 2007 prices for motor gasoline and distillate fuel oil are based on: Energy Information Administration (EIA), *Petroleum Marketing Annual 2007*, DOE/EIA-0487(2007) (Washington, DC, August 2008). 2007 petrochemical feedstock and asphalt and road oil prices are based on: EIA, *State Energy Data Report 2006*, DOE/EIA-0214(2006) (Washington, DC, October 2008). 2007 coal prices are based on: EIA, *Quarterly Coal Report, October-December 2007*, DOE/EIA-0121(2007/4Q) (Washington, DC, March 2008) and EIA, AEO2009 National Energy Modeling System run NOSTIMLS.D041409A. 2007 electricity prices: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 natural gas prices are based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2006*, DOE/EIA-0131(2006) (Washington, DC, October 2007) and the *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 refining consumption based on: *Petroleum Supply Annual 2007*, DOE/EIA-0340(2007)/1 (Washington, DC, July 2008). Other 2007 consumption values are based on: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 shipments: IHS Global Insight industry model, November 2008. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A7. Transportation Sector Key Indicators and Delivered Energy Consumption

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Key Indicators										
Travel Indicators										
(billion vehicle miles traveled)										
Light-Duty Vehicles less than 8,500	2702	2782	2791	2747	3123	3137	3161	3859	3839	3827
Commercial Light Trucks ¹	72	64	65	67	83	84	85	98	97	105
Freight Trucks greater than 10,000	248	224	228	232	296	297	303	350	347	378
(billion seat miles available)										
Air	1036	942	968	951	1125	1126	1138	1495	1465	1410
(billion ton miles traveled)										
Rail	1733	1641	1659	1664	1898	1916	1927	2045	2057	2193
Domestic Shipping	662	630	636	629	712	705	744	801	796	839
Energy Efficiency Indicators										
(miles per gallon)										
Tested New Light-Duty Vehicle ²	26.3	26.5	26.5	26.9	35.6	35.6	35.5	38.2	38.1	38.0
New Car ²	30.3	30.4	30.4	30.7	40.4	40.4	39.1	42.4	42.3	41.4
New Light Truck ²	23.1	23.6	23.6	23.6	29.9	29.8	30.7	32.3	32.3	33.1
On-Road New Light-Duty Vehicle ³	21.8	22.0	22.0	22.3	29.7	29.7	29.5	32.0	31.9	31.9
New Car ³	24.6	24.8	24.8	25.1	33.4	33.4	32.3	35.5	35.5	34.7
New Light Truck ³	19.4	19.8	19.8	19.8	25.1	25.0	25.8	27.1	27.1	27.8
Light-Duty Stock ⁴	20.6	20.6	20.6	20.7	24.6	24.6	24.7	28.9	28.9	28.9
New Commercial Light Truck ¹	15.4	15.7	15.7	15.7	19.2	19.2	19.6	19.9	19.9	20.3
Stock Commercial Light Truck ¹	14.4	14.8	14.8	14.8	17.3	17.3	17.6	19.4	19.4	19.8
Freight Truck	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.8	6.8	6.9
(seat miles per gallon)										
Aircraft	62.8	64.3	64.2	64.4	67.8	67.8	68.1	73.5	73.4	73.6
(ton miles per thousand Btu)										
Rail	2.9	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0
Domestic Shipping	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Energy Use by Mode										
(quadrillion Btu)										
Light-Duty Vehicles	16.47	16.36	16.41	16.20	15.73	15.79	15.80	16.60	16.53	16.51
Commercial Light Trucks ¹	0.62	0.55	0.55	0.57	0.60	0.61	0.61	0.63	0.63	0.67
Bus Transportation	0.27	0.28	0.28	0.27	0.27	0.27	0.27	0.28	0.28	0.28
Freight Trucks	5.15	4.65	4.74	4.81	5.67	5.69	5.79	6.39	6.33	6.90
Rail, Passenger	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06
Rail, Freight	0.59	0.56	0.57	0.57	0.64	0.65	0.65	0.68	0.69	0.73
Shipping, Domestic	0.34	0.32	0.32	0.32	0.36	0.35	0.37	0.40	0.40	0.42
Shipping, International	0.88	0.84	0.84	0.80	0.90	0.90	0.90	0.91	0.91	0.91
Recreational Boats	0.25	0.25	0.25	0.25	0.27	0.27	0.26	0.28	0.28	0.28
Air	2.71	2.36	2.43	2.45	2.82	2.84	2.87	3.50	3.44	3.54
Military Use	0.70	0.78	0.78	0.74	0.74	0.74	0.74	0.78	0.78	0.78
Lubricants	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.15	0.15
Pipeline Fuel	0.64	0.64	0.63	0.64	0.67	0.62	0.69	0.71	0.70	0.72
Total	28.82	27.76	27.99	27.81	28.87	28.92	29.15	31.38	31.18	31.94

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

Key Indicators and Consumption	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Energy Use by Mode (million barrels per day oil equivalent)										
Light-Duty Vehicles	8.74	8.80	8.83	8.72	8.58	8.67	8.69	9.27	9.26	9.35
Commercial Light Trucks ¹	0.33	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.36
Bus Transportation	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14
Freight Trucks	2.46	2.23	2.27	2.30	2.72	2.73	2.77	3.06	3.03	3.31
Rail, Passenger	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Rail, Freight	0.28	0.27	0.27	0.27	0.31	0.31	0.31	0.33	0.33	0.35
Shipping, Domestic	0.16	0.15	0.15	0.15	0.17	0.16	0.17	0.18	0.18	0.19
Shipping, International	0.39	0.37	0.37	0.35	0.39	0.39	0.39	0.40	0.40	0.40
Recreational Boats	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.15
Air	1.31	1.14	1.17	1.19	1.36	1.37	1.39	1.70	1.67	1.71
Military Use	0.34	0.37	0.38	0.36	0.36	0.36	0.36	0.37	0.37	0.37
Lubricants	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Pipeline Fuel	0.32	0.32	0.32	0.32	0.34	0.31	0.35	0.36	0.35	0.36
Total	14.68	14.30	14.41	14.32	14.91	15.00	15.13	16.40	16.32	16.80

¹Commercial trucks 8,500 to 10,000 pounds.

²Environmental Protection Agency rated miles per gallon.

³Tested new vehicle efficiency revised for on-road performance.

⁴Combined 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 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007: Energy Information Administration (EIA), *Natural Gas Annual 2006*, DOE/EIA-0131(2006) (Washington, DC, October 2007); EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008); Federal Highway Administration, *Highway Statistics 2005* (Washington, DC, October 2006); Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 27 and Annual* (Oak Ridge, TN, 2008); National Highway Traffic and Safety Administration, *Summary of Fuel Economy Performance* (Washington, DC, March 2004); U.S. Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); EIA, *Alternatives to Traditional Transportation Fuels 2006* (Part II - User and Fuel Data), May 2008; EIA, *State Energy Data Report 2006*, DOE/EIA-0214(2006) (Washington, DC, October 2008); U.S. Department of Transportation, Research and Special Programs Administration, *Air Carrier Statistics Monthly, December 2007/2006* (Washington, DC, 2007); EIA, *Fuel Oil and Kerosene Sales 2006*, DOE/EIA-0535(2006) (Washington, DC, December 2007); and United States Department of Defense, Defense Fuel Supply Center. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Generation by Fuel Type										
Electric Power Sector¹										
Power Only²										
Coal	1965	1973	1971	2006	2114	2133	2093	2217	2236	2334
Petroleum	57	52	52	43	46	45	44	47	46	46
Natural Gas ³	685	621	594	629	624	517	687	848	742	772
Nuclear Power	806	809	809	809	895	876	862	929	890	907
Pumped Storage/Other ⁴	0	1	1	1	1	1	1	1	1	1
Renewable Sources ⁵	314	396	427	411	529	631	543	590	672	610
Distributed Generation (Natural Gas)	0	0	0	0	0	0	0	0	0	0
Total	3827	3852	3854	3899	4209	4203	4230	4632	4587	4670
Combined Heat and Power⁶										
Coal	37	32	32	32	33	33	32	33	33	32
Petroleum	5	0	0	0	0	0	0	0	0	0
Natural Gas	129	108	106	107	111	103	114	112	111	109
Renewable Sources	4	4	4	4	5	5	5	6	5	5
Total	179	144	142	143	150	142	151	150	149	146
Total Net Generation	4006	3996	3996	4042	4358	4344	4381	4782	4736	4816
Less Direct Use	34	34	34	34	34	33	34	33	33	33
Net Available to the Grid	3972	3963	3962	4009	4325	4311	4348	4749	4703	4783
End-Use Generation⁷										
Coal	19	19	19	19	25	31	31	32	42	48
Petroleum	4	4	4	13	4	4	13	4	4	14
Natural Gas	79	74	76	78	96	94	97	131	123	131
Other Gaseous Fuels ⁸	5	19	18	16	15	16	15	17	16	15
Renewable Sources ⁹	33	37	37	36	63	72	69	107	120	116
Other ¹⁰	13	12	12	12	12	12	12	12	12	12
Total	153	164	166	174	215	229	237	302	318	337
Less Direct Use	122	132	133	142	173	181	188	235	241	261
Total Sales to the Grid	31	33	33	33	42	48	49	67	77	76
Total Electricity Generation by Fuel										
Coal	2021	2024	2022	2057	2172	2198	2156	2281	2311	2415
Petroleum	66	56	56	56	50	49	58	51	50	60
Natural Gas	892	803	775	814	830	714	898	1090	976	1012
Nuclear Power	806	809	809	809	895	876	862	929	890	907
Renewable Sources ^{5,9}	352	436	468	451	598	708	617	703	798	730
Other ¹¹	22	31	31	29	28	28	28	29	29	28
Total	4159	4161	4162	4217	4573	4573	4618	5084	5055	5153
Total Electricity Generation	4159	4161	4162	4217	4573	4573	4618	5084	5055	5153
Total Net Generation to the Grid	4003	3996	3995	4042	4367	4359	4396	4816	4780	4859
Net Imports	31	23	23	24	16	14	18	27	8	28
Electricity Sales by Sector										
Residential	1392	1409	1403	1406	1495	1476	1499	1694	1662	1667
Commercial	1343	1403	1402	1393	1614	1620	1632	1864	1864	1850
Industrial	1006	919	926	979	1011	1020	1021	991	986	1077
Transportation	6	7	7	7	9	9	10	14	14	15
Total	3747	3737	3737	3785	4129	4127	4162	4563	4527	4609
Direct Use	156	165	166	175	207	214	222	268	275	294
Total Electricity Use	3903	3902	3904	3960	4335	4341	4384	4831	4801	4903

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
End-Use Prices										
(2007 cents per kilowatthour)										
Residential	10.6	9.8	9.8	10.5	11.3	11.1	11.2	12.2	11.8	12.2
Commercial	9.6	8.5	8.5	9.3	9.8	9.4	9.6	10.5	10.1	10.6
Industrial	6.4	5.7	5.7	6.4	6.7	6.4	6.5	7.3	7.0	7.4
Transportation	10.5	9.3	9.3	10.4	10.3	9.9	10.1	11.5	11.1	11.7
All Sectors Average	9.1	8.3	8.3	9.0	9.6	9.3	9.4	10.4	10.1	10.4
(nominal cents per kilowatthour)										
Residential	10.6	10.1	10.1	11.1	14.2	14.1	14.4	18.9	18.6	17.7
Commercial	9.6	8.8	8.8	9.8	12.2	12.0	12.4	16.3	16.0	15.3
Industrial	6.4	5.9	6.0	6.7	8.4	8.1	8.4	11.3	11.1	10.7
Transportation	10.5	9.6	9.7	10.9	12.9	12.6	13.0	17.8	17.5	16.9
All Sectors Average	9.1	8.6	8.6	9.5	12.0	11.8	12.2	16.2	15.9	15.1
Prices by Service Category										
(2007 cents per kilowatthour)										
Generation	6.0	5.3	5.2	6.0	6.4	6.1	6.2	7.2	6.9	7.3
Transmission	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9
Distribution	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
(nominal cents per kilowatthour)										
Generation	6.0	5.4	5.4	6.3	8.0	7.7	8.1	11.2	10.9	10.5
Transmission	0.7	0.7	0.8	0.8	1.0	1.1	1.1	1.4	1.4	1.3
Distribution	2.4	2.4	2.5	2.5	3.0	3.1	3.1	3.6	3.7	3.4
Electric Power Sector Emissions¹										
Sulfur Dioxide (million tons)	8.95	6.09	6.15	7.51	3.89	3.97	3.86	3.64	3.57	3.74
Nitrogen Oxide (million tons)	3.29	2.29	2.29	2.37	2.09	2.07	2.10	2.11	2.10	2.12
Mercury (tons)	49.28	43.52	43.82	45.19	28.81	29.08	29.13	28.86	28.89	29.57

¹Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
²Includes plants that only produce electricity.
³Includes electricity generation from fuel cells.
⁴Includes non-biogenic municipal waste. The Energy Information Administration estimates approximately 7 billion kilowatthours of electricity were generated from a municipal waste stream containing petroleum-derived plastics and other non-renewable sources. See Energy Information Administration, *Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy*, (Washington, DC, May 2007).
⁵Includes conventional hydroelectric, geothermal, wood, wood waste, biogenic municipal waste, landfill gas, other biomass, solar, and wind power.
⁶Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report North American Industry Classification System code 22).
⁷Includes 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.
⁸Includes refinery gas and still gas.
⁹Includes conventional hydroelectric, geothermal, wood, wood waste, all municipal waste, landfill gas, other biomass, solar, and wind power.
¹⁰Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
¹¹Includes pumped storage, non-biogenic municipal waste, refinery gas, still gas, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.
Sources: 2007 electric power sector generation; sales to utilities; net imports; electricity sales; and emissions: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008), and supporting databases. 2007 prices: EIA, AEO2009 National Energy Modeling System run NOSTIMLS.D041409A. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A9. Electricity Generating Capacity
(Gigawatts)

Net Summer Capacity ¹	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Electric Power Sector²										
Power Only³										
Coal	306.7	316.4	316.4	316.4	321.1	323.0	322.4	331.9	333.5	347.9
Oil and Natural Gas Steam ⁴	118.4	118.0	118.0	118.0	100.2	92.7	101.4	98.9	92.6	100.1
Combined Cycle	149.2	163.0	163.0	163.0	167.0	164.3	170.3	214.1	202.3	205.2
Combustion Turbine/Diesel	130.4	135.8	135.6	139.2	147.8	138.0	152.9	204.1	186.5	198.1
Nuclear Power ⁵	100.5	101.2	101.2	101.2	113.1	110.3	108.4	115.0	110.1	112.6
Pumped Storage	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁶	100.8	114.9	124.9	114.9	120.0	155.1	121.7	132.1	159.7	138.2
Distributed Generation ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total	927.5	970.7	980.6	974.2	990.6	1004.8	998.5	1117.6	1106.3	1123.8
Combined Heat and Power⁸										
Coal	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Oil and Natural Gas Steam ⁴	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Combined Cycle	31.8	31.8	31.8	31.8	32.5	32.5	32.5	32.5	32.5	32.5
Combustion Turbine/Diesel	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Renewable Sources ⁶	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total	40.3	40.4	40.4	40.4	41.0	41.0	41.0	41.0	41.0	41.0
Cumulative Planned Additions⁹										
Coal	0.0	11.3	11.3	11.3	17.0	17.0	17.0	17.0	17.0	17.0
Oil and Natural Gas Steam ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined Cycle	0.0	13.8	13.8	13.8	15.3	15.3	15.3	15.3	15.3	15.3
Combustion Turbine/Diesel	0.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Nuclear Power	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁶	0.0	9.7	9.7	9.7	9.9	9.9	9.9	10.1	10.1	10.1
Distributed Generation ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	38.0	38.0	38.0	46.6	46.6	46.6	46.8	46.8	46.8
Cumulative Unplanned Additions⁹										
Coal	0.0	0.0	0.0	0.0	1.0	2.0	1.0	11.8	12.5	26.6
Oil and Natural Gas Steam ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combined Cycle	0.0	0.0	0.0	0.0	3.1	0.5	6.4	50.2	38.4	41.3
Combustion Turbine/Diesel	0.0	2.5	2.3	5.9	20.0	13.6	24.6	76.3	62.1	69.8
Nuclear Power	0.0	0.0	0.0	0.0	8.0	5.2	3.3	14.3	9.4	11.9
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁶	0.0	4.4	14.4	4.4	9.4	44.4	11.0	21.2	48.9	27.3
Distributed Generation ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total	0.0	6.9	16.7	10.3	41.5	65.7	46.3	174.0	171.4	177.1
Cumulative Electric Power Sector	0.0	44.9	54.7	48.3	88.1	112.3	92.9	220.8	218.2	223.9
Cumulative Retirements¹⁰										
Coal	0.0	0.9	0.9	1.6	3.8	2.8	2.3	3.8	2.8	2.3
Oil and Natural Gas Steam ⁴	0.0	0.4	0.4	0.4	18.2	25.7	17.0	19.5	25.8	18.3
Combined Cycle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Combustion Turbine/Diesel	0.0	0.3	0.3	0.3	5.8	9.2	5.3	5.8	9.2	5.3
Nuclear Power	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.4
Pumped Storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cells	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renewable Sources ⁶	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	1.6	1.6	2.3	27.8	37.8	24.5	33.5	42.2	30.2
Total Electric Power Sector Capacity	967.8	1011.1	1020.9	1014.5	1031.6	1045.8	1039.5	1158.6	1147.3	1164.9

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

Net Summer Capacity ¹	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
End-Use Generators¹¹										
Coal	4.0	4.0	4.0	4.0	4.8	5.7	5.6	5.7	7.1	7.9
Petroleum	1.3	1.4	1.4	2.6	1.4	1.4	2.6	1.4	1.4	2.7
Natural Gas	14.1	13.2	13.4	13.8	16.2	16.0	16.4	20.8	19.9	21.0
Other Gaseous Fuels	1.5	4.4	4.2	3.9	3.9	3.9	3.7	3.9	3.8	3.7
Renewable Sources ⁶	6.1	7.6	7.9	7.5	18.8	20.6	18.1	26.3	28.5	26.4
Other	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Total	27.9	31.4	31.8	32.6	45.9	48.4	47.3	59.0	61.5	62.6
Cumulative Capacity Additions⁹	0.0	3.5	3.9	4.8	18.0	20.5	19.5	31.1	33.6	34.8

¹Net 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.

²Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.

³Includes plants that only produce electricity. Includes capacity increases (uprates) at existing units.

⁴Includes oil-, gas-, and dual-fired capacity.

⁵Nuclear capacity includes 3.4 gigawatts of uprates through 2030.

⁶Includes conventional hydroelectric, geothermal, wood, wood waste, all municipal waste, landfill gas, other biomass, solar, and wind power. Facilities co-firing biomass and coal are classified as coal.

⁷Primarily peak load capacity fueled by natural gas.

⁸Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report North American Industry Classification System code 22).

⁹Cumulative additions after December 31, 2007.

¹⁰Cumulative retirements after December 31, 2007.

¹¹Includes 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.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 capacity and projected planned additions: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary).

Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Electricity Trade	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Interregional Electricity Trade										
Gross Domestic Sales										
Firm Power	124.5	118.7	118.7	118.7	81.8	81.8	81.8	37.6	37.6	37.6
Economy	119.3	200.9	191.6	207.9	214.0	230.3	232.0	198.6	188.9	186.5
Total	243.8	319.6	310.3	326.6	295.7	312.1	313.8	236.2	226.5	224.0
Gross Domestic Sales (million 2007)										
Firm Power	7133.1	6799.0	6799.0	6799.0	4683.5	4683.5	4683.5	2152.7	2152.7	2152.7
Economy	7447.7	8904.5	8323.2	11340.4	12267.	12682.6	12766.6	13288.	11899.0	12768.4
Total	14580.7	15703.6	15122.2	18139.4	16951.3	17366.1	17450.1	15441.3	14051.6	14921.1
International Electricity Trade										
Imports from Canada and Mexico										
Firm Power	15.8	16.6	16.6	16.6	7.3	7.3	7.3	0.4	0.4	0.4
Economy	35.6	28.2	28.2	29.3	29.2	27.4	31.4	45.4	25.9	46.0
Total	51.4	44.7	44.7	45.9	36.5	34.8	38.7	45.8	26.3	46.4
Exports to Canada and Mexico										
Firm Power	3.9	0.9	0.9	0.9	0.5	0.5	0.5	0.0	0.0	0.0
Economy	16.2	20.6	20.6	20.6	20.4	20.4	20.4	18.5	18.5	18.5
Total	20.1	21.5	21.5	21.5	20.9	20.9	20.9	18.5	18.5	18.5

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 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: 2007 interregional firm electricity trade data: North American Electric Reliability Council (NERC), Electricity Sales and Demand Database 2007. 2007 Mexican electricity trade data: Energy Information Administration (EIA), *Electric Power Annual 2007* DOE/EIA-0348(2007) (Washington, DC, December 2008). 2007 Canadian electricity trade data: National Energy Board, *Annual Report 2007*. Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Supply and Disposition	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Crude Oil										
Domestic Crude Production ¹	5.07	5.52	5.52	5.62	5.86	5.79	6.48	7.21	7.14	7.37
Alaska	0.72	0.69	0.69	0.69	0.64	0.64	0.72	0.59	0.59	0.57
Lower 48 States	4.35	4.84	4.84	4.93	5.22	5.15	5.76	6.62	6.55	6.80
Net Imports	10.00	8.23	8.31	8.10	7.99	7.97	7.29	7.02	6.88	6.95
Gross Imports	10.03	8.26	8.34	8.13	8.02	8.00	7.33	7.06	6.92	6.99
Exports	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
Other Crude Supply ²	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Crude Supply	15.16	13.75	13.83	13.72	13.85	13.76	13.77	14.23	14.02	14.32
Other Supply										
Natural Gas Plant Liquids	1.78	1.88	1.87	1.91	1.83	1.81	1.91	1.91	1.87	1.92
Net Product Imports	2.09	1.73	1.80	1.66	1.51	1.50	1.49	1.43	1.39	1.40
Gross Refined Product Imports ³	1.94	1.62	1.67	1.64	1.52	1.52	1.60	1.52	1.51	1.54
Unfinished Oil Imports	0.72	0.70	0.71	0.58	0.71	0.70	0.58	0.76	0.74	0.65
Blending Component Imports	0.75	0.63	0.64	0.62	0.65	0.65	0.66	0.67	0.66	0.69
Exports	1.32	1.22	1.21	1.18	1.38	1.38	1.35	1.52	1.52	1.47
Refinery Processing Gain ⁴	1.00	0.94	0.94	0.97	0.92	0.93	0.93	0.83	0.82	0.86
Other Inputs	0.74	1.15	1.15	1.22	1.69	1.89	1.98	2.58	2.77	3.08
Ethanol	0.45	0.84	0.85	0.84	1.12	1.23	1.28	1.66	1.72	1.91
Domestic Production	0.43	0.86	0.86	0.84	1.07	1.19	1.24	1.52	1.61	1.43
Net Imports	0.02	-0.02	-0.01	-0.00	0.04	0.04	0.04	0.15	0.11	0.49
Biodiesel	0.03	0.05	0.05	0.06	0.12	0.12	0.10	0.12	0.13	0.13
Domestic Production	0.03	0.05	0.05	0.06	0.12	0.12	0.10	0.12	0.13	0.13
Net Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquids from Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquids from Coal	0.00	0.00	0.00	0.00	0.05	0.11	0.10	0.11	0.20	0.26
Liquids from Biomass	0.00	0.00	0.00	0.00	0.04	0.07	0.07	0.26	0.33	0.33
Other ⁵	0.26	0.25	0.25	0.32	0.37	0.36	0.42	0.42	0.40	0.45
Total Primary Supply⁶	20.77	19.45	19.61	19.48	19.79	19.89	20.08	20.98	20.87	21.59
Liquid Fuels Consumption by Fuel										
Liquefied Petroleum Gases	2.09	1.83	1.88	1.99	1.75	1.76	1.82	1.56	1.58	1.74
E85 ⁷	0.00	0.00	0.00	0.00	0.35	0.51	0.58	1.11	1.20	1.50
Motor Gasoline ⁸	9.29	9.40	9.43	9.34	8.76	8.67	8.60	8.36	8.24	8.04
Jet Fuel ⁹	1.62	1.42	1.45	1.45	1.63	1.63	1.65	1.97	1.94	1.99
Distillate Fuel Oil ¹⁰	4.20	4.05	4.10	4.08	4.55	4.56	4.62	5.18	5.14	5.42
Diesel	3.47	3.41	3.46	3.47	4.00	4.01	4.06	4.66	4.63	4.91
Residual Fuel Oil	0.72	0.72	0.72	0.63	0.70	0.70	0.70	0.72	0.71	0.72
Other ¹¹	2.74	2.22	2.22	2.19	2.21	2.22	2.24	2.12	2.11	2.25
by Sector										
Residential and Commercial	1.11	1.12	1.11	1.05	0.99	0.98	0.99	0.98	0.97	0.97
Industrial ¹²	5.26	4.31	4.37	4.46	4.25	4.28	4.34	3.97	3.97	4.28
Transportation	14.25	13.95	14.06	13.96	14.47	14.56	14.65	15.84	15.77	16.18
Electric Power ¹³	0.30	0.27	0.26	0.22	0.23	0.23	0.23	0.24	0.24	0.23
Total	20.65	19.64	19.81	19.69	19.95	20.05	20.21	21.02	20.92	21.67
Discrepancy¹⁴	0.12	-0.19	-0.20	-0.20	-0.16	-0.16	-0.13	-0.04	-0.05	-0.08

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

Supply and Disposition	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Domestic Refinery Distillation Capacity ¹⁵	17.4	18.0	18.0	18.0	18.2	18.2	18.2	18.5	18.4	18.4
Capacity Utilization Rate (percent) ¹⁶	89.0	78.0	78.5	77.8	77.6	77.1	77.1	78.6	77.6	79.2
Net Import Share of Product Supplied (percent)	58.3	51.2	51.5	50.1	48.2	47.8	44.0	41.0	40.1	40.9
Net Expenditures for Imported Crude Oil and Petroleum Products (billion 2007 dollars)	280.13	167.57	169.66	261.60	376.01	375.89	344.32	368.79	360.63	376.65

¹Includes lease condensate.
²Strategic petroleum reserve stock additions plus unaccounted for crude oil and crude stock withdrawals minus crude product supplied.
³Includes other hydrocarbons and alcohols.
⁴The volumetric amount by which total output is greater than input due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.
⁵Includes petroleum product stock withdrawals; and domestic sources of other blending components, other hydrocarbons, ethers, and renewable feedstocks for the on-site production of diesel and gasoline.
⁶Total crude supply plus natural gas plant liquids, other inputs, refinery processing gain, and net product imports.
⁷E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.
⁸Includes ethanol and ethers blended into gasoline.
⁹Includes only kerosene type.
¹⁰Includes distillate fuel oil and kerosene from petroleum and biomass feedstocks.
¹¹Includes aviation gasoline, petrochemical feedstocks, lubricants, waxes, asphalt, road oil, still gas, special naphthas, petroleum coke, crude oil product supplied, methanol, liquid hydrogen, and miscellaneous petroleum products.
¹²Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.
¹³Includes 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.
¹⁴Balancing item. Includes unaccounted for supply, losses, and gains.
¹⁵End-of-year operable capacity.
¹⁶Rate is calculated by dividing the gross annual input to atmospheric crude oil distillation units by their operable refining capacity in barrels per calendar day.
Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.
Sources: 2007 petroleum product supplied based on: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). Other 2007 data: EIA, *Petroleum Supply Annual 2007*, DOE/EIA-0340(2007)/1 (Washington, DC, July 2008). **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A12. Petroleum Product Prices
(2007 Cents per Gallon, Unless Otherwise Noted)

Sector and Fuel	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Crude Oil Prices (2007 dollars per barrel)										
Imported Low Sulfur Light Crude Oil ¹	72.33	52.13	52.16	80.16	116.56	116.79	115.45	130.50	130.92	130.43
Imported Crude Oil ¹	63.83	49.05	48.99	77.56	114.35	114.50	112.05	124.45	124.36	124.60
Delivered Sector Product Prices										
Residential										
Liquefied Petroleum Gases	213.5	177.1	177.0	221.1	284.6	285.1	281.1	300.5	300.7	300.2
Distillate Fuel Oil	272.7	185.0	185.2	259.2	338.5	341.7	334.3	371.9	371.3	369.9
Commercial										
Distillate Fuel Oil	221.7	148.0	148.4	222.8	307.4	311.7	304.9	340.2	339.8	340.4
Residual Fuel Oil	154.3	86.7	86.8	164.2	252.3	252.3	249.7	267.8	267.6	269.1
Residual Fuel Oil (2007 dollars per barrel) . .	64.80	36.41	36.47	68.96	105.96	105.98	104.88	112.46	112.37	113.04
Industrial²										
Liquefied Petroleum Gases	199.9	141.5	142.3	186.7	249.0	249.4	246.0	263.6	263.8	265.0
Distillate Fuel Oil	232.3	145.5	146.1	220.2	311.3	316.6	309.6	344.3	344.2	345.8
Residual Fuel Oil	158.6	147.0	147.4	230.2	310.0	310.3	313.4	331.7	330.5	340.2
Residual Fuel Oil (2007 dollars per barrel) . .	66.61	61.73	61.89	96.70	130.21	130.32	131.64	139.30	138.81	142.89
Transportation										
Liquefied Petroleum Gases	213.8	175.7	175.6	219.5	282.6	283.0	278.9	297.6	297.7	297.3
Ethanol (E85) ³	254.4	178.6	179.0	241.7	275.5	280.8	278.0	296.4	293.5	285.5
Ethanol Wholesale Price	212.4	187.0	187.6	192.8	205.3	208.7	201.1	209.3	204.3	193.8
Motor Gasoline ⁴	282.2	213.8	214.3	283.9	358.2	362.2	359.9	384.9	382.1	388.4
Jet Fuel ⁵	217.4	139.9	140.6	216.5	300.1	301.8	299.1	333.3	333.0	332.4
Diesel Fuel (distillate fuel oil) ⁶	286.8	199.7	200.6	274.9	358.9	364.4	356.8	388.6	388.3	391.7
Residual Fuel Oil	141.2	99.1	98.6	181.1	256.4	256.9	261.4	282.0	281.9	294.1
Residual Fuel Oil (2007 dollars per barrel) . .	59.32	41.60	41.40	76.07	107.68	107.90	109.80	118.43	118.42	123.54
Electric Power⁷										
Distillate Fuel Oil	204.9	135.6	135.8	209.2	288.0	291.0	283.6	322.2	321.9	320.5
Residual Fuel Oil	128.2	99.9	99.9	197.7	262.2	262.6	277.7	286.2	288.1	309.5
Residual Fuel Oil (2007 dollars per barrel) . .	53.86	41.97	41.97	83.03	110.10	110.29	116.64	120.21	121.01	129.98
Refined Petroleum Product Prices⁸										
Liquefied Petroleum Gases	158.4	139.7	139.3	179.2	240.2	240.4	235.7	257.3	256.9	254.5
Motor Gasoline ⁴	280.2	213.8	214.3	283.9	358.1	362.2	359.9	384.9	382.1	388.4
Jet Fuel ⁵	217.4	139.9	140.6	216.5	300.1	301.8	299.1	333.3	333.0	332.4
Distillate Fuel Oil	274.3	186.1	186.8	260.9	348.7	354.0	346.8	380.5	380.2	383.2
Residual Fuel Oil	140.2	103.6	103.5	189.6	262.8	263.3	269.8	286.9	287.2	301.1
Residual Fuel Oil (2007 dollars per barrel) . .	58.89	43.52	43.47	79.62	110.38	110.59	113.34	120.49	120.63	126.47
Average	249.2	186.6	186.8	254.9	331.8	335.1	331.1	360.3	358.5	361.4

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

Sector and Fuel	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Crude Oil Prices (nominal dollars per barrel)										
Imported Low Sulfur Light Crude Oil ¹	72.33	54.00	54.13	84.42	146.20	148.30	149.14	202.00	207.19	189.10
Imported Crude Oil ¹	63.83	50.81	50.84	81.69	143.44	145.39	144.74	192.63	196.81	180.66
Delivered Sector Product Prices										
Residential										
Liquefied Petroleum Gases	213.5	183.4	183.6	232.9	357.0	362.0	363.1	465.2	475.8	435.2
Distillate Fuel Oil	272.7	191.6	192.2	273.0	424.6	433.9	431.8	575.6	587.6	536.3
Commercial										
Distillate Fuel Oil	221.7	153.3	154.0	234.6	385.5	395.8	393.8	526.6	537.8	493.5
Residual Fuel Oil	154.3	89.8	90.1	172.9	316.5	320.4	322.6	414.5	423.4	390.2
Industrial²										
Liquefied Petroleum Gases	199.9	146.6	147.6	196.6	312.3	316.7	317.8	408.0	417.4	384.2
Distillate Fuel Oil	232.3	150.7	151.6	231.9	390.5	402.0	400.0	533.0	544.7	501.4
Residual Fuel Oil	158.6	152.2	152.9	242.5	388.9	394.0	404.9	513.3	523.0	493.3
Transportation										
Liquefied Petroleum Gases	213.8	182.0	182.2	231.2	354.5	359.3	360.3	460.6	471.1	431.0
Ethanol (E85) ³	254.4	185.0	185.8	254.5	345.6	356.5	359.1	458.8	464.5	414.0
Ethanol Wholesale Price	212.4	193.7	194.7	203.1	257.5	265.0	259.8	323.9	323.3	280.9
Motor Gasoline ⁴	282.2	221.5	222.4	299.0	449.3	460.0	464.9	595.8	604.7	563.1
Jet Fuel ⁵	217.4	144.9	145.9	228.0	376.4	383.3	386.4	515.9	527.0	482.0
Diesel Fuel (distillate fuel oil) ⁶	286.8	206.8	208.2	289.6	450.2	462.7	460.9	601.5	614.5	567.9
Residual Fuel Oil	141.2	102.6	102.3	190.8	321.6	326.2	337.7	436.4	446.2	426.5
Electric Power⁷										
Distillate Fuel Oil	204.9	140.4	140.9	220.4	361.3	369.5	366.4	498.7	509.5	464.7
Residual Fuel Oil	128.2	103.5	103.7	208.2	328.8	333.4	358.8	443.0	456.0	448.7
Refined Petroleum Product Prices⁸										
Liquefied Petroleum Gases	158.4	144.7	144.6	188.7	301.4	305.2	304.5	398.3	406.6	369.1
Motor Gasoline ⁴	280.2	221.4	222.4	299.0	449.2	459.9	464.9	595.8	604.7	563.1
Jet Fuel ⁵	217.4	144.9	145.9	228.0	376.4	383.3	386.4	515.9	527.0	482.0
Distillate Fuel Oil	274.3	192.8	193.9	274.7	437.4	449.5	448.0	588.9	601.6	555.7
Residual Fuel Oil (nominal dollars per barrel)	58.89	45.08	45.11	83.86	138.46	140.42	146.41	186.49	190.91	183.36
Average	249.2	193.3	193.8	268.5	416.2	425.6	427.7	557.7	567.4	524.0

¹Weighted average price delivered to U.S. refiners.

²Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.

³E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol varies seasonally. The annual average ethanol content of 74 percent is used for this forecast.

⁴Sales weighted-average price for all grades. Includes Federal, State and local taxes.

⁵Includes only kerosene type.

⁶Diesel fuel for on-road use. Includes Federal and State taxes while excluding county and local taxes.

⁷Includes 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.

⁸Weighted averages of end-use fuel prices are derived from the prices in each sector and the corresponding sectoral consumption.

Note: Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 imported low sulfur light crude oil price: Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." 2007 imported crude oil price: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 prices for motor gasoline, distillate fuel oil, and jet fuel are based on: EIA, *Petroleum Marketing Annual 2007*, DOE/EIA-0487(2007) (Washington, DC, August 2008). 2007 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." 2007 electric power prices based on: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2007 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report. 2007 wholesale ethanol prices derived from Bloomberg U.S. average rack price. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Production										
Dry Gas Production ¹	19.30	20.10	20.02	20.38	20.57	19.58	21.48	23.48	23.03	23.60
Supplemental Natural Gas ²	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Net Imports	3.79	2.41	2.34	2.50	1.79	1.85	1.86	0.80	0.38	0.66
Pipeline ³	3.06	2.02	1.96	2.02	0.40	0.47	0.48	-0.02	-0.43	-0.18
Liquefied Natural Gas	0.72	0.38	0.38	0.47	1.40	1.38	1.38	0.82	0.81	0.85
Total Supply	23.14	22.57	22.42	22.94	22.43	21.50	23.40	24.34	23.47	24.33
Consumption by Sector										
Residential	4.72	4.97	4.92	4.79	4.90	4.86	4.96	4.93	4.87	4.93
Commercial	3.01	3.18	3.18	3.06	3.24	3.23	3.25	3.49	3.43	3.44
Industrial ⁴	6.63	5.83	6.00	6.59	6.30	6.36	6.65	6.36	6.34	6.85
Natural-Gas-to-Liquids Heat and Power ⁵	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas to Liquids Production ⁶	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electric Power ⁷	6.87	6.13	5.91	6.25	6.05	5.22	6.54	7.40	6.70	6.93
Transportation ⁸	0.02	0.03	0.03	0.03	0.06	0.07	0.07	0.08	0.08	0.09
Pipeline Fuel	0.62	0.62	0.62	0.62	0.65	0.60	0.67	0.69	0.68	0.70
Lease and Plant Fuel ⁹	1.17	1.25	1.24	1.24	1.26	1.19	1.29	1.42	1.40	1.43
Total	23.05	22.01	21.89	22.57	22.46	21.53	23.43	24.36	23.50	24.36
Discrepancy¹⁰	0.09	0.56	0.53	0.37	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03
Natural Gas Prices										
(2007 dollars per million Btu)										
Henry Hub Spot Price	6.96	5.14	5.11	6.66	7.53	7.47	7.43	8.91	8.83	9.25
Average Lower 48 Wellhead Price ¹¹	6.22	4.55	4.51	5.88	6.65	6.60	6.56	7.87	7.80	8.17
(2007 dollars per thousand cubic feet)										
Average Lower 48 Wellhead Price ¹¹	6.39	4.67	4.64	6.05	6.84	6.79	6.75	8.09	8.01	8.40
Delivered Prices										
(2007 dollars per thousand cubic feet)										
Residential	13.05	11.51	11.51	12.43	12.97	12.91	12.85	14.45	14.35	14.71
Commercial	11.30	9.77	9.73	10.84	11.47	11.39	11.44	12.99	12.87	13.32
Industrial ⁴	7.73	5.71	5.65	7.10	7.77	7.68	7.69	9.04	8.94	9.33
Electric Power ⁷	7.22	5.36	5.27	6.77	7.37	7.22	7.35	8.69	8.57	8.94
Transportation ¹²	15.93	13.94	13.88	15.32	15.47	15.36	15.31	16.29	16.14	16.70
Average¹³	9.26	7.69	7.64	8.80	9.50	9.48	9.37	10.77	10.71	11.05

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Natural Gas Prices										
(nominal dollars per million Btu)										
Henry Hub Spot Price	6.96	5.33	5.30	7.01	9.44	9.49	9.60	13.79	13.97	13.42
Average Lower 48 Wellhead Price ¹¹	6.22	4.71	4.68	6.19	8.34	8.38	8.48	12.18	12.34	11.85
(nominal dollars per thousand cubic feet)										
Average Lower 48 Wellhead Price ¹¹	6.39	4.84	4.81	6.37	8.58	8.62	8.72	12.52	12.68	12.18
Delivered Prices										
(nominal dollars per thousand cubic feet)										
Residential	13.05	11.93	11.94	13.09	16.27	16.39	16.60	22.36	22.71	21.33
Commercial	11.30	10.12	10.10	11.42	14.39	14.46	14.77	20.11	20.37	19.31
Industrial ⁴	7.73	5.92	5.87	7.48	9.75	9.75	9.93	14.00	14.14	13.52
Electric Power ⁷	7.22	5.55	5.47	7.13	9.25	9.17	9.49	13.45	13.57	12.96
Transportation ¹²	15.93	14.44	14.40	16.13	19.40	19.51	19.78	25.22	25.54	24.21
Average¹³	9.26	7.97	7.93	9.26	11.92	12.04	12.10	16.67	16.95	16.02

¹Marketed production (wet) minus extraction losses.
²Synthetic 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.
³Includes any natural gas regasified in the Bahamas and transported via pipeline to Florida, as well as gas from Canada and Mexico.
⁴Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
⁵Includes any natural gas used in the process of converting natural gas to liquid fuel that is not actually converted.
⁶Includes any natural gas that is converted into liquid fuel.
⁷Includes 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.
⁸Compressed natural gas used as vehicle fuel.
⁹Represents natural gas used in well, field, and lease operations, and in natural gas processing plant machinery.
¹⁰Balancing 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, 2006 and 2007 values include net storage injections.
¹¹Represents lower 48 onshore and offshore supplies.
¹²Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes and estimated dispensing costs or charges.
¹³Weighted average prices. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.
Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.
Sources: 2007 supply values; and lease, plant, and pipeline fuel consumption; and wellhead price: Energy Information Administration (EIA), *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). Other 2007 consumption based on: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 residential and commercial delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 electric power prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, April 2007 and April 2008, Table 4.13.B. 2007 industrial delivered prices are estimated based on: EIA, *Manufacturing Energy Consumption Survey 1994* and industrial and wellhead prices from the *Natural Gas Annual 2006*, DOE/EIA-0131(2006) (Washington, DC, October 2007) and the *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). 2007 transportation sector delivered prices are model results. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A14. Oil and Gas Supply

Production and Supply	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Crude Oil										
Lower 48 Average Wellhead Price¹ (2007 dollars per barrel)	65.70	48.87	48.85	77.30	113.80	114.07	110.99	122.91	122.75	122.82
Production (million barrels per day)²										
United States Total	5.07	5.52	5.52	5.62	5.86	5.79	6.48	7.21	7.14	7.37
Lower 48 Onshore	2.91	2.90	2.90	2.92	3.11	3.11	3.37	3.78	3.77	4.06
Lower 48 Offshore	1.44	1.94	1.94	2.01	2.10	2.04	2.39	2.84	2.78	2.74
Alaska	0.72	0.69	0.69	0.69	0.64	0.64	0.72	0.59	0.59	0.57
Lower 48 End of Year Reserves² (billion barrels)	18.62	18.78	18.78	19.21	20.62	20.44	22.50	24.66	24.39	25.38
Natural Gas										
Lower 48 Average Wellhead Price¹ (2007 dollars per million Btu)										
Henry Hub Spot Price	6.96	5.14	5.11	6.66	7.53	7.47	7.43	8.91	8.83	9.25
Average Lower 48 Wellhead Price ¹	6.22	4.55	4.51	5.88	6.65	6.60	6.56	7.87	7.80	8.17
(2007 dollars per thousand cubic feet)										
Average Lower 48 Wellhead Price ¹	6.39	4.67	4.64	6.05	6.84	6.79	6.75	8.09	8.01	8.40
Dry Production (trillion cubic feet)³										
United States Total	19.30	20.10	20.02	20.38	20.57	19.58	21.48	23.48	23.03	23.60
Lower 48 Onshore	15.91	16.32	16.24	16.75	15.56	15.50	16.11	16.09	15.77	16.76
Associated-Dissolved ⁴	1.39	1.41	1.41	1.41	1.32	1.32	1.37	1.29	1.29	1.32
Non-Associated	14.51	14.91	14.83	15.34	14.24	14.18	14.74	14.81	14.48	15.44
Conventional	5.36	4.53	4.52	4.70	3.40	3.39	3.36	2.16	2.14	2.18
Unconventional	9.15	10.38	10.32	10.64	10.84	10.78	11.38	12.65	12.34	13.26
Gas Shale	1.17	2.24	2.23	2.31	2.78	2.71	2.97	3.88	3.66	4.15
Coalbed Methane	1.84	1.75	1.73	1.79	1.72	1.73	1.78	1.96	1.96	2.01
Tight Gas	6.15	6.39	6.35	6.54	6.34	6.35	6.62	6.81	6.71	7.10
Lower 48 Offshore	2.97	3.39	3.38	3.26	3.85	3.72	4.23	5.40	5.28	4.88
Associated-Dissolved ⁴	0.62	0.72	0.72	0.72	0.95	0.93	1.00	1.15	1.12	1.16
Non-Associated	2.35	2.67	2.66	2.55	2.90	2.79	3.23	4.25	4.16	3.72
Alaska	0.42	0.39	0.39	0.37	1.17	0.36	1.14	1.99	1.99	1.96
Lower 48 End of Year Dry Reserves³ (trillion cubic feet)	225.18	228.25	228.12	230.11	203.44	199.09	213.14	209.23	203.35	211.98
Supplemental Gas Supplies (trillion cubic	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total Lower 48 Wells Drilled (thousands) ...	53.51	40.95	40.83	45.17	45.89	43.50	48.20	51.41	49.25	53.76

¹Represents lower 48 onshore and offshore supplies.

²Includes lease condensate.

³Marketed production (wet) minus extraction losses.

⁴Gas which occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).

⁵Synthetic 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 2006 and 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 crude oil lower 48 average wellhead price: Energy Information Administration (EIA), *Petroleum Marketing Annual 2007*, DOE/EIA-0487(2007) (Washington, DC, August 2008). 2007 lower 48 onshore, lower 48 offshore, and Alaska crude oil production: EIA, *Petroleum Supply Annual 2007*, DOE/EIA-0340(2007)/1 (Washington, DC, July 2008). 2007 natural gas lower 48 average wellhead price, Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2008/08) (Washington, DC, August 2008). Other 2007 values: EIA, Office of Integrated Analysis and Forecasting. Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Production¹										
Appalachia	378	356	356	383	332	334	333	323	327	353
Interior	147	157	157	163	176	187	206	205	212	252
West	621	632	633	632	692	702	671	716	734	735
East of the Mississippi	478	459	458	500	456	460	478	463	471	529
West of the Mississippi	668	686	687	677	745	763	732	780	801	812
Total	1147	1145	1145	1177	1201	1223	1210	1243	1272	1341
Waste Coal Supplied²	14	11	11	11	9	10	12	10	11	13
Net Imports										
Imports ³	34	34	34	34	60	61	48	57	62	53
Exports	59	73	73	82	54	54	53	37	40	44
Total	-25	-39	-39	-48	5	7	-5	20	22	10
Total Supply⁴	1136	1117	1117	1140	1215	1240	1217	1273	1305	1363
Consumption by Sector										
Residential and Commercial	4	3	3	3	3	3	3	3	3	3
Coke Plants	23	19	20	21	18	19	19	15	15	18
Other Industrial ⁵	57	48	49	60	53	54	56	53	53	57
Coal-to-Liquids Heat and Power	0	0	0	0	8	18	16	17	32	38
Coal to Liquids Production	0	0	0	0	7	15	14	14	27	32
Electric Power ⁶	1046	1046	1045	1056	1125	1131	1110	1170	1174	1215
Total	1129	1117	1117	1140	1215	1240	1218	1273	1305	1363
Discrepancy and Stock Change⁷	7	-0	-0	0	-0	0	-0	-0	0	-0
Average Minemouth Price⁸										
(2007 dollars per short ton)	25.82	26.59	26.65	29.45	27.44	27.38	27.90	27.91	27.87	29.10
(2007 dollars per million Btu)	1.27	1.31	1.32	1.44	1.37	1.37	1.39	1.40	1.40	1.46
Delivered Prices (2007 dollars per short ton)⁹										
Coke Plants	94.97	104.32	104.78	114.53	115.01	115.04	115.37	116.78	115.98	115.57
Other Industrial ⁵	54.42	51.37	51.50	54.81	55.65	55.39	54.65	57.60	57.41	57.22
Coal to Liquids	--	--	--	--	16.20	18.10	17.89	18.14	19.51	20.96
Electric Power										
(2007 dollars per short ton)	35.45	36.77	36.83	37.71	38.53	38.81	38.04	40.52	40.77	40.61
(2007 dollars per million Btu)	1.78	1.86	1.86	1.89	1.95	1.96	1.92	2.04	2.04	2.04
Average	37.60	38.56	38.67	40.03	40.17	40.13	39.50	41.55	41.33	41.30
Exports ¹⁰	70.25	72.80	73.12	83.77	87.97	87.93	89.48	84.76	86.85	80.02

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

Supply, Disposition, and Prices	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Average Minemouth Price⁸										
(nominal dollars per short ton)	25.82	27.55	27.65	31.02	34.42	34.77	36.04	43.20	44.10	42.20
(nominal dollars per million Btu)	1.27	1.36	1.37	1.52	1.72	1.74	1.80	2.17	2.22	2.11
Delivered Prices (nominal dollars per short										
Coke Plants	94.97	108.06	108.73	120.62	144.26	146.08	149.04	180.75	183.55	167.56
Other Industrial ⁵	54.42	53.21	53.44	57.73	69.81	70.33	70.59	89.16	90.86	82.96
Coal to Liquids	--	--	--	--	20.31	22.98	23.11	28.07	30.87	30.39
Electric Power										
(nominal dollars per short ton)	35.45	38.09	38.22	39.72	48.33	49.28	49.14	62.72	64.53	58.88
(nominal dollars per million Btu)	1.78	1.93	1.93	1.99	2.44	2.48	2.48	3.16	3.24	2.95
Average	37.60	39.94	40.13	42.16	50.39	50.95	51.03	64.31	65.41	59.88
Exports ¹⁰	70.25	75.42	75.88	88.23	110.34	111.66	115.59	131.19	137.45	116.02

¹Includes anthracite, bituminous coal, subbituminous coal, and lignite.
²Includes waste coal consumed by the electric power and industrial sectors. Waste coal supplied is counted as a supply-side item to balance the same amount of waste coal included in the consumption data.
³Excludes imports to Puerto Rico and the U.S. Virgin Islands.
⁴Production plus waste coal supplied plus net imports.
⁵Includes consumption for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public. Excludes all coal use in the coal-to-liquids process.
⁶Includes all electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
⁷Balancing item: the sum of production, net imports, and waste coal supplied minus total consumption.
⁸Includes reported prices for both open market and captive mines.
⁹Prices weighted by consumption; weighted average excludes residential and commercial prices, and export free-alongside-ship (f.a.s.) prices.
¹⁰F.a.s. price at U.S. port of exit.
-- = Not applicable.
Btu = British thermal unit.
Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.
Sources: 2007 data based on: Energy Information Administration (EIA), *Annual Coal Report 2007*, DOE/EIA-0584(2007) (Washington, DC, September 2008); EIA, *Quarterly Coal Report, October-December 2007*, DOE/EIA-0121(2007/4Q) (Washington, DC, March 2008); and EIA, AEO2009 National Energy Modeling System run NOSTIMLS.D041409A. **Projections:** EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Capacity and Generation	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Electric Power Sector¹										
Net Summer Capacity										
Conventional Hydropower	76.72	76.73	76.73	76.73	77.05	77.08	77.02	77.48	77.27	77.58
Geothermal ²	2.36	2.53	2.53	2.53	2.60	3.01	2.66	3.03	3.30	3.00
Municipal Waste ³	3.43	4.04	4.09	4.04	4.08	4.34	4.12	4.09	4.34	4.15
Wood and Other Biomass ^{4,5}	2.18	2.20	2.20	2.20	2.76	5.34	4.22	6.43	8.01	8.86
Solar Thermal	0.53	0.54	0.54	0.54	0.81	0.81	0.81	0.86	0.86	0.86
Solar Photovoltaic ⁶	0.04	0.06	0.06	0.06	0.21	0.21	0.21	0.38	0.38	0.38
Wind	16.19	29.43	39.43	29.46	32.98	64.76	33.07	40.31	66.03	43.80
Offshore Wind	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.20	0.20	0.20
Total	101.46	115.54	125.58	115.57	120.69	155.75	122.32	132.78	160.40	138.83
Generation (billion kilowatthours)										
Conventional Hydropower	245.86	268.04	268.04	268.05	296.49	296.27	296.29	299.02	297.44	298.97
Geothermal ²	14.84	17.78	17.78	17.78	18.63	21.86	19.11	22.01	24.18	21.80
Biogenic Municipal Waste ⁷	14.42	19.32	19.66	19.30	19.63	21.66	19.95	19.68	21.66	20.17
Wood and Other Biomass ⁵	10.38	12.57	12.41	28.07	104.67	92.15	117.82	134.72	125.89	140.44
Dedicated Plants	8.41	10.87	10.64	12.85	17.91	35.55	28.74	45.19	56.05	62.27
Cofiring	1.97	1.70	1.76	15.22	86.75	56.60	89.08	89.52	69.84	78.17
Solar Thermal	0.60	0.99	0.99	0.99	1.88	1.88	1.88	2.02	2.02	2.02
Solar Photovoltaic ⁶	0.01	0.14	0.14	0.14	0.49	0.49	0.49	0.94	0.94	0.94
Wind	32.14	80.39	111.68	80.50	91.93	200.49	92.45	116.71	204.46	129.38
Offshore Wind	0.00	0.00	0.00	0.00	0.75	0.75	0.75	0.75	0.75	0.75
Total	318.25	399.22	430.69	414.82	534.48	635.56	548.75	595.84	677.34	614.47
End-Use Generators⁸										
Net Summer Capacity										
Conventional Hydropower ⁹	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Waste ¹⁰	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Biomass	4.64	4.71	4.71	4.65	6.23	7.22	7.28	11.63	13.30	13.23
Solar Photovoltaic ⁶	0.43	1.81	1.86	1.73	11.44	10.78	9.72	13.24	12.30	11.78
Wind	0.04	0.05	0.30	0.04	0.14	1.60	0.09	0.36	1.82	0.31
Total	6.15	7.60	7.91	7.45	18.85	20.64	18.12	26.26	28.46	26.35
Generation (billion kilowatthours)										
Conventional Hydropower ⁹	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Waste ¹⁰	2.01	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Biomass	28.13	28.54	28.57	28.20	39.01	46.78	47.17	79.17	92.46	90.81
Solar Photovoltaic ⁶	0.68	2.91	2.99	2.78	18.88	17.73	16.02	21.87	20.26	19.49
Wind	0.06	0.07	0.39	0.06	0.20	2.22	0.12	0.52	2.54	0.45
Total	33.33	36.72	37.16	36.24	63.29	71.94	68.51	106.76	120.47	115.95

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

Capacity and Generation	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Total, All Sectors										
Net Summer Capacity										
Conventional Hydropower	77.42	77.43	77.43	77.43	77.75	77.77	77.72	78.18	77.97	78.28
Geothermal	2.36	2.53	2.53	2.53	2.60	3.01	2.66	3.03	3.30	3.00
Municipal Waste	3.77	4.38	4.42	4.38	4.42	4.68	4.46	4.42	4.68	4.49
Wood and Other Biomass ^{4,5}	6.82	6.91	6.91	6.85	8.99	12.56	11.50	18.06	21.32	22.08
Solar ⁶	1.00	2.41	2.46	2.33	12.46	11.80	10.74	14.48	13.54	13.02
Wind	16.23	29.48	39.73	29.50	33.32	66.57	33.35	40.87	68.05	44.31
Total	107.60	123.13	133.49	123.02	139.54	176.39	140.44	159.04	188.86	165.18
Generation (billion kilowatthours)										
Conventional Hydropower	248.31	270.49	270.49	270.50	298.94	298.72	298.75	301.47	299.89	301.42
Geothermal	14.84	17.78	17.78	17.78	18.63	21.86	19.11	22.01	24.18	21.80
Municipal Waste	16.43	22.07	22.41	22.05	22.39	24.41	22.70	22.43	24.41	22.93
Wood and Other Biomass ⁵	38.51	41.11	40.98	56.26	143.67	138.93	164.99	213.88	218.36	231.25
Solar ⁶	1.29	4.04	4.12	3.91	21.26	20.11	18.39	24.83	23.22	22.45
Wind	32.20	80.46	112.07	80.55	92.88	203.47	93.32	117.98	207.75	130.57
Total	351.58	435.94	467.85	451.06	597.77	707.50	617.26	702.61	797.81	730.42

¹Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.

²Includes hydrothermal resources only (hot water and steam).

³Includes municipal waste, landfill gas, and municipal sewage sludge. Incremental growth is assumed to be for landfill gas facilities. All municipal waste is included, although a portion of the municipal waste stream contains petroleum-derived plastics and other non-renewable sources.

⁴Facilities co-firing biomass and coal are classified as coal.

⁵Includes projections for energy crops after 2012.

⁶Does not include off-grid photovoltaics (PV). Based on annual PV shipments from 1989 through 2006, EIA estimates that as much as 210 megawatts of remote electricity generation PV applications (i.e., off-grid power systems) were in service in 2006, plus an additional 526 megawatts in communications, transportation, and assorted other non-grid-connected, specialized applications. See Energy Information Administration, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008), Table 10.8 (annual PV shipments, 1989-2006). 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.

⁷Includes biogenic municipal waste, landfill gas, and municipal sewage sludge. Incremental growth is assumed to be for landfill gas facilities. Only biogenic municipal waste is included. The Energy Information Administration estimates that in 2007 approximately 6 billion kilowatthours of electricity were generated from a municipal waste stream containing petroleum-derived plastics and other non-renewable sources. See Energy Information Administration, *Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy* (Washington, DC, May 2007).

⁸Includes 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.

⁹Represents own-use industrial hydroelectric power.

¹⁰Includes municipal waste, landfill gas, and municipal sewage sludge. All municipal waste is included, although a portion of the municipal waste stream contains petroleum-derived plastics and other non-renewable sources.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 capacity: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report" (preliminary). 2007 generation: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A17. Renewable Energy, Consumption by Sector and Source¹
(Quadrillion Btu per Year)

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Marketed Renewable Energy²										
Residential (wood)	0.43	0.42	0.42	0.43	0.48	0.48	0.48	0.50	0.50	0.50
Commercial (biomass)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Industrial³	2.04	2.31	2.33	2.23	2.66	2.90	2.87	3.60	3.88	3.62
Conventional Hydroelectric	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Municipal Waste ⁴	0.16	0.17	0.17	0.12	0.17	0.17	0.12	0.17	0.17	0.12
Biomass	1.46	1.35	1.37	1.34	1.44	1.48	1.49	1.72	1.74	1.81
Biofuels Heat and Coproducts	0.40	0.76	0.76	0.75	1.02	1.23	1.23	1.69	1.94	1.66
Transportation	0.64	1.19	1.19	1.23	1.80	2.01	2.06	2.96	3.17	3.43
Ethanol used in E85 ⁵	0.00	0.00	0.00	0.00	0.33	0.49	0.56	1.06	1.15	1.44
Ethanol used in Gasoline Blending	0.58	1.09	1.09	1.08	1.11	1.10	1.10	1.09	1.07	1.04
Biodiesel used in Distillate Blending	0.06	0.10	0.10	0.12	0.23	0.23	0.20	0.24	0.26	0.25
Liquids from Biomass	0.00	0.00	0.00	0.00	0.07	0.14	0.15	0.52	0.65	0.65
Green Liquids	0.00	0.00	0.00	0.02	0.05	0.05	0.06	0.05	0.04	0.06
Electric Power⁶	3.45	4.24	4.56	4.42	5.65	6.69	5.79	6.28	7.13	6.43
Conventional Hydroelectric	2.44	2.65	2.65	2.65	2.93	2.92	2.92	2.95	2.93	2.95
Geothermal	0.31	0.38	0.38	0.38	0.41	0.51	0.43	0.52	0.58	0.51
Biogenic Municipal Waste ⁷	0.17	0.23	0.24	0.23	0.24	0.26	0.24	0.24	0.26	0.24
Biomass	0.21	0.18	0.17	0.35	1.14	0.97	1.25	1.39	1.29	1.41
Dedicated Plants	0.16	0.15	0.14	0.15	0.16	0.36	0.28	0.44	0.56	0.61
Cofiring	0.05	0.03	0.03	0.21	0.98	0.62	0.98	0.95	0.73	0.80
Solar Thermal	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Wind	0.32	0.80	1.11	0.80	0.92	1.99	0.92	1.16	2.03	1.29
Total Marketed Renewable Energy	6.69	8.29	8.62	8.43	10.72	12.21	11.32	13.47	14.80	14.10
Sources of Ethanol										
From Corn	0.55	1.11	1.10	1.08	1.32	1.35	1.42	1.57	1.50	1.41
From Cellulose	0.00	0.00	0.00	0.00	0.07	0.19	0.18	0.38	0.58	0.43
Imports	0.03	-0.02	-0.01	-0.00	0.06	0.05	0.06	0.19	0.15	0.63
Total	0.58	1.09	1.09	1.08	1.45	1.59	1.66	2.15	2.22	2.47

Table A17. Renewable Energy, Consumption by Sector and Source¹ (Continued)
(Quadrillion Btu per Year)

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Nonmarketed Renewable Energy⁸										
Selected Consumption										
Residential	0.01	0.01	0.01	0.01	0.08	0.08	0.07	0.09	0.09	0.08
Solar Hot Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Geothermal Heat Pumps	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
Solar Photovoltaic	0.00	0.01	0.01	0.01	0.06	0.05	0.05	0.06	0.06	0.05
Wind	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Commercial	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04
Solar Thermal	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Solar Photovoltaic	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹Actual 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 10,022 Btu per kilowatt-hour.

²Includes 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 A2.

³Includes all electricity production by industrial and other combined heat and power for the grid and for own use.

⁴Includes municipal waste, landfill gas, and municipal sewage sludge. All municipal waste is included, although a portion of the municipal waste stream contains petroleum-derived plastics and other non-renewable sources.

⁵Excludes motor gasoline component of E85.

⁶Includes 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.

⁷Includes biogenic municipal waste, landfill gas, and municipal sewage sludge. Incremental growth is assumed to be for landfill gas facilities. Only biogenic municipal waste is included. The Energy Information Administration estimates that in 2007 approximately 0.3 quadrillion Btus were consumed from a municipal waste stream containing petroleum-derived plastics and other non-renewable sources. See Energy Information Administration, *Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy* (Washington, DC, May 2007).

⁸Includes 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.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 ethanol: Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 electric power sector: EIA, Form EIA-860, "Annual Electric Generator Report" (preliminary). Other 2007 values: EIA, Office of Integrated Analysis and Forecasting. Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

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

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Residential										
Petroleum	88	94	93	89	80	78	80	75	74	75
Natural Gas	257	271	268	261	267	265	270	269	266	269
Coal	1	1	1	1	1	1	1	1	1	1
Electricity ¹	904	889	879	886	904	882	899	987	969	987
Total	1250	1255	1242	1237	1251	1226	1250	1332	1310	1332
Commercial										
Petroleum	45	45	45	41	42	41	42	43	42	42
Natural Gas	163	173	173	167	177	176	177	190	187	188
Coal	7	6	6	6	6	6	6	6	6	6
Electricity ¹	872	885	879	878	976	968	979	1087	1087	1096
Total	1087	1110	1103	1092	1200	1192	1205	1326	1322	1332
Industrial²										
Petroleum	406	384	385	377	367	368	369	360	356	375
Natural Gas ³	405	374	383	414	401	400	421	414	412	440
Coal	175	146	148	174	165	179	183	167	187	215
Electricity ¹	653	580	580	617	611	610	612	578	575	638
Total	1640	1483	1496	1582	1544	1557	1585	1519	1530	1667
Transportation										
Petroleum ⁴	1974	1849	1865	1851	1891	1887	1896	2016	1995	2032
Natural Gas ⁵	35	35	35	36	39	36	40	42	42	43
Electricity ¹	4	4	4	4	5	6	6	8	8	9
Total	2014	1889	1905	1891	1935	1929	1942	2066	2045	2084
Electric Power⁶										
Petroleum	66	47	47	38	41	40	40	42	41	41
Natural Gas	376	334	322	341	330	285	357	403	365	378
Coal	1980	1964	1962	1995	2114	2129	2089	2203	2222	2299
Other ⁷	12	12	12	12	12	12	12	12	12	12
Total	2433	2357	2342	2385	2496	2466	2497	2660	2639	2729
Total by Fuel										
Petroleum ³	2580	2419	2435	2396	2420	2415	2427	2536	2509	2564
Natural Gas	1237	1189	1182	1218	1214	1163	1265	1319	1272	1318
Coal	2162	2117	2117	2176	2286	2316	2278	2377	2415	2521
Other ⁷	12	12	12	12	12	12	12	12	12	12
Total	5991	5737	5746	5801	5931	5905	5982	6244	6207	6414
Carbon Dioxide Emissions (tons per person)	19.8	18.4	18.5	18.6	17.3	17.2	17.5	16.7	16.6	17.1

¹Emissions from the electric power sector are distributed to the end-use sectors.

²Fuel consumption includes energy for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public.

³Includes lease and plant fuel.

⁴This includes carbon dioxide from international bunker fuels, both civilian and military, which are excluded from the accounting of carbon dioxide emissions under the United Nations convention. From 1990 through 2007, international bunker fuels accounted for 84 to 131 million metric tons annually.

⁵Includes pipeline fuel natural gas and compressed natural gas used as vehicle fuel.

⁶Includes electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.

⁷Includes emissions from geothermal power and nonbiogenic emissions from municipal waste.

Note: Totals may not equal sum of components due to independent rounding. Data for 2006 and 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 emissions and emission factors: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2007*, DOE/EIA-0573(2007) (Washington, DC, December 2008). Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A19. Energy-Related Carbon Dioxide Emissions by End Use
(Million Metric Tons)

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Residential										
Space Heating	293.21	310.20	305.35	291.82	291.36	286.33	291.30	288.15	282.85	286.17
Space Cooling	167.89	153.67	150.17	158.68	168.11	162.08	169.72	187.27	181.01	190.05
Water Heating	166.05	164.05	160.98	161.74	169.24	166.33	166.79	162.16	162.55	165.41
Refrigeration	73.53	68.77	68.35	68.88	68.36	67.54	67.93	72.82	72.73	73.42
Cooking	33.58	33.53	33.42	34.00	36.18	35.91	37.37	38.50	38.44	40.30
Clothes Dryers	54.78	53.85	53.41	53.38	54.49	53.41	53.99	57.80	56.80	58.11
Freezers	15.54	14.61	14.52	14.64	14.75	14.57	14.66	15.53	15.51	15.66
Lighting	139.58	133.05	131.99	132.07	98.28	96.40	97.54	91.08	89.82	90.61
Clothes Washers ¹	6.65	6.07	6.04	5.99	4.84	4.79	4.74	4.88	4.88	4.93
Dishwashers ¹	18.12	17.28	17.18	17.32	17.92	17.70	17.81	19.97	19.93	20.07
Color Televisions and Set-Top Boxes	68.63	74.82	74.24	74.30	77.46	75.96	77.16	96.42	95.01	97.19
Personal Computers and Related Equipment	29.18	33.36	33.21	33.47	34.81	34.39	34.62	39.16	39.07	39.39
Furnace Fans and Boiler Circulation Pumps	24.52	26.13	25.97	24.21	27.45	27.18	26.76	28.59	28.60	28.42
Other Uses	165.37	165.79	166.90	166.42	188.00	183.76	189.62	229.75	222.39	222.05
Discrepancy ²	-6.67	-0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00
Total Residential	1249.97	1255.21	1241.71	1236.92	1251.26	1226.36	1250.00	1332.10	1309.59	1331.78
Commercial										
Space Heating ³	121.27	129.50	128.86	122.71	124.00	122.56	125.18	123.80	121.45	123.26
Space Cooling ³	106.18	100.66	99.88	102.62	105.23	104.28	106.83	112.64	112.43	115.01
Water Heating ³	43.05	42.96	42.84	42.19	45.25	45.24	45.75	48.12	48.06	47.99
Ventilation	93.21	98.65	98.05	97.80	111.48	112.03	113.27	120.47	122.06	123.43
Cooking	13.19	13.88	13.86	13.67	14.57	14.61	14.70	15.82	15.85	15.65
Lighting	201.87	196.38	194.72	195.55	197.94	197.05	202.04	206.53	207.45	210.90
Refrigeration	76.34	72.95	72.56	73.02	66.22	65.73	66.80	68.91	69.04	69.59
Office Equipment (PC)	45.95	46.78	46.51	46.77	51.42	50.90	51.55	58.27	58.27	58.63
Office Equipment (non-PC)	39.97	47.47	47.20	47.47	66.51	65.83	66.68	74.65	74.62	75.05
Other Uses ⁴	346.47	360.45	358.87	350.49	417.70	413.59	411.93	496.68	492.88	492.05
Total Commercial	1087.50	1109.68	1103.33	1092.29	1200.33	1191.82	1204.72	1325.89	1322.11	1331.56
Industrial										
Manufacturing										
Refining	251.30	256.89	255.78	258.31	269.50	280.58	291.74	293.82	307.51	327.84
Food Products	98.75	99.74	100.99	103.37	109.24	107.04	107.57	120.53	118.65	119.68
Paper Products	93.84	85.19	85.66	87.16	83.04	83.86	85.70	84.09	84.70	88.86
Bulk Chemicals	313.83	257.74	262.42	279.94	235.85	238.52	247.77	191.29	195.73	221.91
Glass	17.19	16.37	16.50	16.88	21.45	21.75	21.25	21.97	21.96	21.37
Cement Manufacturing	41.74	30.87	31.83	32.97	40.80	41.42	40.16	41.42	40.77	40.58
Iron and Steel	137.35	108.88	113.01	117.98	110.34	113.15	113.43	85.65	86.82	116.17
Aluminum	44.93	42.26	42.20	42.50	36.86	37.54	36.66	29.60	29.90	32.23
Fabricated Metal Products	42.98	34.19	34.52	36.15	36.90	37.04	36.82	28.43	28.44	36.51
Machinery	21.48	17.41	17.40	18.40	21.55	22.62	20.66	14.76	14.43	21.97
Computers and Electronics	29.63	21.44	21.95	24.66	30.34	30.97	32.37	39.53	36.39	53.58
Transportation Equipment	42.28	41.17	41.45	39.29	40.00	40.26	40.09	40.29	39.33	41.69
Electrical Equipment	17.38	12.63	12.85	13.91	17.22	17.50	16.85	18.81	17.91	22.37
Wood Products	17.79	17.48	17.74	17.80	21.96	22.10	20.10	21.98	21.15	19.59
Plastics	40.96	37.26	37.45	37.60	38.18	37.77	38.84	37.39	38.52	43.38
Balance of Manufacturing	171.10	147.34	148.41	150.34	153.71	152.42	154.38	153.26	154.42	160.37
Total Manufacturing	1382.52	1226.88	1240.18	1277.28	1266.94	1284.54	1304.41	1222.82	1236.62	1368.09
Nonmanufacturing										
Agriculture	96.45	81.78	83.11	86.33	85.00	84.70	85.70	90.02	89.21	88.95
Mining	76.82	53.43	54.39	59.38	75.75	75.73	72.43	76.29	75.39	76.07
Construction	81.58	75.25	75.35	77.18	74.65	73.79	76.44	77.08	76.92	79.62
Total Nonmanufacturing	254.84	210.46	212.86	222.89	235.41	234.23	234.56	243.39	241.52	244.63
Discrepancy ²	2.40	45.64	43.08	81.53	41.92	38.20	46.14	53.17	52.07	54.56
Total Industrial	1639.76	1482.98	1496.11	1581.70	1544.27	1556.97	1585.11	1519.38	1530.21	1667.28

Table A19. Energy-Related Carbon Dioxide Emissions by End Use (Continued)
(Million Metric Tons)

Sector and Source	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Transportation										
Light-Duty Vehicles	1137.85	1086.53	1090.07	1076.13	1018.16	1011.80	1007.98	1031.27	1021.31	1002.45
Commercial Light Trucks ⁵	43.08	36.17	36.63	37.81	39.70	40.06	39.85	41.72	41.28	44.04
Bus Transportation	19.57	19.94	19.98	19.11	18.87	18.91	19.08	20.15	20.08	20.06
Freight Trucks	371.85	333.05	339.55	343.12	399.86	401.21	409.93	451.72	446.43	488.21
Rail, Passenger	5.82	5.81	5.84	5.84	6.59	6.54	6.60	7.29	7.26	7.30
Rail, Freight	43.01	40.34	40.78	40.74	45.46	45.88	46.39	48.63	48.83	52.19
Shipping, Domestic	25.11	23.62	23.85	23.52	26.23	25.98	27.51	29.29	29.07	30.69
Shipping, International	69.31	65.49	65.53	62.74	70.15	70.17	70.25	71.10	71.05	71.23
Recreational Boats	17.48	17.09	17.16	16.86	17.99	17.97	17.63	18.92	18.84	18.55
Air	192.03	167.48	171.99	173.66	199.72	200.95	203.42	248.41	244.02	250.83
Military Use	50.27	55.44	55.83	52.93	52.59	52.65	52.83	55.13	55.17	55.40
Lubricants	5.19	5.12	5.12	5.17	5.42	5.42	5.41	5.61	5.59	5.67
Pipeline Fuel	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04
Discrepancy ²	32.99	32.72	32.43	32.85	34.56	31.87	35.50	36.95	36.28	37.16
Total Transportation	2013.59	1888.84	1904.79	1890.52	1935.32	1929.45	1942.43	2066.22	2045.24	2083.81

¹Does not include water heating portion of load.

²Represents differences between total emissions by end-use and total emissions by fuel as reported in Table A18. Emissions by fuel may reflect benchmarking and other modeling adjustments to energy use and the associated emissions that are not assigned to specific end uses.

³Includes emissions related to fuel consumption for district services.

⁴Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, emergency generators, combined heat and power in commercial buildings, manufacturing performed in commercial buildings, and cooking (distillate), plus emissions from residual fuel oil, liquefied petroleum gases, coal, motor gasoline, and kerosene.

⁵Commercial trucks 8,500 to 10,000 pounds.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 emissions and emission factors: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2007*, DOE/EIA-0573(2007) (Washington, DC, December 2008). Projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A20. Macroeconomic Indicators
(Billion 2000 Chain-Weighted Dollars, Unless Otherwise Noted)

Indicators	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Real Gross Domestic Product	11524	11373	11599	11779	15315	15398	15524	20193	19875	20114
Components of Real Gross Domestic Product										
Real Consumption	8253	8289	8395	8435	10813	10817	10876	14255	14069	13439
Real Investment	1810	1366	1478	1581	2578	2591	2565	3797	3590	3756
Real Government Spending	2012	2061	2117	2065	2225	2229	2194	2526	2473	2427
Real Exports	1426	1355	1367	1585	2790	2862	3061	4894	4865	5820
Real Imports	1972	1731	1794	1899	2936	2942	3007	4844	4719	4717
Energy Intensity (thousand Btu per 2000 dollar of GDP)										
Delivered Energy	6.42	6.23	6.14	6.09	4.83	4.83	4.86	3.92	3.97	4.04
Total Energy	8.84	8.67	8.54	8.48	6.80	6.80	6.79	5.50	5.58	5.65
Price Indices										
GDP Chain-Type Price Index (2000=1.000) . .	1.198	1.241	1.243	1.262	1.503	1.521	1.548	1.855	1.896	1.737
Consumer Price Index (1982-4=1)										
All-Urban	2.07	2.14	2.14	2.20	2.75	2.79	2.83	3.50	3.58	3.31
Energy Commodities and Services	2.08	1.76	1.77	2.18	3.06	3.10	3.16	4.06	4.11	3.87
Wholesale Price Index (1982=1.00)										
All Commodities	1.73	1.64	1.65	1.80	2.09	2.12	2.19	2.42	2.47	2.36
Fuel and Power	1.77	1.49	1.49	1.91	2.64	2.66	2.74	3.57	3.62	3.45
Metals and Metal Products	1.93	1.59	1.60	1.82	2.05	2.10	2.21	2.11	2.18	2.22
Interest Rates (percent, nominal)										
Federal Funds Rate	5.02	0.27	0.32	1.30	4.97	5.40	5.20	5.60	5.00	4.04
10-Year Treasury Note	4.63	2.78	3.01	3.67	5.83	6.03	5.86	6.14	5.76	4.67
AA Utility Bond Rate	5.94	5.77	6.09	6.39	7.81	7.95	7.49	8.83	8.04	5.79
Value of Shipments (billion 2000 dollars)										
Total Industrial	5750	4862	4954	5240	6581	6652	6753	7519	7391	8451
Non-manufacturing	1490	1179	1197	1277	1635	1633	1603	1784	1760	1780
Manufacturing	4261	3683	3757	3963	4946	5019	5150	5735	5631	6671
Energy-Intensive	1239	1173	1194	1238	1354	1354	1374	1455	1445	1525
Non-Energy Intensive	3022	2510	2563	2725	3592	3666	3776	4279	4186	5145
Population and Employment (millions)										
Population with Armed Forces Overseas	302.4	311.4	311.4	311.4	342.6	342.6	342.6	374.7	374.7	375.1
Population (aged 16 and over)	237.2	245.2	245.2	245.2	270.3	270.3	270.4	297.2	297.2	297.6
Population, over age 65	38.0	40.4	40.4	40.4	55.0	55.0	55.0	72.3	72.3	72.3
Employment, Nonfarm	137.2	130.8	132.7	135.6	150.5	150.9	152.6	167.3	165.3	168.3
Employment, Manufacturing	13.9	11.2	11.5	12.2	11.8	12.0	12.3	10.2	10.1	11.7
Key Labor Indicators										
Labor Force (millions)	153.1	153.6	154.0	155.9	166.3	166.4	168.4	176.0	175.6	181.5
Non-farm Labor Productivity (1992=1.00)	1.37	1.46	1.46	1.45	1.74	1.75	1.74	2.19	2.17	2.14
Unemployment Rate (percent)	4.63	10.19	9.35	8.26	5.74	5.51	5.53	4.92	5.54	4.78
Key Indicators for Energy Demand										
Real Disposable Personal Income	8644	8868	9103	9017	11895	11903	12035	16310	16014	15450
Housing Starts (millions)	1.44	1.04	1.08	1.18	1.98	1.99	1.77	1.81	1.77	1.74
Commercial Floorspace (billion square feet) . .	77.3	81.0	81.1	81.2	91.6	91.5	92.3	104.4	103.9	103.3
Unit Sales of Light-Duty Vehicles (millions) . .	16.09	14.54	13.08	14.18	18.04	18.09	17.41	20.20	19.69	20.99

GDP = Gross domestic product.
Btu = British thermal unit.
Sources: 2007: IHS Global Insight Industry and Employment models, November 2008. Projections: Energy Information Administration, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A.

Table A21. International Liquids Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Crude Oil Prices (2007 dollars per barrel)¹										
Imported Low Sulfur Light Crude Oil Price . . .	72.33	52.13	52.16	80.16	116.56	116.79	115.45	130.50	130.92	130.43
Imported Crude Oil Price	63.83	49.05	48.99	77.56	114.35	114.50	112.05	124.45	124.36	124.60
Crude Oil Prices (nominal dollars per barrel)¹										
Imported Low Sulfur Light Crude Oil Price . . .	72.33	54.00	54.13	84.42	146.20	148.30	149.14	202.00	207.19	189.10
Imported Crude Oil Price	63.83	50.81	50.84	81.69	143.44	145.39	144.74	192.63	196.81	180.66
Conventional Production (Conventional)²										
OPEC ³										
Middle East	22.97	22.94	23.11	22.77	25.96	25.93	25.22	28.01	27.85	28.34
North Africa	4.02	4.25	4.25	4.25	4.61	4.61	4.61	5.19	5.19	5.19
West Africa	4.12	4.81	4.81	4.81	5.23	5.23	5.23	5.92	5.92	5.92
South America	2.58	2.26	2.26	2.26	2.42	2.42	2.42	2.73	2.73	2.73
Total OPEC	33.68	34.26	34.43	34.09	38.22	38.19	37.48	41.85	41.69	42.18
Non-OPEC										
OECD										
United States (50 states)	8.20	8.59	8.59	8.81	8.95	8.86	9.71	10.20	10.06	10.44
Canada	2.05	1.90	1.90	1.90	1.25	1.25	1.25	1.02	1.02	1.02
Mexico	3.50	2.87	2.87	2.87	2.24	2.24	2.24	2.45	2.45	2.45
OECD Europe ⁴	5.23	4.27	4.27	4.27	3.18	3.18	3.18	2.94	2.94	2.94
Japan	0.13	0.14	0.14	0.14	0.16	0.16	0.16	0.18	0.18	0.18
Australia and New Zealand	0.64	0.82	0.82	0.82	0.78	0.78	0.78	0.77	0.77	0.77
Total OECD	19.75	18.58	18.59	18.80	16.56	16.47	17.32	17.57	17.43	17.81
Non-OECD										
Russia	9.88	9.50	9.50	9.50	10.24	10.24	10.24	10.50	10.50	10.50
Other Europe and Eurasia ⁵	2.88	3.58	3.58	3.58	4.50	4.50	4.50	4.86	4.86	4.86
China	3.90	3.75	3.75	3.75	3.52	3.52	3.52	3.19	3.19	3.19
Other Asia ⁶	3.75	3.88	3.88	3.88	3.85	3.85	3.85	3.68	3.68	3.68
Middle East	1.52	1.42	1.42	1.42	1.40	1.40	1.40	1.36	1.36	1.36
Africa	2.41	2.65	2.65	2.65	2.72	2.72	2.72	2.98	2.98	2.98
Brazil	1.88	2.48	2.48	2.48	3.45	3.45	3.45	4.19	4.19	4.19
Other Central and South America	1.79	1.70	1.70	1.70	1.56	1.56	1.56	2.05	2.05	2.05
Total Non-OECD	28.01	28.96	28.96	28.96	31.25	31.25	31.25	32.81	32.81	32.81
Total Conventional Production	81.44	81.80	81.97	81.85	86.03	85.92	86.04	92.23	91.94	92.80
Unconventional Production⁷										
United States (50 states)	0.46	0.91	0.91	0.91	1.30	1.51	1.55	2.18	2.43	2.31
Other North America	1.38	1.92	1.92	1.92	3.34	3.34	3.34	4.31	4.31	4.31
OECD Europe ³	0.11	0.13	0.13	0.13	0.19	0.19	0.19	0.27	0.27	0.27
Middle East	0.09	0.01	0.01	0.01	0.17	0.17	0.17	0.22	0.22	0.22
Africa	0.23	0.27	0.27	0.27	0.50	0.50	0.50	0.72	0.72	0.72
Central and South America	1.02	1.15	1.15	1.15	2.04	2.04	2.04	3.16	3.16	3.16
Other	0.30	0.47	0.47	0.47	0.78	0.78	0.78	1.63	1.63	1.63
Total Unconventional Production	3.58	4.85	4.85	4.85	8.31	8.52	8.56	12.48	12.73	12.61
Total Production	85.02	86.65	86.82	86.71	94.34	94.44	94.60	104.71	104.67	105.41

Table A21. International Liquids Supply and Disposition Summary (Continued)
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	2007	Projections								
		2010			2020			2030		
		No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)	No Stimulus	Updated AEO2009 Reference (April 2009)	Published AEO2009 Reference (March 2009)
Consumption⁸										
OECD										
United States (50 states)	20.65	19.64	19.81	19.69	19.95	20.05	20.21	21.02	20.92	21.67
United States Territories	0.39	0.44	0.44	0.44	0.53	0.53	0.53	0.62	0.62	0.62
Canada	2.41	2.28	2.28	2.28	2.29	2.29	2.29	2.39	2.39	2.39
Mexico	2.10	2.06	2.06	2.06	2.28	2.28	2.28	2.67	2.67	2.67
OECD Europe ³	15.36	14.74	14.74	14.74	14.24	14.24	14.24	14.27	14.27	14.27
Japan	5.02	4.68	4.68	4.68	4.27	4.27	4.27	4.02	4.02	4.02
South Korea	2.34	2.31	2.31	2.31	2.58	2.58	2.58	2.81	2.81	2.81
Australia and New Zealand	1.08	1.04	1.04	1.04	1.09	1.09	1.09	1.20	1.20	1.20
Total OECD	49.35	47.19	47.36	47.24	47.24	47.33	47.50	48.99	48.90	49.64
Non-OECD										
Russia	2.88	2.97	2.97	2.97	3.18	3.18	3.18	3.35	3.35	3.35
Other Europe and Eurasia ⁵	2.24	2.34	2.34	2.34	2.64	2.64	2.64	2.96	2.96	2.96
China	7.63	8.50	8.50	8.50	11.29	11.29	11.29	15.08	15.08	15.08
India	2.46	2.60	2.60	2.60	3.51	3.51	3.51	4.52	4.52	4.52
Other Non-OECD Asia	6.28	6.39	6.39	6.39	7.75	7.75	7.75	9.03	9.03	9.03
Middle East	6.42	7.02	7.02	7.02	8.26	8.26	8.26	9.45	9.45	9.45
Africa	3.22	3.49	3.49	3.49	3.90	3.90	3.90	4.02	4.02	4.02
Brazil	2.37	2.55	2.55	2.55	2.84	2.84	2.84	3.32	3.32	3.32
Other Central and South America	3.35	3.60	3.60	3.60	3.73	3.73	3.73	4.04	4.04	4.04
Total Non-OECD	36.85	39.46	39.46	39.46	47.10	47.10	47.10	55.77	55.77	55.77
Total Consumption	86.20	86.66	86.82	86.70	94.34	94.44	94.60	104.76	104.66	105.41
OPEC Production ⁹	34.38	34.92	35.08	34.75	39.26	39.23	38.51	43.31	43.15	43.63
Non-OPEC Production ⁹	50.64	51.74	51.74	51.96	55.09	55.21	56.09	61.41	61.52	61.78
Net Eurasia Exports	9.52	10.24	10.24	10.24	12.37	12.37	12.37	13.25	13.25	13.25
OPEC Market Share (percent)	40.4	40.3	40.4	40.1	41.6	41.5	40.7	41.4	41.2	41.4

¹Weighted average price delivered to U.S. refiners.

²Includes production of crude oil (including lease condensate), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, alcohol and other sources, and refinery gains.

³OPEC = Organization of Petroleum Exporting Countries - Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

⁴OECD Europe = Organization for Economic Cooperation and Development - Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

⁵Other Europe and Eurasia = Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Malta, Moldova, Montenegro, Romania, Serbia, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

⁶Other Asia = Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia (Kampuchea), Fiji, French Polynesia, Guam, Hong Kong, Indonesia, Kiribati, Laos, Malaysia, Macau, Maldives, Mongolia, Myanmar (Burma), Nauru, Nepal, New Caledonia, Niue, North Korea, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Sri Lanka, Taiwan, Thailand, Tonga, Vanuatu, and Vietnam.

⁷Includes liquids produced from energy crops, natural gas, coal, extra-heavy oil, oil sands, and shale. Includes both OPEC and non-OPEC producers in the regional breakdown.

⁸Includes both OPEC and non-OPEC consumers in the regional breakdown.

⁹Includes both conventional and unconventional liquids production.

Note: Totals may not equal sum of components due to independent rounding. Data for 2007 are model results and may differ slightly from official EIA data reports.

Sources: 2007 low sulfur light crude oil price: Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." 2007 imported crude oil price: EIA, *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). 2007 quantities and projections: EIA, AEO2009 National Energy Modeling System runs NOSTIMLS.D041409A, STIMULUS.D041409A, and AEO2009.D120908A, and EIA, Generate World Oil Balance Model.