

Price case comparisons

Table C1. Total energy supply, disposition, and price summary
(quadrillion Btu per year, unless otherwise noted)

Supply, disposition, and prices	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Production										
Crude oil and lease condensate.....	12.16	15.22	15.95	16.61	11.89	13.47	15.07	9.99	13.12	14.63
Natural gas plant liquids.....	2.88	3.98	4.14	4.24	3.79	3.85	3.99	3.69	3.89	4.08
Dry natural gas.....	23.51	26.44	27.19	27.61	28.09	30.44	31.87	30.91	33.87	36.61
Coal ¹	22.21	22.13	21.74	21.43	23.15	23.25	22.76	24.28	23.54	23.34
Nuclear / uranium ²	8.26	9.25	9.25	9.25	9.49	9.49	9.53	9.14	9.44	10.63
Hydropower.....	3.17	2.83	2.83	2.83	2.86	2.87	2.88	2.91	2.92	2.92
Biomass ³	4.05	4.85	5.00	4.95	5.27	5.42	5.48	6.57	6.96	7.66
Other renewable energy ⁴	1.58	2.24	2.22	2.21	2.47	2.50	2.54	3.59	3.84	4.16
Other ⁵	1.20	0.83	0.83	0.84	0.95	0.88	0.85	0.97	0.89	0.80
Total.....	79.02	87.78	89.16	89.97	87.96	92.18	94.96	92.06	98.46	104.83
Imports										
Crude oil.....	19.46	16.52	15.02	13.35	19.35	16.33	13.28	22.55	16.89	13.07
Liquid fuels and other petroleum ⁶	5.24	6.24	5.55	5.02	6.31	5.33	4.31	6.73	4.82	3.75
Natural gas ⁷	3.54	2.98	2.58	2.42	3.44	2.63	2.49	2.90	2.01	1.88
Other imports ⁸	0.43	0.11	0.11	0.36	0.03	0.13	0.89	0.24	0.84	1.21
Total.....	28.66	25.85	23.26	21.16	29.13	24.41	20.96	32.42	24.55	19.91
Exports										
Liquid fuels and other petroleum ⁹	6.08	5.40	5.37	5.30	5.41	5.25	5.14	5.87	5.71	5.57
Natural gas ¹⁰	1.52	2.67	2.67	2.66	3.53	4.71	5.27	4.63	5.56	7.82
Coal.....	2.75	3.17	3.13	3.07	3.55	3.51	3.45	4.08	3.79	3.41
Total.....	10.35	11.24	11.17	11.03	12.48	13.47	13.86	14.59	15.06	16.80
Discrepancy¹¹.....	-0.36	0.24	0.21	0.22	0.44	0.30	0.20	0.58	0.32	0.21
Consumption										
Liquid fuels and other petroleum ¹²	37.02	38.62	37.54	36.21	37.84	36.08	34.04	39.34	36.07	33.77
Natural gas.....	24.91	26.56	26.77	27.04	27.80	27.95	28.66	28.97	29.83	30.01
Coal ¹³	19.66	18.93	18.59	18.50	19.54	19.70	19.94	20.32	20.35	20.71
Nuclear / uranium ²	8.26	9.25	9.25	9.25	9.49	9.49	9.53	9.14	9.44	10.63
Hydropower.....	3.17	2.83	2.83	2.83	2.86	2.87	2.88	2.91	2.92	2.92
Biomass ¹⁴	2.74	3.42	3.53	3.53	3.90	3.94	3.99	4.74	4.91	5.21
Other renewable energy ⁴	1.58	2.24	2.22	2.21	2.47	2.50	2.54	3.59	3.84	4.16
Other ¹⁵	0.35	0.31	0.31	0.31	0.26	0.28	0.28	0.29	0.29	0.31
Total.....	97.70	102.16	101.04	99.88	104.17	102.81	101.86	109.32	107.64	107.73
Prices (2011 dollars per unit)										
Crude oil spot prices (dollars per barrel)										
Brent.....	111.26	68.90	105.57	155.28	71.90	130.47	191.90	74.90	162.68	237.16
West Texas Intermediate.....	94.86	66.90	103.57	153.28	69.90	128.47	189.90	72.90	160.68	235.16
Natural gas at Henry Hub (dollars per million Btu).....										
.....	3.98	4.08	4.13	4.33	5.15	5.40	6.03	7.06	7.83	8.96
Coal (dollars per ton)										
at the minemouth ¹⁶	41.16	47.84	49.26	50.56	53.51	55.64	57.33	58.08	61.28	64.50
Coal (dollars per million Btu)										
at the minemouth ¹⁶	2.04	2.39	2.45	2.52	2.68	2.79	2.87	2.92	3.08	3.22
Average end-use ¹⁷	2.57	2.66	2.77	2.89	2.93	3.10	3.24	3.19	3.42	3.61
Average electricity (cents per kilowatthour)...	9.9	9.3	9.4	9.5	9.5	9.7	10.0	10.3	10.8	11.3

Table C1. Total energy supply, disposition, and price summary (continued)
(quadrillion Btu per year, unless otherwise noted)

Supply, disposition, and prices	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Prices (nominal dollars per unit)										
Crude oil spot prices (dollars per barrel)										
Brent.....	111.26	79.61	121.73	177.97	100.62	180.04	260.76	127.14	268.50	382.50
West Texas Intermediate	94.86	77.30	119.43	175.68	97.82	177.28	258.04	123.74	265.20	379.28
Natural gas at Henry Hub (dollars per million Btu)	3.98	4.71	4.77	4.97	7.21	7.45	8.20	11.98	12.92	14.46
Coal (dollars per ton) at the minemouth ¹⁶	41.16	55.27	56.81	57.95	74.88	76.78	77.90	98.60	101.14	104.03
Coal (dollars per million Btu) at the minemouth ¹⁶	2.04	2.76	2.83	2.88	3.76	3.85	3.90	4.96	5.08	5.20
Average end-use ¹⁷	2.57	3.08	3.19	3.31	4.10	4.28	4.41	5.42	5.65	5.83
Average electricity (cents per kilowatthour)...	9.9	10.7	10.8	10.9	13.3	13.4	13.6	17.5	17.8	18.3

¹Includes waste coal.

²These values represent the energy obtained from uranium when it is used in light water reactors. The total energy content of uranium is much larger, but alternative processes are required to take advantage of it.

³Includes grid-connected electricity from wood and wood waste; biomass, such as corn, used for liquid fuels production; and non-electric energy demand from wood. Refer to Table A17 for details.

⁴Includes 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 data.

⁵Includes non-biogenic municipal waste, liquid hydrogen, methanol, and some domestic inputs to refineries.

⁶Includes imports of finished petroleum products, unfinished oils, alcohols, ethers, blending components, and renewable fuels such as ethanol.

⁷Includes imports of liquefied natural gas that are later re-exported.

⁸Includes coal, coal coke (net), and electricity (net). Excludes imports of fuel used in nuclear power plants.

⁹Includes crude oil, petroleum products, ethanol, and biodiesel.

¹⁰Includes re-exported liquefied natural gas.

¹¹Balancing item. Includes unaccounted for supply, losses, gains, and net storage withdrawals.

¹²Includes 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 and crude oil consumed as a fuel. Refer to Table A17 for detailed renewable liquid fuels consumption.

¹³Excludes coal converted to coal-based synthetic liquids and natural gas.

¹⁴Includes 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.

¹⁵Includes non-biogenic municipal waste, liquid hydrogen, and net electricity imports.

¹⁶Includes reported prices for both open market and captive mines. Prices weighted by production, which differs from average minemouth prices published in EIA data reports where it is weighted by reported sales.

¹⁷Prices 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 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 natural gas supply values: U.S. Energy Information Administration (EIA), *Natural Gas Monthly*, DOE/EIA-0130(2012/07) (Washington, DC, July 2012). 2011 natural gas spot price at Henry Hub based on daily data from Natural Gas Intelligence. 2011 coal minemouth and delivered coal prices: EIA, *Annual Coal Report 2011*, DOE/EIA-0584(2011) (Washington, DC, November 2012). 2011 petroleum supply values: EIA, *Petroleum Supply Annual 2011*, DOE/EIA-0340(2011)/1 (Washington, DC, August 2012). 2011 crude oil spot prices: Thomson Reuters. Other 2011 coal values: *Quarterly Coal Report, October-December 2011*, DOE/EIA-0121(2011/4Q) (Washington, DC, March 2012). Other 2011 values: EIA, *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). Projections: EIA, AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A.

Table C2. Energy consumption by sector and source
(quadrillion Btu per year, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Energy consumption										
Residential										
Propane	0.53	0.53	0.52	0.52	0.53	0.52	0.51	0.54	0.52	0.51
Kerosene	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Distillate fuel oil	0.59	0.54	0.51	0.48	0.44	0.40	0.37	0.37	0.32	0.30
Liquid fuels and other petroleum subtotal	1.14	1.08	1.05	1.01	0.98	0.93	0.89	0.92	0.86	0.82
Natural gas	4.83	4.64	4.62	4.61	4.48	4.46	4.42	4.27	4.23	4.17
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Renewable energy ¹	0.45	0.37	0.44	0.50	0.36	0.45	0.52	0.34	0.45	0.53
Electricity	4.86	4.87	4.84	4.81	5.41	5.36	5.31	6.13	6.03	5.93
Delivered energy	11.28	10.97	10.95	10.94	11.23	11.20	11.15	11.67	11.57	11.46
Electricity related losses	10.20	9.73	9.66	9.59	10.52	10.45	10.39	11.60	11.50	11.56
Total	21.48	20.70	20.62	20.52	21.75	21.65	21.54	23.27	23.08	23.02
Commercial										
Propane	0.14	0.16	0.16	0.15	0.18	0.16	0.16	0.19	0.17	0.16
Motor gasoline ²	0.05	0.06	0.05	0.05	0.06	0.06	0.05	0.07	0.06	0.06
Kerosene	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00
Distillate fuel oil	0.42	0.38	0.34	0.31	0.37	0.32	0.29	0.37	0.30	0.27
Residual fuel oil	0.07	0.12	0.09	0.08	0.12	0.09	0.07	0.13	0.09	0.07
Liquid fuels and other petroleum subtotal	0.69	0.72	0.65	0.60	0.73	0.64	0.58	0.76	0.63	0.56
Natural gas	3.23	3.41	3.40	3.38	3.52	3.50	3.46	3.72	3.68	3.60
Coal	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Renewable energy ³	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Electricity	4.50	4.73	4.72	4.70	5.26	5.22	5.18	5.79	5.72	5.64
Delivered energy	8.60	9.04	8.95	8.85	9.69	9.54	9.39	10.45	10.21	9.98
Electricity related losses	9.45	9.46	9.42	9.37	10.22	10.18	10.15	10.96	10.92	11.00
Total	18.05	18.50	18.37	18.23	19.91	19.72	19.54	21.42	21.13	20.97
Industrial⁴										
Liquefied petroleum gases	2.10	2.37	2.46	2.52	2.32	2.47	2.50	2.21	2.30	2.31
Propylene	0.40	0.58	0.56	0.52	0.56	0.52	0.49	0.50	0.46	0.46
Motor gasoline ²	0.27	0.32	0.32	0.32	0.33	0.32	0.31	0.34	0.32	0.31
Distillate fuel oil	1.21	1.27	1.22	1.20	1.28	1.18	1.13	1.37	1.22	1.16
Residual fuel oil	0.11	0.12	0.11	0.10	0.12	0.11	0.10	0.13	0.11	0.10
Petrochemical feedstocks	0.88	1.09	1.03	1.02	1.15	1.08	1.08	1.15	1.09	1.09
Other petroleum ⁵	3.61	3.79	3.54	3.37	3.79	3.46	3.29	4.11	3.65	3.42
Liquid fuels and other petroleum subtotal	8.57	9.53	9.25	9.05	9.56	9.14	8.89	9.79	9.16	8.85
Natural gas	6.92	7.79	7.86	7.90	7.94	7.97	7.90	8.04	8.08	8.01
Natural-gas-to-liquids heat and power	0.00	0.00	0.13	0.15	0.00	0.21	0.28	0.00	0.33	0.53
Lease and plant fuel ⁶	1.42	1.53	1.57	1.62	1.56	1.73	2.00	1.64	1.97	2.49
Natural gas subtotal	8.34	9.32	9.56	9.67	9.50	9.91	10.18	9.68	10.38	11.03
Metallurgical coal	0.56	0.61	0.60	0.59	0.52	0.52	0.52	0.46	0.46	0.47
Other industrial coal	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05
Coal-to-liquids heat and power	0.00	0.00	0.00	0.11	0.00	0.09	0.21	0.00	0.15	0.39
Net coal coke imports	0.01	-0.01	-0.01	-0.01	-0.04	-0.04	-0.04	-0.05	-0.05	-0.05
Coal subtotal	1.62	1.60	1.58	1.69	1.48	1.57	1.69	1.46	1.61	1.86
Biofuels heat and coproducts	0.67	0.82	0.82	0.80	0.86	0.85	0.87	1.27	1.37	1.64
Renewable energy ⁷	1.51	1.73	1.72	1.70	2.03	1.97	1.91	2.39	2.28	2.20
Electricity	3.33	4.00	3.95	3.90	4.00	3.96	3.92	3.93	3.91	3.90
Delivered energy	24.04	27.01	26.87	26.80	27.43	27.40	27.44	28.52	28.71	29.48
Electricity related losses	6.99	7.99	7.89	7.78	7.78	7.72	7.66	7.44	7.45	7.60
Total	31.03	35.00	34.76	34.58	35.21	35.11	35.11	35.96	36.16	37.08

Table C2. Energy consumption by sector and source (continued)
(quadrillion Btu per year, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Transportation										
Propane.....	0.06	0.05	0.06	0.07	0.05	0.07	0.08	0.06	0.08	0.10
E85 ⁸	0.05	0.06	0.08	0.11	0.13	0.16	0.34	0.15	0.17	0.61
Motor gasoline ²	16.31	15.50	14.88	14.16	13.91	13.06	12.21	13.85	12.64	11.51
Jet fuel ⁹	3.01	3.12	3.11	3.10	3.29	3.28	3.28	3.43	3.42	3.41
Distillate fuel oil ¹⁰	5.91	7.38	7.28	6.95	7.98	7.61	6.58	9.16	7.90	6.68
Residual fuel oil.....	0.82	0.84	0.84	0.84	0.85	0.86	0.86	0.87	0.87	0.87
Other petroleum ¹¹	0.17	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16
Liquid fuels and other petroleum subtotal	26.32	27.11	26.42	25.39	26.38	25.20	23.51	27.67	25.24	23.35
Pipeline fuel natural gas.....	0.70	0.71	0.71	0.72	0.72	0.74	0.76	0.74	0.78	0.81
Compressed / liquefied natural gas.....	0.04	0.06	0.08	0.35	0.07	0.26	1.24	0.09	1.05	2.24
Liquid hydrogen.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity.....	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.07	0.08
Delivered energy	27.09	27.91	27.24	26.49	27.21	26.25	25.57	28.56	27.14	26.49
Electricity related losses.....	0.05	0.06	0.06	0.06	0.08	0.09	0.10	0.10	0.13	0.16
Total	27.13	27.97	27.30	26.56	27.29	26.33	25.67	28.67	27.27	26.66
Delivered energy consumption for all sectors										
Liquefied petroleum gases.....	2.82	3.11	3.21	3.26	3.08	3.23	3.25	2.99	3.08	3.08
Propylene.....	0.40	0.58	0.56	0.52	0.56	0.52	0.49	0.50	0.46	0.46
E85 ⁸	0.05	0.06	0.08	0.11	0.13	0.16	0.34	0.15	0.17	0.61
Motor gasoline ²	16.64	15.88	15.26	14.53	14.30	13.43	12.57	14.26	13.03	11.87
Jet fuel ⁹	3.01	3.12	3.11	3.10	3.29	3.28	3.28	3.43	3.42	3.41
Kerosene.....	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02
Distillate fuel oil.....	8.12	9.57	9.35	8.94	10.08	9.51	8.37	11.27	9.74	8.41
Residual fuel oil.....	1.01	1.08	1.05	1.02	1.10	1.05	1.03	1.12	1.07	1.05
Petrochemical feedstocks.....	0.88	1.09	1.03	1.02	1.15	1.08	1.08	1.15	1.09	1.09
Other petroleum ¹²	3.77	3.93	3.69	3.52	3.94	3.61	3.44	4.26	3.80	3.58
Liquid fuels and other petroleum subtotal	36.72	38.44	37.37	36.04	37.66	35.90	33.86	39.15	35.88	33.59
Natural gas.....	15.03	15.90	15.95	16.25	16.01	16.19	17.02	16.12	17.05	18.03
Natural-gas-to-liquids heat and power.....	0.00	0.00	0.13	0.15	0.00	0.21	0.28	0.00	0.33	0.53
Lease and plant fuel ⁶	1.42	1.53	1.57	1.62	1.56	1.73	2.00	1.64	1.97	2.49
Pipeline natural gas.....	0.70	0.71	0.71	0.72	0.72	0.74	0.76	0.74	0.78	0.81
Natural gas subtotal.....	17.15	18.14	18.36	18.73	18.29	18.87	20.06	18.50	20.13	21.86
Metallurgical coal.....	0.56	0.61	0.60	0.59	0.52	0.52	0.52	0.46	0.46	0.47
Other coal.....	1.10	1.06	1.06	1.05	1.06	1.06	1.06	1.10	1.11	1.11
Coal-to-liquids heat and power.....	0.00	0.00	0.00	0.11	0.00	0.09	0.21	0.00	0.15	0.39
Net coal coke imports.....	0.01	-0.01	-0.01	-0.01	-0.04	-0.04	-0.04	-0.05	-0.05	-0.05
Coal subtotal.....	1.67	1.66	1.64	1.74	1.54	1.63	1.74	1.51	1.67	1.91
Biofuels heat and coproducts.....	0.67	0.82	0.82	0.80	0.86	0.85	0.87	1.27	1.37	1.64
Renewable energy ¹³	2.08	2.23	2.28	2.33	2.51	2.54	2.56	2.86	2.86	2.86
Liquid hydrogen.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity.....	12.71	13.63	13.54	13.44	14.71	14.59	14.46	15.91	15.72	15.55
Delivered energy	71.01	74.92	74.01	73.08	75.57	74.38	73.56	79.21	77.63	77.41
Electricity related losses.....	26.69	27.24	27.03	26.80	28.60	28.43	28.30	30.11	30.00	30.32
Total	97.70	102.16	101.04	99.88	104.17	102.81	101.86	109.32	107.64	107.73
Electric power¹⁴										
Distillate fuel oil.....	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Residual fuel oil.....	0.23	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11
Liquid fuels and other petroleum subtotal	0.30	0.18	0.18	0.17	0.18	0.18	0.18	0.19	0.19	0.19
Natural gas.....	7.76	8.42	8.40	8.31	9.52	9.08	8.60	10.47	9.70	8.16
Steam coal.....	17.99	17.28	16.95	16.76	18.01	18.07	18.19	18.81	18.68	18.79
Nuclear / uranium ¹⁵	8.26	9.25	9.25	9.25	9.49	9.49	9.53	9.14	9.44	10.63
Renewable energy ¹⁶	4.74	5.44	5.49	5.45	5.85	5.93	5.99	7.13	7.44	7.80
Electricity imports.....	0.13	0.08	0.08	0.08	0.04	0.05	0.05	0.06	0.06	0.08
Total¹⁷	39.40	40.87	40.57	40.24	43.31	43.02	42.76	46.02	45.73	45.87

Table C2. Energy consumption by sector and source (continued)
(quadrillion Btu per year, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Total energy consumption										
Liquefied petroleum gases.....	2.82	3.11	3.21	3.26	3.08	3.23	3.25	2.99	3.08	3.08
Propylene.....	0.40	0.58	0.56	0.52	0.56	0.52	0.49	0.50	0.46	0.46
E85 ⁸	0.05	0.06	0.08	0.11	0.13	0.16	0.34	0.15	0.17	0.61
Motor gasoline ²	16.64	15.88	15.26	14.53	14.30	13.43	12.57	14.26	13.03	11.87
Jet fuel ⁹	3.01	3.12	3.11	3.10	3.29	3.28	3.28	3.43	3.42	3.41
Kerosene.....	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02
Distillate fuel oil.....	8.18	9.65	9.43	9.01	10.15	9.59	8.45	11.34	9.82	8.49
Residual fuel oil.....	1.24	1.18	1.15	1.12	1.20	1.15	1.13	1.23	1.17	1.15
Petrochemical feedstocks.....	0.88	1.09	1.03	1.02	1.15	1.08	1.08	1.15	1.09	1.09
Other petroleum ¹²	3.77	3.93	3.69	3.52	3.94	3.61	3.44	4.26	3.80	3.58
Liquid fuels and other petroleum subtotal	37.02	38.62	37.54	36.21	37.84	36.08	34.04	39.34	36.07	33.77
Natural gas.....	22.79	24.32	24.36	24.55	25.53	25.27	25.62	26.59	26.75	26.18
Natural-gas-to-liquids heat and power.....	0.00	0.00	0.13	0.15	0.00	0.21	0.28	0.00	0.33	0.53
Lease and plant fuel ⁶	1.42	1.53	1.57	1.62	1.56	1.73	2.00	1.64	1.97	2.49
Pipeline natural gas.....	0.70	0.71	0.71	0.72	0.72	0.74	0.76	0.74	0.78	0.81
Natural gas subtotal.....	24.91	26.56	26.77	27.04	27.80	27.95	28.66	28.97	29.83	30.01
Metallurgical coal.....	0.56	0.61	0.60	0.59	0.52	0.52	0.52	0.46	0.46	0.47
Other coal.....	19.09	18.34	18.01	17.81	19.06	19.12	19.25	19.91	19.79	19.90
Coal-to-liquids heat and power.....	0.00	0.00	0.00	0.11	0.00	0.09	0.21	0.00	0.15	0.39
Net coal coke imports.....	0.01	-0.01	-0.01	-0.01	-0.04	-0.04	-0.04	-0.05	-0.05	-0.05
Coal subtotal.....	19.66	18.93	18.59	18.50	19.54	19.70	19.94	20.32	20.35	20.71
Nuclear / uranium ¹⁵	8.26	9.25	9.25	9.25	9.49	9.49	9.53	9.14	9.44	10.63
Biofuels heat and coproducts.....	0.67	0.82	0.82	0.80	0.86	0.85	0.87	1.27	1.37	1.64
Renewable energy ¹⁸	6.82	7.67	7.77	7.77	8.36	8.47	8.54	9.98	10.30	10.65
Liquid hydrogen.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity imports.....	0.13	0.08	0.08	0.08	0.04	0.05	0.05	0.06	0.06	0.08
Total.....	97.70	102.16	101.04	99.88	104.17	102.81	101.86	109.32	107.64	107.73
Energy use and related statistics										
Delivered energy use.....	71.01	74.92	74.01	73.08	75.57	74.38	73.56	79.21	77.63	77.41
Total energy use.....	97.70	102.16	101.04	99.88	104.17	102.81	101.86	109.32	107.64	107.73
Ethanol consumed in motor gasoline and E85	1.17	1.34	1.34	1.30	1.29	1.24	1.28	1.29	1.21	1.40
Population (millions).....	312.38	340.45	340.45	340.45	372.41	372.41	372.41	404.39	404.39	404.39
Gross domestic product (billion 2005 dollars).....	13,299	16,932	16,859	16,803	21,437	21,355	21,301	27,460	27,277	27,270
Carbon dioxide emissions (million metric tons).....	5,471	5,559	5,455	5,365	5,636	5,523	5,432	5,887	5,691	5,548

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 water heating, and electricity generation from wind and solar photovoltaic sources.

²Includes ethanol (blends of 15 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 water heating and electricity generation from wind and solar photovoltaic sources.

⁴Includes energy for combined heat and power plants that have a non-regulatory status, and small on-site generating systems.

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

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

⁷Includes consumption of energy produced from hydroelectric, wood and wood waste, municipal waste, and other biomass sources. Excludes ethanol blends (15 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 water heaters.

¹⁴Includes consumption of energy by electricity-only and combined heat and power plants that have a regulatory status.

¹⁵These values represent the energy obtained from uranium when it is used in light water reactors. The total energy content of uranium is much larger, but alternative processes are required to take advantage of it.

¹⁶Includes conventional hydroelectric, geothermal, wood and wood waste, biogenic municipal waste, other biomass, wind, photovoltaic, and solar thermal sources. Excludes net electricity imports.

¹⁷Includes non-biogenic municipal waste not included above.

¹⁸Includes 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 water heaters.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 consumption based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). 2011 population and gross domestic product: IHS Global Insight Industry and Employment models, August 2012. 2011 carbon dioxide emissions: EIA, *Monthly Energy Review*, DOE/EIA-0035(2012/08) (Washington, DC, August 2012). Projections: EIA, AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A.

Table C3. Energy prices by sector and source
(2011 dollars per million Btu, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil Price
Residential										
Propane	25.06	21.80	23.41	24.99	22.85	25.73	27.96	23.78	27.99	30.62
Distillate fuel oil	26.38	20.03	26.91	35.67	20.57	31.26	42.37	21.07	36.54	50.06
Natural gas.....	10.80	11.59	11.78	12.00	13.08	13.37	13.99	15.59	16.36	17.67
Electricity.....	34.34	33.29	33.62	34.11	33.95	34.56	35.51	35.71	37.10	38.85
Commercial										
Propane	22.10	18.08	20.04	22.02	19.35	22.97	25.89	20.51	25.94	29.52
Distillate fuel oil	25.87	17.40	24.26	32.84	18.14	28.51	39.66	18.60	33.74	47.32
Residual fuel oil.....	19.17	9.76	14.82	21.95	10.44	18.77	27.34	10.95	23.41	35.80
Natural gas.....	8.84	9.30	9.47	9.68	10.43	10.70	11.29	12.49	13.21	14.48
Electricity.....	29.98	28.27	28.57	29.04	28.02	28.65	29.55	30.33	31.75	33.58
Industrial¹										
Propane	22.54	18.40	20.51	22.64	19.74	23.64	26.78	20.90	26.78	30.64
Distillate fuel oil	26.50	17.82	24.67	33.13	18.79	28.91	40.09	19.26	34.16	47.78
Residual fuel oil.....	18.86	12.07	17.19	24.34	12.71	21.09	29.79	13.21	25.78	38.15
Natural gas ²	4.89	5.44	5.53	5.70	6.43	6.56	7.12	8.30	8.88	10.01
Metallurgical coal	7.01	8.62	8.75	8.89	9.91	10.09	10.28	10.86	11.11	11.40
Other industrial coal.....	3.43	3.33	3.44	3.57	3.54	3.71	3.85	3.86	4.06	4.26
Coal to liquids	--	--	--	2.24	--	2.55	2.64	--	2.95	3.16
Electricity.....	19.98	18.50	18.72	19.10	19.29	19.73	20.42	21.63	22.74	24.17
Transportation										
Propane	26.06	22.87	24.48	26.05	23.92	26.80	29.02	24.86	29.07	31.69
E85 ³	25.30	25.56	29.64	35.68	20.70	26.94	37.43	20.19	30.58	44.43
Motor gasoline ⁴	28.70	21.86	27.84	35.94	21.67	30.73	41.08	22.12	36.18	49.07
Jet fuel ⁵	22.49	14.55	21.50	29.81	15.36	26.03	36.77	16.16	31.07	44.44
Diesel fuel (distillate fuel oil) ⁶	26.15	19.78	26.61	35.02	20.82	30.81	42.01	21.30	36.05	49.68
Residual fuel oil.....	17.83	10.00	14.91	21.28	10.59	18.34	26.44	10.98	22.45	32.70
Natural gas ⁷	16.14	16.52	16.87	18.82	17.02	18.90	19.95	18.48	21.20	22.38
Electricity.....	32.77	29.58	29.60	29.71	31.05	31.53	32.69	33.65	35.07	37.01
Electric power⁸										
Distillate fuel oil	23.30	15.56	22.45	31.20	16.06	26.80	37.87	16.58	32.03	45.58
Residual fuel oil.....	15.97	19.75	24.94	32.23	20.84	29.36	38.13	21.51	34.54	46.84
Natural gas.....	4.77	4.79	4.90	5.07	5.86	6.05	6.55	7.79	8.38	9.34
Steam coal.....	2.38	2.41	2.52	2.64	2.69	2.87	3.02	2.97	3.20	3.40
Average price to all users⁹										
Propane	17.13	11.34	13.69	16.52	12.98	18.14	23.54	14.84	23.79	31.84
E85 ³	25.30	25.56	29.64	35.68	20.70	26.94	37.43	20.19	30.58	44.43
Motor gasoline ⁴	28.47	21.86	27.84	35.94	21.66	30.72	41.07	22.11	36.17	49.06
Jet fuel ⁵	22.49	14.55	21.50	29.81	15.36	26.03	36.77	16.16	31.07	44.44
Distillate fuel oil	26.18	19.41	26.25	34.69	20.42	30.48	41.65	20.92	35.73	49.32
Residual fuel oil.....	17.65	11.00	15.97	22.54	11.66	19.59	27.83	12.16	23.95	34.70
Natural gas.....	6.68	6.96	7.07	7.39	7.97	8.27	9.28	9.89	10.94	12.65
Metallurgical coal	7.01	8.62	8.75	8.89	9.91	10.09	10.28	10.86	11.11	11.40
Other coal	2.45	2.47	2.57	2.70	2.74	2.92	3.07	3.02	3.25	3.45
Coal to liquids	--	--	--	2.24	--	2.55	2.64	--	2.95	3.16
Electricity.....	29.03	27.20	27.50	27.97	27.84	28.41	29.28	30.27	31.58	33.25
Non-renewable energy expenditures by sector (billion 2011 dollars)										
Residential	248.08	238.38	243.44	249.62	263.61	271.05	280.75	306.29	319.63	335.09
Commercial.....	179.97	177.66	181.68	186.64	197.00	203.80	212.25	236.19	249.60	264.69
Industrial	225.18	228.72	259.03	297.45	246.43	294.99	347.49	273.46	353.70	429.01
Transportation.....	718.25	544.15	694.73	877.09	533.56	749.40	956.36	574.15	900.68	1,141.45
Total non-renewable expenditures.....	1,371.48	1,188.91	1,378.87	1,610.80	1,240.60	1,519.24	1,796.86	1,390.08	1,823.61	2,170.24
Transportation renewable expenditures.....	1.24	1.50	2.44	3.87	2.75	4.39	12.79	2.94	5.05	27.17
Total expenditures	1,372.71	1,190.40	1,381.31	1,614.68	1,243.35	1,523.63	1,809.64	1,393.03	1,828.66	2,197.42

Table C3. Energy prices by sector and source (continued)
(nominal dollars per million Btu, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Residential										
Propane	25.06	25.19	27.00	28.64	31.98	35.51	37.99	40.37	46.20	49.38
Distillate fuel oil	26.38	23.14	31.03	40.88	28.79	43.14	57.58	35.77	60.31	80.74
Natural gas	10.80	13.39	13.58	13.75	18.30	18.45	19.01	26.46	27.01	28.51
Electricity	34.34	38.46	38.76	39.09	47.52	47.69	48.25	60.62	61.23	62.66
Commercial										
Propane	22.10	20.89	23.11	25.24	27.08	31.70	35.18	34.81	42.82	47.62
Distillate fuel oil	25.87	20.10	27.97	37.64	25.39	39.34	53.88	31.58	55.68	76.33
Residual fuel oil	19.17	11.28	17.09	25.16	14.61	25.90	37.15	18.59	38.64	57.74
Natural gas	8.84	10.74	10.92	11.09	14.59	14.76	15.34	21.19	21.81	23.36
Electricity	29.98	32.66	32.94	33.29	39.21	39.54	40.15	51.48	52.40	54.16
Industrial¹										
Propane	22.54	21.26	23.65	25.95	27.62	32.62	36.39	35.48	44.20	49.42
Distillate fuel oil	26.50	20.59	28.45	37.97	26.30	39.89	54.47	32.69	56.39	77.06
Residual fuel oil	18.86	13.95	19.82	27.90	17.78	29.10	40.48	22.42	42.55	61.53
Natural gas ²	4.89	6.29	6.38	6.53	9.00	9.05	9.68	14.10	14.66	16.15
Metallurgical coal	7.01	9.96	10.09	10.19	13.87	13.92	13.97	18.43	18.34	18.39
Other industrial coal	3.43	3.85	3.97	4.09	4.96	5.12	5.23	6.56	6.70	6.87
Coal to liquids	--	--	--	2.57	--	3.52	3.59	--	4.87	5.10
Electricity	19.98	21.38	21.59	21.89	26.99	27.22	27.75	36.72	37.54	38.98
Transportation										
Propane	26.06	26.42	28.22	29.86	33.48	36.98	39.43	42.20	47.97	51.11
E85 ³	25.30	29.53	34.18	40.89	28.97	37.18	50.86	34.27	50.46	71.65
Motor gasoline ⁴	28.70	25.26	32.10	41.20	30.32	42.41	55.82	37.54	59.72	79.15
Jet fuel ⁵	22.49	16.81	24.79	34.16	21.49	35.92	49.96	27.44	51.27	71.68
Diesel fuel (distillate fuel oil) ⁶	26.15	22.85	30.68	40.14	29.14	42.52	57.08	36.15	59.50	80.13
Residual fuel oil	17.83	11.56	17.19	24.38	14.82	25.31	35.93	18.63	37.06	52.75
Natural gas ⁷	16.14	19.08	19.46	21.57	23.81	26.08	27.11	31.37	34.98	36.09
Electricity	32.77	34.17	34.13	34.06	43.46	43.51	44.42	57.12	57.88	59.70
Electric power⁸										
Distillate fuel oil	23.30	17.98	25.89	35.76	22.48	36.98	51.45	28.15	52.87	73.52
Residual fuel oil	15.97	22.82	28.76	36.94	29.17	40.52	51.81	36.52	57.01	75.54
Natural gas	4.77	5.53	5.65	5.81	8.20	8.35	8.90	13.22	13.83	15.06
Steam coal	2.38	2.79	2.90	3.03	3.76	3.96	4.10	5.04	5.28	5.48

Table C3. Energy prices by sector and source (continued)
(nominal dollars per million Btu, unless otherwise noted)

Sector and source	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Average price to all users⁹										
Propane	17.13	13.10	15.78	18.93	18.16	25.03	31.99	25.19	39.26	51.36
E85 ³	25.30	29.53	34.18	40.89	28.97	37.18	50.86	34.27	50.46	71.65
Motor gasoline ⁴	28.47	25.25	32.10	41.19	30.32	42.40	55.81	37.53	59.70	79.13
Jet fuel ⁵	22.49	16.81	24.79	34.16	21.49	35.92	49.96	27.44	51.27	71.68
Distillate fuel oil	26.18	22.42	30.27	39.76	28.58	42.07	56.59	35.52	58.97	79.55
Residual fuel oil	17.65	12.71	18.41	25.83	16.32	27.03	37.81	20.63	39.53	55.97
Natural gas	6.68	8.04	8.16	8.47	11.15	11.41	12.61	16.79	18.06	20.40
Metallurgical coal	7.01	9.96	10.09	10.19	13.87	13.92	13.97	18.43	18.34	18.39
Other coal	2.45	2.86	2.97	3.10	3.83	4.03	4.17	5.13	5.37	5.57
Coal to liquids	--	--	--	2.57	--	3.52	3.59	--	4.87	5.10
Electricity	29.03	31.42	31.71	32.05	38.95	39.20	39.78	51.37	52.12	53.63
Non-renewable energy expenditures by sector (billion nominal dollars)										
Residential	248.08	275.42	280.71	286.10	368.92	374.04	381.49	519.90	527.54	540.45
Commercial	179.97	205.26	209.48	213.91	275.70	281.23	288.41	400.92	411.95	426.92
Industrial	225.18	264.27	298.68	340.93	344.87	407.07	472.18	464.18	583.76	691.95
Transportation	718.25	628.70	801.07	1,005.28	746.71	1,034.13	1,299.52	974.58	1,486.52	1,841.03
Total non-renewable expenditures	1,371.48	1,373.65	1,589.94	1,846.23	1,736.20	2,096.47	2,441.59	2,359.59	3,009.77	3,500.35
Transportation renewable expenditures	1.24	1.73	2.81	4.44	3.85	6.06	17.38	5.00	8.33	43.83
Total expenditures	1,372.71	1,375.38	1,592.75	1,850.67	1,740.04	2,102.52	2,458.97	2,364.59	3,018.11	3,544.17

¹Includes energy for combined heat and power plants that have a non-regulatory status, and small on-site generating systems.

²Excludes use for lease and plant fuel.

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.

⁵Kerosene-type jet fuel. Includes Federal and State taxes while excluding county and local taxes.

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

⁷Natural gas used as a vehicle fuel. Includes estimated motor vehicle fuel taxes and estimated dispensing costs or charges.

⁸Includes electricity-only and combined heat and power plants that have a regulatory status.

⁹Weighted 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 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 prices for motor gasoline, distillate fuel oil, and jet fuel are based on prices in the U.S. Energy Information Administration (EIA), *Petroleum Marketing Monthly*, DOE/EIA-0380(2012/08) (Washington, DC, August 2012). 2011 residential, commercial, and industrial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(Natural Gas Monthly, DOE/EIA-0130(2012/07) (Washington, DC, July 2012). 2011 transportation sector natural gas delivered prices are model results. 2011 electric power sector natural gas prices: EIA, *Monthly Energy Review*, DOE/EIA-0035(2012/09) (Washington, DC, September 2012). 2011 electric power sector natural gas prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, April 2011 and April 2012, Table 4.2, and EIA, *State Energy Data Report 2010*, DOE/EIA-0214(2010) (Washington, DC, June 2012). 2011 coal prices based on: EIA, *Quarterly Coal Report, October-December 2011*, DOE/EIA-0121(2011/4Q) (Washington, DC, March 2012) and EIA, AEO2013 National Energy Modeling System run REF2013.D102312A. 2011 electricity prices: EIA, *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). 2011 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report. Projections: EIA, AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A.

Table C4. Liquid fuels supply and disposition
(million barrels per day, unless otherwise noted)

Supply and disposition	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil										
Domestic crude production ¹	5.67	7.12	7.47	7.78	5.57	6.30	7.04	4.67	6.13	6.82
Alaska	0.57	0.49	0.49	0.52	0.25	0.38	0.54	0.00	0.41	0.40
Lower 48 states	5.10	6.64	6.98	7.26	5.32	5.92	6.50	4.67	5.72	6.42
Net imports	8.89	7.48	6.82	6.05	8.70	7.36	5.98	10.13	7.57	5.86
Gross imports	8.94	7.48	6.82	6.05	8.70	7.36	5.98	10.13	7.57	5.86
Exports	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other crude supply ²	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total crude supply	14.81	14.61	14.29	13.82	14.27	13.66	13.02	14.79	13.70	12.68
Other petroleum supply										
Natural gas plant liquids	2.22	3.01	3.13	3.20	2.86	2.90	3.01	2.77	2.92	3.06
Net product imports	-0.30	0.18	-0.13	-0.35	0.26	-0.08	-0.57	0.20	-0.67	-1.15
Gross refined product imports ³	1.15	1.62	1.47	1.41	1.73	1.53	1.24	1.99	1.42	1.07
Unfinished oil imports	0.69	0.64	0.56	0.47	0.63	0.51	0.40	0.60	0.45	0.30
Blending component imports	0.72	0.71	0.63	0.56	0.63	0.54	0.44	0.59	0.40	0.36
Exports	2.86	2.78	2.79	2.79	2.73	2.67	2.64	2.98	2.94	2.89
Refinery processing gain ⁴	1.08	1.09	1.04	0.99	1.06	1.00	0.93	1.12	1.03	0.89
Product stock withdrawal	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other non-petroleum supply	1.09	1.42	1.51	1.54	1.42	1.58	1.70	1.65	1.97	2.42
Supply from renewable sources	0.90	1.18	1.18	1.15	1.17	1.14	1.18	1.38	1.43	1.70
Ethanol	0.84	1.08	1.08	1.04	1.04	0.99	1.03	1.04	0.97	1.12
Domestic production	0.91	1.01	1.01	0.97	0.98	0.95	0.94	0.98	0.89	1.00
Net imports	-0.07	0.07	0.07	0.07	0.05	0.04	0.09	0.06	0.08	0.12
Biodiesel	0.06	0.07	0.08	0.08	0.02	0.08	0.08	0.02	0.08	0.09
Domestic production	0.06	0.06	0.07	0.07	0.00	0.07	0.07	0.00	0.07	0.07
Net imports	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Other biomass-derived liquids ⁵	0.00	0.03	0.02	0.02	0.11	0.06	0.07	0.33	0.38	0.49
Liquids from gas	0.00	0.00	0.08	0.09	0.00	0.13	0.17	0.00	0.20	0.31
Liquids from coal	0.00	0.00	0.00	0.05	0.00	0.04	0.09	0.00	0.06	0.16
Other ⁶	0.18	0.24	0.25	0.26	0.25	0.28	0.26	0.26	0.28	0.24
Total primary supply ⁷	18.92	20.31	19.84	19.21	19.87	19.06	18.10	20.52	18.96	17.90
Liquid fuels consumption										
by fuel										
Liquefied petroleum gases	2.30	2.84	2.90	2.91	2.81	2.90	2.90	2.69	2.75	2.76
E85 ⁸	0.03	0.04	0.06	0.07	0.09	0.11	0.23	0.10	0.11	0.42
Motor gasoline ⁹	8.74	8.67	8.34	7.94	7.81	7.34	6.87	7.79	7.12	6.49
Jet fuel ¹⁰	1.43	1.52	1.52	1.51	1.60	1.60	1.59	1.67	1.66	1.66
Distillate fuel oil ¹¹	3.90	4.59	4.48	4.29	4.83	4.56	4.02	5.40	4.67	4.04
Diesel	3.51	4.12	4.04	3.87	4.41	4.18	3.66	5.00	4.33	3.71
Residual fuel oil	0.46	0.51	0.50	0.49	0.52	0.50	0.49	0.54	0.51	0.50
Other ¹²	2.08	2.18	2.04	1.96	2.21	2.03	1.95	2.34	2.11	2.02
by sector										
Residential and commercial	1.06	1.06	1.01	0.96	1.02	0.95	0.90	1.01	0.91	0.86
Industrial ¹³	4.43	5.21	5.10	5.02	5.22	5.05	4.95	5.25	5.00	4.87
Transportation	13.63	14.00	13.65	13.11	13.57	12.95	12.13	14.18	12.95	12.07
Electric power ¹⁴	0.13	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total	18.95	20.35	19.84	19.17	19.89	19.04	18.06	20.53	18.95	17.89
Discrepancy ¹⁵	-0.03	-0.04	0.01	0.03	-0.02	0.02	0.03	-0.01	0.01	0.01

Table C4. Liquid fuels supply and disposition (continued)
(million barrels per day, unless otherwise noted)

Supply and disposition	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Domestic refinery distillation capacity ¹⁶	17.7	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Capacity utilization rate (percent) ¹⁷	86.0	92.7	90.7	87.7	90.6	86.7	82.7	93.9	86.9	80.5
Net import share of product supplied (percent)..	45.0	38.2	34.1	30.1	45.4	38.5	30.5	50.6	36.9	27.1
Net expenditures for imported crude oil and petroleum products (billion 2011 dollars)	362.66	184.56	259.66	336.24	220.72	342.67	410.95	265.20	433.65	495.87

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 pyrolysis oils, biomass-derived Fischer-Tropsch liquids, and renewable feedstocks used for the on-site production of diesel and gasoline.

⁶Includes domestic sources of other blending components, other hydrocarbons, and ethers.

⁷Total crude supply plus other petroleum supply plus other non-petroleum supply.

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 ethanol and ethers blended into gasoline.

¹⁰Includes only kerosene type.

¹¹Includes distillate fuel oil and kerosene from petroleum and biomass feedstocks.

¹²Includes aviation gasoline, petrochemical feedstocks, lubricants, waxes, asphalt, road oil, still gas, special naphthas, petroleum coke, crude oil product supplied, methanol, and miscellaneous petroleum products.

¹³Includes energy for combined heat and power plants that have a non-regulatory status, and small on-site generating systems.

¹⁴Includes consumption of energy by electricity-only and combined heat and power plants that have a regulatory status.

¹⁵Balancing item. Includes unaccounted for supply, losses, and gains.

¹⁶End-of-year operable capacity.

¹⁷Rate 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 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 product supplied based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). Other 2011 data: EIA, *Petroleum Supply Annual 2011*, DOE/EIA-0340(2011)/1 (Washington, DC, August 2012). Projections: EIA, AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A.

Table C5. Petroleum product prices
(2011 dollars per gallon, unless otherwise noted)

Sector and fuel	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil prices (2011 dollars per barrel)										
Brent spot.....	111.26	68.90	105.57	155.28	71.90	130.47	191.90	74.90	162.68	237.16
West Texas Intermediate spot	94.86	66.90	103.57	153.28	69.90	128.47	189.90	72.90	160.68	235.16
Average imported refiners acquisition cost ¹ ..	102.65	66.28	102.19	149.31	68.39	125.64	184.97	70.93	154.96	228.39
Delivered sector product prices										
Residential										
Propane.....	2.13	1.85	1.98	2.11	1.93	2.17	2.35	2.01	2.35	2.56
Distillate fuel oil	3.66	2.78	3.73	4.95	2.85	4.34	5.88	2.92	5.07	6.94
Commercial										
Distillate fuel oil	3.57	2.40	3.34	4.53	2.50	3.93	5.47	2.56	4.65	6.52
Residual fuel oil	2.87	1.46	2.22	3.29	1.56	2.81	4.09	1.64	3.50	5.36
Residual fuel oil (2011 dollars per barrel)..	120.49	61.38	93.20	138.00	65.63	117.99	171.88	68.87	147.19	225.06
Industrial²										
Propane.....	1.92	1.56	1.74	1.92	1.67	1.99	2.25	1.76	2.25	2.56
Distillate fuel oil	3.64	2.45	3.39	4.55	2.58	3.97	5.50	2.64	4.69	6.56
Residual fuel oil	2.82	1.81	2.57	3.64	1.90	3.16	4.46	1.98	3.86	5.71
Residual fuel oil (2011 dollars per barrel)..	118.58	75.90	108.07	153.04	79.88	132.58	187.31	83.04	162.10	239.83
Transportation										
Propane.....	2.22	1.94	2.07	2.20	2.02	2.26	2.44	2.10	2.44	2.65
Ethanol (E85) ³	2.42	2.44	2.83	3.41	1.98	2.57	3.57	1.93	2.92	4.24
Ethanol wholesale price	2.54	2.79	3.00	3.11	2.39	2.28	2.78	2.33	2.48	3.25
Motor gasoline ⁴	3.45	2.61	3.32	4.29	2.59	3.67	4.90	2.64	4.32	5.86
Jet fuel ⁵	3.04	1.96	2.90	4.02	2.07	3.51	4.96	2.18	4.19	6.00
Diesel fuel (distillate fuel oil) ⁶	3.58	2.71	3.65	4.80	2.85	4.22	5.76	2.92	4.94	6.81
Residual fuel oil	2.67	1.50	2.23	3.18	1.58	2.75	3.96	1.64	3.36	4.90
Residual fuel oil (2011 dollars per barrel)..	112.11	62.89	93.74	133.76	66.56	115.30	166.23	69.01	141.16	205.61
Electric power⁷										
Distillate fuel oil	3.23	2.16	3.11	4.33	2.23	3.72	5.25	2.30	4.44	6.32
Residual fuel oil	2.39	2.96	3.73	4.82	3.12	4.39	5.71	3.22	5.17	7.01
Residual fuel oil (2011 dollars per barrel)..	100.43	124.18	156.82	202.60	131.04	184.59	239.73	135.26	217.18	294.46
Refined petroleum product prices⁸										
Propane.....	1.46	0.96	1.16	1.40	1.10	1.53	1.98	1.25	2.00	2.66
Motor gasoline ⁴	3.42	2.61	3.32	4.29	2.59	3.67	4.90	2.64	4.32	5.86
Jet fuel ⁵	3.04	1.96	2.90	4.02	2.07	3.51	4.96	2.18	4.19	6.00
Distillate fuel oil	3.59	2.66	3.60	4.76	2.80	4.18	5.71	2.87	4.90	6.77
Residual fuel oil	2.64	1.65	2.39	3.37	1.75	2.93	4.17	1.82	3.59	5.19
Residual fuel oil (2011 dollars per barrel)..	110.98	69.15	100.39	141.70	73.32	123.16	174.94	76.42	150.58	218.18
Average	3.11	2.30	3.01	3.91	2.35	3.43	4.61	2.44	4.10	5.58

Table C5. Petroleum product prices (continued)
(nominal dollars per gallon, unless otherwise noted)

Sector and fuel	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil prices (nominal dollars per barrel)										
Brent spot.....	111.26	79.61	121.73	177.97	100.62	180.04	260.76	127.14	268.50	382.50
West Texas Intermediate spot.....	94.86	77.30	119.43	175.68	97.82	177.28	258.04	123.74	265.20	379.28
Average imported refiners acquisition cost ¹ ..	102.65	76.57	117.84	171.13	95.72	173.38	251.33	120.40	255.76	368.36
Delivered sector product prices										
Residential										
Propane.....	2.13	2.14	2.29	2.42	2.70	2.99	3.19	3.41	3.88	4.13
Distillate fuel oil.....	3.66	3.21	4.30	5.67	3.99	5.98	7.99	4.96	8.37	11.20
Commercial										
Distillate fuel oil.....	3.57	2.77	3.86	5.19	3.50	5.42	7.43	4.35	7.68	10.52
Residual fuel oil.....	2.87	1.69	2.56	3.77	2.19	3.88	5.56	2.78	5.78	8.64
Industrial²										
Propane.....	1.92	1.80	2.00	2.20	2.33	2.75	3.06	2.99	3.71	4.14
Distillate fuel oil.....	3.64	2.83	3.91	5.21	3.61	5.48	7.48	4.49	7.74	10.58
Residual fuel oil.....	2.82	2.09	2.97	4.18	2.66	4.36	6.06	3.36	6.37	9.21
Transportation										
Propane.....	2.22	2.24	2.39	2.53	2.83	3.12	3.31	3.56	4.03	4.28
Ethanol (E85) ³	2.42	2.82	3.26	3.90	2.77	3.55	4.85	3.27	4.82	6.84
Ethanol wholesale price.....	2.54	3.22	3.46	3.57	3.35	3.14	3.77	3.96	4.09	5.24
Motor gasoline ⁴	3.45	3.02	3.83	4.92	3.62	5.06	6.66	4.48	7.13	9.45
Jet fuel ⁵	3.04	2.27	3.35	4.61	2.90	4.85	6.74	3.70	6.92	9.68
Diesel fuel (distillate fuel oil) ⁶	3.58	3.13	4.20	5.50	3.99	5.83	7.82	4.95	8.15	10.98
Residual fuel oil.....	2.67	1.73	2.57	3.65	2.22	3.79	5.38	2.79	5.55	7.90
Electric power⁷										
Distillate fuel oil.....	3.23	2.49	3.59	4.96	3.12	5.13	7.14	3.90	7.33	10.20
Residual fuel oil.....	2.39	3.42	4.31	5.53	4.37	6.06	7.76	5.47	8.53	11.31
Refined petroleum product prices⁸										
Propane.....	1.46	1.11	1.34	1.60	1.53	2.11	2.69	2.13	3.30	4.30
Motor gasoline ⁴	3.42	3.02	3.83	4.92	3.62	5.06	6.66	4.48	7.13	9.45
Jet fuel ⁵	3.04	2.27	3.35	4.61	2.90	4.85	6.74	3.70	6.92	9.68
Distillate fuel oil.....	3.59	3.08	4.15	5.46	3.92	5.77	7.76	4.87	8.09	10.91
Residual fuel oil (nominal dollars per barrel)	110.98	79.90	115.76	162.41	102.62	169.95	237.72	129.72	248.53	351.90
Average	3.11	2.66	3.47	4.49	3.28	4.74	6.26	4.14	6.76	9.00

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

²Includes combined heat and power plants that have a non-regulatory status, and small on-site generating systems.

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 that have a regulatory status.

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

Note: Data for 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 prices for motor gasoline, distillate fuel oil, and jet fuel are based on: Energy Information Administration (EIA), *Petroleum Marketing Monthly*, DOE/EIA-0380(2012/08) (Washington, DC, August 2012). 2011 crude oil spot prices: Thomson Reuters. 2011 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." 2011 electric power prices based on: *Monthly Energy Review*, DOE/EIA-0035(2012/09) (Washington, DC, September 2012). 2011 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report. 2011 wholesale ethanol prices derived from Bloomberg U.S. average rack price. **Projections:** EIA, AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A.

Table C6. International liquids supply and disposition summary
(million barrels per day, unless otherwise noted)

Supply and disposition	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil spot prices										
(2011 dollars per barrel)										
Brent	111.26	68.90	105.57	155.28	71.90	130.47	191.90	74.90	162.68	237.16
West Texas Intermediate	94.86	66.90	103.57	153.28	69.90	128.47	189.90	72.90	160.68	235.16
(nominal dollars per barrel)										
Brent	111.26	79.61	121.73	177.97	100.62	180.04	260.76	127.14	268.50	382.50
West Texas Intermediate	94.86	77.30	119.43	175.68	97.82	177.28	258.04	123.74	265.20	379.28
Liquids consumption¹										
OECD										
United States (50 states).....	18.68	20.00	19.49	18.84	19.55	18.72	17.73	20.20	18.64	17.53
United States territories.....	0.28	0.37	0.32	0.29	0.43	0.36	0.32	0.47	0.37	0.33
Canada.....	2.29	2.35	2.21	2.11	2.37	2.18	2.14	2.48	2.30	2.39
Mexico and Chile.....	2.41	2.81	2.66	2.57	3.30	3.05	3.01	3.82	3.47	3.51
OECD Europe ²	14.28	14.59	13.81	13.19	15.21	13.96	13.31	15.99	14.21	13.54
Japan	4.46	4.75	4.41	4.15	4.73	4.25	3.96	4.54	3.94	3.64
South Korea	2.32	2.75	2.56	2.41	3.01	2.66	2.53	3.26	2.74	2.66
Australia and New Zealand	1.12	1.23	1.19	1.13	1.30	1.22	1.16	1.46	1.30	1.23
Total OECD	45.83	48.85	46.63	44.69	49.90	46.40	44.15	52.21	46.96	44.82
Non-OECD										
Russia	3.13	3.77	3.53	3.37	4.12	3.83	3.67	4.25	3.95	3.86
Other Europe and Eurasia ³	2.27	2.54	2.38	2.31	2.90	2.63	2.56	3.45	3.07	3.02
China	9.85	13.00	13.29	13.23	13.79	15.58	17.21	13.83	17.59	22.13
India	3.28	4.30	4.27	4.24	5.27	5.61	6.33	5.75	6.81	9.40
Other Asia ⁴	6.87	8.00	7.88	7.65	9.09	9.30	9.35	10.20	11.25	11.72
Middle East.....	7.51	8.56	8.40	8.16	8.81	8.92	9.03	9.07	9.78	10.57
Africa	3.31	3.78	3.63	3.47	4.10	4.05	3.96	4.29	4.49	4.43
Brazil	2.59	3.15	3.01	2.83	3.34	3.37	3.34	3.54	4.00	4.27
Other Central and South America	3.37	3.73	3.42	3.44	4.09	3.71	3.73	4.45	4.02	4.09
Total non-OECD.....	42.18	50.82	49.82	48.69	55.51	57.00	59.16	58.84	64.97	73.49
Total liquids consumption	88.01	99.67	96.45	93.38	105.41	103.41	103.31	111.05	111.93	118.31
Liquids production										
OPEC ⁵										
Middle East.....	25.40	30.13	26.65	24.08	33.47	29.88	28.47	39.68	35.09	34.24
North Africa.....	2.39	3.65	3.27	3.00	3.75	3.48	3.33	4.22	3.96	3.87
West Africa	4.31	5.73	5.33	4.80	6.28	5.61	5.33	6.78	5.89	5.70
South America	2.99	3.41	3.09	3.03	3.44	3.01	3.05	3.80	3.20	3.27
Total OPEC	35.08	42.92	38.34	34.90	46.94	41.98	40.17	54.49	48.13	47.08
Non-OPEC										
OECD										
United States (50 states).....	10.11	12.23	12.74	13.11	10.53	11.42	12.28	9.81	11.67	12.74
Canada	3.66	5.20	5.09	6.01	6.15	5.91	7.25	5.73	6.14	7.78
Mexico and Chile.....	2.99	1.93	1.96	1.92	1.69	1.98	1.96	1.58	2.12	2.15
OECD Europe ²	4.19	3.38	3.38	3.28	2.90	2.84	2.76	3.51	3.36	3.56
Japan.....	0.18	0.18	0.17	0.17	0.19	0.18	0.19	0.20	0.19	0.20
Australia and New Zealand.....	0.58	0.54	0.54	0.53	0.56	0.56	0.55	0.79	0.87	0.90
Total OECD.....	21.71	23.46	23.88	25.02	22.03	22.90	24.99	21.62	24.35	27.33
Non-OECD										
Russia.....	10.23	10.29	10.75	10.80	10.76	11.43	11.45	10.53	11.48	11.88
Other Europe and Eurasia ³	3.26	4.15	4.20	4.00	4.17	4.85	4.58	3.33	5.24	5.27
China	4.34	4.56	4.59	4.58	5.43	5.50	5.82	5.24	5.42	8.36
Other Asia ⁴	3.74	3.52	3.55	3.46	3.09	3.09	3.02	2.89	2.87	2.96
Middle East.....	1.43	1.21	1.23	1.19	1.08	1.09	1.05	0.89	0.89	0.89
Africa	2.68	3.02	3.08	3.00	3.03	3.10	3.01	3.11	3.18	3.24
Brazil.....	2.53	4.52	4.35	4.51	6.72	6.96	7.14	6.53	7.61	8.82
Other Central and South America.....	2.17	2.38	2.40	2.32	2.42	2.46	2.38	2.65	2.69	2.82
Total non-OECD.....	30.39	33.65	34.15	33.87	36.69	38.47	38.46	35.17	39.37	44.24
Total liquids production	87.18	100.03	96.38	93.79	105.65	103.35	103.62	111.29	111.85	118.65
OPEC liquids market share (percent)	40.2	42.9	39.8	37.2	44.4	40.6	38.8	49.0	43.0	39.7

Table C6. International liquids supply and disposition summary (continued)
(million barrels per day, unless otherwise noted)

Supply and disposition	2011	Projections								
		2020			2030			2040		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Selected world liquids production subtotals:										
Petroleum ⁶										
Crude oil and equivalents ⁷	74.08	84.06	80.28	77.15	87.05	85.26	84.30	90.27	90.90	94.50
Tight oil.....	1.27	3.53	3.83	3.99	4.39	4.91	5.34	4.73	6.10	7.97
Bitumen ⁸	1.74	3.18	3.00	3.87	4.29	3.95	5.19	3.99	4.26	5.71
Natural gas plant liquids.....	8.66	10.46	10.88	10.96	11.24	11.75	11.88	12.07	12.88	13.04
Refinery processing gain ⁹	2.28	2.35	2.20	2.14	2.64	2.50	2.43	2.94	2.82	2.72
Liquids from renewable sources ¹⁰	1.33	2.31	2.08	2.38	3.51	2.49	3.14	4.69	2.93	4.99
Liquids from coal ¹¹	0.18	0.36	0.40	0.58	0.76	0.95	1.24	0.86	1.19	2.62
Liquids from natural gas ¹²	0.12	0.30	0.39	0.37	0.32	0.48	0.49	0.31	0.55	0.65
Liquids from kerogen ¹³	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Petroleum production⁶										
OPEC ⁵										
Middle East.....	25.34	29.93	26.44	23.89	33.24	29.64	28.25	39.45	34.84	34.01
North Africa.....	2.39	3.65	3.27	3.00	3.75	3.48	3.33	4.22	3.96	3.87
West Africa.....	4.31	5.70	5.30	4.77	6.25	5.58	5.30	6.75	5.86	5.67
South America.....	2.99	3.41	3.09	3.03	3.44	3.01	3.05	3.80	3.20	3.27
Total OPEC.....	35.03	42.69	38.10	34.70	46.68	41.71	39.93	54.24	47.86	46.83
Non-OPEC										
OECD										
United States (50 states).....	9.25	11.22	11.64	11.96	9.49	10.21	10.98	8.55	10.08	10.78
Canada.....	3.64	5.17	5.07	5.98	6.09	5.87	7.20	5.65	6.10	7.70
Mexico and Chile.....	2.99	1.93	1.96	1.92	1.69	1.98	1.96	1.58	2.12	2.15
OECD Europe ²	3.98	3.16	3.16	3.05	2.60	2.60	2.50	3.09	3.09	3.13
Japan.....	0.17	0.17	0.16	0.16	0.18	0.18	0.18	0.18	0.18	0.18
Australia and New Zealand.....	0.57	0.53	0.53	0.52	0.54	0.55	0.54	0.77	0.86	0.89
Total OECD.....	20.60	22.18	22.52	23.60	20.60	21.39	23.36	19.83	22.43	24.82
Non-OECD										
Russia.....	10.23	10.29	10.75	10.80	10.76	11.42	11.45	10.53	11.47	11.88
Other Europe and Eurasia ³	3.25	4.14	4.19	3.99	4.16	4.84	4.58	3.32	5.23	5.26
China.....	4.30	4.41	4.44	4.30	4.73	4.83	4.86	4.33	4.52	5.96
Other Asia ⁴	3.67	3.40	3.42	3.32	2.87	2.88	2.79	2.65	2.65	2.67
Middle East.....	1.43	1.21	1.23	1.19	1.08	1.09	1.05	0.89	0.89	0.89
Africa.....	2.47	2.72	2.75	2.66	2.72	2.74	2.64	2.80	2.82	2.83
Brazil.....	2.25	3.52	3.57	3.44	5.03	5.92	5.68	4.20	6.48	6.44
Other Central and South America.....	2.09	2.30	2.33	2.24	2.31	2.38	2.29	2.50	2.60	2.66
Total non-OECD.....	29.69	32.00	32.69	31.95	33.65	36.11	35.32	31.21	36.66	38.60
Total petroleum production.....	85.31	96.87	93.32	90.24	100.93	99.20	98.61	105.28	106.96	110.25
OPEC petroleum market share (percent).....	41.1	44.1	40.8	38.4	46.2	42.0	40.5	51.5	44.7	42.5

¹Includes both OPEC and non-OPEC consumers in the regional breakdown.

²OECD Europe = Organization for Economic Cooperation and Development - Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

³Other Europe and Eurasia = Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Malta, Moldova, Montenegro, Romania, Serbia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

⁴Other 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.

⁵OPEC = Organization of Petroleum Exporting Countries - Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

⁶Includes production of crude oil (including lease condensate, tight oil (shale oil), extra-heavy oil, and bitumen (oil sands)), natural gas plant liquids, refinery gains, and other hydrogen and hydrocarbons for refinery feedstocks.

⁷Includes crude oil, lease condensate, tight oil (shale oil), extra-heavy oil, and bitumen (oil sands).

⁸Includes diluted and upgraded/synthetic bitumen (syncrude).

⁹The 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.

¹⁰Includes liquids produced from energy crops.

¹¹Includes liquids converted from coal via the Fischer-Tropsch coal-to-liquids process.

¹²Includes liquids converted from natural gas via the Fischer-Tropsch natural-gas-to-liquids process.

¹³Includes liquids produced from kerogen (oil shale, not to be confused with tight oil (shale oil)).

Note: Ethanol is represented in motor gasoline equivalent barrels. Totals may not equal sum of components due to independent rounding. Data for 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2011 crude oil spot prices: Thomson Reuters. 2011 quantities and projections: Energy Information Administration (EIA), AEO2013 National Energy Modeling System runs LOWPRICE.D031213A, REF2013.D102312A, and HIGHPRICE.D110912A and EIA, Generate World Oil Balance Model.