

Appendix C

Price case comparisons

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

Supply, disposition, and prices	2010	Projections								
		2015			2025			2035		
		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	11.59	12.66	13.23	13.79	11.57	13.77	15.60	10.29	12.89	14.37
Natural gas plant liquids	2.78	3.15	3.33	3.34	3.84	3.93	4.01	3.80	3.94	4.00
Dry natural gas	22.10	24.02	24.22	24.44	26.20	26.91	27.65	27.80	28.60	29.38
Coal ¹	22.06	20.76	20.24	19.80	22.39	22.25	23.45	23.59	24.14	27.73
Nuclear / uranium ²	8.44	8.68	8.68	8.68	9.60	9.60	9.60	9.42	9.28	9.26
Hydropower	2.51	2.90	2.90	2.90	2.99	2.99	2.98	3.05	3.04	3.04
Biomass ³	4.05	4.52	4.45	4.67	6.14	6.26	7.14	7.92	9.07	11.33
Other renewable energy ⁴	1.34	1.94	1.99	2.02	2.18	2.22	2.19	2.87	2.81	2.66
Other ⁵	0.64	0.54	0.60	0.82	0.55	0.69	0.77	0.68	0.91	0.90
Total	75.50	79.18	79.64	80.46	85.46	88.61	93.38	89.43	94.67	102.65
Imports										
Crude oil	20.14	21.26	18.87	17.01	21.30	16.23	12.08	23.88	16.90	11.22
Liquid fuels and other petroleum ⁶	5.02	4.97	4.32	3.89	5.08	4.08	3.43	5.40	4.14	3.26
Natural gas ⁷	3.81	3.87	3.73	3.69	3.16	2.75	2.55	3.28	2.84	2.57
Other imports ⁸	0.52	0.47	0.44	0.40	0.83	1.07	0.81	0.87	0.81	0.76
Total	29.49	30.58	27.37	24.98	30.37	24.14	18.88	33.42	24.69	17.82
Exports										
Liquid fuels and other petroleum ⁹	4.81	5.16	5.00	4.95	4.51	4.46	4.58	4.89	4.95	5.02
Natural gas ¹⁰	1.15	1.93	1.93	1.93	3.51	3.51	3.52	4.17	4.17	4.18
Coal	2.10	2.73	2.73	2.73	2.82	2.82	2.67	3.22	3.13	3.13
Total	8.06	9.82	9.66	9.62	10.84	10.79	10.76	12.28	12.25	12.33
Discrepancy¹¹	-1.23	0.04	-0.08	0.01	0.09	-0.03	-0.01	0.23	0.18	0.27
Consumption										
Liquid fuels and other petroleum ¹²	37.25	38.73	36.72	35.31	39.70	36.58	35.03	41.86	37.70	35.86
Natural gas	24.71	25.93	26.00	26.18	25.80	26.14	26.57	26.86	27.26	27.67
Coal ¹³	20.76	18.35	17.80	17.30	20.17	20.02	20.39	21.05	21.15	22.69
Nuclear / uranium ²	8.44	8.68	8.68	8.68	9.60	9.60	9.60	9.42	9.28	9.26
Hydropower	2.51	2.90	2.90	2.90	2.99	2.99	2.98	3.05	3.04	3.04
Biomass ¹⁴	2.88	3.06	3.04	3.13	4.19	4.17	4.48	4.98	5.44	6.45
Other renewable energy ⁴	1.34	1.94	1.99	2.02	2.18	2.22	2.19	2.87	2.81	2.66
Other ¹⁵	0.29	0.30	0.30	0.30	0.28	0.28	0.28	0.24	0.24	0.24
Total	98.16	99.89	97.43	95.82	104.90	101.99	101.52	110.34	106.93	107.87
Prices (2010 dollars per unit)										
Petroleum (dollars per barrel)										
Low sulfur light crude oil ¹⁶	79.39	58.36	116.91	182.10	59.41	132.56	193.48	62.38	144.98	200.36
Imported crude oil ¹⁶	75.87	55.41	113.97	179.16	48.84	121.21	180.29	53.10	132.95	187.04
Natural gas (dollars per million Btu)										
at Henry hub	4.39	4.21	4.29	4.26	5.61	5.63	5.60	7.36	7.37	7.17
at the wellhead ¹⁷	4.06	3.78	3.84	3.81	4.98	5.00	4.97	6.47	6.48	6.31
Natural gas (dollars per thousand cubic feet)										
at the wellhead ¹⁷	4.16	3.87	3.94	3.91	5.10	5.12	5.09	6.63	6.64	6.46
Coal (dollars per ton)										
at the minemouth ¹⁸	35.61	39.93	42.08	44.26	41.50	44.05	45.62	47.24	50.52	51.12
Coal (dollars per million Btu)										
at the minemouth ¹⁸	1.76	1.98	2.08	2.18	2.10	2.23	2.31	2.40	2.56	2.62
Average end-use ¹⁹	2.38	2.42	2.56	2.68	2.51	2.70	2.81	2.73	2.94	3.07
Average electricity (cents per kilowatthour)	9.8	9.5	9.7	9.9	9.5	9.7	9.9	10.0	10.1	10.2

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

Supply, disposition, and prices	2010	Projections								
		2015			2025			2035		
		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)										
Petroleum (dollars per barrel)										
Low sulfur light crude oil ¹⁶	79.39	62.81	125.97	195.67	77.32	170.09	245.37	98.91	229.55	314.93
Imported crude oil ¹⁶	75.87	59.64	122.81	192.52	63.56	155.52	228.64	84.19	210.51	294.00
Natural gas (dollars per million Btu)										
at Henry hub	4.39	4.54	4.62	4.57	7.30	7.23	7.10	11.67	11.67	11.26
at the wellhead ¹⁷	4.06	4.07	4.14	4.10	6.48	6.42	6.30	10.26	10.26	9.91
Natural gas (dollars per thousand cubic feet)										
at the wellhead ¹⁷	4.16	4.16	4.24	4.20	6.64	6.57	6.46	10.51	10.51	10.15
Coal (dollars per ton)										
at the minemouth ¹⁸	35.61	42.97	45.34	47.56	54.01	56.52	57.86	74.91	80.00	80.35
Coal (dollars per million Btu)										
at the minemouth ¹⁸	1.76	2.13	2.24	2.34	2.74	2.86	2.93	3.81	4.05	4.12
Average end-use ¹⁹	2.38	2.61	2.76	2.88	3.27	3.47	3.56	4.33	4.66	4.83
Average electricity (cents per kilowatthour)	9.8	10.2	10.4	10.6	12.4	12.5	12.6	15.9	16.0	16.0

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 is 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 and natural gas used for liquefaction at export terminals.

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.

¹⁶Weighted average price delivered to U.S. refiners.

¹⁷Represents lower 48 onshore and offshore supplies.

¹⁸Includes reported prices for both open market and captive mines.

¹⁹Prices 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 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 natural gas supply values and natural gas wellhead price: U.S. Energy Information Administration (EIA), *Natural Gas Monthly*, DOE/EIA-0130(2011/07) (Washington, DC, July 2011). 2010 coal minemouth and delivered coal prices: EIA, *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). 2010 petroleum supply values: EIA, *Petroleum Supply Annual 2010*, DOE/EIA-0340(2010)/1 (Washington, DC, July 2011). 2010 low sulfur light crude oil price: EIA, Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." Other 2010 coal values: *Quarterly Coal Report, October-December 2010*, DOE/EIA-0121(2010/4Q) (Washington, DC, May 2011). Other 2010 values: EIA, *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). Projections: EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A.

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

Sector and source	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Energy consumption										
Residential										
Liquefied petroleum gases	0.56	0.54	0.51	0.49	0.55	0.50	0.48	0.55	0.51	0.48
Kerosene	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Distillate fuel oil	0.63	0.61	0.55	0.51	0.49	0.43	0.40	0.41	0.35	0.33
Liquid fuels and other petroleum subtotal	1.22	1.17	1.08	1.02	1.07	0.95	0.90	0.99	0.87	0.82
Natural gas	5.06	4.98	4.97	4.98	4.88	4.88	4.90	4.74	4.76	4.78
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable energy ¹	0.42	0.37	0.43	0.48	0.36	0.43	0.48	0.35	0.43	0.47
Electricity	4.95	4.78	4.75	4.71	5.27	5.23	5.20	5.90	5.86	5.83
Delivered energy	11.66	11.31	11.24	11.19	11.58	11.51	11.48	11.98	11.93	11.91
Electricity related losses	10.39	9.68	9.58	9.47	10.66	10.52	10.34	11.58	11.35	11.02
Total	22.05	20.99	20.81	20.66	22.24	22.02	21.82	23.56	23.28	22.93
Commercial										
Liquefied petroleum gases	0.14	0.16	0.14	0.12	0.18	0.15	0.13	0.19	0.16	0.14
Motor gasoline ²	0.05	0.06	0.05	0.04	0.06	0.05	0.05	0.07	0.06	0.06
Kerosene	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01
Distillate fuel oil	0.43	0.41	0.35	0.32	0.41	0.33	0.30	0.41	0.32	0.30
Residual fuel oil	0.08	0.13	0.08	0.06	0.14	0.08	0.06	0.14	0.08	0.07
Liquid fuels and other petroleum subtotal	0.72	0.76	0.62	0.55	0.79	0.62	0.56	0.81	0.62	0.57
Natural gas	3.28	3.42	3.41	3.42	3.51	3.53	3.55	3.64	3.69	3.72
Coal	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Renewable energy ³	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Electricity	4.54	4.61	4.59	4.57	5.19	5.16	5.14	5.81	5.80	5.77
Delivered energy	8.70	8.96	8.80	8.70	9.66	9.48	9.41	10.43	10.28	10.23
Electricity related losses	9.52	9.34	9.27	9.18	10.50	10.38	10.21	11.41	11.23	10.90
Total	18.22	18.30	18.06	17.89	20.16	19.86	19.62	21.84	21.50	21.13
Industrial⁴										
Liquefied petroleum gases	2.00	1.86	1.83	1.80	2.22	2.17	2.13	2.23	2.15	2.11
Motor gasoline ²	0.25	0.28	0.28	0.28	0.31	0.30	0.30	0.32	0.30	0.29
Distillate fuel oil	1.16	1.28	1.25	1.24	1.25	1.19	1.17	1.29	1.18	1.16
Residual fuel oil	0.12	0.12	0.09	0.09	0.13	0.08	0.07	0.14	0.08	0.07
Petrochemical feedstocks	0.94	1.01	1.01	1.01	1.30	1.29	1.28	1.32	1.30	1.29
Other petroleum ⁵	3.59	3.82	3.44	3.23	3.82	3.11	2.89	4.10	3.19	2.83
Liquid fuels and other petroleum subtotal	8.05	8.39	7.89	7.65	9.03	8.13	7.83	9.40	8.21	7.76
Natural gas	6.76	7.17	7.19	7.21	7.19	7.32	7.38	7.18	7.18	7.29
Natural-gas-to-liquids heat and power	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07
Lease and plant fuel ⁶	1.37	1.42	1.43	1.44	1.53	1.57	1.63	1.54	1.63	1.71
Natural gas subtotal	8.14	8.59	8.62	8.65	8.72	8.89	9.09	8.71	8.81	9.07
Metallurgical coal	0.55	0.58	0.57	0.56	0.48	0.49	0.49	0.44	0.43	0.43
Other industrial coal	1.01	1.03	1.03	1.02	1.04	1.08	1.08	1.05	1.08	1.09
Coal-to-liquids heat and power	0.00	0.00	0.00	0.00	0.10	0.36	1.12	0.10	0.60	2.74
Net coal coke imports	-0.01	-0.00	-0.01	-0.01	-0.03	-0.03	-0.03	-0.06	-0.06	-0.06
Coal subtotal	1.56	1.60	1.59	1.58	1.60	1.90	2.67	1.54	2.06	4.21
Biofuels heat and coproducts	0.84	0.85	0.81	0.86	1.19	1.27	1.73	1.99	2.57	3.63
Renewable energy ⁷	1.50	1.63	1.61	1.63	1.90	1.82	1.75	2.10	1.95	1.87
Electricity	3.28	3.52	3.44	3.40	3.57	3.52	3.51	3.40	3.33	3.32
Delivered energy	23.37	24.57	23.96	23.76	26.02	25.53	26.58	27.14	26.94	29.85
Electricity related losses	6.89	7.11	6.94	6.84	7.21	7.09	6.98	6.68	6.46	6.27
Total	30.26	31.69	30.90	30.60	33.24	32.61	33.56	33.82	33.39	36.12

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

Sector and source	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Transportation										
Liquefied petroleum gases	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.05
E85 ⁸	0.00	0.01	0.01	0.37	0.02	0.30	1.49	0.20	1.22	2.63
Motor gasoline ²	16.91	17.23	16.13	14.85	17.02	14.90	12.48	17.96	14.53	11.70
Jet fuel ⁹	3.07	3.04	3.03	3.01	3.20	3.19	3.18	3.34	3.33	3.32
Distillate fuel oil ¹⁰	5.77	6.71	6.55	6.45	7.08	7.03	7.14	7.58	7.44	7.57
Residual fuel oil	0.90	0.91	0.91	0.91	0.92	0.93	0.93	0.94	0.94	0.94
Other petroleum ¹¹	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Liquid fuels and other petroleum subtotal	26.88	28.11	26.83	25.81	28.45	26.57	25.44	30.24	27.67	26.40
Pipeline fuel natural gas	0.65	0.68	0.68	0.69	0.66	0.67	0.69	0.67	0.69	0.69
Compressed / liquefied natural gas	0.04	0.05	0.06	0.08	0.06	0.11	0.21	0.07	0.16	0.30
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	0.03	0.04	0.06	0.05	0.07	0.11
Delivered energy	27.59	28.86	27.60	26.61	29.20	27.40	26.40	31.03	28.60	27.49
Electricity related losses	0.05	0.05	0.05	0.06	0.07	0.08	0.12	0.10	0.14	0.20
Total	27.63	28.92	27.65	26.67	29.27	27.49	26.52	31.12	28.75	27.69
Delivered energy consumption for all sectors										
Liquefied petroleum gases	2.75	2.60	2.51	2.46	2.98	2.86	2.79	3.02	2.86	2.79
E85 ⁸	0.00	0.01	0.01	0.37	0.02	0.30	1.49	0.20	1.22	2.63
Motor gasoline ²	17.21	17.57	16.46	15.17	17.39	15.25	12.82	18.35	14.88	12.05
Jet fuel ⁹	3.07	3.04	3.03	3.01	3.20	3.19	3.18	3.34	3.33	3.32
Kerosene	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.03
Distillate fuel oil	7.99	9.01	8.69	8.52	9.24	8.99	9.02	9.69	9.29	9.36
Residual fuel oil	1.11	1.16	1.08	1.06	1.19	1.09	1.06	1.21	1.11	1.08
Petrochemical feedstocks	0.94	1.01	1.01	1.01	1.30	1.29	1.28	1.32	1.30	1.29
Other petroleum ¹²	3.76	3.98	3.61	3.39	3.98	3.27	3.05	4.27	3.36	3.00
Liquid fuels and other petroleum subtotal	36.87	38.42	36.43	35.02	39.35	36.28	34.73	41.44	37.38	35.55
Natural gas	15.15	15.62	15.64	15.68	15.63	15.85	16.04	15.62	15.79	16.08
Natural-gas-to-liquids heat and power	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07
Lease and plant fuel ⁶	1.37	1.42	1.43	1.44	1.53	1.57	1.63	1.54	1.63	1.71
Pipeline natural gas	0.65	0.68	0.68	0.69	0.66	0.67	0.69	0.67	0.69	0.69
Natural gas subtotal	17.17	17.72	17.75	17.81	17.82	18.09	18.43	17.83	18.11	18.55
Metallurgical coal	0.55	0.58	0.57	0.56	0.48	0.49	0.49	0.44	0.43	0.43
Other coal	1.08	1.09	1.09	1.08	1.11	1.14	1.15	1.11	1.15	1.16
Coal-to-liquids heat and power	0.00	0.00	0.00	0.00	0.10	0.36	1.12	0.10	0.60	2.74
Net coal coke imports	-0.01	-0.00	-0.01	-0.01	-0.03	-0.03	-0.03	-0.06	-0.06	-0.06
Coal subtotal	1.62	1.67	1.65	1.64	1.67	1.96	2.74	1.60	2.12	4.28
Biofuels heat and coproducts	0.84	0.85	0.81	0.86	1.19	1.27	1.73	1.99	2.57	3.63
Renewable energy ¹³	2.03	2.10	2.15	2.22	2.37	2.36	2.34	2.56	2.50	2.45
Liquid hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	12.79	12.94	12.81	12.71	14.07	13.96	13.91	15.16	15.06	15.02
Delivered energy	71.32	73.71	71.59	70.26	76.47	73.92	73.87	80.58	77.75	79.48
Electricity related losses	26.84	26.19	25.84	25.55	28.44	28.07	27.65	29.76	29.18	28.39
Total	98.16	99.89	97.43	95.82	104.90	101.99	101.52	110.34	106.93	107.87
Electric power¹⁴										
Distillate fuel oil	0.08	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09
Residual fuel oil	0.30	0.22	0.21	0.21	0.27	0.22	0.22	0.33	0.23	0.23
Liquid fuels and other petroleum subtotal	0.38	0.30	0.29	0.29	0.36	0.31	0.31	0.42	0.32	0.32
Natural gas	7.54	8.22	8.25	8.37	7.97	8.04	8.14	9.03	9.16	9.12
Steam coal	19.13	16.68	16.15	15.66	18.50	18.06	17.65	19.45	19.03	18.41
Nuclear / uranium ¹⁵	8.44	8.68	8.68	8.68	9.60	9.60	9.60	9.42	9.28	9.26
Renewable energy ¹⁶	3.85	4.94	4.96	4.96	5.80	5.75	5.59	6.34	6.22	6.07
Electricity imports	0.09	0.10	0.10	0.10	0.08	0.08	0.08	0.04	0.04	0.04
Total¹⁷	39.63	39.13	38.64	38.26	42.50	42.03	41.56	44.91	44.24	43.41

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

Sector and source	2010	Projections								
		2015			2025			2035		
		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	2.75	2.60	2.51	2.46	2.98	2.86	2.79	3.02	2.86	2.79
E85 ⁸	0.00	0.01	0.01	0.37	0.02	0.30	1.49	0.20	1.22	2.63
Motor gasoline ²	17.21	17.57	16.46	15.17	17.39	15.25	12.82	18.35	14.88	12.05
Jet fuel ⁹	3.07	3.04	3.03	3.01	3.20	3.19	3.18	3.34	3.33	3.32
Kerosene	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.03
Distillate fuel oil	8.07	9.10	8.78	8.60	9.33	9.07	9.10	9.78	9.38	9.45
Residual fuel oil	1.41	1.38	1.29	1.27	1.46	1.31	1.28	1.55	1.34	1.31
Petrochemical feedstocks	0.94	1.01	1.01	1.01	1.30	1.29	1.28	1.32	1.30	1.29
Other petroleum ¹²	3.76	3.98	3.61	3.39	3.98	3.27	3.05	4.27	3.36	3.00
Liquid fuels and other petroleum subtotal	37.25	38.73	36.72	35.31	39.70	36.58	35.03	41.86	37.70	35.86
Natural gas	22.69	23.84	23.89	24.05	23.60	23.89	24.17	24.65	24.94	25.20
Natural-gas-to-liquids heat and power	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07
Lease and plant fuel ⁶	1.37	1.42	1.43	1.44	1.53	1.57	1.63	1.54	1.63	1.71
Pipeline natural gas	0.65	0.68	0.68	0.69	0.66	0.67	0.69	0.67	0.69	0.69
Natural gas subtotal	24.71	25.93	26.00	26.18	25.80	26.14	26.57	26.86	27.26	27.67
Metallurgical coal	0.55	0.58	0.57	0.56	0.48	0.49	0.49	0.44	0.43	0.43
Other coal	20.21	17.77	17.24	16.74	19.61	19.20	18.80	20.56	20.18	19.57
Coal-to-liquids heat and power	0.00	0.00	0.00	0.00	0.10	0.36	1.12	0.10	0.60	2.74
Net coal coke imports	-0.01	-0.00	-0.01	-0.01	-0.03	-0.03	-0.03	-0.06	-0.06	-0.06
Coal subtotal	20.76	18.35	17.80	17.30	20.17	20.02	20.39	21.05	21.15	22.69
Nuclear / uranium ¹⁵	8.44	8.68	8.68	8.68	9.60	9.60	9.60	9.42	9.28	9.26
Biofuels heat and coproducts	0.84	0.85	0.81	0.86	1.19	1.27	1.73	1.99	2.57	3.63
Renewable energy ¹⁸	5.88	7.05	7.11	7.18	8.16	8.11	7.93	8.91	8.71	8.52
Liquid hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity imports	0.09	0.10	0.10	0.10	0.08	0.08	0.08	0.04	0.04	0.04
Total	98.16	99.89	97.43	95.82	104.90	101.99	101.52	110.34	106.93	107.87
Energy use and related statistics										
Delivered energy use	71.32	73.71	71.59	70.26	76.47	73.92	73.87	80.58	77.75	79.48
Total energy use	98.16	99.89	97.43	95.82	104.90	101.99	101.52	110.34	106.93	107.87
Ethanol consumed in motor gasoline and E85	1.11	1.30	1.22	1.36	1.56	1.55	2.14	1.77	2.15	2.80
Population (millions)	310.83	326.16	326.16	326.16	358.06	358.06	358.06	390.09	390.09	390.09
Gross domestic product (billion 2005 dollars)	13088	14990	14803	14666	19146	19185	19380	24596	24539	24703
Carbon dioxide emissions (million metric tons)	5633.6	5592.8	5407.2	5251.2	5770.9	5552.5	5450.8	6049.1	5757.9	5737.1

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, 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 (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 whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

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 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 consumption based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). 2010 population and gross domestic product: IHS Global Insight Industry and Employment models, August 2011. 2010 carbon dioxide emissions: EIA, *Monthly Energy Review, October 2011* DOE/EIA-0035(2011/10) (Washington, DC, October 2011). Projections: EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A.

Table C3. Energy prices by sector and source
(2010 dollars per million Btu, unless otherwise noted)

Sector and source	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Residential										
Liquefied petroleum gases	27.02	22.54	30.70	39.69	22.18	32.27	40.42	23.49	34.64	42.03
Distillate fuel oil	21.21	16.55	27.26	38.29	17.27	30.15	39.23	18.46	32.73	40.00
Natural gas	11.08	10.22	10.31	10.30	11.96	12.03	12.02	13.97	13.98	13.86
Electricity	33.69	34.06	34.59	35.24	33.37	34.08	34.73	34.31	34.58	35.00
Commercial										
Liquefied petroleum gases	23.52	19.33	27.42	36.38	19.00	28.97	37.09	20.30	31.30	38.66
Distillate fuel oil	20.77	13.91	23.98	34.68	14.39	26.86	35.89	15.51	29.18	36.36
Residual fuel oil	11.07	5.99	16.18	27.80	6.25	18.24	28.32	6.90	18.90	28.11
Natural gas	9.10	8.52	8.60	8.59	9.98	10.02	10.01	11.66	11.64	11.49
Electricity	29.73	28.52	29.03	29.65	28.32	29.00	29.71	29.30	29.48	29.84
Industrial¹										
Liquefied petroleum gases	21.80	16.98	27.43	38.87	16.33	29.24	39.62	17.95	32.18	41.60
Distillate fuel oil	21.32	14.50	24.20	34.82	14.95	27.22	36.32	16.19	29.53	36.60
Residual fuel oil	10.92	9.51	19.21	30.20	9.60	21.23	30.43	9.97	21.65	30.61
Natural gas ²	5.51	4.78	4.88	4.88	5.99	6.04	6.01	7.52	7.54	7.38
Metallurgical coal	5.84	7.04	7.22	7.35	7.86	8.11	8.24	8.85	9.11	9.23
Other industrial coal	2.71	3.11	3.27	3.38	3.18	3.38	3.52	3.38	3.64	3.86
Coal to liquids	--	1.17	1.26	1.32	2.02	2.08	2.26	2.26	2.38	2.64
Electricity	19.63	18.58	18.91	19.26	19.11	19.60	19.96	20.61	20.78	20.97
Transportation										
Liquefied petroleum gases ³	26.88	23.86	31.93	40.71	23.47	33.38	41.43	24.77	35.74	43.04
E85 ⁴	25.21	18.16	29.03	38.11	17.18	28.81	41.93	16.59	31.96	39.01
Motor gasoline ⁵	22.70	18.53	29.26	41.14	18.20	32.10	43.26	18.49	33.61	42.09
Jet fuel ⁶	16.22	12.62	23.74	35.26	12.80	26.45	35.89	13.96	29.13	36.89
Diesel fuel (distillate fuel oil) ⁷	21.87	17.99	27.56	38.22	18.14	30.42	39.66	19.15	32.40	39.63
Residual fuel oil	10.42	8.64	18.32	29.02	8.67	20.62	29.37	8.76	20.95	29.86
Natural gas ⁸	13.20	12.28	12.40	12.45	13.05	13.29	13.41	14.26	14.51	14.47
Electricity	32.99	30.37	30.50	30.24	30.91	31.53	33.04	33.26	33.82	34.36
Electric power⁹										
Distillate fuel oil	18.73	12.06	22.77	33.56	12.54	25.35	34.16	13.56	27.80	35.05
Residual fuel oil	11.89	13.08	23.00	33.74	12.12	25.40	34.30	11.20	25.72	34.59
Natural gas	5.14	4.46	4.55	4.54	5.58	5.60	5.59	7.18	7.21	7.04
Steam coal	2.26	2.22	2.35	2.47	2.34	2.54	2.68	2.56	2.80	3.00
Average price to all users¹⁰										
Liquefied petroleum gases	17.28	14.64	22.99	32.23	13.90	24.19	32.57	15.28	26.63	34.20
E85 ⁴	25.21	18.16	29.03	38.11	17.18	28.81	41.93	16.59	31.96	39.01
Motor gasoline ⁵	22.59	18.53	29.26	41.14	18.19	32.10	43.26	18.49	33.61	42.09
Jet fuel	16.22	12.62	23.74	35.26	12.80	26.45	35.89	13.96	29.13	36.89
Distillate fuel oil	21.65	17.16	26.87	37.56	17.45	29.81	39.04	18.54	31.91	39.12
Residual fuel oil	10.82	9.17	19.01	29.82	9.16	21.31	30.21	9.22	21.68	30.63
Natural gas	7.16	6.36	6.45	6.43	7.70	7.74	7.74	9.26	9.30	9.18
Metallurgical coal	5.84	7.04	7.22	7.35	7.86	8.11	8.24	8.85	9.11	9.23
Other coal	2.29	2.28	2.41	2.53	2.39	2.59	2.73	2.61	2.85	3.06
Coal to liquids	--	1.17	1.26	1.32	2.02	2.08	2.26	2.26	2.38	2.64
Electricity	28.68	27.87	28.38	28.94	27.88	28.54	29.14	29.31	29.56	29.92
Non-renewable energy expenditures by sector (billion 2010 dollars)										
Residential	251.69	236.40	246.72	256.77	255.31	266.75	275.38	289.49	298.72	304.24
Commercial	179.08	171.63	177.92	184.03	193.67	201.89	208.38	225.40	231.98	235.90
Industrial	198.98	175.07	223.88	279.09	194.55	261.92	313.03	212.90	282.31	323.54
Transportation	573.78	489.96	746.84	998.67	491.22	803.52	976.23	537.61	856.65	958.30
Total non-renewable expenditures	1203.54	1073.06	1395.36	1718.56	1134.76	1534.08	1773.02	1265.39	1669.66	1821.97
Transportation renewable expenditures	0.08	0.18	0.25	14.01	0.39	8.74	62.29	3.32	38.86	102.69
Total expenditures	1203.62	1073.25	1395.61	1732.58	1135.15	1542.81	1835.31	1268.71	1708.52	1924.66

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

Sector and source	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Residential										
Liquefied petroleum gases	27.02	24.26	33.08	42.65	28.87	41.41	51.27	37.25	54.86	66.07
Distillate fuel oil	21.21	17.81	29.38	41.14	22.48	38.68	49.75	29.27	51.82	62.87
Natural gas	11.08	11.00	11.11	11.06	15.57	15.43	15.25	22.15	22.14	21.78
Electricity	33.69	36.66	37.27	37.86	43.43	43.72	44.05	54.40	54.76	55.02
Commercial										
Liquefied petroleum gases	23.52	20.80	29.54	39.09	24.73	37.17	47.04	32.18	49.56	60.77
Distillate fuel oil	20.77	14.97	25.83	37.27	18.73	34.47	45.51	24.59	46.20	57.15
Residual fuel oil	11.07	6.44	17.43	29.87	8.13	23.41	35.92	10.94	29.93	44.18
Natural gas	9.10	9.17	9.27	9.23	12.99	12.86	12.69	18.48	18.43	18.06
Electricity	29.73	30.70	31.28	31.86	36.86	37.21	37.68	46.46	46.67	46.91
Industrial¹										
Liquefied petroleum gases	21.80	18.28	29.56	41.77	21.25	37.51	50.25	28.46	50.95	65.39
Distillate fuel oil	21.32	15.61	26.08	37.41	19.46	34.93	46.06	25.67	46.76	57.53
Residual fuel oil	10.92	10.23	20.70	32.45	12.49	27.24	38.59	15.80	34.28	48.11
Natural gas ²	5.51	5.14	5.26	5.24	7.80	7.75	7.63	11.92	11.93	11.60
Metallurgical coal	5.84	7.57	7.78	7.90	10.23	10.40	10.45	14.04	14.42	14.51
Other industrial coal	2.71	3.35	3.52	3.63	4.13	4.34	4.46	5.36	5.77	6.06
Coal to liquids	--	1.26	1.36	1.42	2.63	2.67	2.86	3.58	3.78	4.14
Electricity	19.63	19.99	20.38	20.69	24.87	25.15	25.31	32.68	32.90	32.96
Transportation										
Liquefied petroleum gases ³	26.88	25.68	34.41	43.74	30.54	42.83	52.54	39.27	56.59	67.66
E85 ⁴	25.21	19.55	31.28	40.95	22.36	36.97	53.17	26.31	50.61	61.31
Motor gasoline ⁵	22.70	19.94	31.53	44.21	23.68	41.19	54.86	29.32	53.22	66.16
Jet fuel ⁶	16.22	13.59	25.58	37.89	16.66	33.94	45.51	22.13	46.12	57.99
Diesel fuel (distillate fuel oil) ⁷	21.87	19.36	29.69	41.07	23.61	39.03	50.30	30.37	51.29	62.29
Residual fuel oil	10.42	9.30	19.74	31.18	11.28	26.45	37.25	13.89	33.18	46.93
Natural gas ⁸	13.20	13.22	13.36	13.38	16.98	17.05	17.00	22.61	22.97	22.75
Electricity	32.99	32.69	32.86	32.50	40.22	40.46	41.90	52.74	53.55	54.01
Electric power⁹										
Distillate fuel oil	18.73	12.98	24.53	36.06	16.32	32.52	43.32	21.50	44.02	55.10
Residual fuel oil	11.89	14.07	24.78	36.26	15.77	32.59	43.50	17.77	40.73	54.38
Natural gas	5.14	4.80	4.90	4.88	7.27	7.19	7.09	11.38	11.42	11.06
Steam coal	2.26	2.39	2.53	2.65	3.04	3.25	3.40	4.06	4.43	4.72

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

Sector and source	2010	Projections								
		2015			2025			2035		
		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 users¹⁰										
Liquefied petroleum gases	17.28	15.75	24.78	34.64	18.08	31.04	41.30	24.23	42.17	53.76
E85 ⁴	25.21	19.55	31.28	40.95	22.36	36.97	53.17	26.31	50.61	61.31
Motor gasoline ⁵	22.59	19.94	31.53	44.21	23.68	41.19	54.86	29.31	53.22	66.16
Jet fuel	16.22	13.59	25.58	37.89	16.66	33.94	45.51	22.13	46.12	57.99
Distillate fuel oil	21.65	18.47	28.96	40.36	22.71	38.24	49.51	29.39	50.52	61.50
Residual fuel oil	10.82	9.87	20.48	32.04	11.92	27.34	38.32	14.63	34.33	48.14
Natural gas	7.16	6.84	6.95	6.91	10.02	9.93	9.82	14.69	14.73	14.42
Metallurgical coal	5.84	7.57	7.78	7.90	10.23	10.40	10.45	14.04	14.42	14.51
Other coal	2.29	2.45	2.60	2.72	3.11	3.32	3.47	4.14	4.51	4.81
Coal to liquids	--	1.26	1.36	1.42	2.63	2.67	2.86	3.58	3.78	4.14
Electricity	28.68	30.00	30.58	31.10	36.28	36.62	36.96	46.48	46.80	47.03
Non-renewable energy expenditures by sector (billion nominal dollars)										
Residential	251.69	254.44	265.85	275.92	332.26	342.26	349.24	459.02	472.99	478.21
Commercial	179.08	184.73	191.71	197.75	252.04	259.04	264.27	357.40	367.31	370.80
Industrial	198.98	188.43	241.24	299.90	253.19	336.06	396.99	337.58	447.01	508.54
Transportation	573.78	527.35	804.75	1073.14	639.27	1030.98	1238.06	852.44	1356.41	1506.27
Total non-renewable expenditures	1203.54	1154.96	1503.55	1846.71	1476.75	1968.35	2248.56	2006.43	2643.72	2863.82
Transportation renewable expenditures	0.08	0.20	0.27	15.06	0.51	11.21	78.99	5.26	61.53	161.41
Total expenditures	1203.62	1155.16	1503.82	1861.77	1477.26	1979.56	2327.55	2011.69	2705.26	3025.22

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.

⁸Natural 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 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 prices for motor gasoline, distillate fuel oil, and jet fuel are based on prices in the U.S. Energy Information Administration (EIA), *Petroleum Marketing Annual 2009*, DOE/EIA-0487(2009) (Washington, DC, August 2010). 2010 residential and commercial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2011/07) (Washington, DC, July 2011). 2010 industrial natural gas delivered prices are estimated based on: EIA, *Manufacturing Energy Consumption Survey* and industrial and wellhead prices from the *Natural Gas Annual 2009*, DOE/EIA-0131(2009) (Washington, DC, December 2010) and the *Natural Gas Monthly*, DOE/EIA-0130(2011/07) (Washington, DC, July 2011). 2010 transportation sector natural gas delivered prices are model results. 2010 electric power sector distillate and residual fuel oil prices: EIA, *Monthly Energy Review*, DOE/EIA-0035(2011/09) (Washington, DC, September 2010). 2010 electric power sector natural gas prices: EIA, *Electric Power Monthly*, DOE/EIA-0226, April 2010 and April 2011, Table 4.2, and EIA, *State Energy Data Report 2009*, DOE/EIA-0214(2009) (Washington, DC, June 2011). 2010 coal prices based on: EIA, *Quarterly Coal Report, October-December 2010*, DOE/EIA-0121(2010/4Q) (Washington, DC, May 2011) and EIA, AEO2012 National Energy Modeling System run REF2012.D020112C. 2010 electricity prices: EIA, *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). 2010 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report. Projections: EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A.

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

Supply and disposition	2010	Projections								
		2015			2025			2035		
		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	5.47	5.88	6.15	6.41	5.38	6.40	7.25	4.79	5.99	6.68
Alaska	0.60	0.46	0.46	0.46	0.34	0.40	0.68	0.00	0.27	0.36
Lower 48 states	4.87	5.42	5.69	5.95	5.04	6.00	6.57	4.79	5.72	6.32
Net imports	9.17	9.63	8.52	7.64	9.58	7.24	5.32	10.74	7.52	4.91
Gross imports	9.21	9.66	8.56	7.67	9.61	7.27	5.36	10.77	7.55	4.95
Exports	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.04
Other crude supply ²	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total crude supply	14.72	15.52	14.67	14.05	14.96	13.64	12.56	15.53	13.51	11.59
Other petroleum supply										
Natural gas plant liquids	2.07	2.40	2.56	2.56	2.94	3.01	3.07	2.91	3.01	3.06
Net product imports	0.39	-0.01	-0.25	-0.50	0.33	-0.12	-0.62	0.31	-0.34	-0.94
Gross refined product imports ³	1.23	0.97	0.78	0.61	1.06	0.79	0.51	1.14	0.82	0.55
Unfinished oil imports	0.61	0.74	0.64	0.56	0.67	0.51	0.38	0.74	0.50	0.26
Blending component imports	0.74	0.69	0.66	0.63	0.71	0.65	0.61	0.73	0.66	0.61
Exports	2.19	2.41	2.32	2.30	2.12	2.07	2.13	2.31	2.31	2.36
Refinery processing gain ⁴	1.07	0.94	0.95	0.92	0.95	0.91	0.84	0.91	0.85	0.69
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	1.00	1.24	1.22	1.46	1.61	1.86	2.84	2.18	2.96	4.87
Supply from renewable sources	0.87	1.11	1.05	1.20	1.42	1.48	2.01	1.92	2.37	3.24
Ethanol	0.85	1.00	0.94	1.05	1.20	1.19	1.64	1.36	1.65	2.15
Domestic production	0.88	0.99	0.94	0.99	1.18	1.17	1.47	1.35	1.59	1.96
Net imports	-0.02	0.01	0.00	0.06	0.02	0.02	0.17	0.01	0.06	0.19
Biodiesel	0.01	0.08	0.09	0.12	0.12	0.12	0.13	0.13	0.13	0.14
Domestic production	0.02	0.08	0.09	0.11	0.12	0.12	0.13	0.13	0.13	0.14
Net imports	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00
Other biomass-derived liquids ⁵	0.00	0.02	0.03	0.03	0.10	0.16	0.24	0.44	0.59	0.95
Liquids from gas	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.06
Liquids from coal	0.00	0.00	0.00	0.00	0.05	0.17	0.52	0.05	0.28	1.27
Other ⁶	0.13	0.14	0.17	0.26	0.15	0.21	0.24	0.20	0.31	0.30
Total primary supply⁷	19.22	20.09	19.14	18.49	20.79	19.29	18.69	21.84	19.99	19.27
Liquid fuels consumption										
by fuel										
Liquefied petroleum gases	2.27	2.00	1.94	1.90	2.30	2.21	2.15	2.32	2.21	2.15
E85 ⁸	0.00	0.01	0.01	0.25	0.02	0.21	1.02	0.14	0.83	1.80
Motor gasoline ⁹	8.99	9.48	8.88	8.19	9.45	8.29	6.97	9.97	8.09	6.55
Jet fuel ¹⁰	1.43	1.47	1.46	1.45	1.55	1.54	1.54	1.61	1.61	1.60
Distillate fuel oil ¹¹	3.80	4.34	4.19	4.10	4.45	4.33	4.34	4.67	4.48	4.51
Diesel	3.32	3.82	3.71	3.66	3.99	3.92	3.96	4.24	4.11	4.16
Residual fuel oil	0.54	0.60	0.56	0.55	0.63	0.57	0.56	0.67	0.58	0.57
Other ¹²	2.14	2.23	2.06	1.97	2.38	2.06	1.95	2.51	2.10	1.94
by sector										
Residential and commercial	1.12	1.12	1.00	0.92	1.09	0.94	0.87	1.07	0.91	0.84
Industrial ¹³	4.31	4.41	4.17	4.05	4.83	4.41	4.26	5.00	4.44	4.22
Transportation	13.82	14.47	13.80	13.31	14.69	13.71	13.26	15.64	14.41	13.90
Electric power ¹⁴	0.17	0.14	0.13	0.13	0.16	0.14	0.14	0.19	0.14	0.14
Total	19.17	20.14	19.10	18.41	20.77	19.20	18.53	21.90	19.90	19.12
Discrepancy¹⁵	0.05	-0.05	0.05	0.08	0.01	0.10	0.16	-0.06	0.09	0.15

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

Supply and disposition	2010	Projections								
		2015			2025			2035		
		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	17.6	17.6	17.5	17.1	16.8	15.5	14.6	17.1	15.2	13.8
Capacity utilization rate (percent) ¹⁷	86.0	90.3	85.9	84.0	91.0	90.1	88.0	93.0	90.8	85.7
Net import share of product supplied (percent)	49.6	47.9	43.2	38.9	47.8	37.0	26.0	50.7	36.2	21.6
Net expenditures for imported crude oil and petroleum products (billion 2010 dollars)	243.07	207.99	373.00	523.15	189.41	344.58	384.81	226.36	389.97	363.97

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 consumption for combined heat and power, which produces electricity and other useful thermal energy.

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.

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 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 product supplied based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). Other 2010 data: EIA, *Petroleum Supply Annual 2010*, DOE/EIA-0340(2010)/1 (Washington, DC, July 2011). Projections: EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A.

Table C5. Petroleum product prices
(2010 dollars per gallon, unless otherwise noted)

Sector and fuel	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil prices (2010 dollars per barrel)										
Low sulfur light	79.39	58.36	116.91	182.10	59.41	132.56	193.48	62.38	144.98	200.36
Imported crude oil ¹	75.87	55.41	113.97	179.16	48.84	121.21	180.29	53.10	132.95	187.04
Delivered sector product prices										
Residential										
Liquefied petroleum gases	2.288	1.909	2.600	3.361	1.878	2.733	3.423	1.989	2.934	3.560
Distillate fuel oil	2.941	2.295	3.781	5.310	2.395	4.181	5.441	2.560	4.539	5.547
Commercial										
Distillate fuel oil	2.866	1.917	3.303	4.778	1.982	3.699	4.942	2.136	4.019	5.008
Residual fuel oil	1.657	0.896	2.421	4.161	0.935	2.731	4.240	1.033	2.830	4.207
Residual fuel oil (2010 dollars per barrel) ...	69.58	37.63	101.70	174.76	39.28	114.70	178.07	43.37	118.85	176.71
Industrial²										
Liquefied petroleum gases	1.846	1.438	2.323	3.292	1.383	2.476	3.355	1.520	2.725	3.523
Distillate fuel oil	2.932	1.991	3.322	4.780	2.053	3.737	4.986	2.223	4.054	5.025
Residual fuel oil	1.634	1.423	2.876	4.521	1.436	3.178	4.554	1.492	3.241	4.582
Residual fuel oil (2010 dollars per barrel) ...	68.62	59.77	120.80	189.87	60.33	133.47	191.28	62.65	136.12	192.45
Transportation										
Liquefied petroleum gases	2.276	2.021	2.704	3.447	1.987	2.827	3.508	2.097	3.026	3.645
Ethanol (E85) ³	2.402	1.731	2.766	3.631	1.638	2.746	3.996	1.581	3.046	3.717
Ethanol wholesale price	1.712	2.356	2.228	2.622	2.215	2.333	2.741	1.985	2.159	2.571
Motor gasoline ⁴	2.756	2.240	3.538	4.974	2.185	3.855	5.196	2.219	4.034	5.053
Jet fuel ⁵	2.190	1.704	3.205	4.760	1.728	3.571	4.845	1.884	3.932	4.981
Diesel fuel (distillate fuel oil) ⁶	2.998	2.465	3.776	5.237	2.486	4.168	5.435	2.624	4.439	5.430
Residual fuel oil	1.560	1.294	2.742	4.344	1.298	3.086	4.397	1.311	3.136	4.469
Residual fuel oil (2010 dollars per barrel) ...	65.53	54.33	115.15	182.43	54.50	129.62	184.67	55.06	131.73	187.70
Electric power⁷										
Distillate fuel oil	2.598	1.673	3.157	4.655	1.739	3.515	4.737	1.880	3.856	4.861
Residual fuel oil	1.780	1.957	3.443	5.051	1.814	3.802	5.135	1.677	3.850	5.178
Residual fuel oil (2010 dollars per barrel) ...	74.77	82.21	144.60	212.13	76.19	159.70	215.65	70.44	161.71	217.49
Refined petroleum product prices⁸										
Liquefied petroleum gases	1.464	1.239	1.947	2.729	1.177	2.049	2.758	1.294	2.255	2.896
Motor gasoline ⁴	2.743	2.240	3.538	4.974	2.185	3.855	5.196	2.219	4.034	5.053
Jet fuel ⁵	2.190	1.704	3.205	4.760	1.728	3.571	4.845	1.884	3.932	4.981
Distillate fuel oil	2.975	2.355	3.687	5.153	2.394	4.089	5.355	2.543	4.376	5.366
Residual fuel oil	1.619	1.372	2.845	4.464	1.371	3.189	4.523	1.381	3.246	4.585
Residual fuel oil (2010 dollars per barrel) ...	68.00	57.63	119.50	187.48	57.57	133.95	189.96	57.99	136.32	192.56
Average	2.528	2.059	3.316	4.691	2.015	3.600	4.808	2.101	3.830	4.785

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

Sector and fuel	2010	Projections								
		2015			2025			2035		
		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)										
Low sulfur light	79.39	62.81	125.97	195.67	77.32	170.09	245.37	98.91	229.55	314.93
Imported crude oil ¹	75.87	59.64	122.81	192.52	63.56	155.52	228.64	84.19	210.51	294.00
Delivered sector product prices										
Residential										
Liquefied petroleum gases	2.288	2.054	2.801	3.612	2.445	3.507	4.341	3.154	4.645	5.595
Distillate fuel oil	2.941	2.470	4.074	5.706	3.117	5.365	6.901	4.060	7.188	8.719
Commercial										
Distillate fuel oil	2.866	2.063	3.559	5.135	2.580	4.747	6.268	3.387	6.364	7.872
Residual fuel oil	1.657	0.964	2.609	4.471	1.217	3.504	5.377	1.637	4.481	6.613
Industrial²										
Liquefied petroleum gases	1.846	1.548	2.503	3.537	1.800	3.177	4.255	2.410	4.315	5.537
Distillate fuel oil	2.932	2.143	3.580	5.136	2.671	4.795	6.323	3.524	6.419	7.898
Residual fuel oil	1.634	1.532	3.099	4.858	1.869	4.077	5.776	2.365	5.132	7.202
Transportation										
Liquefied petroleum gases	2.276	2.175	2.914	3.704	2.586	3.627	4.449	3.326	4.792	5.729
Ethanol (E85) ³	2.402	1.863	2.981	3.902	2.131	3.523	5.067	2.507	4.823	5.843
Ethanol wholesale price	1.712	2.535	2.400	2.818	2.883	2.994	3.477	3.147	3.419	4.041
Motor gasoline ⁴	2.756	2.411	3.812	5.345	2.843	4.946	6.589	3.519	6.388	7.943
Jet fuel ⁵	2.190	1.834	3.454	5.115	2.249	4.582	6.144	2.988	6.226	7.829
Diesel fuel (distillate fuel oil) ⁶	2.998	2.653	4.069	5.628	3.235	5.348	6.893	4.161	7.029	8.535
Residual fuel oil	1.560	1.392	2.954	4.668	1.689	3.960	5.576	2.079	4.966	7.025
Electric power⁷										
Distillate fuel oil	2.598	1.801	3.402	5.002	2.263	4.510	6.008	2.982	6.105	7.641
Residual fuel oil	1.780	2.107	3.710	5.427	2.361	4.879	6.512	2.659	6.096	8.140
Refined petroleum product prices⁸										
Liquefied petroleum gases	1.464	1.334	2.098	2.933	1.531	2.629	3.498	2.052	3.571	4.552
Motor gasoline ⁴	2.743	2.411	3.812	5.345	2.843	4.946	6.589	3.519	6.387	7.942
Jet fuel ⁵	2.190	1.834	3.454	5.115	2.249	4.582	6.144	2.988	6.226	7.829
Distillate fuel oil	2.975	2.534	3.973	5.537	3.115	5.246	6.791	4.032	6.930	8.434
Residual fuel oil (nominal dollars per barrel)	68.00	62.03	128.77	201.46	74.93	171.87	240.90	91.95	215.84	302.67
Average	2.528	2.216	3.573	5.041	2.623	4.620	6.097	3.331	6.064	7.520

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 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 low sulfur light crude oil price: U.S. Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude oil Acquisition Report." 2010 imported crude oil price: EIA, *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). 2010 prices for motor gasoline, distillate fuel oil, and jet fuel are based on: EIA, *Petroleum Marketing Annual 2009*, DOE/EIA-0487(2009) (Washington, DC, August 2010). 2010 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." 2010 electric power prices based on: *Monthly Energy Review*, DOE/EIA-0035(2011/09) (Washington, DC, September 2011). 2010 E85 prices derived from monthly prices in the Clean Cities Alternative Fuel Price Report. 2010 wholesale ethanol prices derived from Bloomberg U.S. average rack price. Projections: EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A.

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

Supply and disposition	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Crude oil prices (2010 dollars per barrel)										
Low sulfur light	79.39	58.36	116.91	182.10	59.41	132.56	193.48	62.38	144.98	200.36
Imported crude oil ¹	75.87	55.41	113.97	179.16	48.84	121.21	180.29	53.10	132.95	187.04
Crude oil prices (nominal dollars per barrel)¹										
Low sulfur light	79.39	62.81	125.97	195.67	77.32	170.09	245.37	98.91	229.55	314.93
Imported crude oil ¹	75.87	59.64	122.81	192.52	63.56	155.52	228.64	84.19	210.51	294.00
Petroleum liquids production²										
OPEC ³										
Middle East	23.43	29.09	25.46	23.39	33.98	29.77	28.26	35.70	33.94	32.96
North Africa	3.89	4.01	3.62	3.48	3.66	3.37	3.41	3.12	3.27	3.28
West Africa	4.45	5.57	5.09	4.86	5.92	5.40	5.47	5.74	5.26	5.27
South America	2.29	2.37	2.13	2.05	2.06	1.92	1.94	1.63	1.72	1.72
Total OPEC petroleum production ...	34.05	41.03	36.30	33.78	45.62	40.46	39.09	46.18	44.19	43.24
Non-OPEC										
OECD										
United States (50 states)	8.79	9.36	9.82	10.15	9.42	10.53	11.40	8.81	10.15	10.72
Canada	1.91	1.79	1.79	1.82	1.77	1.82	1.85	1.75	1.78	1.87
Mexico	2.98	2.65	2.65	2.59	1.46	1.58	1.50	1.27	1.68	1.67
OECD Europe ⁴	4.36	3.72	3.70	3.63	3.03	3.15	3.01	2.79	2.83	2.82
Japan	0.13	0.15	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16
Australia and New Zealand	0.62	0.55	0.55	0.54	0.52	0.54	0.52	0.52	0.53	0.53
Total OECD petroleum production ...	18.80	18.22	18.65	18.88	16.34	17.78	18.42	15.29	17.14	17.76
Non-OECD										
Russia	10.14	9.74	10.04	9.79	9.73	11.06	10.38	8.96	12.16	12.02
Other Europe and Eurasia ⁵	3.22	3.68	3.67	3.58	4.02	4.37	4.11	3.27	4.54	4.49
China	4.27	4.32	4.29	4.21	4.55	4.79	4.52	4.66	4.70	4.67
Other Asia ⁶	3.77	3.80	3.79	3.73	3.23	3.38	3.22	2.97	3.00	2.99
Middle East	1.58	1.43	1.43	1.40	1.12	1.18	1.11	0.97	0.97	0.97
Africa	2.41	2.41	2.40	2.36	2.55	2.68	2.54	2.67	2.68	2.67
Brazil	2.19	2.73	2.72	2.66	3.47	3.87	3.64	3.32	4.45	4.40
Other Central and South America	2.01	2.30	2.29	2.26	2.36	2.47	2.35	2.64	2.65	2.63
Total non-OECD petroleum	29.59	30.40	30.63	29.99	31.02	33.80	31.86	29.47	35.15	34.83
Total petroleum liquids production	82.44	89.66	85.58	82.65	92.98	92.04	89.37	90.93	96.47	95.83
Other liquids production⁷										
United States (50 states)	0.90	1.10	1.05	1.14	1.45	1.62	2.42	1.96	2.59	4.38
Other North America	1.93	2.55	2.51	2.90	4.09	3.75	4.78	5.53	5.16	6.53
OECD Europe ³	0.22	0.28	0.23	0.27	0.37	0.26	0.30	0.45	0.28	0.32
Middle East	0.01	0.13	0.17	0.14	0.23	0.24	0.21	0.22	0.24	0.22
Africa	0.21	0.27	0.28	0.28	0.42	0.38	0.39	0.53	0.40	0.41
Central and South America	1.20	2.15	1.78	2.06	4.07	2.61	2.97	5.75	3.17	3.51
Other	0.13	0.21	0.16	0.24	0.81	0.61	1.15	1.75	1.18	1.69
Total other liquids production	4.61	6.70	6.18	7.01	11.43	9.47	12.22	16.19	13.02	17.07
Total production	87.05	96.36	91.76	89.67	104.42	101.51	101.59	107.13	109.50	112.90

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

Supply and disposition	2010	Projections								
		2015			2025			2035		
		Low oil price	Reference	High oil price	Low oil price	Reference	High oil price	Low oil price	Reference	High oil price
Liquids consumption⁸										
OECD										
United States (50 states)	19.17	20.14	19.10	18.41	20.77	19.20	18.53	21.90	19.90	19.12
United States territories	0.28	0.32	0.31	0.30	0.32	0.34	0.34	0.31	0.36	0.38
Canada	2.21	2.27	2.15	2.09	2.46	2.25	2.22	2.56	2.35	2.40
Mexico	2.34	2.50	2.38	2.30	2.78	2.50	2.32	3.20	2.68	2.43
OECD Europe ³	14.58	14.86	14.14	13.69	15.97	14.65	13.85	16.10	14.74	13.93
Japan	4.45	4.80	4.51	4.35	5.14	4.62	4.33	4.92	4.42	4.14
South Korea	2.24	2.39	2.25	2.18	2.73	2.46	2.31	2.93	2.56	2.39
Australia and New Zealand	1.13	1.16	1.11	1.07	1.25	1.17	1.09	1.30	1.23	1.13
Total OECD consumption	46.40	48.43	45.95	44.38	51.42	47.19	44.97	53.23	48.24	45.90
Non-OECD										
Russia	2.93	3.14	3.02	2.96	2.88	2.91	2.93	2.71	2.97	3.12
Other Europe and Eurasia ⁵	2.08	2.37	2.30	2.26	2.35	2.45	2.44	2.32	2.63	2.69
China	9.19	12.64	12.10	12.06	15.65	16.03	17.21	16.35	18.50	20.87
India	3.18	3.88	3.70	3.64	5.22	5.40	5.78	4.93	5.80	6.54
Other Asia	6.73	7.56	7.28	7.19	8.44	8.85	9.15	8.48	9.89	10.78
Middle East	7.35	8.26	7.78	7.72	8.35	8.16	8.51	9.03	9.49	10.46
Africa	3.34	3.44	3.30	3.24	3.43	3.57	3.57	3.47	4.09	4.21
Brazil	2.65	3.00	2.84	2.78	3.01	3.15	3.22	3.13	3.80	4.13
Other Central and South America	3.19	3.63	3.49	3.42	3.67	3.81	3.82	3.49	4.09	4.21
Total non-OECD consumption	40.65	47.92	45.82	45.29	52.99	54.32	56.62	53.90	61.26	67.00
Total liquids consumption	87.05	96.36	91.76	89.67	104.42	101.51	101.59	107.13	109.50	112.90
OPEC production ⁹	34.58	42.18	37.30	34.88	47.89	41.91	40.63	49.42	45.89	45.01
Non-OPEC production ⁹	52.47	54.18	54.46	54.79	56.52	59.60	60.97	57.71	63.61	67.89
Net Eurasia exports	10.53	10.64	11.11	10.81	12.00	13.94	12.75	10.52	15.54	15.10
OPEC market share (percent)	39.7	43.8	40.7	38.9	45.9	41.3	40.0	46.1	41.9	39.9

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

²Includes production of crude oil (including lease condensate and shale oil/tight oil), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, 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, bitumen (oil sands), and kerogen (oil shale, not to be confused with shale oil/tight oil).

Includes both OPEC and non-OPEC producers in the regional breakdown.

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

⁹Includes both petroleum and other liquids production.

Note: Totals may not equal sum of components due to independent rounding. Data for 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2010 low sulfur light crude oil price: U.S. Energy Information Administration (EIA), Form EIA-856, "Monthly Foreign Crude Oil Acquisition Report." 2010 imported crude oil price: EIA, *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). **2010 quantities and projections:** EIA, AEO2012 National Energy Modeling System runs LP2012.D022112A, REF2012.D020112C, and HP2012.D022112A and EIA, Generate World Oil Balance Model.