

Appendix B

High Oil Price case projections

- *World energy consumption*
- *Gross domestic product*
- *Carbon dioxide emissions*

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Table B1. World total primary energy consumption by region, High Oil Price case, 2006-2035
(Quadrillion Btu)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	122.3	124.3	122.9	124.2	129.0	134.4	141.0	148.1	0.7
United States ^a	99.8	101.7	100.1	100.7	103.7	107.3	111.3	115.2	0.5
Canada	14.0	14.3	14.3	14.4	15.5	16.3	17.4	18.5	1.0
Mexico/Chile	8.5	8.3	8.5	9.1	9.8	10.9	12.4	14.3	2.0
OECD Europe	82.8	82.3	82.2	82.0	84.5	86.9	88.9	90.9	0.4
OECD Asia	39.2	39.4	39.2	39.7	41.4	42.8	44.1	45.4	0.6
Japan	23.3	23.0	22.4	21.6	22.5	23.0	23.0	23.2	0.1
South Korea	9.4	9.8	10.0	10.8	11.3	12.0	12.7	13.5	1.1
Australia/New Zealand	6.5	6.6	6.8	7.3	7.6	7.9	8.3	8.7	0.9
Total OECD	244.3	246.1	244.3	245.8	254.9	264.2	274.1	284.4	0.6
Non-OECD									
Non-OECD Europe and Eurasia	48.9	49.6	50.5	50.6	52.8	55.6	59.4	64.2	0.9
Russia	29.1	29.7	30.6	30.7	31.7	33.2	35.6	38.8	0.9
Other	19.8	19.9	19.9	20.0	21.1	22.4	23.8	25.4	0.9
Non-OECD Asia	121.0	128.6	137.9	185.9	224.1	269.5	314.9	359.0	3.6
China	73.4	78.9	86.2	122.9	147.1	176.7	205.3	230.9	3.7
India	18.8	20.0	21.1	27.4	34.2	42.3	50.6	59.2	3.9
Other	28.8	29.7	30.7	35.7	42.8	50.5	58.9	68.9	3.1
Middle East	24.0	24.0	25.6	30.6	35.0	40.2	46.5	53.2	2.8
Africa	17.2	17.8	18.8	21.0	24.4	28.2	32.5	37.4	2.6
Central and South America	25.9	26.5	27.7	30.2	33.9	39.4	46.4	54.0	2.5
Brazil	11.5	12.1	12.7	15.1	17.7	21.3	26.0	31.4	3.4
Other	14.4	14.5	15.0	15.1	16.2	18.1	20.3	22.6	1.5
Total Non-OECD	237.0	246.5	260.5	318.4	370.2	432.9	499.7	567.8	2.9
Total World	481.3	492.6	504.7	564.2	625.1	697.1	773.8	852.2	2.0

^aIncludes the 50 States and the District of Columbia.

Notes: Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies; and International Energy Agency, "Balances of OECD and Non-OECD Statistics" (2010), website www.iea.org (subscription site). **Projections:** EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011) (Washington, DC: May 2011); AEO2011 National Energy Modeling System, run HP2011HNO. D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B2. World total energy consumption by region and fuel, High Oil Price case, 2006-2035
(Quadrillion Btu)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas									
Liquids	49.6	49.9	47.7	46.8	46.7	46.9	47.6	49.0	0.1
Natural gas	28.2	29.5	29.6	31.9	33.0	34.0	35.8	37.9	0.9
Coal	24.4	24.7	24.3	21.2	22.6	24.8	26.8	28.7	0.6
Nuclear	9.4	9.6	9.5	10.1	10.7	10.7	11.0	11.1	0.6
Other	10.7	10.7	11.8	14.2	16.0	17.9	19.7	21.4	2.2
Total	122.3	124.3	122.9	124.2	129.0	134.4	141.0	148.1	0.7
OECD Europe									
Liquids	32.5	32.1	32.0	28.8	28.7	28.7	28.9	29.0	-0.4
Natural gas	19.7	19.6	20.1	19.8	20.3	20.6	21.6	22.6	0.5
Coal	13.2	13.5	12.5	11.5	11.1	10.7	10.5	10.5	-0.7
Nuclear	9.7	9.2	9.1	10.0	10.3	11.1	11.5	11.8	1.0
Other	7.6	8.1	8.4	11.9	14.1	15.8	16.4	17.0	2.6
Total	82.8	82.3	82.2	82.0	84.5	86.9	88.9	90.9	0.4
OECD Asia									
Liquids	17.5	17.3	16.8	15.4	15.8	16.0	16.0	16.2	-0.1
Natural gas	6.2	6.6	6.6	6.7	7.0	7.5	7.9	8.0	0.7
Coal	9.2	9.6	9.9	9.6	9.4	9.4	9.6	9.9	0.0
Nuclear	4.3	3.9	3.9	5.1	5.7	6.0	6.5	7.0	2.2
Other	2.0	1.9	1.9	2.9	3.6	3.9	4.1	4.3	3.1
Total	39.2	39.4	39.2	39.7	41.4	42.8	44.1	45.4	0.6
Total OECD									
Liquids	99.6	99.3	96.5	90.9	91.2	91.7	92.6	94.1	-0.1
Natural gas	54.1	55.7	56.3	58.4	60.3	62.2	65.3	68.6	0.7
Coal	46.8	47.8	46.8	42.3	43.0	44.9	46.9	49.1	0.2
Nuclear	23.4	22.6	22.6	25.2	26.7	27.8	29.1	29.8	1.0
Other	20.4	20.7	22.1	29.0	33.7	37.6	40.2	42.7	2.5
Total	244.3	246.1	244.3	245.8	254.9	264.2	274.1	284.4	0.6
Non-OECD									
Non-OECD Europe and Eurasia									
Liquids	8.8	9.5	10.1	10.5	10.5	10.9	11.7	12.7	0.8
Natural gas	25.2	25.4	25.4	24.5	25.1	26.3	28.0	29.4	0.5
Coal	8.8	8.6	8.9	8.5	8.3	8.3	8.9	10.1	0.5
Nuclear	2.9	3.0	3.0	3.7	4.8	5.8	6.1	6.5	2.9
Other	3.3	3.1	3.0	3.4	4.1	4.3	4.8	5.5	2.2
Total	48.9	49.6	50.5	50.6	52.8	55.6	59.4	64.2	0.9
Non-OECD Asia									
Liquids	33.4	34.0	35.0	46.4	56.0	68.3	78.0	86.8	3.4
Natural gas	9.8	10.8	11.6	17.4	22.8	28.5	33.3	37.4	4.4
Coal	66.3	71.4	77.5	98.2	111.3	132.9	157.4	180.5	3.2
Nuclear	1.1	1.2	1.2	3.7	6.5	8.9	11.0	13.3	9.2
Other	10.5	11.2	12.6	20.2	27.5	30.9	35.2	40.9	4.5
Total	121.0	128.6	137.9	185.9	224.1	269.5	314.9	359.0	3.6

See notes at end of table.

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Table B2. World total energy consumption by region and fuel, High Oil Price case, 2006-2035 (continued)
(Quadrillion Btu)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
Middle East									
Liquids	12.5	12.1	12.8	14.6	15.3	17.0	19.7	21.9	2.0
Natural gas	10.8	11.2	12.2	15.1	18.4	21.6	25.1	29.3	3.3
Coal	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.1
Nuclear	0.0	0.0	0.0	0.1	0.3	0.5	0.5	0.6	0
Other	0.3	0.3	0.1	0.4	0.6	0.6	0.7	0.8	6.9
Total	24.0	24.0	25.6	30.6	35.0	40.2	46.5	53.2	2.8
Africa									
Liquids	6.2	6.4	6.5	6.7	7.1	7.9	8.7	9.8	1.5
Natural gas	3.1	3.3	3.9	4.9	6.7	8.5	10.2	11.5	4.1
Coal	4.2	4.4	4.6	5.1	5.6	6.1	7.1	8.8	2.4
Nuclear	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	3.8
Other	3.5	3.6	3.7	4.1	4.8	5.5	6.3	7.1	2.5
Total	17.2	17.8	18.8	21.0	24.4	28.2	32.5	37.4	2.6
Central and South America									
Liquids	11.2	11.5	12.1	13.4	14.2	15.4	17.4	19.6	1.8
Natural gas	4.5	4.5	4.8	5.0	6.1	7.2	8.6	10.7	3.0
Coal	0.7	0.8	0.8	1.0	1.2	1.5	2.1	3.4	5.6
Nuclear	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.7	4.1
Other	9.2	9.6	9.8	10.5	12.0	14.8	17.9	19.7	2.6
Total	25.9	26.5	27.7	30.2	33.9	39.4	46.4	54.0	2.5
Total Non-OECD									
Liquids	72.1	73.4	76.4	91.6	103.1	119.5	135.5	150.7	2.6
Natural gas	53.4	55.2	58.0	66.9	79.2	92.1	105.2	118.3	2.7
Coal	80.4	85.6	92.2	113.2	126.8	149.3	175.9	203.3	3.0
Nuclear	4.4	4.5	4.6	7.9	12.2	15.8	18.3	21.4	5.9
Other	26.8	27.8	29.2	38.7	48.9	56.2	64.9	74.1	3.5
Total	237.0	246.5	260.5	318.4	370.2	432.9	499.7	567.8	2.9
Total World									
Liquids	171.7	172.7	173.0	182.5	194.3	211.2	228.1	244.9	1.3
Natural gas	107.5	110.9	114.3	125.4	139.5	154.3	170.5	186.9	1.8
Coal	127.2	133.3	139.0	155.5	169.8	194.2	222.8	252.5	2.2
Nuclear	27.8	27.1	27.2	33.1	38.9	43.7	47.4	51.2	2.4
Other	47.1	48.5	51.3	67.7	82.6	93.8	105.1	116.8	3.1
Total	481.3	492.6	504.7	564.2	625.1	697.1	773.8	852.2	2.0

Notes: Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/; and International Energy Agency, "Balances of OECD and Non-OECD Statistics" (2010), website www.iea.org (subscription site). **Projections:** EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011) (Washington, DC: May 2011); AEO2011 National Energy Modeling System, run HP2011HNO. D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B3. World gross domestic product (GDP) by region expressed in purchasing power parity, High Oil Price case, 2006-2035
(Billion 2005 dollars)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	15,536	15,864	15,889	18,319	21,037	24,343	27,785	31,677	2.6
United States ^a	12,976	13,229	13,229	15,260	17,441	20,122	22,816	25,813	2.5
Canada	1,200	1,231	1,236	1,436	1,606	1,779	1,975	2,192	2.2
Mexico/Chile	1,359	1,405	1,424	1,624	1,990	2,442	2,994	3,672	3.6
OECD Europe	14,412	14,849	14,969	16,208	18,035	19,864	21,771	23,807	1.7
OECD Asia	5,681	5,850	5,861	6,530	7,089	7,557	8,044	8,531	1.4
Japan	3,951	4,041	4,014	4,258	4,437	4,520	4,601	4,665	0.6
South Korea	938	986	1,008	1,263	1,494	1,725	1,958	2,189	2.9
Australia/NewZealand	792	823	839	1,009	1,157	1,311	1,485	1,677	2.6
Total OECD	35,629	36,563	36,718	41,057	46,160	51,763	57,601	64,015	2.1
Non-OECD									
Non-OECD Europe and Eurasia	3,218	3,481	3,664	4,243	5,178	6,212	7,542	9,079	3.4
Russia	1,834	1,982	2,093	2,408	2,860	3,387	4,176	5,131	3.4
Other	1,384	1,499	1,571	1,835	2,319	2,825	3,366	3,948	3.5
Non-OECD Asia	13,013	14,323	15,281	25,779	36,519	49,230	63,988	80,540	6.4
China	6,035	6,820	7,431	13,529	19,592	26,803	34,949	43,699	6.8
India	2,676	2,918	3,096	5,259	7,621	10,341	13,447	16,977	6.5
Other	4,302	4,585	4,754	6,990	9,306	12,085	15,592	19,865	5.4
Middle East	2,145	2,261	2,357	3,266	4,197	5,258	6,569	8,153	4.7
Africa	2,494	2,638	2,775	3,945	5,054	6,350	7,827	9,620	4.7
Central and South America	3,822	4,066	4,271	5,387	6,870	8,679	10,900	13,630	4.4
Brazil	1,595	1,685	1,771	2,493	3,288	4,303	5,623	7,337	5.4
Other	2,227	2,381	2,500	2,894	3,583	4,376	5,277	6,293	3.5
Total Non-OECD	24,692	26,769	28,348	42,619	57,819	75,729	96,825	121,022	5.5
Total World	60,321	63,333	65,066	83,676	103,979	127,492	154,426	185,037	4.0

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding. GDP growth rates for non-OECD Europe and Eurasia (excluding Russia), China, India, Africa, and Central and South America (excluding Brazil) were adjusted, based on the analyst's judgment.

Sources: History: IHS Global Insight, *World Overview* (Lexington, MA: various issues). Projections: IHS Global Insight, *World Overview*, Third Quarter 2010 (Lexington, MA: November 2010); and U.S. Energy Information Administration (EIA), *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo.

Table B4. World liquids consumption by region, High Oil Price case, 2006-2035
(Million barrels per day)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	25.3	25.4	24.2	24.4	24.5	24.8	25.2	25.9	0.3
United States ^a	20.7	20.6	19.5	19.7	19.9	20.2	20.5	20.9	0.3
Canada	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	0.1
Mexico/Chile	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.7	0.4
OECD Europe	15.7	15.6	15.6	14.0	13.9	14.0	14.0	14.1	-0.4
OECD Asia	8.6	8.5	8.3	7.5	7.8	7.9	7.9	7.9	-0.1
Japan	5.3	5.2	5.0	4.2	4.4	4.4	4.3	4.3	-0.6
South Korea	2.2	2.2	2.1	2.2	2.2	2.3	2.4	2.5	0.6
Australia/New Zealand	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	0.3
Total OECD	49.6	49.6	48.0	45.9	46.2	46.6	47.1	47.9	0.0
Non-OECD									
Non-OECD Europe and Eurasia	4.9	4.6	5.0	5.1	5.1	5.3	5.7	6.2	0.8
Russia	2.8	2.6	2.8	2.9	2.8	2.8	3.0	3.2	0.5
Other	2.1	2.1	2.1	2.3	2.4	2.5	2.8	3.0	1.3
Non-OECD Asia	16.2	16.6	17.1	22.7	27.4	33.4	38.2	42.5	3.4
China	7.3	7.5	7.8	11.9	14.4	17.4	19.4	21.2	3.8
India	2.7	2.8	3.0	3.7	4.7	6.3	8.0	9.4	4.4
Other	6.2	6.3	6.3	7.1	8.3	9.7	10.8	12.0	2.4
Middle East	6.0	6.3	6.6	7.6	8.0	8.8	10.2	11.4	2.0
Africa	3.0	3.1	3.2	3.3	3.5	3.9	4.3	4.8	1.5
Central and South America	5.5	5.6	5.8	6.4	6.8	7.4	8.3	9.4	1.8
Brazil	2.3	2.4	2.5	2.9	3.1	3.5	4.0	4.7	2.4
Other	3.2	3.3	3.3	3.5	3.7	3.9	4.3	4.7	1.3
Total Non-OECD	35.7	36.3	37.7	45.1	50.8	58.8	66.7	74.2	2.6
Total World	85.3	85.9	85.7	91.0	96.9	105.4	113.8	122.2	1.3

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B5. World natural gas consumption by region, High Oil Price case, 2006-2035
(Trillion cubic feet)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	27.4	28.7	28.8	31.1	32.2	33.2	35.1	37.2	0.9
United States ^a	21.7	23.1	23.2	25.3	25.6	25.3	26.0	26.8	0.5
Canada	3.3	3.4	3.4	3.4	3.7	4.1	4.5	5.0	1.4
Mexico/Chile	2.5	2.2	2.2	2.3	2.9	3.8	4.5	5.4	3.3
OECD Europe	19.2	19.0	19.5	19.2	19.7	20.0	21.0	22.0	0.5
OECD Asia	5.8	6.2	6.2	6.3	6.5	7.0	7.4	7.5	0.7
Japan	3.4	3.7	3.7	3.6	3.6	3.7	3.8	3.7	0.1
South Korea	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.0
Australia/New Zealand	1.2	1.2	1.3	1.3	1.5	1.7	1.9	2.1	2.0
Total OECD	52.4	53.9	54.5	56.6	58.4	60.2	63.4	66.7	0.8
Non-OECD									
Non-OECD Europe and Eurasia	24.8	25.0	25.0	24.1	24.7	25.9	27.5	28.9	0.5
Russia	16.6	16.7	16.8	16.1	16.2	16.7	17.7	18.7	0.4
Other	8.2	8.3	8.2	8.0	8.4	9.1	9.8	10.2	0.8
Non-OECD Asia	9.5	10.5	11.3	16.9	22.1	27.6	32.3	36.3	4.4
China	2.0	2.5	2.7	5.3	7.4	9.5	11.5	13.4	6.1
India	1.4	1.5	1.5	3.2	4.2	5.0	5.5	5.8	5.1
Other	6.2	6.6	7.1	8.3	10.6	13.1	15.3	17.1	3.3
Middle East	10.3	10.7	11.7	14.4	17.5	20.6	23.9	27.9	3.3
Africa	2.9	3.1	3.6	4.6	6.3	7.9	9.5	10.7	4.1
Central and South America	4.3	4.2	4.6	4.7	5.8	6.8	8.2	10.1	3.0
Brazil	0.7	0.7	0.8	1.0	1.7	2.1	2.8	4.1	6.1
Other	3.6	3.5	3.7	3.7	4.1	4.7	5.4	6.1	1.8
Total Non-OECD	51.8	53.5	56.2	64.7	76.4	88.8	101.3	114.0	2.7
Total World	104.1	107.4	110.7	121.3	134.8	149.0	164.8	180.6	1.8

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B6. World coal consumption by region, High Oil Price case, 2006-2035
(Quadrillion Btu)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	24.4	24.7	24.3	21.2	22.6	24.8	26.8	28.7	0.6
United States ^a	22.5	22.7	22.4	19.6	21.0	23.1	25.0	26.5	0.6
Canada	1.4	1.4	1.4	1.0	1.0	1.0	1.0	1.1	-0.7
Mexico/Chile	0.6	0.6	0.5	0.6	0.6	0.7	0.8	1.1	2.8
OECD Europe	13.2	13.5	12.5	11.5	11.1	10.7	10.5	10.5	-0.7
OECD Asia	9.2	9.6	9.9	9.6	9.4	9.4	9.6	9.9	0.0
Japan	4.6	4.9	4.8	4.5	4.3	4.1	4.0	3.9	-0.8
South Korea	2.1	2.3	2.6	2.6	2.6	2.8	3.1	3.6	1.2
Australia/New Zealand	2.4	2.5	2.6	2.5	2.5	2.4	2.4	2.5	-0.2
Total OECD	46.8	47.8	46.8	42.3	43.0	44.9	46.9	49.1	0.2
Non-OECD									
Non-OECD Europe and Eurasia	8.8	8.6	8.9	8.5	8.3	8.3	8.9	10.1	0.5
Russia	4.4	4.2	4.5	4.5	4.4	4.5	4.9	5.9	1.1
Other	4.4	4.5	4.5	4.0	3.9	3.9	4.0	4.2	-0.2
Non-OECD Asia	66.3	71.4	77.5	98.2	111.3	132.9	157.4	180.5	3.2
China	51.2	55.2	60.4	79.6	90.0	107.6	126.3	141.9	3.2
India	9.2	10.1	10.9	12.2	14.0	16.8	20.1	24.0	3.0
Other	5.8	6.1	6.3	6.4	7.2	8.5	11.0	14.5	3.2
Middle East	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.1
Africa	4.2	4.4	4.6	5.1	5.6	6.1	7.1	8.8	2.4
Central and South America	0.7	0.8	0.8	1.0	1.2	1.5	2.1	3.4	5.6
Brazil	0.4	0.5	0.5	0.8	1.0	1.2	1.7	2.8	6.9
Other	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	2.1
Total Non-OECD	80.4	85.6	92.2	113.2	126.8	149.3	175.9	203.3	3.0
Total World	127.2	133.3	139.0	155.5	169.8	194.2	222.8	252.5	2.2

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B7. World nuclear energy consumption by region, High Oil Price case, 2006-2035
(Billion kilowatthours)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	891	905	905	962	1,018	1,021	1,047	1,054	0.6
United States ^a	787	806	806	839	877	877	877	874	0.3
Canada	93	89	89	112	131	134	152	162	2.2
Mexico/Chile	10	10	9	10	10	10	18	18	2.4
OECD Europe	935	884	882	965	998	1,067	1,111	1,136	0.9
OECD Asia	430	386	389	502	560	591	641	683	2.1
Japan	288	251	245	319	342	358	388	417	2.0
South Korea	141	136	143	183	218	233	253	266	2.3
Australia/NewZealand	0	0	0	0	0	0	0	0	--
Total OECD	2,255	2,176	2,175	2,429	2,576	2,680	2,799	2,873	1.0
Non-OECD									
Non-OECD Europe and Eurasia	263	272	276	342	449	538	567	614	3.0
Russia	144	152	154	197	275	342	366	388	3.5
Other	119	120	121	145	174	196	201	225	2.3
Non-OECD Asia	111	119	119	360	631	855	1,063	1,281	9.2
China	55	63	65	223	419	585	749	916	10.3
India	16	16	13	66	119	157	187	211	10.8
Other	40	41	41	71	92	113	127	153	5.0
Middle East	0	0	0	6	24	51	52	54	--
Africa	10	12	11	15	15	21	21	31	3.8
Central and South America	21	19	21	25	35	44	44	63	4.2
Brazil	14	12	14	18	22	31	31	41	4.1
Other	7	7	7	7	13	13	13	22	4.4
Total Non-OECD	405	422	427	748	1,154	1,508	1,747	2,043	6.0
Total World	2,660	2,598	2,602	3,177	3,731	4,188	4,546	4,916	2.4

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding.

Sources: **History:** U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies. **Projections:** EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B8. World consumption of hydroelectricity and other renewable energy by region, High Oil Price case, 2006-2035
(Quadrillion Btu)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	10.7	10.7	11.8	14.2	16.0	17.9	19.7	21.4	2.2
United States ^a	6.4	6.2	7.0	8.7	9.7	11.2	12.2	13.2	2.4
Canada	3.7	3.9	4.0	4.3	4.9	5.2	5.7	6.0	1.5
Mexico/Chile	0.6	0.6	0.7	1.3	1.4	1.5	1.8	2.2	4.1
OECD Europe	7.6	8.1	8.4	11.9	14.1	15.8	16.4	17.0	2.6
OECD Asia	2.0	1.9	1.9	2.9	3.6	3.9	4.1	4.3	3.1
Japan	1.2	1.1	1.1	1.5	2.0	2.2	2.3	2.4	2.9
South Korea	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	3.0
Australia/NewZealand	0.7	0.7	0.7	1.2	1.4	1.4	1.5	1.6	3.3
Total OECD	20.4	20.7	22.1	29.0	33.7	37.6	40.2	42.7	2.5
Non-OECD									
Non-OECD Europe and Eurasia	3.3	3.1	3.0	3.4	4.1	4.3	4.8	5.5	2.2
Russia	1.9	1.9	1.7	2.1	2.4	2.6	3.0	3.4	2.5
Other	1.4	1.2	1.3	1.4	1.7	1.7	1.9	2.1	1.8
Non-OECD Asia	10.5	11.2	12.6	20.2	27.5	30.9	35.2	40.9	4.5
China	4.7	5.3	6.4	11.2	15.9	17.8	19.8	22.5	4.8
India	2.4	2.5	2.4	3.5	4.8	5.5	6.5	7.6	4.4
Other	3.5	3.5	3.7	5.5	6.8	7.6	8.9	10.8	4.0
Middle East	0.3	0.3	0.1	0.4	0.6	0.6	0.7	0.8	6.9
Africa	3.5	3.6	3.7	4.1	4.8	5.5	6.3	7.1	2.5
Central and South America	9.2	9.6	9.8	10.5	12.0	14.8	17.9	19.7	2.6
Brazil	5.5	5.9	6.0	7.1	8.3	10.3	12.8	14.1	3.2
Other	3.7	3.7	3.8	3.5	3.7	4.5	5.1	5.6	1.5
Total Non-OECD	26.8	27.8	29.2	38.7	48.9	56.2	64.9	74.1	3.5
Total World	47.1	48.5	51.3	67.7	82.6	93.8	105.1	116.8	3.1

^aIncludes the 50 States and the District of Columbia.

Notes: Totals may not equal sum of components due to independent rounding. U.S. totals include net electricity imports, methanol, and liquid hydrogen. Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/ies; and International Energy Agency, "Balances of OECD and Non-OECD Statistics" (2010), website www.iea.org (subscription site). Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B9. World carbon dioxide emissions by region, High Oil Price case, 2006-2035
(Million metric tons carbon dioxide)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	7,014	7,123	6,926	6,617	6,745	6,980	7,292	7,663	0.4
United States ^a	5,918	6,022	5,838	5,558	5,646	5,800	6,019	6,244	0.3
Canada	594	607	595	558	570	596	622	664	0.4
Mexico/Chile	502	494	493	502	530	584	651	755	1.6
OECD Europe	4,428	4,413	4,345	4,019	4,002	3,990	4,029	4,092	-0.2
OECD Asia	2,165	2,206	2,201	2,095	2,109	2,151	2,186	2,231	0.1
Japan	1,240	1,254	1,215	1,101	1,104	1,096	1,074	1,053	-0.5
South Korea	484	503	522	538	542	578	617	664	0.9
Australia/New Zealand	440	449	464	456	463	477	495	514	0.4
Total OECD	13,606	13,742	13,472	12,731	12,856	13,121	13,507	13,986	0.1
Non-OECD									
Non-OECD Europe and Eurasia	2,823	2,790	2,832	2,767	2,783	2,877	3,072	3,325	0.6
Russia	1,668	1,618	1,663	1,628	1,620	1,654	1,772	1,949	0.6
Other	1,155	1,172	1,169	1,139	1,162	1,223	1,300	1,376	0.6
Non-OECD Asia	8,835	9,416	10,100	13,065	15,183	18,284	21,444	24,383	3.3
China	5,817	6,257	6,801	9,270	10,671	12,820	14,943	16,730	3.4
India	1,281	1,367	1,462	1,776	2,129	2,639	3,168	3,728	3.5
Other	1,737	1,793	1,838	2,020	2,382	2,825	3,333	3,924	2.9
Middle East	1,446	1,479	1,581	1,864	2,090	2,375	2,753	3,140	2.6
Africa	984	1,016	1,078	1,188	1,360	1,556	1,791	2,085	2.5
Central and South America	1,064	1,085	1,128	1,246	1,375	1,543	1,793	2,171	2.5
Brazil	380	397	423	513	599	700	846	1,113	3.7
Other	684	688	705	733	777	843	947	1,058	1.5
Total Non-OECD	15,152	15,786	16,718	20,130	22,791	26,635	30,854	35,105	2.8
Total World	28,758	29,529	30,190	32,860	35,646	39,757	44,361	49,091	1.8

^aIncludes the 50 States and the District of Columbia.

Notes: The U.S. numbers include carbon dioxide emissions attributable to renewable energy sources.

Sources: **History:** U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/. **Projections:** EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.DO22511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B10. World carbon dioxide emissions from liquids use by region, High Oil Price case, 2006-2035
(Million metric tons carbon dioxide)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	3,198	3,219	3,050	2,914	2,862	2,831	2,855	2,939	-0.1
United States ^a	2,603	2,603	2,444	2,315	2,273	2,238	2,244	2,293	-0.2
Canada	281	292	283	278	275	275	280	288	0.1
Mexico/Chile	314	325	323	321	314	318	331	358	0.4
OECD Europe	2,135	2,090	2,076	1,866	1,858	1,863	1,873	1,878	-0.4
OECD Asia	993	966	934	852	875	887	888	895	-0.2
Japan	622	599	574	482	507	510	498	491	-0.6
South Korea	221	216	206	216	216	222	230	239	0.6
Australia/NewZealand	149	152	153	154	152	154	159	164	0.3
Total OECD	6,326	6,276	6,059	5,631	5,595	5,581	5,616	5,712	-0.2
Non-OECD									
Non-OECD Europe and Eurasia	670	624	637	662	663	691	744	803	0.9
Russia	368	328	340	344	333	337	358	386	0.5
Other	302	296	297	318	330	355	386	417	1.3
Non-OECD Asia	2,147	2,185	2,242	2,962	3,573	4,352	4,968	5,529	3.4
China	928	959	995	1,518	1,828	2,213	2,472	2,691	3.8
India	349	354	372	468	599	801	1,004	1,182	4.4
Other	870	872	874	975	1,145	1,338	1,492	1,656	2.4
Middle East	839	845	894	1,025	1,074	1,190	1,379	1,533	2.0
Africa	428	437	447	462	490	540	597	671	1.5
Central and South America	757	777	799	883	936	1,018	1,146	1,290	1.8
Brazil	301	315	332	386	417	465	539	624	2.4
Other	456	462	467	497	519	553	607	666	1.3
Total Non-OECD	4,841	4,868	5,018	5,993	6,735	7,792	8,833	9,826	2.5
Total World	11,167	11,144	11,077	11,624	12,330	13,373	14,449	15,537	1.3

^aIncludes the 50 States and the District of Columbia.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B11. World carbon dioxide emissions from natural gas use by region, High Oil Price case, 2006-2035
(Million metric tons carbon dioxide)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	1,473	1,540	1,549	1,676	1,737	1,791	1,885	1,995	0.9
United States ^a	1,157	1,235	1,243	1,362	1,377	1,362	1,393	1,433	0.5
Canada	180	187	186	188	202	226	246	272	1.4
Mexico/Chile	136	118	120	126	159	203	245	291	3.3
OECD Europe	1,047	1,045	1,070	1,057	1,080	1,100	1,153	1,207	0.5
OECD Asia	326	352	351	357	371	399	417	425	0.7
Japan	193	210	205	203	201	208	212	208	0.1
South Korea	68	74	75	83	88	96	97	97	1.0
Australia/New Zealand	66	68	71	71	82	95	108	119	2.0
Total OECD	2,847	2,937	2,970	3,090	3,188	3,289	3,455	3,627	0.7
Non-OECD									
Non-OECD Europe and Eurasia	1,332	1,353	1,354	1,303	1,335	1,401	1,489	1,564	0.5
Russia	889	897	899	858	867	894	945	1,001	0.4
Other	443	456	454	446	467	508	544	564	0.8
Non-OECD Asia	518	573	617	926	1,212	1,511	1,770	1,987	4.4
China	111	138	151	297	409	526	640	743	6.1
India	78	83	86	183	239	284	310	329	5.1
Other	330	352	380	446	565	701	820	915	3.3
Middle East	572	595	650	801	977	1,145	1,332	1,557	3.3
Africa	166	176	206	260	357	451	539	608	4.1
Central and South America	241	238	256	266	325	383	457	567	3.0
Brazil	38	39	46	57	93	118	153	225	6.1
Other	203	199	210	210	232	265	304	342	1.8
Total Non-OECD	2,829	2,934	3,083	3,556	4,206	4,892	5,586	6,283	2.7
Total World	5,675	5,870	6,052	6,646	7,394	8,181	9,041	9,911	1.8

^aIncludes the 50 States and the District of Columbia.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

Table B12. World carbon dioxide emissions from coal use by region, High Oil Price case, 2006-2035
(Million metric tons carbon dioxide)

Region	History			Projections					Average annual percent change, 2008-2035
	2006	2007	2008	2015	2020	2025	2030	2035	
OECD									
OECD Americas	2,331	2,352	2,315	2,015	2,134	2,346	2,540	2,718	0.6
United States ^a	2,147	2,172	2,139	1,868	1,984	2,188	2,370	2,506	0.6
Canada	132	128	126	92	93	96	96	105	-0.7
Mexico/Chile	53	51	50	55	57	62	74	106	2.8
OECD Europe	1,245	1,279	1,200	1,097	1,063	1,028	1,004	1,006	-0.7
OECD Asia	846	888	917	886	863	865	881	912	0.0
Japan	425	446	436	416	395	378	364	354	-0.8
South Korea	195	213	240	239	239	260	290	327	1.2
Australia/New Zealand	226	229	240	231	229	227	227	230	-0.2
Total OECD	4,422	4,518	4,431	3,998	4,061	4,239	4,424	4,636	0.2
Non-OECD									
Non-OECD Europe and Eurasia	821	813	841	802	785	784	839	958	0.5
Russia	412	393	424	426	420	424	468	562	1.1
Other	410	420	417	376	365	360	371	396	-0.2
Non-OECD Asia	6,170	6,659	7,241	9,178	10,398	12,421	14,707	16,867	3.2
China	4,779	5,160	5,654	7,455	8,435	10,081	11,831	13,297	3.2
India	854	931	1,003	1,125	1,291	1,554	1,855	2,217	3.0
Other	537	569	583	598	672	786	1,021	1,353	3.2
Middle East	36	39	37	38	39	40	42	50	1.1
Africa	390	403	426	466	513	565	655	807	2.4
Central and South America	65	70	72	97	115	142	191	314	5.6
Brazil	41	43	44	70	89	116	154	264	6.9
Other	25	27	28	27	26	26	36	50	2.1
Total Non-OECD	7,482	7,985	8,618	10,581	11,850	13,952	16,435	18,996	3.0
Total World	11,904	12,503	13,049	14,579	15,910	18,191	20,859	23,631	2.2

^aIncludes the 50 States and the District of Columbia.

Sources: History: U.S. Energy Information Administration (EIA), International Energy Statistics database (as of March 2011), website www.eia.gov/. Projections: EIA, *Annual Energy Outlook 2011*, DOE/EIA-0383(2011), AEO2011 National Energy Modeling System, run HP2011HNO.D022511A, website www.eia.gov/aeo, and World Energy Projection System Plus (2011).

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