

Low World Oil Price Case Projections:

- **World Energy Consumption**
 - **Gross Domestic Product**
 - **Carbon Dioxide Emissions**

Table E1. World Total Energy Consumption by Region, Low World Oil Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	100.8	118.3	120.9	130.8	139.2	146.7	154.1	162.8	1.2
United States ^a	84.7	98.3	100.7	106.9	113.6	119.3	125.0	131.7	1.0
Canada	11.1	13.5	13.6	15.5	16.0	16.9	17.6	18.4	1.2
Mexico	5.0	6.5	6.6	8.4	9.5	10.6	11.5	12.6	2.5
OECD Europe	69.9	79.5	81.1	84.8	88.0	88.3	89.8	91.9	0.5
OECD Asia	26.6	36.9	37.8	40.4	43.5	45.5	47.3	49.5	1.0
Japan	18.4	22.2	22.6	23.8	25.0	25.6	26.1	26.8	0.6
South Korea	3.8	8.7	9.0	9.8	11.3	12.3	13.1	14.2	1.8
Australia/New Zealand	4.4	6.0	6.2	6.8	7.2	7.7	8.1	8.5	1.3
Total OECD	197.4	234.7	239.8	256.1	270.6	280.6	291.3	304.2	0.9
Non-OECD									
Non-OECD Europe and Eurasia ..	67.2	47.9	49.7	54.7	59.9	64.5	67.9	70.6	1.4
Russia	39.0	28.8	30.1	32.8	35.5	37.5	39.4	40.8	1.2
Other	28.3	19.2	19.6	21.9	24.3	27.0	28.5	29.8	1.6
Non-OECD Asia	47.5	88.2	99.9	132.5	159.4	184.5	209.1	235.9	3.4
China	27.0	49.7	59.6	83.4	99.8	116.1	132.1	150.3	3.6
India	8.0	14.4	15.4	18.3	22.3	25.9	29.7	33.2	3.0
Other Non-OECD Asia	12.5	24.0	24.9	30.7	37.2	42.5	47.3	52.3	2.9
Middle East	11.3	19.9	21.1	26.2	30.0	33.4	36.4	39.3	2.4
Africa	9.5	13.3	13.7	17.1	19.8	22.0	24.1	26.1	2.5
Central and South America	14.5	21.7	22.5	28.0	32.6	36.1	39.8	43.5	2.6
Brazil	5.8	8.7	9.1	11.3	13.2	14.7	16.3	18.2	2.7
Other Central and South America ..	8.8	13.0	13.5	16.7	19.4	21.4	23.4	25.4	2.5
Total Non-OECD	150.0	191.0	206.9	258.5	301.7	340.6	377.3	415.5	2.7
Total World	347.3	425.7	446.7	514.6	572.3	621.2	668.5	719.6	1.9

^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:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E2. World Total Energy Consumption by Region and Fuel, Low World Oil Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America									
Liquids	40.5	47.2	49.2	51.4	55.9	59.8	63.6	68.4	1.3
Natural Gas	23.2	28.5	28.5	31.8	34.6	37.0	38.8	40.0	1.3
Coal	20.7	24.1	24.1	25.9	26.4	27.3	28.6	30.8	0.9
Nuclear.....	6.9	8.9	9.3	9.7	9.9	10.0	10.0	9.9	0.3
Other	9.5	9.8	9.9	12.1	12.3	12.7	13.1	13.6	1.2
Total.....	100.8	118.3	120.9	130.8	139.2	146.7	154.1	162.8	1.1
OECD Europe									
Liquids	28.4	31.9	32.4	33.1	34.9	35.8	37.1	38.0	0.6
Natural Gas	11.2	18.6	19.3	22.1	24.9	25.6	26.4	27.6	1.4
Coal	17.6	13.2	13.1	12.5	10.9	10.3	9.6	9.3	-1.3
Nuclear.....	7.9	9.8	9.9	10.2	10.0	9.3	9.3	9.4	-0.2
Other	4.8	5.9	6.3	6.9	7.2	7.4	7.4	7.6	0.7
Total.....	69.9	79.5	81.1	84.8	88.0	88.3	89.8	91.9	0.5
OECD Asia									
Liquids	14.5	17.7	17.4	17.9	19.4	20.1	21.2	22.0	0.9
Natural Gas	2.9	5.3	5.3	6.5	7.6	7.9	8.1	8.5	1.8
Coal	5.2	8.6	9.3	9.5	9.2	9.4	9.6	9.8	0.2
Nuclear.....	2.5	3.5	4.0	4.6	5.3	6.0	6.3	6.9	2.1
Other	1.6	1.8	1.7	1.9	2.0	2.1	2.1	2.2	1.0
Total.....	26.6	36.9	37.8	40.4	43.5	45.5	47.3	49.5	1.0
Total OECD									
Liquids	83.4	96.7	98.9	102.3	110.2	115.7	121.9	128.4	1.0
Natural Gas	37.2	52.4	53.1	60.4	67.1	70.4	73.3	76.1	1.4
Coal	43.5	45.9	46.6	48.0	46.5	47.0	47.8	49.9	0.3
Nuclear.....	17.3	22.2	23.2	24.5	25.3	25.3	25.6	26.3	0.5
Other	15.9	17.5	17.9	20.9	21.6	22.1	22.7	23.5	1.1
Total.....	197.4	234.7	239.8	256.1	270.6	280.6	291.3	304.2	0.9
Non-OECD									
Non-OECD Europe and Eurasia									
Liquids	19.5	9.4	9.9	10.9	11.9	12.9	13.9	14.7	1.6
Natural Gas	27.5	24.2	25.1	27.8	31.1	33.0	34.2	36.1	1.4
Coal	15.1	8.7	9.0	9.2	9.0	9.7	9.7	9.6	0.2
Nuclear.....	2.5	2.9	2.9	3.2	3.7	4.7	5.5	5.5	2.5
Other	2.8	2.8	2.9	3.6	4.1	4.3	4.5	4.7	1.8
Total.....	67.2	47.9	49.7	54.7	59.9	64.5	67.9	70.6	1.4
Non-OECD Asia									
Liquids	13.9	28.1	30.6	39.9	47.6	54.1	62.5	71.2	3.3
Natural Gas	3.0	8.1	8.9	13.7	18.3	21.8	25.4	30.0	4.8
Coal	27.2	45.8	53.6	70.2	82.5	95.2	105.9	117.6	3.1
Nuclear.....	0.4	1.0	1.1	1.6	3.0	4.3	5.5	6.2	7.0
Other	3.0	5.2	5.7	7.1	8.0	9.0	9.8	10.8	2.5
Total.....	47.5	88.2	99.9	132.5	159.4	184.5	209.1	235.9	3.4

See notes at end of table.

Table E2. World Total Energy Consumption by Region and Fuel, Low World Oil Price Case, 1990-2030
(Continued)
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
Non-OECD (Continued)									
Middle East									
Liquids	7.3	11.0	11.6	14.7	16.3	18.3	20.6	22.5	2.6
Natural Gas	3.8	8.4	9.0	10.9	13.0	14.5	15.0	16.1	2.2
Coal	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
Nuclear.....	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	—
Other	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	2.6
Total.....	11.3	19.9	21.1	26.2	30.0	33.4	36.4	39.3	2.4
Africa									
Liquids	4.3	5.6	5.7	7.1	8.6	9.9	10.8	11.8	2.8
Natural Gas	1.5	2.7	2.8	3.7	4.8	5.4	6.1	7.0	3.6
Coal	3.0	4.0	4.1	5.1	5.2	5.4	5.7	5.8	1.3
Nuclear.....	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.7
Other	0.6	0.9	0.9	1.1	1.1	1.2	1.2	1.3	1.3
Total.....	9.5	13.3	13.7	17.1	19.8	22.0	24.1	26.1	2.5
Central and South America									
Liquids	7.8	11.1	11.5	13.8	16.4	18.5	20.9	23.0	2.7
Natural Gas	2.2	4.0	4.4	5.5	6.4	7.0	7.5	8.1	2.4
Coal	0.6	0.8	0.8	1.1	1.2	1.4	1.5	1.6	2.6
Nuclear.....	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4	2.3
Other	3.9	5.6	5.6	7.4	8.2	8.9	9.5	10.4	2.4
Total.....	14.5	21.7	22.5	28.0	32.6	36.1	39.8	43.5	2.6
Total Non-OECD									
Liquids	52.7	65.2	69.3	86.4	100.9	113.6	128.8	143.2	2.8
Natural Gas	38.0	47.4	50.3	61.6	73.6	81.7	88.2	97.4	2.6
Coal	45.9	59.7	67.9	86.0	98.3	112.1	123.2	135.0	2.7
Nuclear.....	3.1	4.2	4.3	5.3	7.2	9.6	11.7	12.4	4.2
Other	10.3	14.5	15.3	19.3	21.6	23.6	25.3	27.5	2.3
Total.....	150.0	191.1	206.9	258.5	301.7	340.6	377.3	415.5	2.7
Total World									
Liquids	136.2	161.9	168.2	188.7	211.0	229.4	250.7	271.6	1.9
Natural Gas	75.2	99.8	103.4	122.0	140.7	152.1	161.5	173.5	2.0
Coal	89.4	105.6	114.5	133.9	144.8	159.1	171.0	184.9	1.9
Nuclear.....	20.4	26.4	27.5	29.8	32.5	34.9	37.3	38.7	1.3
Other	26.2	32.1	33.2	40.2	43.2	45.7	48.0	51.0	1.7
Total.....	347.3	425.7	446.7	514.6	572.3	621.2	668.5	719.6	1.9

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:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E3. World Gross Domestic Product (GDP) by Region Expressed in Purchasing Power Parity, Low World Oil Price Case, 1990-2030
(Billion 2000 Dollars)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	8,477	12,250	12,725	15,308	17,648	20,429	23,506	26,927	2.9
United States ^a	7,113	10,301	10,704	12,850	14,786	17,129	19,700	22,532	2.9
Canada	684	973	1,005	1,189	1,344	1,492	1,652	1,830	2.3
Mexico	680	975	1,016	1,269	1,518	1,808	2,154	2,565	3.6
OECD Europe	8,067	10,850	11,132	12,929	14,510	16,155	17,932	19,945	2.3
OECD Asia	3,621	4,630	4,761	5,567	6,188	6,670	7,145	7,685	1.9
Japan	2,862	3,289	3,363	3,798	4,069	4,225	4,348	4,481	1.1
South Korea	331	683	715	967	1,187	1,367	1,555	1,768	3.5
Australia/New Zealand	429	658	682	802	932	1,077	1,243	1,435	2.9
Total OECD	20,165	27,730	28,619	33,804	38,346	43,253	48,583	54,557	2.5
Non-OECD									
Non-OECD Europe and Eurasia	3,601	3,081	3,332	4,774	5,884	7,046	8,360	9,885	4.3
Russia	2,241	1,780	1,907	2,623	3,145	3,677	4,280	4,952	3.7
Other	1,360	1,301	1,425	2,150	2,740	3,368	4,080	4,933	4.9
Non-OECD Asia	5,995	14,573	15,841	24,770	33,173	43,200	55,017	69,597	5.9
China	2,002	7,013	7,722	13,041	18,051	24,076	31,092	39,681	6.5
India	1,703	3,434	3,727	5,663	7,516	9,682	12,313	15,640	5.7
Other Non-OECD Asia	2,291	4,125	4,393	6,066	7,606	9,441	11,612	14,275	4.6
Middle East	820	1,364	1,453	1,927	2,372	2,898	3,502	4,212	4.2
Africa	1,450	2,056	2,161	2,953	3,776	4,744	5,935	7,423	4.9
Central and South America	2,191	3,110	3,297	4,294	5,200	6,227	7,440	8,885	3.9
Brazil	1,022	1,378	1,446	1,782	2,113	2,489	2,925	3,432	3.4
Other Central and South America	1,169	1,733	1,852	2,513	3,087	3,737	4,515	5,453	4.2
Total Non-OECD	14,057	24,184	26,085	38,717	50,405	64,114	80,254	100,002	5.3
Total World	34,222	51,914	54,704	72,521	88,751	107,367	128,837	154,559	4.1

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Global Insight, Inc., *World Overview* (Lexington, MA, various issues). **Projections:** Global Insight, Inc., Global Scenario Model (February 2007); and Energy Information Administration, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington DC, February 2007), Table B4.

Table E4. World Liquids Consumption by Region, Low World Oil Price Case, 1990-2030
(Million Barrels Oil Equivalent per Day)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	20.5	24.2	25.0	26.2	28.5	30.5	32.4	34.8	1.3
United States ^a	17.0	20.0	20.7	21.6	23.4	25.0	26.6	28.6	1.3
Canada	1.7	2.2	2.3	2.4	2.5	2.6	2.7	2.8	0.7
Mexico	1.8	1.9	2.0	2.3	2.5	2.9	3.1	3.4	2.1
OECD Europe	13.7	15.4	15.6	16.0	16.9	17.3	17.9	18.4	0.6
OECD Asia	7.1	8.7	8.5	8.8	9.5	9.9	10.4	10.8	0.9
Japan	5.2	5.5	5.4	5.3	5.6	5.7	5.9	6.0	0.5
South Korea	1.0	2.2	2.1	2.3	2.7	2.8	3.0	3.3	1.6
Australia/New Zealand	0.8	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.4
Total OECD	41.3	48.3	49.1	51.0	54.8	57.6	60.7	64.0	1.0
Non-OECD									
Non-OECD Europe and Eurasia . . .	9.3	4.6	4.8	5.3	5.8	6.3	6.8	7.2	1.6
Russia	5.4	2.7	2.8	3.0	3.2	3.4	3.6	3.8	1.2
Other	3.9	1.9	2.0	2.3	2.6	2.9	3.1	3.4	2.0
Non-OECD Asia	6.6	13.6	14.8	19.3	23.1	26.2	30.3	34.5	3.3
China	2.3	5.6	6.4	9.7	11.4	13.1	15.5	18.1	4.1
India	1.2	2.3	2.5	2.8	3.5	4.0	4.6	5.1	2.8
Other Non-OECD Asia	3.1	5.7	6.0	6.9	8.2	9.1	10.3	11.4	2.5
Middle East	3.5	5.4	5.7	7.2	8.0	8.9	10.1	11.0	2.6
Africa	2.1	2.7	2.8	3.5	4.2	4.8	5.3	5.7	2.8
Central and South America	3.8	5.2	5.4	6.7	8.0	9.0	10.2	11.2	2.9
Brazil	1.5	2.1	2.1	2.7	3.1	3.5	3.9	4.3	2.7
Other Central and South America . .	2.3	3.2	3.3	4.1	4.9	5.5	6.3	7.0	3.0
Total Non-OECD	25.3	31.5	33.4	42.0	49.0	55.3	62.6	69.6	2.9
Total World	66.5	79.8	82.5	93.0	103.9	112.9	123.4	133.6	1.9

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E5. World Natural Gas Consumption by Region, Low World Oil Price Case, 1990-2030
(Trillion Cubic Feet)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	22.5	27.4	27.6	30.8	33.5	35.8	37.5	38.7	1.3
United States ^a	19.2	22.3	22.4	24.4	26.4	28.0	29.3	29.7	1.1
Canada	2.4	3.4	3.4	3.9	4.1	4.5	4.6	4.8	1.4
Mexico	0.9	1.7	1.8	2.5	2.9	3.3	3.6	4.1	3.2
OECD Europe	11.6	18.2	18.8	21.5	24.2	24.9	25.7	26.9	1.4
OECD Asia	2.8	5.0	5.0	6.1	7.2	7.4	7.6	8.0	1.8
Japan	1.9	3.0	3.0	3.7	4.3	4.4	4.5	4.6	1.7
South Korea	0.1	0.9	1.0	1.1	1.3	1.4	1.5	1.6	1.9
Australia/New Zealand	0.8	1.1	1.1	1.3	1.6	1.6	1.7	1.8	2.0
Total OECD	36.8	50.5	51.4	58.4	64.8	68.1	70.8	73.5	1.4
Non-OECD									
Non-OECD Europe and Eurasia ..	26.7	23.6	24.4	27.0	30.3	32.1	33.3	35.1	1.4
Russia	17.3	15.3	16.0	17.5	19.3	20.0	20.4	21.2	1.1
Other	9.5	8.3	8.4	9.5	10.9	12.0	12.9	14.0	2.0
Non-OECD Asia	2.9	7.7	8.5	12.8	17.2	20.4	23.8	28.1	4.7
China	0.5	1.1	1.4	2.9	3.7	4.5	5.4	6.7	6.3
India	0.4	1.0	1.1	1.9	2.6	3.1	3.8	4.6	5.7
Other Non-OECD Asia	2.0	5.6	6.0	8.1	10.8	12.8	14.6	16.9	4.0
Middle East	3.6	8.0	8.6	10.4	12.4	13.8	14.3	15.4	2.2
Africa	1.4	2.5	2.6	3.4	4.4	5.1	5.7	6.5	3.6
Central and South America	2.0	3.7	4.1	5.1	6.0	6.5	7.0	7.6	2.4
Brazil	0.1	0.5	0.6	0.9	1.0	1.1	1.3	1.5	3.6
Other Central and South America ..	1.9	3.2	3.5	4.3	5.0	5.4	5.7	6.0	2.2
Total Non-OECD	36.5	45.5	48.2	58.8	70.3	77.9	84.0	92.6	2.5
Total World	73.4	96.0	99.6	117.3	135.1	146.0	154.9	166.2	2.0

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E6. World Coal Consumption by Region, Low World Oil Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	20.7	24.1	24.1	25.9	26.4	27.3	28.6	30.8	0.9
United States ^a	19.2	22.3	22.6	23.9	24.5	25.2	26.3	28.4	0.9
Canada	1.3	1.4	1.2	1.5	1.3	1.5	1.6	1.7	1.3
Mexico	0.2	0.4	0.3	0.6	0.6	0.6	0.7	0.7	2.8
OECD Europe	17.6	13.2	13.1	12.5	10.9	10.3	9.6	9.3	-1.3
OECD Asia	5.2	8.6	9.3	9.5	9.2	9.4	9.6	9.8	0.2
Japan	2.7	4.3	4.8	4.6	4.3	4.2	4.1	4.0	-0.6
South Korea	0.9	1.9	2.1	2.2	2.3	2.5	2.6	2.8	1.1
Australia/New Zealand	1.5	2.3	2.4	2.7	2.5	2.7	2.9	3.0	0.7
Total OECD	43.5	45.9	46.6	48.0	46.5	47.0	47.8	49.9	0.3
Non-OECD									
Non-OECD Europe and Eurasia . . .	15.1	8.7	9.0	9.2	9.0	9.7	9.7	9.6	0.2
Russia	6.8	4.5	4.8	4.8	4.5	4.8	5.0	5.0	0.1
Other	8.3	4.2	4.2	4.3	4.5	4.8	4.8	4.6	0.4
Non-OECD Asia	27.2	45.8	53.6	70.2	82.5	95.2	105.9	117.6	3.1
China	20.3	33.7	41.1	55.6	66.1	76.4	85.5	95.7	3.3
India	4.3	7.5	8.1	9.1	10.3	11.7	13.0	14.3	2.2
Other Non-OECD Asia	2.6	4.6	4.3	5.5	6.2	7.1	7.4	7.5	2.2
Middle East	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
Africa	3.0	4.0	4.1	5.1	5.2	5.4	5.7	5.8	1.3
Central and South America	0.6	0.8	0.8	1.1	1.2	1.4	1.5	1.6	2.6
Brazil	0.4	0.5	0.5	0.7	0.8	0.9	0.9	1.1	3.4
Other Central and South America . .	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5	1.4
Total Non-OECD	45.9	59.7	67.9	86.0	98.3	112.1	123.2	135.0	2.7
Total World	89.4	105.6	114.5	133.9	144.8	159.1	171.0	184.9	1.9

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E7. World Nuclear Energy Consumption by Region, Low World Oil Price Case, 1990-2030
(Billion Kilowatthours)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	649	845	883	910	933	942	944	936	0.2
United States ^a	577	764	789	789	809	815	815	799	0.0
Canada	69	71	86	110	113	116	118	126	1.5
Mexico	3	10	9	11	11	11	11	11	0.9
OECD Europe	743	931	941	914	902	835	831	847	-0.4
OECD Asia	242	351	396	433	497	559	592	646	1.9
Japan	192	228	272	299	325	352	370	394	1.4
South Korea	50	123	124	134	172	207	222	252	2.8
Australia/New Zealand	0	0	0	0	0	0	0	0	—
Total OECD	1,635	2,128	2,220	2,257	2,332	2,336	2,367	2,429	0.3
Non-OECD									
Non-OECD Europe and Eurasia ..	219	260	263	278	323	405	479	476	2.3
Russia	115	141	137	149	190	236	299	315	3.2
Other	104	119	125	129	133	169	180	161	1.0
Non-OECD Asia	38	97	103	148	265	389	495	557	6.7
China	0	42	48	64	135	217	283	329	7.7
India	6	16	15	37	66	97	124	144	9.1
Other Non-OECD Asia	32	39	40	47	64	75	88	84	2.9
Middle East	0	0	0	5	6	6	6	6	—
Africa	8	13	14	14	15	15	21	21	1.5
Central and South America	9	20	19	20	28	34	33	33	2.2
Brazil	2	13	12	13	18	22	22	22	2.5
Other Central and South America ..	7	7	7	7	10	12	11	11	1.6
Total Non-OECD	274	390	399	465	637	849	1,034	1,093	4.0
Total World	1,909	2,518	2,619	2,722	2,969	3,185	3,401	3,522	1.1

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E8. World Consumption of Hydroelectricity and Other Renewable Energy by Region, Low World Oil Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	9.5	9.8	9.9	12.1	12.3	12.7	13.1	13.6	1.2
United States ^a	6.1	6.0	6.0	7.5	7.6	7.7	7.9	8.2	1.2
Canada	3.1	3.5	3.5	4.0	4.1	4.3	4.5	4.7	1.2
Mexico	0.3	0.4	0.4	0.6	0.7	0.7	0.7	0.7	2.1
OECD Europe	4.8	5.9	6.3	6.9	7.2	7.4	7.4	7.6	0.7
OECD Asia	1.6	1.8	1.7	1.9	2.0	2.1	2.1	2.2	1.0
Japan	1.1	1.2	1.1	1.2	1.3	1.3	1.4	1.4	0.8
South Korea	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.1
Australia/New Zealand	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	1.2
Total OECD	15.9	17.5	17.9	20.9	21.6	22.1	22.7	23.5	1.1
Non-OECD									
Non-OECD Europe and Eurasia ..	2.8	2.8	2.9	3.6	4.1	4.3	4.5	4.7	1.8
Russia	1.8	1.6	1.7	2.2	2.5	2.5	2.6	2.7	1.9
Other	1.0	1.2	1.2	1.4	1.6	1.8	1.9	2.0	1.8
Non-OECD Asia	3.0	5.2	5.7	7.1	8.0	9.0	9.8	10.8	2.5
China	1.3	2.9	3.3	4.0	4.6	5.2	5.7	6.3	2.5
India	0.7	0.8	0.9	1.0	1.2	1.4	1.5	1.7	2.4
Other Non-OECD Asia	0.9	1.5	1.5	2.1	2.2	2.4	2.6	2.9	2.6
Middle East	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	2.6
Africa	0.6	0.9	0.9	1.1	1.1	1.2	1.2	1.3	1.3
Central and South America	3.9	5.6	5.6	7.4	8.2	8.9	9.5	10.4	2.4
Brazil	2.2	3.0	3.1	4.2	4.8	5.3	5.8	6.5	2.9
Other Central and South America ..	1.7	2.5	2.5	3.2	3.4	3.6	3.7	3.9	1.7
Total Non-OECD	10.3	14.5	15.3	19.3	21.6	23.6	25.3	27.5	2.3
Total World	26.2	32.1	33.2	40.2	43.2	45.7	48.0	51.0	1.7

^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:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E9. World Carbon Dioxide Emissions by Region, Low World Oil Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	5,763	6,775	6,893	7,375	7,886	8,361	8,836	9,434	1.2
United States ^a	4,989	5,800	5,923	6,241	6,673	7,040	7,424	7,929	1.1
Canada	474	589	584	650	666	707	740	770	1.1
Mexico	300	385	385	485	548	614	672	736	2.5
OECD Europe	4,092	4,321	4,381	4,518	4,635	4,671	4,733	4,823	0.4
OECD Asia	1,543	2,129	2,183	2,286	2,402	2,487	2,578	2,668	0.8
Japan	1,015	1,244	1,262	1,286	1,324	1,338	1,354	1,372	0.3
South Korea	238	475	497	529	593	635	675	723	1.5
Australia/New Zealand	291	410	424	471	485	514	549	574	1.2
Total OECD	11,399	13,225	13,457	14,179	14,923	15,520	16,148	16,926	0.9
Non-OECD									
Non-OECD Europe and Eurasia ..	4,193	2,717	2,819	3,046	3,275	3,503	3,643	3,784	1.1
Russia	2,334	1,602	1,685	1,794	1,891	1,988	2,053	2,116	0.9
Other	1,859	1,115	1,134	1,252	1,384	1,514	1,589	1,668	1.5
Non-OECD Asia	3,627	6,479	7,411	9,807	11,688	13,466	15,182	17,062	3.3
China	2,241	3,898	4,707	6,567	7,810	9,041	10,237	11,597	3.5
India	578	1,040	1,111	1,290	1,531	1,751	1,981	2,206	2.7
Other Non-OECD Asia	807	1,542	1,593	1,950	2,347	2,674	2,964	3,259	2.8
Middle East	705	1,211	1,289	1,599	1,817	2,028	2,212	2,396	2.4
Africa	649	895	919	1,148	1,318	1,460	1,591	1,714	2.4
Central and South America	673	981	1,027	1,257	1,482	1,656	1,844	2,023	2.6
Brazil	220	317	334	413	482	541	606	674	2.7
Other Central and South America ..	453	664	693	843	999	1,115	1,238	1,349	2.6
Total Non-OECD	9,847	12,283	13,465	16,857	19,579	22,112	24,472	26,980	2.7
Total World	21,246	25,508	26,922	31,036	34,503	37,632	40,619	43,906	1.9

^aIncludes the 50 States and the District of Columbia.

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

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E10. World Carbon Dioxide Emissions from Liquids Use by Region, Low World Oil Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	2,633	3,029	3,140	3,263	3,576	3,844	4,096	4,422	1.3
United States ^a	2,178	2,500	2,598	2,672	2,932	3,148	3,353	3,633	1.3
Canada	224	279	290	302	319	329	342	351	0.7
Mexico	231	250	253	289	325	367	401	439	2.1
OECD Europe	1,867	2,099	2,125	2,171	2,294	2,351	2,439	2,497	0.6
OECD Asia	921	1,068	1,048	1,076	1,165	1,210	1,273	1,322	0.9
Japan	667	683	665	663	696	710	735	752	0.5
South Korea	144	248	245	265	305	323	347	371	1.6
Australia/New Zealand	110	137	138	148	164	176	190	200	1.4
Total OECD	5,420	6,196	6,314	6,510	7,035	7,404	7,808	8,241	1.0
Non-OECD									
Non-OECD Europe and Eurasia	1,350	636	663	732	799	866	937	993	1.6
Russia	782	364	376	401	433	459	492	513	1.2
Other	568	271	287	330	367	408	445	480	2.0
Non-OECD Asia	950	1,822	1,983	2,574	3,072	3,490	4,026	4,580	3.3
China	325	711	816	1,237	1,454	1,675	1,972	2,309	4.1
India	160	293	306	345	438	496	571	631	2.8
Other Non-OECD Asia	464	818	861	992	1,181	1,318	1,483	1,640	2.5
Middle East	493	735	778	987	1,096	1,227	1,384	1,509	2.6
Africa	298	387	395	492	596	682	749	814	2.8
Central and South America	503	696	720	864	1,029	1,160	1,315	1,445	2.7
Brazil	180	248	258	303	355	397	445	488	2.5
Other Central and South America	323	449	462	561	674	763	870	957	2.8
Total Non-OECD	3,594	4,276	4,538	5,649	6,593	7,425	8,411	9,341	2.8
Total World	9,014	10,472	10,852	12,158	13,627	14,829	16,219	17,583	1.9

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E11. World Carbon Dioxide Emissions from Natural Gas Use by Region, Low World Oil Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	1,207	1,477	1,483	1,672	1,820	1,945	2,041	2,105	1.4
United States ^a	1,026	1,197	1,198	1,318	1,428	1,512	1,583	1,609	1.1
Canada	127	183	183	213	223	242	249	261	1.4
Mexico	54	98	102	141	169	190	208	235	3.2
OECD Europe	590	984	1,021	1,168	1,313	1,349	1,395	1,457	1.4
OECD Asia	152	279	282	344	402	418	426	450	1.8
Japan	102	168	163	207	237	243	247	254	1.7
South Korea	6	50	58	66	78	83	87	94	1.9
Australia/New Zealand	44	61	61	71	87	91	92	102	2.0
Total OECD	1,949	2,740	2,786	3,183	3,534	3,711	3,862	4,012	1.4
Non-OECD									
Non-OECD Europe and Eurasia	1,450	1,280	1,328	1,468	1,644	1,742	1,808	1,908	1.4
Russia	928	828	868	949	1,048	1,086	1,106	1,146	1.1
Other	521	452	460	519	596	656	702	762	2.0
Non-OECD Asia	160	428	471	723	966	1,150	1,341	1,586	4.8
China	30	70	83	176	228	277	329	408	6.3
India	24	56	64	110	152	183	225	266	5.7
Other Non-OECD Asia	106	301	325	437	586	690	788	911	4.0
Middle East	199	442	476	574	686	764	791	849	2.2
Africa	80	144	148	194	251	287	323	369	3.6
Central and South America	116	209	231	290	341	369	395	428	2.4
Brazil	6	27	34	47	56	63	73	84	3.6
Other Central and South America	110	181	197	244	285	306	322	344	2.2
Total Non-OECD	2,005	2,502	2,655	3,249	3,888	4,311	4,657	5,140	2.6
Total World	3,954	5,242	5,441	6,433	7,422	8,023	8,520	9,151	2.0

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table E12. World Carbon Dioxide Emissions from Coal Use by Region, Low World Oil Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2004-2030
	1990	2003	2004	2010	2015	2020	2025	2030	
OECD									
OECD North America	1,923	2,258	2,258	2,428	2,478	2,560	2,685	2,893	1.0
United States ^a	1,784	2,093	2,115	2,239	2,301	2,368	2,474	2,673	0.9
Canada	123	128	112	135	123	136	148	158	1.3
Mexico	15	37	30	55	54	56	63	62	2.8
OECD Europe	1,635	1,237	1,235	1,179	1,028	972	899	870	-1.3
OECD Asia	471	782	853	867	836	859	879	897	0.2
Japan	245	393	434	417	392	384	372	366	-0.6
South Korea	88	177	194	199	210	229	241	258	1.1
Australia/New Zealand	137	212	225	251	234	246	267	272	0.7
Total OECD	4,028	4,277	4,345	4,474	4,342	4,391	4,464	4,659	0.3
Non-OECD									
Non-OECD Europe and Eurasia ..	1,393	801	828	847	832	894	898	884	0.3
Russia	624	410	441	444	411	444	456	457	0.1
Other	770	392	387	403	421	450	442	426	0.4
Non-OECD Asia	2,517	4,229	4,957	6,510	7,649	8,825	9,815	10,897	3.1
China	1,886	3,117	3,809	5,154	6,129	7,089	7,936	8,880	3.3
India	394	690	741	835	941	1,072	1,186	1,308	2.2
Other Non-OECD Asia	237	422	407	521	580	665	693	708	2.2
Middle East	14	34	35	38	36	38	37	38	0.2
Africa	271	364	376	461	470	492	519	531	1.3
Central and South America	54	76	77	102	112	127	135	150	2.6
Brazil	34	42	43	64	72	81	88	102	3.4
Other Central and South America ..	20	34	34	39	40	46	47	48	1.4
Total Non-OECD	4,248	5,505	6,272	7,959	9,099	10,376	11,403	12,499	2.7
Total World	8,277	9,782	10,617	12,433	13,441	14,767	15,867	17,158	1.9

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington, DC, February 2007), AEO2007 National Energy Modeling System, run LP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

