

High Price Case Projections:

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

Table D1. World Total Primary Energy Consumption by Region, High Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	100.7	120.6	121.3	125.8	129.7	134.7	140.6	147.1	0.8
United States ^a	84.7	100.1	100.1	102.9	105.4	108.8	112.8	117.5	0.6
Canada	11.0	14.0	14.3	15.6	16.3	17.0	17.9	18.8	1.1
Mexico	5.0	6.5	6.9	7.4	8.0	8.9	9.8	10.8	1.8
OECD Europe	70.0	81.0	81.4	83.6	84.4	85.2	87.2	88.9	0.4
OECD Asia	26.8	37.8	38.2	39.2	39.9	40.5	41.5	42.6	0.4
Japan	18.5	22.7	22.6	22.3	22.1	21.9	22.1	22.2	-0.1
South Korea	3.8	9.0	9.3	10.3	11.1	11.7	12.2	12.8	1.3
Australia/New Zealand	4.5	6.1	6.3	6.6	6.7	6.9	7.2	7.6	0.7
Total OECD	197.5	239.4	240.9	248.6	254.1	260.4	269.3	278.6	0.6
Non-OECD									
Non-OECD Europe and Eurasia . . .	67.3	49.5	50.7	54.7	58.1	61.5	64.2	67.0	1.1
Russia	39.4	29.9	30.3	32.5	34.2	35.8	37.1	38.5	1.0
Other	28.0	19.6	20.4	22.3	23.9	25.7	27.2	28.5	1.4
Non-OECD Asia	47.4	101.0	109.9	136.7	159.4	181.3	205.3	227.9	3.0
China	27.0	59.9	67.1	87.1	101.7	116.4	132.7	147.8	3.2
India	7.9	15.5	16.2	19.2	22.5	25.2	28.3	30.9	2.6
Other Non-OECD Asia	12.5	25.6	26.6	30.4	35.2	39.6	44.4	49.3	2.5
Middle East	11.2	20.9	22.9	26.3	29.2	31.5	33.2	34.9	1.7
Africa	9.5	14.0	14.4	16.4	18.3	20.0	21.5	22.9	1.9
Central and South America	14.5	22.5	23.4	27.4	29.4	31.6	33.9	36.3	1.8
Brazil	5.7	9.0	9.3	11.1	12.3	13.5	14.7	16.0	2.2
Other Central and South America . .	8.8	13.5	14.1	16.4	17.1	18.1	19.2	20.2	1.5
Total Non-OECD	149.9	207.9	221.3	261.5	294.5	325.8	358.2	389.1	2.3
Total World	347.4	447.3	462.2	510.2	548.5	586.3	627.5	667.6	1.5

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D2. World Total Energy Consumption by Region and Fuel, High Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America									
Liquids	40.5	48.9	49.1	49.1	49.2	49.3	49.9	51.4	0.2
Natural Gas	23.2	28.1	28.0	29.5	29.8	29.9	30.9	31.1	0.4
Coal	20.6	24.5	24.8	25.3	26.9	29.2	31.3	34.6	1.3
Nuclear.....	6.9	9.3	9.3	9.7	9.9	10.8	11.7	12.5	1.2
Other	9.5	9.8	10.2	12.3	13.9	15.4	16.8	17.5	2.2
Total.....	100.7	120.6	121.3	125.8	129.7	134.7	140.6	147.1	0.8
OECD Europe									
Liquids	28.4	32.0	32.1	31.7	30.6	29.8	29.7	29.7	-0.3
Natural Gas	11.2	19.4	19.9	20.8	22.5	24.2	25.2	26.1	1.1
Coal	17.7	13.3	13.2	13.8	13.6	13.2	12.8	12.4	-0.2
Nuclear.....	7.9	9.9	9.8	10.0	10.3	9.9	10.5	11.2	0.5
Other	4.8	6.3	6.5	7.3	7.4	8.1	8.9	9.5	1.5
Total.....	70.0	81.0	81.4	83.6	84.4	85.2	87.2	88.9	0.4
OECD Asia									
Liquids	14.7	17.3	17.5	17.1	16.5	16.2	16.3	16.3	-0.3
Natural Gas	2.9	5.6	5.6	6.1	6.5	6.7	6.9	6.9	0.9
Coal	5.2	9.2	9.3	9.6	9.6	9.5	9.6	9.9	0.2
Nuclear.....	2.5	4.0	4.2	4.6	5.2	5.9	6.4	7.0	2.0
Other	1.6	1.8	1.6	1.9	2.1	2.2	2.3	2.5	1.8
Total.....	26.8	37.8	38.2	39.2	39.9	40.5	41.5	42.6	0.4
Total OECD									
Liquids	83.6	98.2	98.7	97.8	96.3	95.3	95.9	97.4	-0.1
Natural Gas	37.2	53.1	53.4	56.4	58.8	60.8	63.0	64.2	0.7
Coal	43.5	47.0	47.3	48.7	50.1	51.9	53.8	56.9	0.7
Nuclear.....	17.3	23.1	23.2	24.3	25.4	26.6	28.7	30.7	1.1
Other	15.9	17.9	18.2	21.5	23.4	25.8	28.0	29.4	1.9
Total.....	197.5	239.4	240.9	248.6	254.1	260.4	269.3	278.6	0.6
Non-OECD									
Non-OECD Europe and Eurasia									
Liquids	19.6	9.8	10.0	11.2	11.4	11.7	12.3	12.8	1.0
Natural Gas	27.5	25.1	26.0	27.7	29.3	30.8	31.8	33.1	1.0
Coal	15.1	8.7	8.8	8.9	10.0	10.3	10.4	11.1	0.9
Nuclear.....	2.5	2.9	2.8	3.2	3.7	4.7	5.5	5.8	2.9
Other	2.8	3.0	3.1	3.8	3.9	4.0	4.2	4.3	1.3
Total.....	67.3	49.5	50.7	54.7	58.1	61.5	64.2	67.0	1.1
Non-OECD Asia									
Liquids	14.0	30.5	31.5	37.1	40.0	43.4	47.7	52.0	2.0
Natural Gas	3.0	8.9	9.8	13.0	17.1	21.4	24.7	27.6	4.2
Coal	27.0	54.9	60.9	76.2	89.8	101.2	114.0	126.4	3.0
Nuclear.....	0.4	1.1	1.1	1.8	3.5	5.4	7.0	7.9	8.2
Other	3.0	5.6	6.6	8.5	9.0	9.9	12.0	14.0	3.0
Total.....	47.4	101.0	109.9	136.7	159.4	181.3	205.3	227.9	3.0

See notes at end of table.

Table D2. World Total Energy Consumption by Region and Fuel, High Price Case, 1990-2030 (Continued)
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
Non-OECD (Continued)									
Middle East									
Liquids	7.2	11.3	12.0	13.9	15.0	15.9	16.9	17.9	1.6
Natural Gas	3.8	9.0	10.2	11.6	13.3	14.7	15.4	16.0	1.8
Coal	0.1	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.7
Nuclear.....	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	—
Other	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	2.6
Total.....	11.2	20.9	22.9	26.3	29.2	31.5	33.2	34.9	1.7
Africa									
Liquids	4.3	5.8	6.0	6.9	7.0	7.3	7.6	7.9	1.1
Natural Gas	1.5	2.8	3.2	3.8	4.7	5.8	6.5	7.2	3.3
Coal	3.0	4.3	4.2	4.4	5.1	5.3	5.5	5.5	1.1
Nuclear.....	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	4.5
Other	0.6	0.9	0.9	1.1	1.3	1.4	1.5	1.9	2.9
Total.....	9.5	14.0	14.4	16.4	18.3	20.0	21.5	22.9	1.9
Central and South America									
Liquids	7.8	11.0	11.2	12.7	12.5	12.8	13.3	14.0	0.9
Natural Gas	2.2	4.4	4.7	5.9	6.8	7.5	8.2	8.7	2.5
Coal	0.6	0.8	0.9	1.3	1.6	1.7	1.8	1.8	3.0
Nuclear.....	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	3.3
Other	3.9	6.1	6.4	7.2	8.1	9.2	10.3	11.3	2.3
Total.....	14.5	22.5	23.4	27.4	29.4	31.6	33.9	36.3	1.8
Total Non-OECD									
Liquids	52.9	68.4	70.8	81.9	85.9	91.2	97.8	104.7	1.6
Natural Gas	38.0	50.2	53.9	62.1	71.3	80.1	86.6	92.7	2.2
Coal	45.7	69.1	75.2	91.3	106.9	119.0	132.2	145.3	2.7
Nuclear.....	3.1	4.3	4.2	5.4	7.8	10.8	13.3	14.6	5.1
Other	10.3	15.9	17.2	20.9	22.5	24.8	28.3	31.8	2.5
Total.....	149.9	207.9	221.3	261.5	294.5	325.8	358.2	389.1	2.3
Total World									
Liquids	136.4	166.6	169.4	179.7	182.2	186.4	193.7	202.1	0.7
Natural Gas	75.2	103.3	107.4	118.5	130.1	141.0	149.6	156.8	1.5
Coal	89.2	116.1	122.5	139.9	157.1	170.9	185.9	202.2	2.0
Nuclear.....	20.4	27.4	27.5	29.7	33.2	37.4	42.0	45.2	2.0
Other	26.2	33.8	35.5	42.4	45.9	50.6	56.3	61.3	2.2
Total.....	347.4	447.3	462.2	510.2	548.5	586.3	627.5	667.6	1.5

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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D3. World Gross Domestic Product (GDP) by Region Expressed in Purchasing Power Parity, High Price Case, 1990-2030
(Billion 2000 Dollars)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	8,477	12,696	13,083	14,885	16,942	19,317	21,977	24,835	2.6
United States ^a	7,113	10,676	11,004	12,426	14,060	15,947	18,047	20,284	2.5
Canada	684	1,004	1,034	1,187	1,341	1,497	1,669	1,858	2.4
Mexico	680	1,016	1,045	1,272	1,541	1,873	2,261	2,693	3.9
OECD Europe	8,067	11,197	11,445	13,140	14,626	16,240	18,031	20,007	2.3
OECD Asia	3,621	4,775	4,887	5,559	6,113	6,589	7,117	7,666	1.8
Japan	2,862	3,377	3,440	3,783	4,009	4,158	4,306	4,448	1.0
South Korea	331	715	745	962	1,157	1,332	1,536	1,742	3.5
Australia/New Zealand	429	683	702	814	947	1,099	1,276	1,476	3.0
Total OECD	20,165	28,667	29,415	33,584	37,681	42,146	47,125	52,508	2.3
Non-OECD									
Non-OECD Europe and Eurasia	3,601	3,340	3,563	4,986	6,280	7,496	8,849	10,378	4.4
Russia	2,241	1,907	2,029	2,757	3,460	4,050	4,695	5,420	4.0
Other	1,360	1,433	1,534	2,229	2,820	3,446	4,154	4,959	4.8
Non-OECD Asia	5,792	15,102	16,436	24,750	33,027	42,474	53,741	66,773	5.8
China	1,805	6,961	7,685	12,488	16,940	22,206	28,625	35,869	6.4
India	1,697	3,714	4,056	6,084	8,345	10,697	13,369	16,465	5.8
Other Non-OECD Asia	2,291	4,428	4,695	6,179	7,742	9,571	11,747	14,440	4.6
Middle East	820	1,466	1,550	1,968	2,501	2,987	3,527	4,182	4.1
Africa	1,450	2,182	2,295	3,012	3,777	4,625	5,644	6,874	4.5
Central and South America	2,162	3,372	3,535	4,510	5,399	6,432	7,717	9,213	3.9
Brazil	1,022	1,581	1,627	2,011	2,382	2,807	3,309	3,888	3.5
Other Central and South America	1,140	1,791	1,908	2,499	3,017	3,625	4,408	5,325	4.2
Total Non-OECD	13,824	25,462	27,378	39,226	50,983	64,014	79,478	97,420	5.2
Total World	33,989	54,129	56,793	72,810	88,664	106,160	126,603	149,928	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 China and India were adjusted, based on the analyst's judgment.

Sources: **History:** Global Insight, Inc., Global Scenario Model (February 2008). **Projections:** Global Insight, Inc., *World Overview*, Fourth Quarter 2007 (Lexington, MA, January 2008); and Energy Information Administration, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington DC, June 2008), Table B4.

Table D4. World Liquids Consumption by Region, High Price Case, 1990-2030
(Million Barrels Oil Equivalent per Day)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	20.5	25.0	25.2	25.1	25.1	25.1	25.4	26.1	0.1
United States ^a	17.0	20.7	20.8	20.6	20.6	20.5	20.6	21.1	0.1
Canada	1.7	2.3	2.3	2.4	2.3	2.3	2.3	2.3	0.1
Mexico	1.8	2.0	2.1	2.1	2.2	2.4	2.5	2.7	1.0
OECD Europe	13.7	15.5	15.5	15.3	14.8	14.4	14.4	14.4	-0.3
OECD Asia	7.2	8.5	8.6	8.4	8.1	7.9	8.0	8.0	-0.3
Japan	5.3	5.3	5.4	4.9	4.6	4.4	4.3	4.3	-0.9
South Korea	1.0	2.2	2.2	2.4	2.4	2.4	2.5	2.5	0.6
Australia/New Zealand	0.8	1.0	1.1	1.1	1.1	1.1	1.2	1.2	0.5
Total OECD	41.4	49.0	49.3	48.8	48.0	47.5	47.8	48.5	-0.1
Non-OECD									
Non-OECD Europe and Eurasia . . .	9.4	4.8	4.8	5.4	5.5	5.7	6.0	6.2	1.0
Russia	5.4	2.8	2.8	3.0	3.0	3.0	3.1	3.1	0.5
Other	3.9	2.0	2.1	2.4	2.5	2.6	2.9	3.1	1.6
Non-OECD Asia	6.6	14.8	15.3	18.0	19.4	21.0	23.1	25.2	2.0
China	2.3	6.4	6.7	8.7	9.2	10.1	11.3	12.5	2.5
India	1.2	2.4	2.4	2.7	3.0	3.2	3.5	3.7	1.7
Other Non-OECD Asia	3.1	6.0	6.1	6.6	7.2	7.6	8.2	8.9	1.5
Middle East	3.5	5.5	5.9	6.8	7.3	7.8	8.2	8.7	1.6
Africa	2.1	2.8	2.9	3.4	3.4	3.6	3.7	3.9	1.1
Central and South America	3.8	5.4	5.5	6.2	6.1	6.2	6.5	6.8	0.9
Brazil	1.5	2.1	2.2	2.5	2.4	2.5	2.6	2.8	1.0
Other Central and South America . .	2.3	3.2	3.3	3.7	3.6	3.7	3.9	4.1	0.8
Total Non-OECD	25.3	33.3	34.3	39.7	41.7	44.2	47.5	50.8	1.6
Total World	66.6	82.3	83.6	88.6	89.7	91.7	95.2	99.3	0.7

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D5. World Natural Gas Consumption by Region, High Price Case, 1990-2030
(Trillion Cubic Feet)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	22.5	27.4	27.4	28.6	29.1	29.3	30.2	30.4	0.4
United States ^a	19.2	22.4	22.2	23.0	23.0	22.3	22.4	21.9	-0.1
Canada	2.4	3.3	3.4	3.6	3.8	4.1	4.4	4.6	1.2
Mexico	0.9	1.7	1.7	2.0	2.3	2.8	3.4	3.9	3.2
OECD Europe	11.6	18.9	19.3	20.2	21.9	23.5	24.5	25.4	1.1
OECD Asia	2.8	5.2	5.2	5.7	6.1	6.3	6.5	6.5	0.9
Japan	1.9	3.1	3.1	3.3	3.4	3.5	3.4	3.4	0.4
South Korea	0.1	1.0	1.1	1.3	1.5	1.6	1.6	1.7	1.8
Australia/New Zealand	0.8	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.2
Total OECD	36.8	51.6	51.9	54.5	57.1	59.0	61.1	62.3	0.7
Non-OECD									
Non-OECD Europe and Eurasia . . .	26.7	24.4	25.3	27.0	28.4	29.9	30.9	32.1	1.0
Russia	17.3	16.0	16.2	17.1	18.0	18.6	19.1	19.7	0.8
Other	9.5	8.4	9.1	9.9	10.4	11.3	11.8	12.4	1.2
Non-OECD Asia	2.9	8.5	9.3	12.4	16.2	20.3	23.5	26.3	4.2
China	0.5	1.4	1.7	2.6	3.7	4.7	5.4	6.0	5.3
India	0.4	1.1	1.3	1.8	2.3	2.7	3.3	3.6	4.3
Other Non-OECD Asia	2.0	6.1	6.4	8.0	10.3	12.9	14.8	16.6	3.9
Middle East	3.6	8.6	9.8	11.1	12.7	14.0	14.7	15.3	1.8
Africa	1.4	2.6	3.0	3.5	4.4	5.4	6.1	6.7	3.3
Central and South America	2.0	4.1	4.4	5.5	6.4	7.0	7.6	8.1	2.5
Brazil	0.1	0.6	0.7	1.0	1.2	1.3	1.4	1.6	3.5
Other Central and South America . .	1.9	3.5	3.7	4.6	5.2	5.7	6.2	6.6	2.3
Total Non-OECD	36.5	48.2	51.8	59.5	68.2	76.6	82.8	88.5	2.2
Total World	73.4	99.8	103.7	114.0	125.3	135.7	143.9	150.8	1.5

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D6. World Coal Consumption by Region, High Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	20.6	24.5	24.8	25.3	26.9	29.2	31.3	34.6	1.3
United States ^a	19.2	22.6	22.8	23.0	24.6	26.8	28.8	32.1	1.4
Canada	1.2	1.6	1.7	1.8	1.8	1.9	1.9	1.9	0.6
Mexico	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	1.3
OECD Europe	17.7	13.3	13.2	13.8	13.6	13.2	12.8	12.4	-0.2
OECD Asia	5.2	9.2	9.3	9.6	9.6	9.5	9.6	9.9	0.2
Japan	2.7	4.8	4.6	4.5	4.4	4.3	4.2	4.1	-0.5
South Korea	1.0	2.1	2.1	2.4	2.5	2.5	2.6	2.8	1.1
Australia/New Zealand	1.5	2.4	2.6	2.6	2.7	2.8	2.9	3.0	0.5
Total OECD	43.5	47.0	47.3	48.7	50.1	51.9	53.8	56.9	0.7
Non-OECD									
Non-OECD Europe and Eurasia ..	15.1	8.7	8.8	8.9	10.0	10.3	10.4	11.1	0.9
Russia	7.2	4.6	4.8	4.8	5.0	5.3	5.2	5.7	0.7
Other	7.9	4.1	4.0	4.1	4.9	5.0	5.2	5.4	1.2
Non-OECD Asia	27.0	54.9	60.9	76.2	89.8	101.2	114.0	126.4	3.0
China	20.3	41.4	46.9	60.2	71.3	81.4	92.0	101.8	3.1
India	4.2	8.4	8.6	9.9	11.5	12.7	13.9	15.3	2.3
Other Non-OECD Asia	2.6	5.1	5.3	6.1	7.0	7.1	8.1	9.2	2.2
Middle East	0.1	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.7
Africa	3.0	4.3	4.2	4.4	5.1	5.3	5.5	5.5	1.1
Central and South America	0.6	0.8	0.9	1.3	1.6	1.7	1.8	1.8	3.0
Brazil	0.3	0.5	0.4	0.8	1.0	1.0	1.1	1.2	4.0
Other Central and South America ..	0.2	0.4	0.4	0.5	0.7	0.7	0.7	0.7	1.8
Total Non-OECD	45.7	69.1	75.2	91.3	106.9	119.0	132.2	145.3	2.7
Total World	89.2	116.1	122.5	139.9	157.1	170.9	185.9	202.2	2.0

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D7. World Nuclear Energy Consumption by Region, High Price Case, 1990-2030
(Billion Kilowatthours)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	649	883	880	921	938	1,030	1,114	1,188	1.2
United States ^a	577	789	782	797	807	888	960	1,022	1.1
Canada	69	86	87	112	118	127	137	148	2.1
Mexico	3	9	10	12	14	15	17	18	2.3
OECD Europe	743	941	929	953	977	940	1,001	1,062	0.5
OECD Asia	242	392	418	453	518	583	635	692	2.0
Japan	192	268	278	307	334	359	389	422	1.7
South Korea	50	124	139	146	184	225	245	269	2.7
Australia/New Zealand	0	0	0	0	0	0	0	0	—
Total OECD	1,635	2,216	2,227	2,326	2,432	2,553	2,750	2,942	1.1
Non-OECD									
Non-OECD Europe and Eurasia ..	219	263	264	295	340	434	510	534	2.9
Russia	115	137	140	158	198	251	316	336	3.6
Other	104	125	124	137	142	183	194	198	1.9
Non-OECD Asia	38	103	106	171	336	511	660	751	8.1
China	0	48	50	80	193	311	409	483	9.5
India	6	15	16	43	76	121	156	176	10.1
Other Non-OECD Asia	32	40	40	48	66	79	95	92	3.3
Middle East	0	0	0	0	8	10	11	12	—
Africa	8	14	12	17	22	25	34	37	4.5
Central and South America	9	19	16	23	30	36	37	37	3.4
Brazil	2	12	10	15	19	23	24	25	3.7
Other Central and South America ..	7	7	6	8	11	13	12	13	2.8
Total Non-OECD	274	399	399	506	735	1,015	1,252	1,372	5.1
Total World	1,909	2,615	2,626	2,832	3,167	3,568	4,002	4,313	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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D8. World Consumption of Hydroelectricity and Other Renewable Energy by Region, High Price Case, 1990-2030
(Quadrillion Btu)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	9.5	9.8	10.2	12.3	13.9	15.4	16.8	17.5	2.2
United States ^a	6.1	6.0	6.0	7.6	8.7	9.8	10.7	11.1	2.4
Canada	3.1	3.5	3.7	4.1	4.6	5.1	5.4	5.8	1.8
Mexico	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	1.7
OECD Europe	4.8	6.3	6.5	7.3	7.4	8.1	8.9	9.5	1.5
OECD Asia	1.6	1.8	1.6	1.9	2.1	2.2	2.3	2.5	1.8
Japan	1.1	1.2	1.0	1.2	1.3	1.4	1.5	1.6	1.7
South Korea	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	7.9
Australia/New Zealand	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.9
Total OECD	15.9	17.9	18.2	21.5	23.4	25.8	28.0	29.4	1.9
Non-OECD									
Non-OECD Europe and Eurasia ..	2.8	3.0	3.1	3.8	3.9	4.0	4.2	4.3	1.3
Russia	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4	1.3
Other	1.0	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.3
Non-OECD Asia	3.0	5.6	6.6	8.5	9.0	9.9	12.0	14.0	3.0
China	1.3	3.3	4.0	5.2	5.4	5.7	7.1	8.5	3.0
India	0.7	0.9	1.1	1.5	1.6	1.6	1.8	2.0	2.6
Other Non-OECD Asia	0.9	1.4	1.6	1.8	2.1	2.5	3.0	3.5	3.3
Middle East	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	2.6
Africa	0.6	0.9	0.9	1.1	1.3	1.4	1.5	1.9	2.9
Central and South America	3.9	6.1	6.4	7.2	8.1	9.2	10.3	11.3	2.3
Brazil	2.2	3.4	3.5	4.0	4.9	5.7	6.5	7.3	3.0
Other Central and South America ..	1.7	2.8	2.9	3.2	3.2	3.5	3.8	4.0	1.3
Total Non-OECD	10.3	15.9	17.2	20.9	22.5	24.8	28.3	31.8	2.5
Total World	26.2	33.8	35.5	42.4	45.9	50.6	56.3	61.3	2.2

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D9. World Carbon Dioxide Emissions by Region, High Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	5,754	6,959	7,008	7,067	7,228	7,447	7,714	8,133	0.6
United States ^a	4,989	5,957	5,982	5,983	6,102	6,259	6,451	6,799	0.5
Canada	465	623	628	660	666	681	705	725	0.6
Mexico	300	379	398	423	461	507	558	609	1.7
OECD Europe	4,101	4,373	4,383	4,469	4,474	4,468	4,485	4,496	0.1
OECD Asia	1,541	2,148	2,174	2,195	2,186	2,172	2,195	2,223	0.1
Japan	1,009	1,242	1,230	1,186	1,142	1,109	1,093	1,072	-0.6
South Korea	241	488	500	558	582	586	604	631	0.9
Australia/New Zealand	291	418	444	451	462	477	498	520	0.6
Total OECD	11,396	13,480	13,565	13,731	13,887	14,088	14,394	14,852	0.4
Non-OECD									
Non-OECD Europe and Eurasia	4,198	2,797	2,865	3,041	3,236	3,373	3,478	3,641	1.0
Russia	2,376	1,669	1,696	1,773	1,853	1,913	1,940	2,022	0.7
Other	1,822	1,128	1,169	1,268	1,383	1,460	1,538	1,619	1.3
Non-OECD Asia	3,613	7,517	8,177	10,134	11,791	13,290	14,924	16,504	2.8
China	2,241	4,753	5,323	6,868	8,024	9,138	10,319	11,424	3.1
India	565	1,127	1,164	1,336	1,550	1,714	1,893	2,068	2.3
Other Non-OECD Asia	807	1,637	1,690	1,930	2,217	2,437	2,712	3,012	2.3
Middle East	700	1,290	1,400	1,615	1,783	1,915	2,015	2,119	1.7
Africa	649	943	966	1,083	1,199	1,296	1,375	1,436	1.6
Central and South America	669	1,042	1,078	1,286	1,345	1,406	1,486	1,564	1.5
Brazil	216	350	356	446	467	494	520	551	1.8
Other Central and South America	453	692	722	840	877	913	966	1,012	1.4
Total Non-OECD	9,830	13,589	14,486	17,158	19,354	21,280	23,277	25,264	2.2
Total World	21,226	27,070	28,051	30,890	33,241	35,368	37,671	40,116	1.4

^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 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D10. World Carbon Dioxide Emissions from Liquids Use by Region, High Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	2,633	3,142	3,169	3,110	3,111	3,105	3,123	3,220	0.1
United States ^a	2,178	2,597	2,615	2,538	2,534	2,516	2,510	2,582	-0.1
Canada	224	291	290	302	289	287	291	297	0.1
Mexico	231	254	264	270	287	302	321	341	1.0
OECD Europe	1,867	2,097	2,103	2,078	2,005	1,952	1,948	1,949	-0.3
OECD Asia	914	1,016	1,028	999	966	947	952	956	-0.3
Japan	661	636	643	594	556	531	522	512	-0.9
South Korea	144	238	240	260	261	265	273	280	0.6
Australia/New Zealand	110	142	144	145	149	151	157	164	0.5
Total OECD	5,414	6,255	6,300	6,187	6,082	6,004	6,023	6,125	-0.1
Non-OECD									
Non-OECD Europe and Eurasia	1,355	666	673	759	770	797	835	872	1.0
Russia	783	379	379	413	416	421	428	433	0.5
Other	572	287	294	346	354	376	407	438	1.6
Non-OECD Asia	950	1,979	2,037	2,404	2,589	2,806	3,085	3,363	2.0
China	325	843	880	1,145	1,204	1,329	1,487	1,647	2.5
India	160	302	303	334	376	403	442	467	1.7
Other Non-OECD Asia	464	833	854	926	1,009	1,074	1,155	1,250	1.5
Middle East	488	780	824	959	1,035	1,097	1,160	1,232	1.6
Africa	298	400	413	478	485	507	526	549	1.1
Central and South America	503	734	749	850	834	854	891	934	0.9
Brazil	180	274	279	317	316	328	341	357	1.0
Other Central and South America	323	460	470	533	519	526	550	578	0.8
Total Non-OECD	3,594	4,558	4,697	5,449	5,713	6,060	6,497	6,950	1.6
Total World	9,009	10,813	10,996	11,637	11,795	12,064	12,520	13,075	0.7

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D11. World Carbon Dioxide Emissions from Natural Gas Use by Region, High Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	1,207	1,471	1,476	1,550	1,556	1,565	1,616	1,629	0.4
United States ^a	1,026	1,194	1,193	1,245	1,219	1,183	1,189	1,160	-0.1
Canada	127	181	185	193	207	222	237	250	1.2
Mexico	54	97	99	112	130	160	189	219	3.2
OECD Europe	590	1,027	1,048	1,098	1,188	1,276	1,330	1,379	1.1
OECD Asia	152	293	294	321	345	355	363	366	0.9
Japan	102	173	170	180	188	191	190	186	0.4
South Korea	6	60	63	77	90	92	96	98	1.8
Australia/New Zealand	44	60	61	64	67	71	77	82	1.2
Total OECD	1,949	2,791	2,819	2,968	3,089	3,195	3,309	3,375	0.7
Non-OECD									
Non-OECD Europe and Eurasia ..	1,450	1,328	1,375	1,464	1,546	1,626	1,681	1,747	1.0
Russia	928	868	875	924	975	1,008	1,034	1,070	0.8
Other	521	460	500	541	570	619	646	677	1.2
Non-OECD Asia	160	469	516	688	902	1,130	1,305	1,460	4.2
China	30	83	101	162	225	287	330	366	5.3
India	24	59	69	97	124	149	179	199	4.3
Other Non-OECD Asia	106	327	345	429	553	694	795	895	3.9
Middle East	199	476	541	614	704	775	811	845	1.8
Africa	80	149	167	200	250	306	345	381	3.3
Central and South America	116	231	249	313	361	394	431	459	2.5
Brazil	6	33	36	53	64	69	77	86	3.5
Other Central and South America ..	110	197	213	259	297	325	354	373	2.3
Total Non-OECD	2,005	2,651	2,847	3,278	3,763	4,231	4,572	4,891	2.2
Total World	3,954	5,443	5,666	6,247	6,852	7,426	7,882	8,266	1.5

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).

Table D12. World Carbon Dioxide Emissions from Coal Use by Region, High Price Case, 1990-2030
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections					Average Annual Percent Change, 2005-2030
	1990	2004	2005	2010	2015	2020	2025	2030	
OECD									
OECD North America	1,913	2,333	2,351	2,395	2,549	2,765	2,964	3,272	1.3
United States ^a	1,784	2,155	2,162	2,188	2,337	2,548	2,739	3,045	1.4
Canada	114	151	153	166	169	172	176	178	0.6
Mexico	15	28	35	42	44	45	48	48	1.3
OECD Europe	1,644	1,250	1,232	1,293	1,280	1,240	1,207	1,168	-0.2
OECD Asia	475	840	853	876	875	871	879	901	0.2
Japan	246	433	417	412	398	387	381	373	-0.4
South Korea	91	190	196	221	231	229	235	253	1.0
Australia/New Zealand	138	217	239	243	246	254	264	275	0.6
Total OECD	4,032	4,423	4,435	4,564	4,704	4,877	5,049	5,341	0.7
Non-OECD									
Non-OECD Europe and Eurasia	1,393	804	817	818	920	950	963	1,022	0.9
Russia	665	422	442	437	462	485	478	519	0.6
Other	729	381	376	381	459	465	485	503	1.2
Non-OECD Asia	2,503	5,070	5,624	7,041	8,300	9,353	10,534	11,681	3.0
China	1,886	3,827	4,341	5,560	6,594	7,522	8,502	9,412	3.1
India	380	765	791	906	1,050	1,162	1,271	1,402	2.3
Other Non-OECD Asia	237	477	492	575	655	670	761	867	2.3
Middle East	13	35	35	43	44	44	43	43	0.8
Africa	271	394	386	405	464	484	504	506	1.1
Central and South America	50	78	81	124	150	159	164	170	3.0
Brazil	30	43	41	76	88	97	102	109	4.0
Other Central and South America	20	35	40	48	61	62	62	61	1.8
Total Non-OECD	4,231	6,380	6,943	8,431	9,877	10,989	12,208	13,422	2.7
Total World	8,263	10,803	11,378	12,995	14,582	15,866	17,257	18,763	2.0

^aIncludes the 50 States and the District of Columbia.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2005* (June-October 2007), web site www.eia.doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2008*, DOE/EIA-0383(2008) (Washington, DC, June 2008), AEO2008 National Energy Modeling System, run HP2008.D031808A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projection System (2008).