Appendix D

High World Oil Price Case Projections:

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

Table D1. World Total Primary Energy Consumption by Region, High 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**	**129.3**	**134.8**	**142.7**	**149.9**	**157.6**	**1.0**
United States[a]	84.7	98.3	100.7	105.5	109.9	115.8	121.6	127.7	0.9
Canada	11.1	13.5	13.6	15.6	16.0	17.0	17.6	18.3	1.1
Mexico	5.0	6.5	6.6	8.2	8.9	10.0	10.7	11.6	2.2
OECD Europe	**69.9**	**79.5**	**81.1**	**83.6**	**84.1**	**85.3**	**86.2**	**86.9**	**0.3**
OECD Asia	**26.6**	**36.9**	**37.8**	**39.4**	**40.5**	**42.4**	**43.8**	**45.3**	**0.7**
Japan	18.4	22.2	22.6	23.2	23.2	23.7	24.0	24.3	0.3
South Korea	3.8	8.7	9.0	9.4	10.2	11.2	11.9	12.8	1.4
Australia/New Zealand	4.4	6.0	6.2	6.8	7.1	7.6	8.0	8.2	1.1
Total OECD	**197.4**	**234.7**	**239.8**	**252.3**	**259.4**	**270.4**	**279.9**	**289.8**	**0.7**
Non-OECD									
Non-OECD Europe and Eurasia	**67.2**	**47.9**	**49.7**	**55.2**	**60.7**	**67.0**	**70.3**	**72.1**	**1.4**
Russia	39.0	28.8	30.1	33.2	36.3	39.4	41.3	42.2	1.3
Other	28.3	19.2	19.6	22.0	24.4	27.6	29.0	29.9	1.6
Non-OECD Asia	**47.5**	**88.2**	**99.9**	**129.4**	**149.6**	**174.2**	**197.0**	**219.7**	**3.1**
China	27.0	49.7	59.6	81.6	94.0	110.1	125.1	140.8	3.4
India	8.0	14.4	15.4	17.9	20.8	24.3	27.7	30.8	2.7
Other Non-OECD Asia	12.5	24.0	24.9	29.9	34.8	39.9	44.2	48.2	2.6
Middle East	**11.3**	**19.9**	**21.1**	**26.6**	**29.9**	**32.9**	**34.9**	**36.9**	**2.2**
Africa	**9.5**	**13.3**	**13.7**	**16.7**	**18.5**	**20.6**	**22.4**	**23.9**	**2.2**
Central and South America	**14.5**	**21.7**	**22.5**	**27.3**	**30.5**	**33.8**	**36.7**	**39.5**	**2.2**
Brazil	5.8	8.7	9.1	11.0	12.2	13.5	14.7	16.2	2.3
Other Central and South America	8.8	13.0	13.5	16.3	18.3	20.4	22.0	23.2	2.1
Total Non-OECD	**150.0**	**191.0**	**206.9**	**255.2**	**289.1**	**328.5**	**361.3**	**392.1**	**2.5**
Total World	**347.3**	**425.7**	**446.7**	**507.4**	**548.5**	**598.9**	**641.3**	**681.9**	**1.6**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D2. World Total Energy Consumption by Region and Fuel, High 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	49.8	50.4	52.0	54.1	56.6	0.5
Natural Gas	23.2	28.5	28.5	30.7	32.3	33.8	34.2	34.8	0.8
Coal	20.7	24.1	24.1	26.7	29.1	32.2	35.7	39.4	1.9
Nuclear	6.9	8.9	9.3	9.7	10.0	10.9	11.6	11.9	1.0
Other	9.5	9.8	9.9	12.4	13.0	13.8	14.3	14.8	1.6
Total	**100.8**	**118.3**	**120.9**	**129.3**	**134.8**	**142.7**	**149.9**	**157.6**	**1.0**
OECD Europe									
Liquids	28.4	31.9	32.4	30.6	28.5	27.9	28.2	28.3	-0.5
Natural Gas	11.2	18.6	19.3	21.9	23.4	25.6	26.3	26.7	1.3
Coal	17.6	13.2	13.1	13.9	14.7	14.5	14.2	14.3	0.3
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	7.1	7.5	8.0	8.1	8.2	1.0
Total	**69.9**	**79.5**	**81.1**	**83.6**	**84.1**	**85.3**	**86.2**	**86.9**	**0.3**
OECD Asia									
Liquids	14.5	17.7	17.4	16.6	15.8	15.7	16.2	16.5	-0.2
Natural Gas	2.9	5.3	5.3	6.1	6.3	6.9	7.0	7.2	1.2
Coal	5.2	8.6	9.3	10.2	11.0	11.5	11.9	12.2	1.0
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	2.1	2.3	2.3	2.4	1.3
Total	**26.6**	**36.9**	**37.8**	**39.4**	**40.5**	**42.4**	**43.8**	**45.3**	**0.7**
Total OECD									
Liquids	83.4	96.7	98.9	96.9	94.7	95.6	98.6	101.4	0.1
Natural Gas	37.2	52.4	53.1	58.7	62.0	66.4	67.6	68.8	1.0
Coal	43.5	45.9	46.6	50.8	54.8	58.3	61.8	66.0	1.3
Nuclear	17.3	22.2	23.2	24.5	25.3	26.2	27.2	28.3	0.8
Other	15.9	17.5	17.9	21.4	22.6	24.0	24.7	25.4	1.4
Total	**197.4**	**234.7**	**239.8**	**252.3**	**259.4**	**270.4**	**279.9**	**289.8**	**0.7**
Non-OECD									
Non-OECD Europe and Eurasia									
Liquids	19.5	9.4	9.9	10.2	10.1	10.3	10.9	11.3	0.5
Natural Gas	27.5	24.2	25.1	27.8	30.2	33.6	34.6	35.7	1.4
Coal	15.1	8.7	9.0	10.4	12.5	13.9	14.4	14.6	1.9
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	3.7	4.2	4.6	4.8	5.0	2.1
Total	**67.2**	**47.9**	**49.7**	**55.2**	**60.7**	**67.0**	**70.3**	**72.1**	**1.4**
Non-OECD Asia									
Liquids	13.9	28.1	30.6	37.0	39.0	42.4	47.8	53.4	2.2
Natural Gas	3.0	8.1	8.9	13.1	16.4	20.9	24.4	28.1	4.5
Coal	27.2	45.8	53.6	70.5	83.0	97.0	108.7	120.4	3.2
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	8.2	9.7	10.7	11.6	2.8
Total	**47.5**	**88.2**	**99.9**	**129.4**	**149.6**	**174.2**	**197.0**	**219.7**	**3.1**

See notes at end of table.

Table D2. World Total Energy Consumption by Region and Fuel, High 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	14.4	15.0	15.4	16.8	18.1	1.7
Natural Gas	3.8	8.4	9.0	11.4	13.8	16.3	16.8	17.6	2.6
Coal	0.1	0.4	0.4	0.6	0.8	0.9	0.9	0.9	3.2
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	2.8
Total	**11.3**	**19.9**	**21.1**	**26.6**	**29.9**	**32.9**	**34.9**	**36.9**	**2.2**
Africa									
Liquids	4.3	5.6	5.7	6.5	6.9	7.5	8.1	8.6	1.6
Natural Gas	1.5	2.7	2.8	3.5	4.0	4.8	5.5	6.1	3.0
Coal	3.0	4.0	4.1	5.5	6.3	6.8	7.3	7.6	2.4
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	1.2	1.3	1.3	1.4	1.6
Total	**9.5**	**13.3**	**13.7**	**16.7**	**18.5**	**20.6**	**22.4**	**23.9**	**2.2**
Central and South America									
Liquids	7.8	11.1	11.5	12.8	13.4	14.4	16.0	17.2	1.6
Natural Gas	2.2	4.0	4.4	5.6	6.8	7.7	8.3	8.7	2.7
Coal	0.6	0.8	0.8	1.2	1.4	1.5	1.6	1.8	3.1
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	7.5	8.6	9.7	10.5	11.3	2.7
Total	**14.5**	**21.7**	**22.5**	**27.3**	**30.5**	**33.8**	**36.7**	**39.5**	**2.2**
Total Non-OECD									
Liquids	52.7	65.2	69.3	80.9	84.4	90.1	99.6	108.7	1.7
Natural Gas	38.0	47.4	50.3	61.4	71.2	83.3	89.5	96.2	2.5
Coal	45.9	59.7	67.9	88.0	103.9	119.9	132.9	145.3	3.0
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	19.6	22.4	25.5	27.6	29.5	2.6
Total	**150.0**	**191.1**	**206.9**	**255.2**	**289.1**	**328.5**	**361.3**	**392.1**	**2.5**
Total World									
Liquids	136.2	161.9	168.2	177.8	179.1	185.7	198.2	210.1	0.9
Natural Gas	75.2	99.8	103.4	120.1	133.2	149.6	157.1	165.0	1.8
Coal	89.4	105.6	114.5	138.8	158.7	178.2	194.7	211.3	2.4
Nuclear	20.4	26.4	27.5	29.8	32.6	35.8	38.9	40.7	1.5
Other	26.2	32.1	33.2	41.0	45.0	49.5	52.3	54.9	2.0
Total	**347.3**	**425.7**	**446.7**	**507.4**	**548.5**	**598.9**	**641.3**	**681.9**	**1.6**

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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D3. World Gross Domestic Product (GDP) by Region Expressed in Purchasing Power Parity, High 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**	**15,160**	**17,372**	**20,309**	**23,458**	**26,862**	**2.9**
United States[a]	7,113	10,301	10,704	12,707	14,544	17,024	19,658	22,476	2.9
Canada	684	973	1,005	1,190	1,339	1,490	1,651	1,829	2.3
Mexico	680	975	1,016	1,262	1,489	1,795	2,149	2,557	3.6
OECD Europe	**8,067**	**10,850**	**11,132**	**12,832**	**14,251**	**16,049**	**17,894**	**19,894**	**2.3**
OECD Asia	**3,621**	**4,630**	**4,761**	**5,528**	**6,040**	**6,611**	**7,126**	**7,659**	**1.8**
Japan	2,862	3,289	3,363	3,774	3,977	4,190	4,337	4,467	1.1
South Korea	331	683	715	958	1,151	1,352	1,550	1,761	3.5
Australia/New Zealand	429	658	682	796	912	1,069	1,240	1,431	2.9
Total OECD	**20,165**	**27,730**	**28,619**	**33,520**	**37,663**	**42,969**	**48,478**	**54,415**	**2.5**
Non-OECD									
Non-OECD Europe and Eurasia	**3,601**	**3,081**	**3,332**	**4,762**	**5,866**	**7,037**	**8,356**	**9,880**	**4.3**
Russia	2,241	1,780	1,907	2,626	3,156	3,682	4,282	4,955	3.7
Other	1,360	1,301	1,425	2,136	2,709	3,354	4,074	4,925	4.9
Non-OECD Asia	**5,995**	**14,573**	**15,841**	**24,585**	**32,501**	**42,873**	**54,878**	**69,385**	**5.8**
China	2,002	7,013	7,722	12,928	17,638	23,872	31,004	39,547	6.5
India	1,703	3,434	3,727	5,629	7,339	9,599	12,279	15,587	5.7
Other Non-OECD Asia	2,291	4,125	4,393	6,028	7,523	9,402	11,595	14,251	4.6
Middle East	**820**	**1,364**	**1,453**	**1,989**	**2,483**	**2,947**	**3,521**	**4,240**	**4.2**
Africa	**1,450**	**2,056**	**2,161**	**2,927**	**3,699**	**4,708**	**5,920**	**7,400**	**4.8**
Central and South America	**2,191**	**3,110**	**3,297**	**4,262**	**5,103**	**6,183**	**7,423**	**8,860**	**3.9**
Brazil	1,022	1,378	1,446	1,774	2,092	2,480	2,921	3,427	3.4
Other Central and South America	1,169	1,733	1,852	2,488	3,011	3,703	4,502	5,433	4.2
Total Non-OECD	**14,057**	**24,184**	**26,085**	**38,524**	**49,652**	**63,749**	**80,098**	**99,766**	**5.3**
Total World	**34,222**	**51,914**	**54,704**	**72,044**	**87,315**	**106,718**	**128,575**	**154,181**	**4.1**

[a]Includes 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., Global Scenario Model (February 2007). **Projections:** Global Insight, Inc., *World Overview*, Fourth Quarter 2006 (Lexington, MA, January 2007); and Energy Information Administration, *Annual Energy Outlook 2007*, DOE/EIA-0383(2007) (Washington DC, February 2007), Table B4.

Table D4. World Liquids Consumption by Region, High 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**	**25.4**	**25.8**	**26.5**	**27.6**	**28.7**	**0.5**
United States[a]	17.0	20.0	20.7	21.1	21.6	22.3	23.2	24.1	0.6
Canada	1.7	2.2	2.3	2.2	2.1	2.0	2.1	2.1	-0.4
Mexico	1.8	1.9	2.0	2.1	2.1	2.2	2.4	2.5	1.0
OECD Europe	**13.7**	**15.4**	**15.6**	**14.8**	**13.8**	**13.5**	**13.6**	**13.7**	**-0.5**
OECD Asia	**7.1**	**8.7**	**8.5**	**8.1**	**7.7**	**7.7**	**8.0**	**8.1**	**-0.2**
Japan	5.2	5.5	5.4	5.0	4.6	4.5	4.6	4.6	-0.6
South Korea	1.0	2.2	2.1	2.1	2.2	2.2	2.3	2.4	0.5
Australia/New Zealand	0.8	1.0	1.0	1.0	1.0	1.0	1.1	1.1	0.3
Total OECD	**41.3**	**48.3**	**49.1**	**48.3**	**47.3**	**47.7**	**49.2**	**50.5**	**0.1**
Non-OECD									
Non-OECD Europe and Eurasia	**9.3**	**4.6**	**4.8**	**4.9**	**4.9**	**5.0**	**5.3**	**5.5**	**0.5**
Russia	5.4	2.7	2.8	2.8	2.7	2.7	2.9	2.9	0.2
Other	3.9	1.9	2.0	2.2	2.2	2.3	2.4	2.6	0.9
Non-OECD Asia	**6.6**	**13.6**	**14.8**	**18.0**	**18.9**	**20.5**	**23.2**	**25.9**	**2.2**
China	2.3	5.6	6.4	9.0	9.3	10.3	11.8	13.6	2.9
India	1.2	2.3	2.5	2.6	2.9	3.1	3.5	3.8	1.7
Other Non-OECD Asia	3.1	5.7	6.0	6.4	6.7	7.1	7.8	8.5	1.4
Middle East	**3.5**	**5.4**	**5.7**	**7.0**	**7.3**	**7.5**	**8.2**	**8.9**	**1.7**
Africa	**2.1**	**2.7**	**2.8**	**3.2**	**3.4**	**3.7**	**3.9**	**4.2**	**1.6**
Central and South America	**3.8**	**5.2**	**5.4**	**6.2**	**6.6**	**7.0**	**7.8**	**8.4**	**1.7**
Brazil	1.5	2.1	2.1	2.5	2.5	2.7	3.0	3.2	1.5
Other Central and South America	2.3	3.2	3.3	3.8	4.0	4.3	4.9	5.2	1.8
Total Non-OECD	**25.3**	**31.5**	**33.4**	**39.3**	**41.0**	**43.8**	**48.4**	**52.9**	**1.8**
Total World	**66.5**	**79.8**	**82.5**	**87.7**	**88.3**	**91.6**	**97.6**	**103.3**	**0.9**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D5. World Natural Gas Consumption by Region, High 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**	**29.8**	**31.2**	**32.9**	**33.3**	**33.8**	**0.8**
United States[a]	19.2	22.3	22.4	23.1	23.7	24.2	24.1	24.1	0.3
Canada	2.4	3.4	3.4	4.1	4.6	5.2	5.4	5.5	1.9
Mexico	0.9	1.7	1.8	2.5	2.9	3.5	3.8	4.2	3.3
OECD Europe	**11.6**	**18.2**	**18.8**	**21.3**	**22.8**	**25.0**	**25.6**	**26.0**	**1.3**
OECD Asia	**2.8**	**5.0**	**5.0**	**5.7**	**6.0**	**6.5**	**6.6**	**6.8**	**1.2**
Japan	1.9	3.0	3.0	3.4	3.5	3.7	3.7	3.8	1.0
South Korea	0.1	0.9	1.0	1.1	1.1	1.3	1.3	1.4	1.3
Australia/New Zealand	0.8	1.1	1.1	1.2	1.4	1.5	1.5	1.6	1.5
Total OECD	**36.8**	**50.5**	**51.4**	**56.8**	**59.9**	**64.3**	**65.5**	**66.6**	**1.0**
Non-OECD									
Non-OECD Europe and Eurasia	**26.7**	**23.6**	**24.4**	**27.0**	**29.3**	**32.6**	**33.7**	**34.7**	**1.4**
Russia	17.3	15.3	16.0	17.6	19.0	20.7	21.0	21.4	1.1
Other	9.5	8.3	8.4	9.4	10.3	11.9	12.6	13.4	1.8
Non-OECD Asia	**2.9**	**7.7**	**8.5**	**12.3**	**15.4**	**19.5**	**22.7**	**26.2**	**4.4**
China	0.5	1.1	1.4	2.9	4.0	5.3	6.2	7.3	6.7
India	0.4	1.0	1.1	1.7	1.8	2.3	2.8	3.3	4.4
Other Non-OECD Asia	2.0	5.6	6.0	7.7	9.6	11.9	13.7	15.6	3.7
Middle East	**3.6**	**8.0**	**8.6**	**10.9**	**13.2**	**15.5**	**16.0**	**16.8**	**2.6**
Africa	**1.4**	**2.5**	**2.6**	**3.2**	**3.8**	**4.5**	**5.1**	**5.7**	**3.0**
Central and South America	**2.0**	**3.7**	**4.1**	**5.2**	**6.3**	**7.2**	**7.7**	**8.2**	**2.7**
Brazil	0.1	0.5	0.6	0.8	0.9	1.0	1.2	1.3	3.1
Other Central and South America	1.9	3.2	3.5	4.4	5.4	6.2	6.5	6.8	2.6
Total Non-OECD	**36.5**	**45.5**	**48.2**	**58.6**	**67.9**	**79.4**	**85.2**	**91.5**	**2.5**
Total World	**73.4**	**96.0**	**99.6**	**115.4**	**127.8**	**143.7**	**150.8**	**158.1**	**1.8**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D6. World Coal Consumption by Region, High 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**	**26.7**	**29.1**	**32.2**	**35.7**	**39.4**	**1.9**
United States[a]	19.2	22.3	22.6	24.4	26.6	29.6	32.8	36.4	1.8
Canada	1.3	1.4	1.2	1.5	1.5	1.6	1.8	1.9	1.8
Mexico	0.2	0.4	0.3	0.7	0.9	1.0	1.1	1.1	4.9
OECD Europe	**17.6**	**13.2**	**13.1**	**13.9**	**14.7**	**14.5**	**14.2**	**14.3**	**0.3**
OECD Asia	**5.2**	**8.6**	**9.3**	**10.2**	**11.0**	**11.5**	**11.9**	**12.2**	**1.0**
Japan	2.7	4.3	4.8	5.0	5.4	5.4	5.3	5.3	0.4
South Korea	0.9	1.9	2.1	2.3	2.6	2.9	3.1	3.3	1.8
Australia/New Zealand	1.5	2.3	2.4	2.9	3.0	3.2	3.5	3.6	1.5
Total OECD	**43.5**	**45.9**	**46.6**	**50.8**	**54.8**	**58.3**	**61.8**	**66.0**	**1.3**
Non-OECD									
Non-OECD Europe and Eurasia	**15.1**	**8.7**	**9.0**	**10.4**	**12.5**	**13.9**	**14.4**	**14.6**	**1.9**
Russia	6.8	4.5	4.8	5.5	6.5	7.2	7.6	7.7	1.9
Other	8.3	4.2	4.2	4.8	6.1	6.7	6.8	6.8	1.9
Non-OECD Asia	**27.2**	**45.8**	**53.6**	**70.5**	**83.0**	**97.0**	**108.7**	**120.4**	**3.2**
China	20.3	33.7	41.1	55.0	64.1	74.9	84.5	94.3	3.2
India	4.3	7.5	8.1	9.4	11.0	12.7	14.3	15.8	2.6
Other Non-OECD Asia	2.6	4.6	4.3	6.1	7.9	9.3	10.0	10.3	3.4
Middle East	**0.1**	**0.4**	**0.4**	**0.6**	**0.8**	**0.9**	**0.9**	**0.9**	**3.2**
Africa	**3.0**	**4.0**	**4.1**	**5.5**	**6.3**	**6.8**	**7.3**	**7.6**	**2.4**
Central and South America	**0.6**	**0.8**	**0.8**	**1.2**	**1.4**	**1.5**	**1.6**	**1.8**	**3.1**
Brazil	0.4	0.5	0.5	0.7	0.8	0.8	0.9	1.1	3.3
Other Central and South America	0.2	0.4	0.4	0.5	0.6	0.7	0.7	0.8	2.8
Total Non-OECD	**45.9**	**59.7**	**67.9**	**88.0**	**103.9**	**119.9**	**132.9**	**145.3**	**3.0**
Total World	**89.4**	**105.6**	**114.5**	**138.8**	**158.7**	**178.2**	**194.7**	**211.3**	**2.4**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D7. World Nuclear Energy Consumption by Region, High 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**	**938**	**1,028**	**1,095**	**1,127**	**0.9**
United States[a]	577	764	789	789	814	901	966	990	0.9
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**	**2,337**	**2,422**	**2,518**	**2,620**	**0.6**
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**	**2,974**	**3,271**	**3,552**	**3,713**	**1.4**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D8. World Consumption of Hydroelectricity and Other Renewable Energy by Region, High Economic Growth 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**	**12.4**	**13.0**	**13.8**	**14.3**	**14.8**	**1.6**
United States[a]	6.1	6.0	6.0	7.6	8.1	8.4	8.6	8.9	1.5
Canada	3.1	3.5	3.5	4.1	4.3	4.6	4.9	5.1	1.5
Mexico	0.3	0.4	0.4	0.6	0.7	0.7	0.7	0.8	2.4
OECD Europe	**4.8**	**5.9**	**6.3**	**7.1**	**7.5**	**8.0**	**8.1**	**8.2**	**1.0**
OECD Asia	**1.6**	**1.8**	**1.7**	**1.9**	**2.1**	**2.3**	**2.3**	**2.4**	**1.3**
Japan	1.1	1.2	1.1	1.3	1.3	1.4	1.5	1.5	1.1
South Korea	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.3
Australia/New Zealand	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	1.4
Total OECD	**15.9**	**17.5**	**17.9**	**21.4**	**22.6**	**24.0**	**24.7**	**25.4**	**1.4**
Non-OECD									
Non-OECD Europe and Eurasia	**2.8**	**2.8**	**2.9**	**3.7**	**4.2**	**4.6**	**4.8**	**5.0**	**2.1**
Russia	1.8	1.6	1.7	2.2	2.5	2.6	2.8	2.9	2.1
Other	1.0	1.2	1.2	1.5	1.7	2.0	2.0	2.1	2.1
Non-OECD Asia	**3.0**	**5.2**	**5.7**	**7.1**	**8.2**	**9.7**	**10.7**	**11.6**	**2.8**
China	1.3	2.9	3.3	4.0	4.8	5.6	6.2	6.7	2.8
India	0.7	0.8	0.9	1.0	1.2	1.5	1.6	1.8	2.6
Other Non-OECD Asia	0.9	1.5	1.5	2.1	2.3	2.6	2.9	3.1	2.8
Middle East	**0.1**	**0.2**	**0.1**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**2.8**
Africa	**0.6**	**0.9**	**0.9**	**1.1**	**1.2**	**1.3**	**1.3**	**1.4**	**1.6**
Central and South America	**3.9**	**5.6**	**5.6**	**7.5**	**8.6**	**9.7**	**10.5**	**11.3**	**2.7**
Brazil	2.2	3.0	3.1	4.3	5.1	5.8	6.4	7.0	3.2
Other Central and South America	1.7	2.5	2.5	3.2	3.5	3.9	4.1	4.3	2.1
Total Non-OECD	**10.3**	**14.5**	**15.3**	**19.6**	**22.4**	**25.5**	**27.6**	**29.5**	**2.6**
Total World	**26.2**	**32.1**	**33.2**	**41.0**	**45.0**	**49.5**	**52.3**	**54.9**	**2.0**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D9. World Carbon Dioxide Emissions by Region, High 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**	**7,278**	**7,626**	**8,091**	**8,575**	**9,108**	**1.1**
United States[a]	4,989	5,800	5,923	6,156	6,456	6,830	7,239	7,701	1.0
Canada	474	589	584	646	651	683	710	735	0.9
Mexico	300	385	385	477	519	577	626	672	2.2
OECD Europe	**4,092**	**4,321**	**4,381**	**4,468**	**4,491**	**4,550**	**4,584**	**4,610**	**0.2**
OECD Asia	**1,543**	**2,129**	**2,183**	**2,248**	**2,287**	**2,366**	**2,436**	**2,493**	**0.5**
Japan	1,015	1,244	1,262	1,260	1,249	1,255	1,258	1,258	0.0
South Korea	238	475	497	516	548	592	627	664	1.1
Australia/New Zealand	291	410	424	472	490	519	550	571	1.2
Total OECD	**11,399**	**13,225**	**13,457**	**13,994**	**14,404**	**15,007**	**15,594**	**16,210**	**0.7**
Non-OECD									
Non-OECD Europe and Eurasia	**4,193**	**2,717**	**2,819**	**3,110**	**3,426**	**3,746**	**3,890**	**3,994**	**1.3**
Russia	2,334	1,602	1,685	1,840	1,996	2,152	2,221	2,264	1.1
Other	1,859	1,115	1,134	1,270	1,430	1,594	1,669	1,729	1.6
Non-OECD Asia	**3,627**	**6,479**	**7,411**	**9,613**	**11,077**	**12,822**	**14,443**	**16,083**	**3.0**
China	2,241	3,898	4,707	6,432	7,376	8,588	9,727	10,924	3.3
India	578	1,040	1,111	1,274	1,467	1,683	1,905	2,110	2.5
Other Non-OECD Asia	807	1,542	1,593	1,907	2,234	2,551	2,811	3,049	2.5
Middle East	**705**	**1,211**	**1,289**	**1,617**	**1,807**	**1,973**	**2,095**	**2,224**	**2.1**
Africa	**649**	**895**	**919**	**1,131**	**1,260**	**1,393**	**1,512**	**1,611**	**2.2**
Central and South America	**673**	**981**	**1,027**	**1,206**	**1,326**	**1,453**	**1,591**	**1,712**	**2.0**
Brazil	220	317	334	389	411	438	483	534	1.8
Other Central and South America	453	664	693	817	915	1,015	1,108	1,177	2.1
Total Non-OECD	**9,847**	**12,283**	**13,465**	**16,676**	**18,894**	**21,387**	**23,531**	**25,623**	**2.5**
Total World	**21,246**	**25,508**	**26,922**	**30,670**	**33,299**	**36,395**	**39,125**	**41,833**	**1.7**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D10. World Carbon Dioxide Emissions from Liquids Use by Region, High 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**	**3,145**	**3,188**	**3,290**	**3,425**	**3,577**	**0.5**
United States[a]	2,178	2,500	2,598	2,597	2,661	2,750	2,862	2,989	0.5
Canada	224	279	290	280	261	255	259	260	-0.4
Mexico	231	250	253	269	266	285	304	327	1.0
OECD Europe	**1,867**	**2,099**	**2,125**	**2,007**	**1,873**	**1,831**	**1,855**	**1,857**	**-0.5**
OECD Asia	**921**	**1,068**	**1,048**	**997**	**951**	**948**	**976**	**993**	**-0.2**
Japan	667	683	665	615	571	558	566	567	-0.6
South Korea	144	248	245	245	245	251	265	277	0.5
Australia/New Zealand	110	137	138	137	134	138	145	149	0.3
Total OECD	**5,420**	**6,196**	**6,314**	**6,150**	**6,011**	**6,069**	**6,255**	**6,426**	**0.1**
Non-OECD									
Non-OECD Europe and Eurasia	**1,350**	**636**	**663**	**684**	**677**	**694**	**732**	**762**	**0.5**
Russia	782	364	376	378	373	372	388	397	0.2
Other	568	271	287	306	305	322	344	365	0.9
Non-OECD Asia	**950**	**1,822**	**1,983**	**2,390**	**2,514**	**2,731**	**3,078**	**3,436**	**2.1**
China	325	711	816	1,151	1,184	1,313	1,508	1,731	2.9
India	160	293	306	319	356	388	436	472	1.7
Other Non-OECD Asia	464	818	861	920	975	1,030	1,133	1,233	1.4
Middle East	**493**	**735**	**778**	**963**	**1,008**	**1,036**	**1,129**	**1,217**	**1.7**
Africa	**298**	**387**	**395**	**451**	**478**	**521**	**559**	**596**	**1.6**
Central and South America	**503**	**696**	**720**	**802**	**844**	**906**	**1,006**	**1,082**	**1.6**
Brazil	180	248	258	281	290	308	337	362	1.3
Other Central and South America	323	449	462	522	554	598	669	720	1.7
Total Non-OECD	**3,594**	**4,276**	**4,538**	**5,291**	**5,521**	**5,889**	**6,504**	**7,093**	**1.7**
Total World	**9,014**	**10,472**	**10,852**	**11,440**	**11,533**	**11,958**	**12,759**	**13,520**	**0.8**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D11. World Carbon Dioxide Emissions from Natural Gas Use by Region, High 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**	**1,616**	**1,698**	**1,770**	**1,793**	**1,821**	**0.8**
United States[a]	1,026	1,197	1,198	1,251	1,282	1,289	1,286	1,284	0.3
Canada	127	183	183	224	249	282	289	296	1.9
Mexico	54	98	102	142	167	199	218	241	3.3
OECD Europe	**590**	**984**	**1,021**	**1,154**	**1,233**	**1,353**	**1,390**	**1,412**	**1.3**
OECD Asia	**152**	**279**	**282**	**322**	**335**	**365**	**371**	**382**	**1.2**
Japan	102	168	163	191	191	203	207	210	1.0
South Korea	6	50	58	63	67	76	79	82	1.3
Australia/New Zealand	44	61	61	69	76	85	86	90	1.5
Total OECD	**1,949**	**2,740**	**2,786**	**3,092**	**3,266**	**3,489**	**3,555**	**3,615**	**1.0**
Non-OECD									
Non-OECD Europe and Eurasia	**1,450**	**1,280**	**1,328**	**1,468**	**1,592**	**1,772**	**1,829**	**1,886**	**1.4**
Russia	928	828	868	954	1,030	1,121	1,139	1,157	1.1
Other	521	452	460	514	562	651	690	729	1.8
Non-OECD Asia	**160**	**428**	**471**	**691**	**868**	**1,101**	**1,286**	**1,483**	**4.5**
China	30	70	83	178	246	325	381	445	6.7
India	24	56	64	97	104	133	165	194	4.4
Other Non-OECD Asia	106	301	325	415	518	644	740	844	3.7
Middle East	**199**	**442**	**476**	**603**	**728**	**858**	**888**	**927**	**2.6**
Africa	**80**	**144**	**148**	**182**	**213**	**255**	**288**	**322**	**3.0**
Central and South America	**116**	**209**	**231**	**297**	**357**	**409**	**436**	**461**	**2.7**
Brazil	6	27	34	45	51	57	64	74	3.1
Other Central and South America	110	181	197	251	305	352	372	388	2.6
Total Non-OECD	**2,005**	**2,502**	**2,655**	**3,241**	**3,757**	**4,396**	**4,727**	**5,080**	**2.5**
Total World	**3,954**	**5,242**	**5,441**	**6,333**	**7,022**	**7,885**	**8,281**	**8,694**	**1.8**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).

Table D12. World Carbon Dioxide Emissions from Coal Use by Region, High 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**	**2,503**	**2,726**	**3,016**	**3,344**	**3,696**	**1.9**
United States[a]	1,784	2,093	2,115	2,295	2,499	2,778	3,077	3,414	1.9
Canada	123	128	112	142	142	146	162	178	1.8
Mexico	15	37	30	67	86	93	104	103	4.9
OECD Europe	**1,635**	**1,237**	**1,235**	**1,307**	**1,385**	**1,366**	**1,338**	**1,341**	**0.3**
OECD Asia	**471**	**782**	**853**	**928**	**1,002**	**1,054**	**1,089**	**1,119**	**1.0**
Japan	245	393	434	454	487	493	485	481	0.4
South Korea	88	177	194	208	236	265	284	305	1.8
Australia/New Zealand	137	212	225	266	280	296	319	332	1.5
Total OECD	**4,028**	**4,277**	**4,345**	**4,739**	**5,113**	**5,436**	**5,770**	**6,155**	**1.3**
Non-OECD									
Non-OECD Europe and Eurasia	**1,393**	**801**	**828**	**957**	**1,156**	**1,280**	**1,329**	**1,346**	**1.9**
Russia	624	410	441	507	593	659	694	711	1.9
Other	770	392	387	450	563	621	635	635	1.9
Non-OECD Asia	**2,517**	**4,229**	**4,957**	**6,532**	**7,695**	**8,990**	**10,079**	**11,163**	**3.2**
China	1,886	3,117	3,809	5,103	5,946	6,951	7,837	8,748	3.2
India	394	690	741	857	1,007	1,162	1,304	1,444	2.6
Other Non-OECD Asia	237	422	407	572	742	877	938	972	3.4
Middle East	**14**	**34**	**35**	**51**	**71**	**78**	**78**	**79**	**3.2**
Africa	**271**	**364**	**376**	**498**	**569**	**616**	**665**	**693**	**2.4**
Central and South America	**54**	**76**	**77**	**107**	**125**	**138**	**149**	**168**	**3.1**
Brazil	34	42	43	63	70	73	82	99	3.3
Other Central and South America	20	34	34	44	55	65	67	69	2.8
Total Non-OECD	**4,248**	**5,505**	**6,272**	**8,145**	**9,617**	**11,102**	**12,301**	**13,450**	**3.0**
Total World	**8,277**	**9,782**	**10,617**	**12,884**	**14,730**	**16,538**	**18,071**	**19,605**	**2.4**

[a]Includes 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 HP2007.D112106A, web site www.eia.doe.gov/oiaf/aeo; and System for the Analysis of Global Energy Markets (2007).