Energy Facts

Worldwide Construction and Water Consumption

Water 5100 Gt/yr (5.1 trillion tons per year)

Concrete 14 Gt/yr

Gravel & Sand 10 Gt/yr

Brick 3 Gt/yr

Asphalt 2 Gt/yr

Metal 1 Gt/yr

Other 0.5 Gt/yr

Total non-water 30 Gt/yr

Worldwide Fossil Fuel Consumption

Petroleum 4.69 Gt/yr 186 Quads/yr

Natural Gas 3.45 Gt/yr 137 Quads/yr

Coal 3.92 Gt/yr 156 Quads/yr

Nuclear 8.7 Quads/yr

Other 126 Quads/yr

Total 12.06 Gt/yr 613.7 Quads/yr

Solar Energy US World

Available 50,000 Quads/yr 5,200,000 Quads/yr

Useable (20% efficiency) 10,000 Quads/yr 1,040,000 Quads/yr

X Tot Energy Use 100X 1700X

Current Usage 2 Quads/yr (2% of tot use) 4.3 Quads/yr (0.65% of tot use)

Energy Usage US World

Electricity 37.7 Quads/yr (38% of tot) 89 Quads/yr (14% of tot)

Transportation 27.5 Quads/yr (28% of tot) 150 Quads/yr (39% of tot)

Heavy Industry 23 Quads/yr (23% of tot) 280 quads/yr (45.6% of tot)

Home Use 7 Quads/yr (7% of tot) 80 Quads/yr (13% of tot)

Business 5 Quads/yr (5% of tot) 50 Quads/yr (8% of tot)

World Reserves

Coal 132 years @ current usage rate

Natural Gas 100 years @ current usage rate

Petroleum 47 years @ current usage rate

Methane Hydrates 100 years @ combined all energy usage rate

Alternative Energy Fossil Fuel Problems

Solar Pollution (photochemical nitrogen and industrial sulfur)

Nuclear Climate Change (greenhouse gases)

Wind EROEI (increasing extraction costs)

Water

Geothermal