



In order to estimate the yearly worldwide cost of energy, both the cost of fuel and the cost of new investments, such as new power plants, refineries or additional infrastructure, must be taken into account. These additional investments are added to the consumers monthly bill and therefore, ultimately paid for by the consumer. So as to avoid counting the cost of infrastructure twice, it is enough to add only the consumer cost of fuel and the consumer cost of infrastructure together. All other costs can be considered fuel costs.

These estimates are based upon figures from the BP Statistical Review of World Energy for the Year 2008.

Fossil Fuel and Nuclear Fuel Use 2008:

Fuel	Usage 2008	Percentage used for electricity generation
Oil	30.8 Billion Barrels	7%
Natural Gas	3020 Billion m ³	39%
Coal	6.78 Billion t	68%
Uranium	67 Million kg	100%
Electricity	20200	Billion kWh (Contains 82% fossil/nuclear fuel)

18% of electricity generated comes from non-fossil and non-nuclear sources. (source: WEO 2009, for the year 2007 and 2008)

The electricity generated by the use of fossil and nuclear fuels is not factored in to the consumption of fuels, because they lie under the price of electricity. Therefore the following numbers are considered the correct numbers for worldwide consumption:

Type	Usage 2008
Oil	28.6 Billion Barrels
Natural Gas	1842 Billion m ³
Coal	2.17 Billion t
Electricity	16564 Billion kWh

Energy Prices:

Based upon figures from the BP Statistical Review of World Energy for the Year 2009.

Oil	\$97.28/bbl	(Brent Spot Price)
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Natural Gas		
USA	\$8.85/mil. BTU	\$0.32/ m ³
Canada	\$7.99/mil. BTU	\$0.28/m ³
UK	\$10.79/mil. BTU	\$0.39/m ³
EU	\$12.61/mil. BTU	\$0.45/m ³
Japan	\$12.55/mil. BTU	\$0.45/m ³

Coal		
Japan Steel Coal		\$122.81/t
Japan Coking Coal		\$179.03/t
US Central Appalachian		\$116.14/t
NW Europe(market price)		\$149.78/t

Consumption Price (Energy prices and Taxes III/2008):

Oil (OECD Average)		
Household		\$117/bbl
Industry		\$90.8/bbl
Diesel		\$156/bbl
Diesel (non-commercial)		\$180.9/bbl

Coal	Industry	\$71.86/t
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Electricity		
Household		\$0.127/kWh (Europe: \$0.17/kWh)
Industry		\$0.09/kWh (Europe: \$0.106/kWh)

Projected prices:

Petroleum	\$117-156/bbl
Natural Gas	\$0.3-0.45 / m³
Coal	\$70-140/t
Electricity	\$0.09-0.13/kWh

Total Costs:

Petroleum	3350-4475 bil. \$/yr.
Natural Gas	550-830 bil. \$/yr.
Coal	150-300 bil. \$/yr.
Electricity	1490-2150 bil. \$/yr.

Sum: 5500 - 7750 bil. \$/year

In 2008 between \$ 5,500 and \$ 7,750 billion were paid for fuel and electricity worldwide (taxes not included).

This is a rough estimate based on the cost of fuel and electricity. This is approximately 10-20% over the cost of generation. Therefore, however, the consumer expenditures for new energy technology are not considered. Therefore, between \$ 5500-7750 billion annually should be a sufficiently accurate estimate.

Even with just a 20% rise in energy prices the annual cost of energy would climb to \$10,000 billion. This would be double the price of which Prof. Jacobson calculated would be needed to change the worlds' energy sector to 100% renewable energy ("Evaluating the Feasibility of Meeting all Global Energy Needs with Wind, Water, and Solar Power", Jacobson/Delucchi, Stanford University/University of California at Davis).