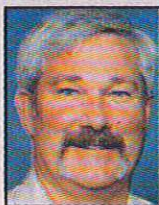


How much time is left with fossil fuels?

The United States gets 49 percent of its electricity from coal. Our homes use 40 percent of the energy consumed in the United States. There are 26 new coal fired power plants planned to be built. It is said that they can build low emission coal fired generations plants. It is a fiction that there

is clean coal or clean coal fired generation plants. The coal and power plant industry is trying to pull the wool over the eyes of the American public. What is considered low emissions?

Saudi oil production has declined for two years in a row. If they're production is going down, the world can't be far behind.



Stewart Somerville
Alternative Power Systems

The last oil field was found in 1979. There may not be enough oil and gas left in the world to fuel global warming for very long. But there is coal.

Hydro contributes 7 percent to the United States net electricity use. Solar contributes less than 2 percent. If solar installations grew at a rate of 10 percent it would double every 7 years. This cumulative amount of power production over a doubling time would equal all the production in all previous history. In other words in 7 years it would contribute 4 percent, in 14 years 8 percent and so on.

Apply the same principle to the consumption of oil. Assume it is estimated that there is another 100 years at present consumption left of oil. With a 5 percent per year increase we will only have 36 years left. If the estimate is a 1000 years there is only 80 years left. If we reverse this and have a

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5 percent decrease a 100 year supply now will last 139 years. If we reduce it by 10 percent per year the resource would last forever.

If a resource increases exponentially it is not important how much is left. It will be consumed much faster than one can imagine. On the other hand, if annual consumption is decreased exponentially it will last forever.

To replace an increase of 5 percent of oil and coal consumption growth we would need to increase renewable energy by 245 percent a year. This is just to offset the growth. This is not possible. We need to increase the efficiency of the energy we use.

If we could decrease the use of oil by 10 percent per year and increased renewable energy by 10 percent we would effectively reduce our dependence on oil. An acceptable growth rate for renewable energy needs to be increased to 25 percent per year. Production of renewable energy would double every 3 years.

In 1983 we used 3 quadrillion BTU's less energy than in 1973 due to our more efficient use of energy. That is a big change. What if we built smaller houses and made them Net-Zero-Energy. Could we

affect an even larger savings?

Solar can provide energy at the day-time peak. It is the peak demand that is really the problem for power plants. If we could offset the peak our power plants would have more capacity for normal demand.

Solar costs are fixed once installed but conventional power costs are going up and will never come back down. The cheap oil is gone.

By building net-zero-energy homes and electric cars we could easily decrease our oil and coal consumption by 5 percent or more. Also increase our renewable energy production by 25 percent we would decrease oil and coal consumption by another 7.35 percent. In a short time we could be free of our dependency on oil and coal.

If we can put a man on the moon, send spacecrafts to mars, put a space station in orbit, we could create a whole new economy. An economy and power supply for the 21st century. All we need is agreement on what we need to do.

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