

Paul has provide the following summary of ideas from his May 11, 2009 talk.

1. Explanation of Peak Oil

Society has been exposed to Peak Oil several times in several places over the past century. Often, though, Peak Oil has been overlooked and dismissed. Many find the geological explanation hard to accept, and they fall back on other explanations, like "This loss of oil production is a reflection of the 'buy-sell dynamics' within the oil market, and the greed of certain countries and oil companies, which sometimes restrain oil production to create a skyrocketing price."

Or sometimes the doubters decide that the problem is that the oil industry is simply not drilling, as they should, and with further attention to drilling, the production deficit would disappear.

I believe that the "human greed explanation" may survive as the preferred explanation since it connects so well with today's prevailing mindset.

Finally, the understanding of oil supply and demand may be complicated by the disruption in the supply and demand that we see even today, as created by our ongoing financial crisis.

2. The Loss of Oil: Any Replacements?

Not only is oil benign and non-reactive, and very affordable, but we use oil in enormous volumes....currently a cubic mile each year.

The combination of oil's benign characteristics, its high energy content, and the enormous volumes we use, together with its low price make substitutions difficult. Three candidates must be considered. Apparently very large deposits of Natural Gas have been discovered in the 23 shale beds in the US. Natural gas from the shale can seemingly be produced economically in very large quantities once the present market price of oil and natural gas increase some, so as to make retrieval economic. The initial exploration of Shale suggests that there are about 118 years of Natural Gas available, enough to feed our CNG vehicle needs for decades.

Gasoline made from coal by the Fischer-Tropsch process is also a candidate since we still have about 300 years of coal left, but this method for producing oil is rather dirty, and is also quite expensive.

Finally, and perhaps the most promising of all, is our search for oil in locations far from our oil fields, like deep in the ocean and in promising remote Arctic locations. Three exciting prospects, but not guaranteed.

3: A "return to yesterday"

Within a few years after the Peak we may find it necessary to substantially reduce (or even forego) air travel, afford only small very high mileage autos, have our food grown and processed locally, forego suburban sprawl and live closer to work and the grocery store, and maybe even return to a time in which several of us (not just two or three of us) lived in a ~3000 sq. ft. house.

For those of us who live far from work, we will be switching to smaller cars of very high mileage, we will be carpooling, and where possible we will switch to public transportation.

Occupations that are directly connected to our survival like farming and food distribution, will be given an elevated and secure status.

With a lower per capita income, ways will need to be created to bring a greater

uniformity to the income distribution, so those of us with the lowest incomes can still survive.

Our vacations, if we can still afford them, will be more modest, and closer to home.

4: A Flawed Strategy

Probably for all of us, a part of being human is to continuously expand our experience of life. So we graduate from a minimal diet to a larger more satisfying one and from minimal energy use to an expanded energy use. And we take satisfaction as we move from milestone to milestone.

So over our lifetime we have expanded our quality of life, our use of energy several fold. We do not think twice that our principal fossil energies...natural gas, oil, and coal...are of a finite nature. Only now, as oil shows signs of finiteness, do we think about the flaws in the strategies we have been employing.

The truth is that our strategy is flawed, for as we lose supply of any one of our fossil energies, there is no fallback position. The only really safe alternative is to have our life built only upon renewable energy sources like solar, wind and perhaps nuclear, to restrain our population growth, and finally to begin to conserve energy in a serious way. Only then might we insure humanity of continuity and no abrupt ending.

The best we can do on our present "consume everything" course is to perhaps buy just a few decades of further life with CNG vehicles, a few years also by cleaning up the Fischer-Tropsch Process in converting coal to petroleum, and maybe a little more life by discovering and retrieving oil from more remote places.

5: The Most Worrisome Dimension of Peak Oil is Lack of Concern

The increasing loss, each year, of several percent of our precious oil has major ramifications with potentially very dire consequences for us, our economy, even for and our civilization. But perhaps there is a even larger challenge.

With the exception of our energy analysts, there seems to be virtually no awareness nor concern over Peak Oil and its implications. To virtually all of our citizenry, and to our media as well, Peak Oil at most is a textbook issue of intellectual importance only. And our government officials seem to agree. Bottom line, Peak Oil is about to descend upon us and we will have done little or nothing to defend or prepare ourselves.

No plans for increased conservation, no development of affordable, alternative energies; no guidance from our leaders of the enormity of the change soon to enter our lives. We have but ourselves to blame for the consequences.