

The High Price of Gas ... And Peak Oil

Today we regularly hear about energy issues on the news, particularly about the rising price of oil and how fuel prices are hurting people. The reasons offered for the run-up in prices include the usual suspects—greedy oil companies and commodities traders; uncooperative OPEC countries; gas-guzzling SUVs; a supposed lack of refinery capacity; and environmentalists who oppose expanding drilling efforts here at home.

Unfortunately, the most important factor in high gas prices is rarely mentioned: the global supply of petroleum is failing to meet world demand, and the underlying reason for that is "Peak Oil." The ramifications of the world hitting Peak Oil are serious—a permanent reduction in the availability of petroleum will change the world as we know it. Without proper foresight, preparation, and transition strategies, the change will not only be unwelcome, it will be chaotic and catastrophic.

What is Peak Oil?

The most practical definition of Peak Oil is *the historical point at which the annual volume of oil production is the highest it has ever been or ever will be again*. Once we pass the peak, global oil production begins to decline, continuing a downward trend until finally, decades later, the oil that remains in the ground is unrecoverable at any price because it takes more energy to pump the oil than the one gets from its use.

An important corollary is that *once we hit the peak, the demand for oil will usually be greater than the supply*. This will cause oil prices to skyrocket, negatively impacting economies. We are entering this period now.

One common misconception is that reaching Peak Oil means we're about to "run out of oil." That's not the case—it's only the halfway point. At peak, there is still just as much oil left in the ground as we have already produced. But we've already pumped the "easy oil," and the oil that remains will cost much more to extract, refine, and use.

How Might Peak Oil Affect Me?

The globalized economy and our lives have been built on a foundation of cheap oil. Oil accounts for 95% of the energy used for transportation. The average grocery-store food item requires 10 calories of fossil energy for each calorie of food energy. Most non-food goods are now shipped or flown to the US from overseas. Petroleum is the basis of plastics and thousands of everyday products. We have designed our transportation systems, vehicles, neighborhoods, and society assuming the continued availability and cheapness of oil.

We're already seeing spiking oil, gasoline, and diesel prices, and we will likely see even higher price levels in the future. What if gasoline gets to \$7 or \$9 a gallon—or more? What would you do if the 5-hour gas lines and dry pumps of the 1970s came back—and never went away again? What would that do to the economy—and what effect would that have on your job? What would you do if food in your supermarket started being available inconsistently? What if there were a water main break in your neighborhood but the water company's trucks were all temporarily out of fuel and couldn't get there to repair the line?

What About Additional Drilling, Biofuels, etc.?

Politicians and pundits are touting a number of "magic-bullet solutions" for our energy problems, including hybrids; hydrogen; biofuels; and new or expanded sources of oil from Alaska, oil shale, Canadian tar sands, or offshore drilling. None of these approaches—nor all of them combined—will solve our oil dependence problem. A thorough analysis of "why" isn't possible in the short space here, but we can offer a few quick comments:

More Drilling. The US uses 25% of the world's annual oil production, but it has only 3% of global oil reserves. Those are numbers that will never be reconciled by simply increasing domestic oil supplies.

Biofuels. It takes about as much energy to produce ethanol as you get out of it as new fuel; plus there is insufficient crop land to allow a wholesale changeover from petroleum to biofuels.

Coal-to-Liquid: Converting coal to liquid fuel is a well established technology, but it generates twice the carbon dioxide per gallon of fuel that conventional oil does, has lower net energy than petroleum, and will worsen the problem of mountaintop removal mining.

So, What Can Be Done?

For the problem of Peak Oil and its economic implications, there are no silver bullets, no quick fixes, no painless solutions. But there are a number of important things we can do:

- On a national level, we need to revitalize our rail and river-based transportation systems and reengineer the automotive fleet so it is more fuel-efficient and can use electricity as well as gasoline.
- Locally, we need to ramp up production of food and energy and invest in conservation to mitigate the impact of declining resources.

To start learning more about Peak Oil, see the following:

- Grinning Planet's [Peak Oil Articles](http://www.grinningplanet.com) | [Peak Oil Books](http://www.grinningplanet.com) (www.grinningplanet.com)
- [Global Public Media](http://www.globalpublicmedia.com) (audio/video/text interviews) (www.globalpublicmedia.com)
- [Relocalization Network](http://www.relocalize.net) (www.relocalize.net)