

The Oil Drum: Campfire

Discussions about Energy and Our Future

Politics and Peak Energy

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Below the fold is a guest post by John Howe, an engineer who invented the [solar tractor](#). In this post, John says, "Our only hope for a drastic course correction is to support grass-roots movements to elect leaders who clearly understand energy and the growing tension between an economic system based on continued growth (especially population) and declining energy."

The questions for tonight's Campfire discussion are

1. Is working through the current political system feasible?
 2. What are the most important energy-related issues for politicians to address:
 - (a) Population growth
 - (b) New economic system not depending on growth
 - (c) Debt jubilee or other approach for handling excessive level of debt worldwide
 - (d) Greater energy efficiency (for example--CAFE standards, more trains, lower energy appliances, better insulation, etc.)
 - (e) Increase alternative energy resources
 - (f) Develop new systems of food production and manufacturing that do not require fossil fuels and use only local resources (perhaps similar to approaches used several hundred years ago)
 - (g) Increase equity in sharing what energy resources are available
 - (h) Other
 3. What kind of candidate would it take to get elected and pass such an agenda?
 4. Does it make sense to support candidates who advocate one (or two) agenda item(s) which might be reasonable if part of a broader program, but don't really understand the issues of declining energy, increasing population, and the connection to the financial system?
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Politics and Peak Energy

by John Howe

Economic success, growth, and an affluent (happy) consumer lifestyle directly depend on an abundance of inexpensive energy. Conversely, the quantity and type of energy consumed can have a very adverse effect on the surrounding environment and world ecological balance. It then follows that politics, the subject of governing civilized societies, is also directly dependent on the common denominator of energy, just at a time that we are facing the imminent and terminal

decline of our prime energy source, oil, and ultimately all finite fossil fuels.

Yet, the advocates of different positions, for instance, climate change (man made or not), or economic development and stimulus proposals based on continued growth, do not factor in the difficult, if not impossible, transition and immense challenges facing us as we enter the second half and decline of the short, two-hundred year fossil energy age. Without energy to make things happen, nothing grows, moves to a new place, or expands. Bodies wither and die, civilizations contract and collapse.

Yet there are leaders and experts who would lead us to believe otherwise or that "finite" does not mean what it says. Oil supplies about 40% of our total energy and fuels 90% of our transportation. In addition, we've come to depend on thousands of petroleum-based products from lubricants to plastics. There may be "plenty left", but it's getting harder to find and steadily more expensive in terms of input energy and wealth required for extraction from remaining unconventional sources.

At our present rate of world liquid fuel consumption (one billion barrels every twelve days) if we suddenly found another 500 billion barrels of oil (about one-half of world total used so far in the short age of oil) it would only extend our present level of consumption another 17 years before permanent decline. What then? These numbers put any talk of new "giant" 20 billion-barrel fields near Haiti, Cuba, Brazil, and Montana into humble perspective. They would add only another one-third of a year to the world's total production, not considering the energy, wealth, and time required to get them started.

Regardless of their form of government, the great civilizations of the past like Mesopotamia, Mycenaean Greece, the Roman Empire, and the Chacoan Society in our own desert southwest ultimately rose and fell because of the shifting balance between population, climate, and, most directly, the ability to access sufficient energy in the form of food and fuel. Even slaves, who were the preferred source of work for the privileged before the industrial age, require food-energy input. The need for energy is common for every successful species. Humans are no exception. Yet we have lost sight of the easy life we've had since we learned how to enslave millions of years of concentrated ancient sunlight-energy in the form of conveniently-stored, finite, fossil fuels.

In America we are governed by the framework of a democratic republic. We elect our lawmakers and leaders into a system of laws, checks, and balances. We strive for a federalist concept of shared state's rights and centralized government. This worked admirably well for the last two hundred years as our population was sparse and expanded into a land of seemingly unlimited natural resources. Over the last one hundred years, a second resource bonanza, this time of pre-stored, essentially free energy, gave us no limits to unfettered growth, high-technology lifestyle, surplus food, freedom from drudgery, and magical travel. Capital investment, based on the promise of never-ending growth and return of investment with additional profit, gave us the financial system to "capitalize" on fossil fuels and made (most) everyone happy. A common citizen could live as a king in pre-industrial times.

Just after the dawn of the twenty-first century, the rapidly-expanding fossil energy foundation for this unprecedented prosperity began to level off onto a bumpy plateau. By mid-2005, conventional crude oil, by far the best fuel for modern transportation and easy agriculture, quantitatively peaked in world production at just over 75 million barrels per day. This is an unarguable, historical fact per the U.S. Department of Energy (DOE) regardless of political or media obfuscation.

At the same time, the inexorable demand for continued growth, including a growing population, drove the price of oil out-of-reach for an expanding bottom tier of consumers. In the U.S., the increasing cost of energy triggered a monumental recession beginning in the housing and financial systems because both are directly dependent on extrapolated perpetual growth. Americans are presently spending about one billion dollars per day just for gasoline. This does not include fuel oil, diesel, and jet fuel. This constitutes an ever-increasing share of the family budget and leaves less for mortgages or discretionary spending.

Concurrently, an increasing awareness of ecological devastation and climate change began the green movement. It is my opinion that modern industrial civilization will not quickly grind to a halt because of the dirty by-products of the fossil energy age. The far more urgent problem is the imminent decline of the fossil fuels themselves with absolutely no prospect of "green", clean replacements that are even remotely close, on a quantitative basis, to the energy of fossil fuels. We will soon be forced to drastically curtail our fossil fuel consumption not because of longer-term environmental destruction and global climate change but as a result of depletion and higher costs for extraction.

With that background, we can better understand much of the divisiveness that has totally invaded our two-party political system. Liberty and the pursuit of happiness are fundamental tenets of our original constitution. More recently, when he was president, FDR's second bill of rights taught four freedoms, from want and fear as well as speech and religion. Now we have a basic conflict which is beginning to come into sharper focus as the age of cheap ubiquitous energy can no longer insure the freedom from want for everyone. How can declining energy supplies provide food and fuel for an ever-increasing population? This dilemma is already apparent in the third world and is steadily creeping into our wealthy industrialized society.

Should individuals have the "liberty" to disproportionately acquire food, fuel, and non-energy assets even if it increases "fear and want" for others? This question will have to be addressed soon. It is becoming physically and mathematically impossible even in the U.S. to feed, keep warm, and transport the present population with total energy supplies at the peak and nearing the point of permanent decline. This concept is difficult to accept, but it is very real for the 80% of the population, who have only 20% of the remaining wealth. Without cheap energy we can no longer all be hyper-consuming Americans. Those who still have the financial means can out-bid those who do not. The wealthy naturally resist policies intended to redistribute this wealth. At the same time the total number of consumers continues to increase, which brings the dilemma into sharper focus.

Presently, the growing, underlying conflict between the freedom of liberty and the freedom from want has covertly infiltrated our politics and underlies the increasing rancor between the right and left. True long-term growth, jobs, prosperity, leisure pursuits, and all things dependent on plentiful energy can no longer continue for everyone. There may be temporary relief because of improved energy-use efficiency, new extraction technology, or the fallacy of borrowing wealth from the future. But true economic growth, other than inflation, can not be sustained without the underlying foundation of plentiful, inexpensive fossil fuels, which in the past got us to our present utopia.

The conservative right espouses growth through decreased taxation on business and investment. The liberal left strives to redistribute waning wealth from a declining few to the steadily-increasing masses who are closer to missing the basic necessities. Both sides advocate increased

exploration, efficiency of use, and technical progress. Neither side will admit to the geo-physical limitations of the short fossil energy age. The result is a clash between a system dependent on continued growth conflicting with a growing consumer base, social services, and entitlements. Neither side can provide the "freedom from want" to the majority.

Our democratic system swings back and forth in each voting cycle from the incumbent party, which has not provided miracles, to the opposition which promises better. Two-term presidents like Reagan, Clinton, and George W. Bush were lucky to take charge when oil was plentiful and cheap compared with Carter who was unpopular after one term as he dealt with peaking U.S. oil and world oil price turmoil. Obama seems to be suffering the same growing discontent as Carter since he inherited the time zone in history for maximum world oil production regardless if the oil comes from friendly or unfriendly sources.

This brings us to the question of which party or basic system of government can best handle the realities of a contracting energy age. Is a democracy of the people, for the people, and by the people still viable or will anarchy rule? In a free election will an individual vote for personal gain and even survival, or will he/she opt for the common good of the populace? On a microbasis will a caring human (or any species for that matter) go hungry and starve if necessary to feed as many as possible of his neighbors, if only for just a few more days after which they might all starve together? This is the dilemma we will face. Inadequate awareness and massive action ASAP will diminish our chances of avoiding the same fate of previous crashed civilizations which did not respect the critical role of finite energy resources.

Our only hope for a drastic course correction is to support grass-roots movements to elect leaders who clearly understand energy and the growing tension between an economic system based on continued growth (especially population) and declining energy. There still may be hope for the perpetuation of a modern lifestyle, but only if we admit to the seriousness of our terminal illness and not be lulled by bogus panaceas. We are clearly at a tipping point. In the last eighty years (one lifetime) we have consumed approximately one-half of the world's original oil, the easy-to-mine high energy coal, the natural gas, as well as high-concentration fissionable uranium.

Together, these finite sources provide over 90% of today's world energy with the U.S. (with 5% of the world's population) consuming about 25% of it. The next human lifetime, starting now, will not be nearly as easy. We're running out of gas!

Note: John Howe says, "I approach this subject as an objective engineer. I am not aligned to any political party or intend to promote a particular political agenda."

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