

Peak Oil

by Paul

Why greenies should be peakies and why peakies should be greenies and why everyone should be both and neither.

Peak oil is the point at which half of all the oil stored on the planet is gone.

It is argued by an increasingly influential and credible group of ex-petroleum geologists that peak oil is either upon us or due to hit before the end of the decade.

At this point demand will outstrip supply and the price of oil will start to rise continuously. The price will still fluctuate as demand reduces in response to price rises but the general trend will be continuously upward. Although there will still be a lot of oil in the ground, it means the end of the oil economy as we know it - there will be no more extremely cheap energy whose rate of extraction can be controlled to reduce or increase price.

Peak oil is not directly an ecological problem but an economic, political and social problem.

With economies structured obsessively on a continuous supply of cheap oil, any price rise or reduction in supply has huge implications.

Tensions over oil will be even greater than they are now, and we can expect the ongoing resource war that the current Iraqi occupation is part of to escalate massively. Given the role of hydrocarbons in agriculture, there are also important and serious questions about world food security.

Imagine the place oil has in modern life and then imagine that it is going to get more and more expensive and finally within most of our lifetimes more or less run dry.

It doesn't take much imagination to see how serious the implication are.

Climate change and peak oil are parallel problems and while not directly related, the combination of the two will, unless serious action is taken, have a powerful negative multiplier effect on an already unstable world. Climate change is not an effect of peak oil but a result of the rapid use of finite resources of coal, gas and oil. (If we burnt all the oil on the planet over two thousand years rather than one hundred and fifty the world's carbon sinks could easily take in the extra carbon).

Both these problems result from the way our society uses fossil fuels, and there is a strong case for tying together the solution to both these problems. Both issues present an extensive and possibly insurmountable challenge to the ideology and practice of continuous economic growth. Given that energy use and growth are so closely linked, it is hard to see how climate change can be confronted without tackling the issue of economic growth. Peak oil on the other hand means the end of superabundant, cheap, versatile energy, (coal and tar sands are superabundant but not as cheap and not as easily versatile). Given that price rises in the past have caused major economic downturns, those who fantasise about growth without end will be struggling ever harder, we hope, to peddle their busted ideology. Energy is a smaller part of the global economy now than it was in the 1970's, but the fact remains that fairly soon oil prices will also be far higher than they were then.

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economy now than it was in the 1970's, but the fact remains that fairly soon oil prices will also be far higher than they were then.

This article argues that these twin concerns should be dealt with by concerned people as one package, and that separating them out misunderstands the fundamental nature of our predicament. If we cannot find a way of putting life before economy then we face on the one hand ecological catastrophe and on the other a massive intensification and extension of the current resource war, of which as we've already said Iraq is just one small part.

Five reasons that people concerned about peak oil should also take action on climate change:

1. A market-led solution to peak oil that takes no account of ecological limits will quite literally destroy the planet.

It will be no surprise if as public awareness about peak oil grows, people hungry for easy solutions will begin to view it as a magic bullet for climate change: less oil being burnt, meaning less CO₂ - hey presto climate problem solved. There are a number of reasons why this is far from the case.

First, only half the oil has been burnt and that half has caused big problems. Given that the second half will be burnt much quicker and that it is the amount of carbon burnt per year that is the problem, then burning the oil that is left even if peak oil is just round the corner will take us into very dangerous concentrations of atmospheric CO₂.

Second, transfer to other fossil fuels may make matters worse. In a market-led growth economy, any rise in the price of oil and gas will make super abundant reserves of coal an attractive alternative. (Over the last year or so coal generation has risen 3% in the UK in direct response to the high gas price.) There is a lot of coal left in the world; if we burn only a fraction of it, we will be toast. On top of this, other alternatives such as shale oil and tar sands require massive inputs of energy to get energy out, as Leggett points out in relation to the Alberta tar sands: "the energy levels required to heat the water are such that carbon dioxide emission are more than three times greater than those of conventional oil production". If it's just a matter of harnessing the market to overcome the problem of peak oil, then a vast increase in coal use and other replacements is a logical and legitimate solution to delaying the point at which we have to face full spectrum fossil fuel depletion. However, if this route is followed in full, it will take us into catastrophically high levels of atmospheric CO₂ levels.

To stop dangerous human induced climate change, levels of all fossil fuel use have to be reduced far faster than any decline due to current demand and supply projections. We need to reduce oil use faster than if we were to follow a market-driven depletion curve.

Put simply, we cannot use all the oil that's left if we want a functioning climate.

2. The solutions to climate change are also in the long term the only real solutions to fossil fuel depletion.

The only solution to climate change is by far the best and most enduring solution to peak oil. (In the long term it is the only real solution to peak oil). It can be taken positively as a choice now or be forced on us as disaster later on.

A vast reduction in the amount of energy we use. Essentially an end to growth economics and an active recognition of the finite ecological boundaries in which we live. This will require a reversal of current models of globalisation and free trade and the central purpose of this energy rich society (ever-increasing material consumption). Instead of globalisation we will have to have relocalisation; instead of faster, things will have to happen slower. We will have to fly far less if at all. The car will have to become an occasionally useful tool rather than permanent ubiquitous need. The implications of this shift are immense, and will affect everyone and everything. Using less energy will mean we

have less stuff and travel less far but if these steps are taken proactively it doesn't mean we will have a lower quality of life. Many argue that it is this western or economic elite focus on economic growth that causes much of the world's poverty and that for many people the end of this model may well significantly improve things.

Fossil fuels will still be used but their use will need to be distributed more fairly within a framework that brings about a reduction in use in line with the need to reduce atmospheric levels of CO₂.

More efficient use of energy. What energy we do use will have to be used more efficiently. We will need to use much less, so it makes sense to try and make this go as far as possible.

A shift toward renewable energy. Perhaps the greatest block to action on climate chaos and oil depletion is the myth that technology will save us. Nuclear power and hydrogen cars cannot and will not save us - they are false hopes that feed denial and delay the action we need to take.

We need to make a transition to renewable energy whilst recognising that this energy cannot support an ever-expanding economy or even current levels of energy use.

It should be noted that some argue that renewables can replace fossil fuels and that economic growth can continue. If limits to carbon emissions are set that will deliver real reductions, and these limits are aligned with the ecology of the planet as their founding concern rather than the maintenance of continuing economic growth, then in purely environmental terms, that might not be a problem. This essay argues that this is both very unlikely and would be an undesirable path even if possible because of a perpetuation of social injustice.

Reduction in population levels. It is a deeply controversial area of policy, but given the role of fossil fuels in food production and the possible, if not likely, negative effects of climate change on food production, we are edging ever closer to a point where population outstrips food supply. As with other dimensions of this problem it would be best to choose ways that might bring about a reduction in birth rates rather than have higher and higher rates of starvation forced upon us, whilst recognizing that in parts of the world this process has already started.

We need strong social movements both to stop the fossil fuel economy and to get through peak oil.

How do we get through peak oil without collapsing into a war of all against all, (there is good reason to also suggest that our current social model is already a war of all against all with wealthy elites insulated from it by the buffer of cheap oil)? It will require very strong social movements and community networks much stronger than they are now to get us through without recourse to an even more militarised centralised state. The best way to build this kind of movement is both by working towards alternatives; decentralised energy, local agriculture, a shift away from the private car, reforestation ect, and by going out and trying to dismantle the fossil fuel economy. If people just head to hills, there is a good chance that by the time the collapse they are waiting for happens, social networks won't be strong enough to protect and build on any isolated efforts to build solutions. If on the other hand we just oppose with no idea of where we are going, then the vacuum will be filled by groups that are anathema to us, such as those spouting right wing 'blood and soil' ideologies. We need all these things: a positive campaign for climate justice and the distribution of remaining non-renewables within ecological limits. And a campaign against the fossil fuel economy, a mass protest movement; marching, direct action, eco sabotage, meetings, strikes, international solidarity and cross border action.

If people decide on a survivalist approach i.e. to get some land, grow food and wait for the collapse, then they may well be no safer than if they'd done nothing. If it goes badly, society atomises even further and there is resource scarcity, food shortages and deeper collapse, a number of authoritarian groups will be in a good or even improved position. These will be those with access to guns and

with organisational structures that are strong and work under duress: the army, the police and organised crime. In these circumstances it is difficult to see how growing one's own food in rural idyll will help. If you have things people want, they will take them. The state may commandeer food supply. It's difficult to predict how things will unfold but we can imagine with some confidence that if there is not some kind of mass progressive movement that in times of great difficulty people will be moved to support a far more aggressive and totalitarian state.

4. The worse the impact of climate change the harder it will be to live in the more localised world that peak oil/ peak fossil fuels will demand.

If we don't do something about climate change it will make getting through peak oil far harder. Essentially peak oil will mean a return to a more localised existence (unless we go down the insane route of replacing oil use with other fossil fuels). Globalisation as it is will retreat in the face of ever growing oil prices. But the more localised communities are, the more vulnerable they are to extreme weather events, and the worse climate change gets the more extreme weather will become. We will be caught between the necessity of producing locally and the difficulty of doing so because of unstable weather and shifting agricultural boundaries.

5. The 'early toppers' might be wrong.

The majority of people in the oil industry are 'late toppers'. Could they be right - could peak oil really be thirty years away? If they are, taking our eye off the climate change problem would be a terrible strategic error. In the case of climate change very few credible scientists argue against human induced climate change and many barely suppress a growing panic at the seriousness of our predicament. If we were wrong about climate change we lose nothing by trying to avoid it, (in fact there will be many positive side benefits), and our efforts will help with the problem of peak oil. If they're wrong about peak oil then we face the disastrous situation of having even more fossil fuels to destroy the conditions of life with than we think we might have at present. In other words in energy terms the only thing worse than peak oil would be not peak oil.

Why should environmentalists do something about peak oil?

Environmentalists should stop being environmentalists. The biggest mistake the environmental movement made was hiving the environment off into a separate sphere. Climate change is so serious and so fundamental that this idea of a separate sphere of activity outside the social is more ridiculous than ever. Climate change is a problem that crosses all neat boundaries; it is utterly tied to modes of production and the social division of labour. That peak oil presents a problem is also a result of the type of social and economic conditions under which we live. There is a negative synergy between these two crises that negates the separate space of the environmental.

As we've said before, if we attempt to techno-fix our way out of peak oil, things are likely to get even worse for the biosphere. It is the growth capitalist model and practice that is at the root of the problem and it is this that should be tackled. The fossil fuel economy incorporates both.

When peak oil hits it will fill the media, with the panic and hype likely to suffocate all else. We need to engage with the issue so that we can be sure that as awareness starts to hit home climate change is not forgotten in the panic about the economy and that the solutions we are putting forward to deal with climate change are also put forward as the only real solutions to the problems relating to peak oil.

Real answers to the ecological crisis will also be answers to the social crisis.

Summary

If we forget about climate change and just focus on peak oil, the market will destroy the biosphere as there will be no ecological constraint on the panic-led shift to alternatives whose purpose will be to maintain the energy status quo. On the other hand, if environmentalists ignore peak oil, they are

failing to engage with what along with climate change will be the most destabilising factor societies have faced since the rise of industrialism, (yes probably far more destabilising than the Second World War). Finally, ecologists have to engage with peak oil because it itself may be an additional threat to the atmosphere.