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Black Gold ~ Peter D. Carter

Paradox: peak oil is driving fossil fuel development

The draft scientific report of the Intergovernmental Panel on Climate Change (IPCC) has been leaked by the US government (expect intense behind-the-scenes pressure to water it down before its official release next year).

The report finds that humans are heating the planet by burning gas, oil and coal, in everything from electricity-generating facilities to leaf blowers. Effects are already showing up in many ways in many places around the world.

The UN's IPCC predicts the world will be warmed 2-4.5°C (over pre-industrial temperatures) by a doubling of atmospheric carbon dioxide. We are on track for a doubling of atmospheric CO₂ concentration by 2050. This is (yet another) wake up call. But are we capable of responding?

The minimum level, a 2°C rise, has been deemed the threshold level for 'dangerous' climate change. Dangerous because at this level it cannot be stopped and takes on a deadly life of its own. This is when things start to fall apart beyond our control, like the Greenland ice sheet starting to melt.

Greenhouse gases (GHG) are at their highest in the last 650,000 years. The temperature increase will be the biggest in 20,000 years and will cause drought, famine and an increase in mass extinctions. Using Hadley computer modelling, Sir David King, the British government's chief scientist, projected last month that a 3°C rise would put 400 million people at risk of starvation due to lost arable land and water shortages. Does this concern us?

Possible 6°C Rise

The leaked IPCC draft report says temperatures could rise by as much as 6°C as the result of 'feedbacks' in the climate system resulting from melting sea ice, thawing permafrost and acidification of the oceans. It also finds that climate change will continue for decades and perhaps centuries, even if man-made emissions can be curbed in short order. This means 'runaway global warming' and there is no way to forecast a limit to how far the planet will heat. The possibility means we are 'risking the ability of the human race to survive,' as Dr. Rajendra Pachauri, the current IPCC chair, has warned.

The last time Earth was that hot, some 3 million years ago, sea levels were 80 feet higher than today, and the North American coastline was up to 50 miles inland. Recent evidence

shows that the Permian extinction (95% of all life) 250 million years ago followed a 10°C+ surge in Earth temperature.

Humans absolutely have the choice of whether there is a future for our species. For the sake of all future generations, that means humans have to act now to absolutely eliminate the 6°C risk.

16 Years of Corroboration

How real is the risk of a 6°C rise? Should it worry us? The IPCC has been proved correct over 16 years, except that things are happening faster than they expected. Signs of all the feared possible feedbacks are already showing up. Many recent studies agree that the solution of increased forest growth and tree planting will be of little help to avoid the consequences of global heat forcing. (As humans are clearly the authors of this change, heat forcing is a far more realistic term than global warming and puts the responsibility in the appropriate place.)

How Are We Doing?

Fourteen years after the Rio Earth Summit and the signing of the Climate Change Convention, there is no sign of the world economy switching to clean energy. Furthermore, all nations are breaking the terms of the Convention, which obligated developed nations to make the best technologies available for the industrialization of nations like China. Western governments and corporations were reluctant to do this, and a chance for real progress in sustainable development was lost.

Cheap Labour, Cheap Fossil Fuels— No Economic Brakes

Rising temperatures are driven by what we term 'the economy.' Greenhouse gases (GHG) continue to rise in lockstep with economic growth (GDP). China's economic growth rate is accelerating—9.5% this year. Much of this is due to industrial outsourcing by Western corporations. Everything we buy at bargain prices has Western brand names but is stamped 'Made in China.' These products are made with industrial revolution era, coal-fired energy. There is still more than enough of these dirty fossil fuels to keep fuelling this economic globalization to the detriment of the planet.

If unsustainable, 'business as usual' economic growth, boosted by the low-tech industrialization and low cost labour of

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developing regions, continues on its exponential, all-consuming rise, then temperatures could reach well over a 3°C rise by 2050.

Humans Have To Choose

There are no economic brakes to apply yet and it will be too late before there are. Coal (black gold of the past) continues, and is planned to continue, as the basis for the rapidly growing non-OECD economies, and they have lots of it. This means global economic growth is to be fuelled mainly by coal. We are being taken backward—not forward; unless Western countries start slashing GHG emissions by honouring the Climate Change Convention and providing China and India with the cleanest available technology. And educating coal-rich countries like the US and Australia to develop and use alternate technologies.

Sustained Fossil-fuel Economic Growth is Unsustainable for the Biosphere

How about oil—is the much touted coming scarcity going to put on the brakes? Shell's CEO says we passed peak 'easy' oil in 2004-5 and that we are now into the era of harder-to-get oil; however, Shell and Exxon just posted record profits. And oil companies like Exxon plan for the global economy to show strong 'sustained growth' of 2.7% per year, to approximately \$71 trillion by 2030. (The world's economy was valued at roughly \$31.5 trillion in 2000.)

Exxon's huge profits are not going into clean energy like wind and solar. They are destined for gas, deep oil, and tar sands. Exxon's view of the future of oil to 2030 underscores Shell's view that peak easy-oil does not mean peak oil. Worldwide energy demand will grow, on average, 1.6% per year, from about 205 million barrels per day of oil equivalent to nearly 335. Until the year 2030, fossil fuels will continue to supply the vast majority of energy needs.

Oil use will grow at 1.4% annually. Oil and gas combined will represent close to 60% of overall energy use, which is about the share they hold today. Wind and solar growth will be high at 11% per year, but even so, their share of total energy in 2030 will be 1%.

Exxon says almost every region of the globe has more conventional crude oil remaining than what has been produced. Extended-reach drilling, advanced reservoir imaging, and enhanced recovery techniques will bring up the hard-to-get oil.

Exxon acknowledges that the growth of oil, gas and coal usage around the world will lead to increases in CO2 emissions, close to 85% coming from developing countries. GHG emissions grew about 40% from 1980 to 2000, and will grow about 60% between 2000 and 2030, according to Exxon's projection—that's the same as their projected energy rise.

The International Energy Agency says much the same as Exxon. 'Continued strong demand for all fossil fuels seems a certainty at this time, even taking into account stronger policies to mitigate global warming risks. ... Continued economic growth is expected to result in increased use of fossil fuels with likely increases in the emissions of local and global pollutants. In the next twenty years, fossil fuels will account for almost all new electric-power generating capacity. ... They [the energy companies] have not addressed the problem of CO2 emissions.'

Tar Sands - Earth's Next Challenge

Alberta's much-touted Athabasca tar sands is the largest known hydrocarbon deposit ever discovered. An estimated US\$100 billion is expected to be invested in tar sands development over the next 20 years, despite the fact that fossil-fuels have to be consumed to get the oil out. Ironically, scarcity and rising prices are making tar sand extraction economic.

Dutch Shell's CEO says the financial industry has just gambled \$100 billion on the rising price of oil. Shell has just bought BlackRock Ventures tar sands interests in Alberta for \$2.4 billion, which represents a huge increase in the going price for the tar sands. Dutch Shell says tar sands are a big part of their long term plan. Suncor is now talking about money for yet another tar sands expansion.

This investment money into more fossil fuel development could have gone into non-polluting wind, geothermal, tidal or solar energy. Now it's money that won't. We may get high fuel prices but it still will not save our ecosystems.

Commentary

Why do we seem powerless? Maybe oil addiction is why the Intergovernmental Panel on Climate Change's news of the century is dwarfed by the news of the month—oil prices. To use President Bush's metaphor; obsessed with a gasoline-based vehicle and consumer economy, and in getting their oil 'drug,' humans are in denial of fossil-fuels' destructive effects on 'users.' Is this why the threat of rising oil prices currently gets more attention than the threat to the future of our species?

We are also hooking into the fundamental precept of our economic system—that nature and the future don't count. Nature is an 'externality' and the future simply does not exist. But the 'magic' of the marketplace is making mankind's future disappear. Our model of economics is fundamentally and fatally flawed. Global climate change is the final, and ultimate, proof.

We have been watching the greenhouse gases and temperatures rise for 20 years. Now we are risking a catastrophic 6°C temperature surge, leaving the planet as we know it no chance. Can we stop it? Yes, if we stop denying the problem and start demanding (and creating) the solutions. But it has to be now. The future's time has run out. ☞

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