

Are oil companies, blinded by a history of downturns and upswings, not seeing structural change ahead?

In December 2015 world leaders signed off the Paris 'Convention of the Parties 21' agreement, a landmark document in its scope if not in its detail. Almost a quarter of a century after the Rio summit first set out to establish a consensus on climate change, all the world's governments have now agreed that there is a serious threat to human society and that the burning of fossil fuels is the primary causative factor.

Yet the oil industry remains unperturbed, pre-occupied with a slump in prices that appears to be all about changes in supply rather than structural changes in demand. BP CEO Bob Dudley describes the current downturn as a blip that will right itself towards the end of the year. Shell's Ben van Beurden agrees. BP predicts a 34% increase in global energy demand by 2035 and their strategy is to throw 'dirty coal' under the bus and present gas as the 'clean' alternative. In transport, the industry sees no serious threat to the dominance of oil.

Just a case of riding out the storm? The problem is that not everyone sees it this way. While Paris may not be a pivotal moment in terms of government action, the sentiments chime well with the strident new tone coming from the world's policy forums, business and media. Ban Ki-moon is exhorting asset managers to move their trillions into clean technologies, and corporations as big as Apple and Google are already committed to 100% renewable electricity. The unwelcome truth is that oil and gas are beginning to look increasingly

isolated and it is just possible that this cycle will not right itself in the usual way.

Threats to the Model

It is tempting to look first at the economic threats to the industry's business model but let's not ignore the world's scientists. If they are correct and 450 ppm CO₂ brings us to 2°C warming, and if 2°C warming is as catastrophic as predicted, then 'business as usual' is, to put it mildly, unlikely. Of course it is possible that broken transport links, more extreme weather and mass migration may increase the demand for readily available energy but such changes will undoubtedly also affect the processes of exploration, production and bringing to market. It will be increasingly difficult for the industry to sit on its hands as life-threatening droughts, floods and fires become the norm.

Even now, industry faces at least two practical, existential threats linked to climate change. The first is finance. The divestment movement has made unexpected gains in the last year, arguing cogently that assets that have been expensive to acquire, explore and develop are likely to become 'stranded' unburnable carbon. Investors are wasting their money. The movement has met with the enormous downswing in commercially driven investment as even the giants of the industry teeter on the edge of damaging downgrades and banks pull back from new loans based on valuations of reserves. "It's

time to throw away the lenses of the 40-year-old world oil order and come to grips with the new and permanent realities of the market," states Ed Morse, Global Head of Commodity Research at Citigroup. He is referring to the world's over-supply but any prolonged drought in finance gives the carbon divesters another few years of global warming to add to their evidence. There may be no return to investment-as-usual.

Second, new technology is developing rapidly and prices are falling. Lazards report that onshore wind and many large scale solar projects now beat conventionals on price and that energy storage is cost-competitive in many utility-scale situations. Lithium ion, flow batteries, compressed air, electric vehicles, energy efficiency tools and appliances – not only are there positive alternatives for investors but these budding new industries are all set to practically undermine our dependence on oil and gas. Asset managers are warning that the lithium ion battery could change the market within five years.

Of course there is inertia, a fossil fuel path dependency built into our infrastructure and society, and the industry still has the ear of nervous governments. But the realities on the ground point towards change. Is it time to focus on the wood not the trees: not on the heartwarming big picture of increasing energy demand but the realities of science, finance and new technologies?

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Tesla, BMW, Nissan and Apple are all developing electric cars. The cost of a lithium ion battery is predicted to drop over the next five years, solving the renewables' storage problem and allowing serious in-roads into oil's monopoly in transport.

