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CIO Viewpoint

Global energy at a tipping point

Investment Solutions

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The Covid pandemic is acting as a catalyst for change in the energy industry. The dramatic slowing of the global economy has cut demand for fossil fuels, accelerating the shift towards alternative energy sources. A change in US's political leadership would further intensify that trend next year.

Energy demand is shifting. Last week, the International Energy Agency (IEA) forecast a decline of at least 5% in demand for energy in 2020 compared with 2019, with the greatest falls expected in demand for oil and coal. In contrast, demand for renewable energy is set to rise by almost 1% on the same basis. The pandemic-related economic slowdown has also cut carbon emissions by almost 7%, the Agency estimates, and investments will fall 18%, mostly affecting fossil fuels.

The outlook for fossil energy is increasingly clear. Total SE said last month that it expects demand for oil to decline after 2030 while BP, in a series of scenarios, estimated that demand may never recover from the pandemic. Supply from alternative energy sources, however, will continue to expand under all of BP's scenarios, including 'business as usual'.

Policy makers, including the World Bank, believe that carbon markets are important in the transition to a lower-carbon economy. Currently, carbon markets cover around 20% of global emissions and Europe has the world's largest trading market where emitters have to buy emission rights and so contribute to financing decarbonisation. One allowance gives the right to emit one tonne of carbon dioxide, or the equivalent in nitrous oxide and perfluorocarbons. The current price for an allowance is around USD 30, while the World Bank estimates that, to meet the Paris Agreement's ambitions of limiting global warming to less than 2 degrees centigrade, the price should be between USD 40-80. Unless emitters pay the full cost to society generated by fossil energy consumption, the incentive to switch to other, renewable energy sources is weak. Efforts to improve the market are underway, including steeper cuts to carbon emission rights. Unless their supply shrinks, carbon markets will not be accurately priced nor contribute to decarbonisation.

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Key takeaways

- Energy demand is shifting away from fossil fuels, in favour of alternative sources
- Unless carbon is accurately priced, fossil fuels will remain artificially cheap
- A US Democrat victory may see Iranian production return to global markets
- The transition to carbon-neutral economies requires a shift by oil firms away from fossil fuel revenues.

Potential accelerators

Today's oil market prices also reflect the supply management of the Organisation of Petroleum Exporting Countries and its allies (OPEC+), including Russia. The cartel, which accounts for around one-third of global oil production, is trying to manage a series of challenges ranging from reduced global demand to competition from US shale and a resumption of Libyan exports at some 1 billion barrels per day. Earlier this year, Russia and Saudi Arabia clashed over their production commitments, and both said they would raise output, undermining US shale producers and challenging the US's leading market position.

Democrat victories in the US elections next month would complicate OPEC's management task. While a Biden administration may look to restrict shale oil production on public land, Democrat control of US foreign policy may begin to re-establish relations with Iran, potentially bringing almost 2 million barrels of production per day back onto the world market, although that would likely still be subject to quota limits. As long as demand stays at current levels, any increase in Iranian production would undercut prices, and call for a cut by OPEC+ members to avoid another dramatic fall in the world market.

The choices available to US voters next month offer contrasting energy policies. To one part of the American political establishment, climate change is a question of belief. "They hate clean, beautiful coal," President Donald Trump told a rally in Pennsylvania on 13 October. To many others, climate change is established science and an urgent opportunity to re-wire the US economy.

Democratic presidential candidate Joe Biden has proposed a USD 2 trillion package of measures over four years that would promote cleaner energy, transportation and construction in the US. The plan includes a pledge to cut carbon emissions from electrical power to zero within 15 years. Mr Biden argues that the energy transition is an opportunity for more jobs, and a chance to restore the US's commitments to reducing carbon emissions under the Paris Agreement. Under current policy, all US commitments under the Paris Agreement formally expire on 4 November, one day after the election.

Supporting the shift

Some oil companies are making the move to alternatives in favour of clean electricity, bioenergy, hydrogen, as well as carbon capture and storage. BP, for example, has committed to becoming a net-zero emitter at the latest by 2050 and other oil majors promise to halve the carbon intensity of the products by then, or sooner. BP is now Europe's largest solar power project developer, while Total SE aims to become a global integrated leader in solar power. Royal Dutch Shell's strategy includes electric vehicle charging and initiatives to encourage the adoption of hydrogen fuel cell electric vehicles. Eni S.p.A. launched the first conversion of a traditional refinery to a bio-refinery producing jet fuel, green diesel, green naphtha and liquid petroleum gas.

However, these ambitions fall short because the commitments would not be enough to limit aggregate warming in line with the Paris Agreement.

Markets are treating these multi-decade commitments with some scepticism as energy companies continue to underperform the wider equity market. The companies' three-decade targets would require significant carbon offsets in the form of natural carbon sinks including reforestation, or carbon capture and storage technologies that are not yet working at scale. Secondly, existing fossil-fuel businesses may get more costly due to 'stranded assets' locked into obsolete infrastructure and mispriced carbon.

The Danish firm Ørsted has gone further. In little more than a decade it has already shifted from generating one-third of the country's carbon emissions to become one of the world's leading offshore wind-energy producers. It is most likely that other energy companies can, and will, change their business models from brown to green as well.

Investors can then look at companies that are actively making the transition to alternative energy, and so making substantial contributions to decarbonisation and secondly, those offering clean and novel solutions. In other words, the transformers and the pioneers have roles to play, and can both represent investment opportunities, in the global shift to clean energy.

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