What does the energy transition mean for large oil and gas companies?

Renewable energy is causing radical change in power markets around the world. Here in the UK, on 7 June, midday supply was more than 50% from renewables (including biomass and hydro). This is clearly an opportunity for renewable generators. But it is a threat to legacy fossil fuel generators and producers.

Disruption seems to be a common theme across the industry at the moment. And nowhere more so than the global oil and gas market where oversupply crashed prices in late 2014; a situation that has continued to now. A decade or so ago, the key question was when would fossil fuels run out? Now, due to the changing face of the energy industry, peaking oil demand is the main concern for producers.

Here at Wood Mackenzie, we recently asked the question: what does all this mean for the largest oil and gas companies? The Majors, for example Shell and ExxonMobil, are faced with the challenge of trying to understand the impact decarbonisation will have on their core oil and gas operations. Renewables, rising global access to electricity and the prospect of mass-market electric vehicles are threats to existing business models. But is there opportunity for these companies in the rise of renewables?

We currently estimate that wind and solar make up 1% of the world's total primary energy demand. Oil and gas combined are equal to 55%. However, between 2017 and 2035, we expect oil demand to increase by only 0.6% annually. In the same period, wind and solar grow at 6% and 11% per year respectively. Under our aggressive growth scenario, by 2035, these carbon-free primary energy sources could occupy a 25% share of the power market.

There is a real opportunity to try and capture some of the value in this rapidly growing market. This is particularly poignant when considered in revenue terms. In 2017, global oil and gas revenues are roughly 33x bigger than renewables. By 2035, they will be only 13x greater. It also makes sense to diversify so as to future-proof portfolios; and address hardening shareholder sentiment to carbon.

The Majors are starting to take stock. Not surprisingly, the European Majors are pushing harder. Statoil is investing heavily in offshore wind, and is currently building the first commercial floating wind farm offshore Scotland, driving innovation. Statoil is also working towards commercialising carbon capture and storage. On the other hand, Total is focusing on solar. Through its SunPower affiliate, Total has adopted a position across the solar value chain as a producer and an installer.

I sometimes think that stakeholders at either end of the energy spectrum can be protective over their corner of the industry, in other words 'green' versus 'fossil fuel'. But companies of this size bring serious engineering and project management expertise to the table as well as financial capability. For all that they can be seen as part of the global carbon emissions problem, they may become part of the solution.

If you would like to know more about our recent study go to: https://www.woodmac.com/analysis

- Max Crawford, Wood Mackenzie for the YEP Forum