

Oil Market Report: September 2019

Last month to celebrate Portland's 10 year anniversary, we considered how much change had been experienced in the oil industry over the last decade. This month, we will continue the theme by looking at energy beyond oil, where developments have been every bit just as significant.

Alongside oil, coal was the largest energy source of the 20th Century, not to mention the most polluting. Even as late as 2005, coal was hitting record heights, as the likes of China commissioned 1 new coal-fired power station every month! Since that point however, and particularly in the last 10 years, King Coal has experienced a rapid turning of the tide in the face of economic and environmental considerations. This has been particularly true in the West and no country epitomises this decline better than Britain. As recently as 2014, the UK was regularly relying on (imported) coal for up to 40% of its electricity. Today that figure rarely goes above 5% and coal-free days, weeks and even months are regular occurrences. This trend has been replicated in Europe and most importantly in the USA, where annual coal consumption has reduced from 471m tonnes of oil equivalent (toe) in 2009, to 317m toe in 2019.

In China, the picture is more complicated. First of all, the figures are a whole lot bigger – in 2009, 1,685m toe of coal was consumed (3.5 times that of the USA), which equated to 87% of Chinese electricity generation. 10 years later and the consumption figure is actually higher (1,907m toe), which is a reflection of China's tremendous economic growth over the last decade. However, coal's share of Chinese power generation is declining. The figure today is around 65% (still high), but that is expected to fall below 50% in the next 5 years, as the dire state of local air quality forces the Chinese Government to shift to alternative energy sources.

The two winners from this decline in coal usage are natural gas and renewables. Gas for example, has grown its share of global power generation to above 30%, from 20% 10 years ago. From an emissions perspective, this shift is positive, with gas emitting less than half the CO2 of the equivalent volume of coal. But for hardened environmentalists, Natural Gas is still not a preferred source of energy. After all, it is still a fossil fuel and by encouraging its consumption, we are simply fostering further hydrocarbon exploration. This view neatly sums up the conundrum of modern environmental policy, which is a permanent battle between pragmatism and idealism. Increasing the use of gas has the immediate effect of reducing CO2 emissions, because it displaces dirtier forms of energy. At the same time however, it still adds CO2 to the atmosphere! Businesses such as Portland though, have to deal in realities rather than ideologies and therefore, we still see gas as the most straight-forward route to a lower carbon future, because it can so easily and quickly be introduced into the energy supply chain.

That being said, anti-gas environmentalists still have a point, in that simply increasing the use of one fossil fuel over another, hardly signifies a major transition - let alone an energy revolution. But this would overlook the fact that alongside the growth of gas, we are also witnessing the astonishing expansion of renewables. Admittedly, the use of renewable energy has started from a low base, but nonetheless, growth in this area has been virtually exponential. In the UK, wind usage has gone from 2m toe in 2009 to 13m toe in 2019. And solar power has increased from a tiny 4,000 toe to 3m toe today – that's a 646-fold increase!! Across the whole of Europe, the share of renewables in electricity generation has increased from less than 10% in 2009 to over 25% today, whilst in the USA and China, the figures also demonstrate this very clear trend (9% to 17% in USA and 8% to 20% in China). Yes, it has to be acknowledged that renewable energy has often received very significant initial subsidies, but thanks to this (or in spite of this), renewables have gone from being a set of niche technologies against climate change, to today being one of the key elements of our energy system. If you had said 10 years ago that by 2020, almost 50% of UK power generation would frequently be renewable, you would have been laughed out of town. But today it is a reality and the beauty of renewables is that once initial capital costs have depreciated, generation is (give or take) free. This, alongside Government subsidy and public popularity, (not to mention low-interest rates!) makes for an extremely attractive investment model and virtually guarantees continued growth in this sector.

Finally, we have one piece of the global energy jigsaw that has barely changed over the last 10 years, but still should demand attention. Nuclear energy in OECD countries accounted for about 10% of power in 2009 and still contributes at similar levels today. As the debate around climate change intensifies to almost frenzied levels, the fact that nuclear energy is seen as increasingly inconsequential is puzzling to say the least. Here is a known and efficient energy source, that has seemingly been written-off, despite the fact that it contributes precisely zero CO2 into the atmosphere. Portland is neither an expert on, nor a cheerleader for, the nuclear industry, but can it really be sensible to walk away from this endless source of energy? It is said that nuclear waste may take up to 1,000 years to degrade, but if we are truly facing a climate emergency today, wouldn't we consider prioritising the "now", above a problem that may or may not affect us in the second half of this Millennium?