ATTENTION À PARIS

The UN climate negotiations can seem disconnected from the real world, but investors and businesses would be wise to pay attention this time, says Richard Chatterton

It is easy to write of the UN climate talks as a failure. The negotiations have been going on for over two decades, yet global emissions keep on rising and countries are as divided as ever on how the burden of emission reductions should be shared. But for anyone with a vested interest in the energy sector, to ignore where things might go from here would be a mistake: the outcome from Paris is likely to help shape many of the risk and opportunities that will dominate the global energy sector over the next decade.

IMPACT OF FALLING RENEWABLE COSTS

We expect that the cost of renewables, in particular roof-top solar PV, will continue to fall and that over 10-15 years solar and wind will become largely competitive with conventional power plants, without the need for government subsidies (Figure 1). Based purely on falling costs and the dynamics of competitiveness, we expect $250-350 billion/year will be invested in renewables over the next 25 years – around half of which in Asia – as solar and wind dominate capacity additions around the world (Figure 2).

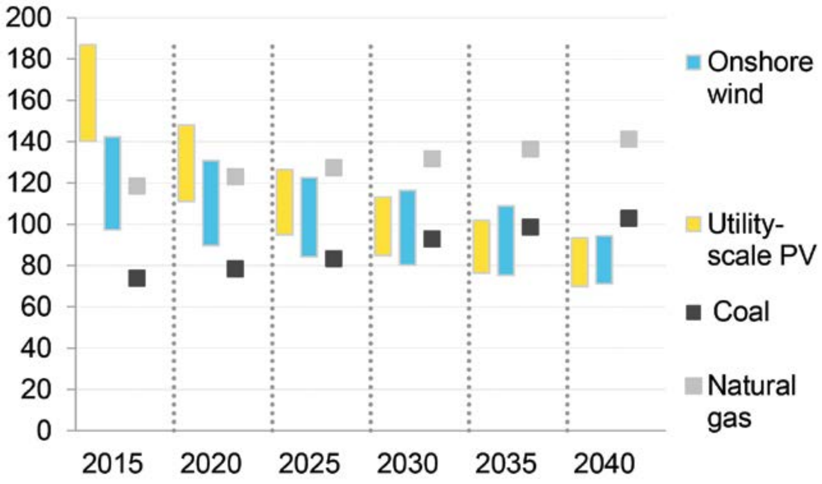
This huge shift towards clean energy will transform the global electricity system, with renewables' share of the generation mix doubling from around a quarter today to almost 50% in 2040. This is excluding the impact of government intervention that has not yet been implemented, so any regulatory action favouring renewables would provide further upside to the outlook.

BUT STILL MISSING 2°C

If the science is correct, global GHG emissions will need to more than halve over the next 35 years and fall to zero before the end of the century. Our analysis suggest that power sector CO2 emissions will peak around 2030 and then remain stable at close to 15 billion tonnes of CO2 equivalent per year – a level of emissions that is inconsistent with a 2°C trajectory. PwC's Low Carbon Economy Index meanwhile says that, at current decarbonisation rates (1.3% per year in 2014, compared to a rate of 6.3% required to meet the 2°C goal), we will have used the world's carbon budget by 2036.

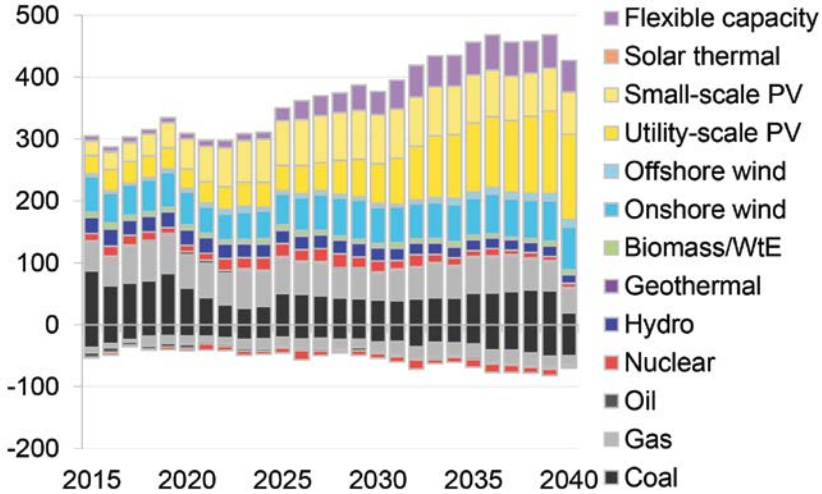
So what could policy-makers do to push the world closer to a 2°C pathway? To date, the UNFCCC targets have been woefully inadequate, with the US and China avoiding targets altogether and only the EU and a handful of smaller developed countries with targets extending to 2020 under the Kyoto Protocol.

FIGURE 1: LEVELISED COST OF ENERGY ($/MWH)



Source: Bloomberg New Energy Finance

FIGURE 2: CAPACITY ADDITIONS AND RETIREMENTS (GW/YEAR)



Source: Bloomberg New Energy Finance

The Paris talks are based on a fresh round of target setting, with each country setting its own 'Intended Nationally Determined Contribution', or INDC. The idea is that if countries define their own targets, they are more likely to support the eventual agreement they helped to shape. The negotiations can then focus on facilitating domestic action and, using the INDCs as a baseline, placing pressure on countries to ratchet up their ambition.

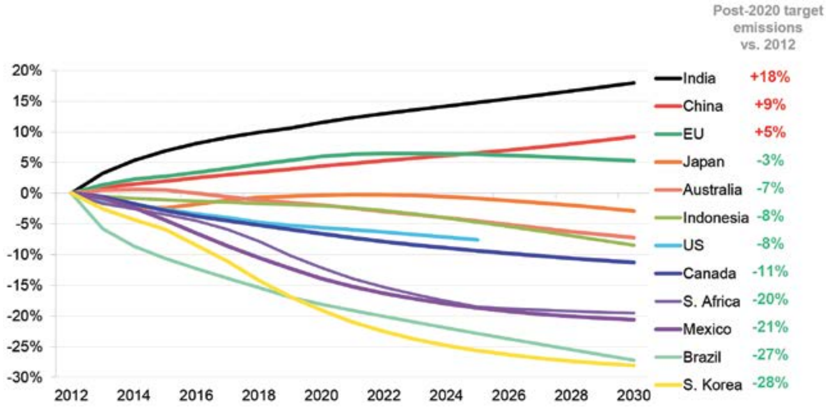
Nearly every country has submitted its INDC ahead of the Paris meeting, so we are able to judge the minimum level of climate action that each country plans to take. It is no surprise that, on aggregate, the targets are still far from sufficient to put the world on a 2°C pathway. In fact, they equate to a decarbonisation rate of 3% per annum, roughly half the level required, and a climate change scenario of 3-3.5°C. However, the INDCs do provide some important signals about the varying trajectories of policy intervention in different countries.

OPPORTUNITIES AND RISKS

We have analysed the INDCs for major countries and compared the emissions trajectory implicit in each target to our own BAU forecasts. The difference between countries is stark (see Figure 3). India for instance is likely to exceed its target by a considerable margin, whereas South Korea and Brazil need to curb their cumulative emissions by more than a quarter over the next 15 years to meet the targets in their INDCs.

This provides an important signal about the likely level of policy intervention going forward. If you are an energy intensive business in South Korea, Brazil, Mexico or South Africa, it is likely to become more expensive to emit CO2 over the coming years. However, if you are a clean energy developer, you're likely to benefit from increased regulatory support. If you are in China or India, on the other hand, the outcome from Paris is unlikely to have

FIGURE 3: CUMULATIVE EMISSIONS IMPLIED BY INDC COMPARED WITH BAU EMISSIONS (2012-30)



Source: Bloomberg New Energy Finance

much of an impact on the regulatory risk outlook.

COAL AND GAS ARE LIKELY TO SUFFER

BNEF has a very bullish view on the outlook for renewables compared with many other research houses, but the flip side of our optimism for wind and solar is a very negative view of the outlook for coal and gas in the power sector.

As with our renewables projections, this outlook excludes the impact of government intervention that has not yet been implemented, so any incremental policy action will cause the fossil fuel demand outlook to deteriorate further.

Threats to fossil fuel demand may come from a number of different channels, such as reform of fossil fuel subsidies, implementation of carbon pricing or outright caps and bans on consumption, particularly for coal in urban areas. Several INDCs explicitly take aim at fossil fuels: India pledged to reform its subsidies for diesel, kerosene and cooking gas; and China states that it will "control total coal consumption", without giving further details. It is likely that the debate within the UNFCCC forum will increasingly turn towards fossil fuel consumption as well as emission reduction targets, which will be ominous for the fossil fuel industry.

THE START OF SOMETHING NEW

Paris is the start of a new era of global climate policy, but it is likely to open up more questions than provide answers. Yes, we have the INDCs and can take a view on the level of investment needed to achieve them, but uncertainty will remain around a number of issues, including how countries may be able to cooperate or trade with one another, how much north-south financial and technological assistance will be delivered, and how targets will be reviewed over the next 10-15 years. It will take time for the UNFCCC to come up with answers these questions – the only precedent we have is that it took almost eight years to ratify the Kyoto Protocol – but the Paris agreement will be the foundation for the future policy framework. Investors and businesses would be wise to pay attention.

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