

## Electricity Sector Continues to Spark

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### **The Climate Change Act came into law in 2008.**

At the time the obligation to bring greenhouse gas emissions back to 80% of 1990 levels by 2050 received almost universal support. Well, it would, wouldn't it? We are all against pollution



and 2050 was a very long way off. So, for many, it may have seemed more of a “feel good” aspiration than an obligation with consequences: most of the parliamentarians who voted for the Act would be dead by 2050. A Net Zero consensus was achieved and indeed the legislation was toughened up in 2019. But that consensus has broken down as the reality of the measures needed to progress towards Net Zero are introduced.

A principal driver of the reduction in greenhouse gas emissions is the decarbonisation of the electricity generation sector. We noted in Viewpoints in April last year that the UK could claim marked success in this endeavour. Coal, which produced 40% of electric power in 1990, has been completely removed from the UK's generation mix and solar and wind, both onshore and offshore, expand year on year. In 2024 for the first time renewables provided more than 50% of total electricity production.<sup>1</sup>

### **Turning off the Gas**

Gas currently serves two roles, first as a bulk supplier of approximately one third of total electricity production<sup>2</sup> and secondly to balance the grid as a source of rapidly dispatchable power in times when weather adversely affects the generation of electricity from wind or solar. In 2030 Government intends that only this latter role will survive, at 5%, and disappearing almost completely by 2035 as new (and relatively unproven) technologies come online.

Developing the necessary volume of renewable generation will be problematic. If the economics don't stack up then developers will not bring their projects onstream, even where they are fully consented. Orsted's recent decision to stop work on the 2.4gw Hornsea 4 offshore wind farm is a blow to the Government's plans. But circumstances change and what

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<sup>1</sup> [https://assets.publishing.service.gov.uk/media/67e4f7c49c9de963bc39b526/Energy\\_Trends\\_March\\_2025.pdf](https://assets.publishing.service.gov.uk/media/67e4f7c49c9de963bc39b526/Energy_Trends_March_2025.pdf)

<sup>2</sup> <https://www.energy-uk.org.uk/fuelling-the-future/the-role-of-gas-in-generating>

may be uneconomic one year can still be revived in the future. There was much gloom when Vattenfall downed tools on the Norfolk Boreas offshore farm in 2023, but it was sold to RWE who are taking it forward.

The latest annual auction round (AR6) of the Contract for Differences support for proposed new projects was rightly trumpeted by the Government as a big success last summer. A great deal will turn on the outcome of the next (AR7) auction round. Government needs a total of at least 14GW of offshore wind capacity to be successful in the auction process in AR7 and the following AR8 auction round (much more than has been built in any prior two-year period) if there is to be any hope of the target 43-50 GW of offshore capacity being achieved by 2030. The format of the AR7 auction has been tweaked and indications are that the intention is to allow for a substantially increased level of financial support if that proves necessary to allow a commensurate increase in the capacity supported. But a consequence has been a delay in starting the process, making it still more important that it should be a success.

## **Gridlock**

Of the many bear traps in the way of really moving forward at pace, one of the toughest has been the problem of connecting to the grid and delivering power where it is needed. This can often be a long way from the generating site. Many new planned facilities have been seeking connections. The renewables industry had grown without any material changes in connection arrangements and connections continued to be offered largely on a first come first served basis. This resulted in absurdly long waits for connections as some facilities with a connection agreement were taken forward at a very leisurely pace, if at all, whilst almost unbelievable delays of 12-14 years were cited in the House of Commons Environmental Audit Committee Report in 2024.<sup>3</sup> At the same time no weight was given to the importance of particular connections to the Government's clean energy targets or to economic growth more generally.

It shouldn't need to be explained why this is a very major problem. Investors and developers can have no confidence in such a sclerotic system and won't invest. But a radical restructuring of the connection arrangements regime is now under way. The practice of "first come first served" has been discarded and in its place the new mantra is "first ready and needed, first connected."

In April, after lengthy consultations, Ofgem approved plans which split proposed connections into Gate 1 and Gate 2. Gate 2 connections are those which are both "ready" and "needed". Being "ready" means having exclusive land rights and will require sufficient progress on

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<sup>3</sup> <https://committees.parliament.uk/publications/45077/documents/223429/default/>

planning status. A connection project is “needed” if it aligns with the required capacities outlined in the Clean Power Action Plan. If a connection project meets these criteria it will be prioritised, if not it defaults to the slow lane which is Gate 1. The changes affect existing projects as well as future ones. So, existing proposals which are unable to satisfy the new criteria could find themselves pushed to the back of the queue.

It isn't wholly simple. There is a 56-day standstill period from the time of Ofgem's announcement in April and there will then be a collection and submission of evidence, initially for distribution system connections and, from July, for transmission system connections. With a fair wind there and no further delays decisions should start to be announced from September on whether a project has met the Gate 2 criteria and, crucially a confirmed date.

This new system will align the connections queue with government priorities, in particular projects that will deliver clean energy and/or work with new technologies such as carbon capture and storage. At the same, once the new system starts to bed down, developers and investors can be expected to become more comfortable with one at least of the risks of investing in projects requiring a grid connection.

## **A Ray of Sunshine**

By contrast with the wind generation sector, the solar industry is extremely bullish. Some expert commentators think that the Government will fall well short of its target of 45-47 GW of installed capacity by 2030<sup>4</sup>. However, the industry body, Solar Energy UK, thinks that it can deliver 59GW by that date<sup>5</sup>.

The state of the economy is going to have a very significant effect on the speed of decarbonisation of electricity generation in the UK. Government pump priming and private sector investment will be constrained by factors outside the sector's control. But, away from the controversy being generated by the words Net Zero, a more propitious environment is slowly emerging behind the scenes.

**Patrick Twist**

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<sup>4</sup> Cornwall Insights thinks no more than 29GW will be reached. (<https://www.cornwall-insight.com/press-and-media/press-release/government-projected-to-miss-revised-clean-power-2030-targets-by-32gw>)

<sup>5</sup> <https://solarenergyuk.org/news/slash-energy-costs-by-raising-solar-power-target-says-trade-body/>