

RWE

Reforming the Offshore Transmission Regime

By Nicola Crawford-Percival



RWE Reflections



Meeting the UK's offshore wind targets will require significant investment in and reforms to our electricity transmission networks. As we have highlighted [previously](#), lack of grid infrastructure is the single biggest blocker to deployment of new low carbon power.

Tackling the grid connections queue and considering how we futureproof the onshore transmission network are critical challenges which need to be overcome and have been considered at length. The UK's offshore transmission network is just as critical but has arguably been given less attention. Simply put, this is the electricity network that connects offshore wind with the onshore transmission network, vital for bringing power to our shores.

Substantial reform is urgently needed in order to realise the vast potential for offshore wind, and deliver the existing pipeline most efficiently. Without this reform, delivery of offshore transmission will be costlier than it should be for developers and ultimately consumers. Furthermore, there is a higher risk of offshore windfarms being temporarily shut down, greater numbers of costly and time-consuming disputes will arise regarding maintenance, repairs and insurance, and the ability to life-extend older wind farms will be reduced.

In early 2024, the Department for Energy Security and Net Zero put out a call for evidence on the Offshore Transmission Owner (OFTO) regime, which underpins this network. As the new government considers the next steps, **Nicola Crawford-Percival** sets out what is needed to ensure our offshore transmission network is fit for the future.



How are offshore transmission networks currently managed?

As part of the liberalisation of the British electricity market in the 1980s, the government introduced 'unbundling' laws, meaning that generation, transmission, distribution and supply all became licensable activities which must be kept separate (i.e. one party cannot hold multiple different types of licenses at once). In Great Britain there are three Transmission Owners (TOs), each a regulated monopoly covering a discrete area of GB that are responsible for designing, building, financing and maintaining the onshore transmission network.

It is a different story for offshore, where under the OFTO regime, developers design and build offshore transmission assets, before divesting them to an Offshore Transmission Owner (OFTO), which is responsible for upkeep and maintaining a constant route to market for the connected wind farm.

This unusual setup provides offshore wind developers with more control over the design, financing and construction timelines for the radial transmission link (where there is a sole user of the asset) between their projects and the shore.

The current OFTO regime was designed for offshore wind as a nascent sector, intending to deliver up to 10GW of capacity. However, in the 15 years since, the size and complexity of offshore windfarms has grown, and many issues have arisen with the OFTO regime. The current regime creates unfair imbalance of risk between the developer and OFTO from the negotiation of sale through to the operations phase and even for future decommissioning requirements. Urgent change is now needed to address the key issues and ensure that there is an offshore transmission regime which is fit for the future. It is right that government are looking at how to address this.

Urgent change is now needed to address the key issues and ensure that there is an offshore transmission regime which is fit for the future.





So, what has gone wrong?

There are four main areas that RWE is concerned about in the current regime:

1

Imbalance of risk between generators and OFTOs

In general, the OFTO regime has become more akin to structured off-balance sheet financing, rather than an asset transfer under terms that would normally be associated with a commercial asset sale. The effective transfer of risk from seller to buyer is becoming increasingly limited due to the liabilities that remain with the developer after the sale.

One reason for this is that OFTOs can exploit an imbalance of risk to make uncommercial demands on developers, including demands for indemnities. The fixed 18-month window that developers have to divest the offshore transmission assets (the so called Generator Commissioning Clause) gives OFTOs a huge advantage in negotiations; they can effectively run down the clock, as all the jeopardy of not hitting the deadline sits with the seller (developers risk breaking the law if they do not divest in time). To solve this, the Generator Commissioning Clause needs to be flexible, and set on a project-specific basis by Ofgem.

2

Cost-assessment

Ofgem's aim in designing the OFTO regime has been to provide certainty and best value to consumers, while ensuring that OFTOs are robust and can deliver transmission infrastructure on a timely basis. However, over time the effectiveness of the regime as a tool to ensure cost efficiency and effective transfer between seller and buyer has declined.

The cost of capital for a transmission asset should be the same for RWE as it is for other players and therefore the premise that the OFTO regime saves consumers money may in itself be flawed. Additionally, elements of the regime, such as Ofgem's cost assessment process as part of agreeing the sale price, were designed for a very different market. Contracts for Difference (CfDs) were introduced in 2015 and strongly incentivise developers to deliver offshore transmission assets at the cheapest risk-adjusted price because of the requirement to be competitive in auctions. Therefore, the need for Ofgem to undertake a cost assessment – to ensure spend by the developer has been “economic and efficient” – post-construction and prior to asset sale is limited, and any disallowed costs resulting from a cost assessment should be exceptional, and not the norm as they are today.





So, what has gone wrong?

3

Maintenance and repairs

During the operational phase, the thinly capitalised nature of OFTOs – often with limited insurance – can lead to a less robust maintenance regime than the generator carries out on the electricity transmitting infrastructure it is allowed to retain (for example, the cables connecting the wind turbines to the OFTO assets). Where repairs are required, OFTOs often look to developers to fund these. Once again, if anything goes wrong with the transmission link, the developer is impacted much more strongly than the OFTO.

The minimum standards that a bidder must meet in order to tender to become an OFTO have been watered down in recent years, despite calls from generators not to do so. The bidding process is also now weighted solely on price, and does not include suitable minimum standards of operations and maintenance to ensure the longevity of the assets. Therefore the risks associated with this have likely increased, as it increases the likelihood of an OFTO that is not necessarily best-placed to provide financial and operational security for the assets winning the tender.

4

Life-extension and decommissioning (End of Life issues)

Finally, there is a lack of policy detail regarding life-extension and decommissioning policy for OFTO assets. With approximately 1.9GW¹ of operational offshore wind projects due to reach the end of their agreement with OFTOs in the early 2030s there is urgent need for life-extension policies to be developed and implemented to ensure that the capacity can remain operational for as long as economically feasible.

If this policy is not delivered in time it would likely mean up to 1.9GW being decommissioned regardless of its potential for life-extension. This is a significant loss and would make our ambitions for offshore renewables deployment even harder to meet.

¹ Existing OFTO agreements scheduled to end by Sept 2033. Windfarms are Robin Rigg, Gunfleet Sands, Barrow, Walney 1, Ormonde, Walney 2, Sheringham Shoal and London Array.

What does this mean?

These issues must be tackled now as they are already having a negative impact on the efficiency of deploying offshore wind capacity in the UK:



The regime creates inefficient costs through tendering assets for sale which are solely related to the connection of one generation asset.



There are marked financial and operational risks for wind farm developers which are increasingly not passed on via the regulated transaction process.



The costs of these risks and inefficiencies will ultimately have an impact on consumer costs.



What can we do about it?

RWE considers that two overarching regime changes are needed:

1

For radial (sole-use) offshore transmission assets generators should be able to:

1. retain ownership of newly built assets, and
2. regain ownership of legacy assets which were previously sold under the OFTO regime at the end of the agreed OFTO revenue term.

There is no conflict of interest risk for generators owning and operating sole-use transmission assets which connect only their own project to the shore. Generators are already strongly incentivised to deliver offshore transmission assets at the cheapest risk-adjusted price and have every incentive to consider all financing solutions that make sense from a cost-benefit perspective. Third-party ownership of transmission assets should remain an option, but the regime requires changes to make the balance of risk much fairer.

2

For future offshore grid which will connect multiple offshore users (known as shared or 'meshed' grid) a revised regime is needed to enable third-party build to be a commercial reality.

This is critical to deliver shared grid in an efficient way. A model for 'OFTO Build' exists in principle, but is too risky to pursue in its current form.

Ofgem recently consulted on a revised regime for third-party build, and RWE have stressed that they must prioritise the financial robustness and experience of third party grid owner-operators in a way which is not seen in the current regime. Crucially, this would also require appropriate compensation for generators if there is late delivery of grid as is the experience in many other European countries².

The UK has seen extraordinary growth in its offshore wind sector over the past 15 years. In order to remain as a world leader and ensure all costs are efficiently allocated, action is needed now to ensure that the OFTO regime is fit for purpose for the next 15 years and beyond.

² Great Britain is an outlier in not providing compensation for connection delays. Ofgem should take precedent from the regimes used in other European Countries, by ensuring that the generator is paid a fixed amount per MWh which cannot be exported to the grid after a particular completion date (as long as the generator is ready to export).

