

Akshay Kaul
Interim Director of Infrastructure and Security of Supply
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

16 June 2023

Dear Akshay,

Future Reform to the Electricity Connections Process

Thank you for the opportunity to respond to Ofgem's Open Letter about the future reform to the electricity connections process. This response is submitted primarily on behalf of our renewables business but also reflects the interests of our hydrogen and retail businesses. Our networks business, SP Energy Networks (SPEN) is responding separately from its perspective as a network licensee.

Our renewables business, ScottishPower Renewables (SPR), is a leading developer of renewable energy generation, with over 3.1 GW of operational wind capacity across over 40 sites using onshore wind, offshore wind, solar and battery technologies. SPR has ambitious growth plans to expand its existing onshore wind portfolio and to invest in new large-scale solar PV and innovative grid storage systems including batteries. Building on our 714 MW East Anglia ONE offshore wind project we have ambitious offshore wind development plans with work underway on taking forward offshore wind projects comprising an East Anglia Hub, as well as seabed rights to develop three new offshore windfarms off the coast of Scotland with a total capacity of 7GW as part of The Crown Estate Scotland's ScotWind Leasing.

We are fully supportive of Great Britain's ambitious but deliverable onshore and offshore targets for both 2030 and 2050, and we agree that the energy sector has a key role to play in delivering upon the Government decarbonisation ambitions. There is recognition across industry of the problems being faced by developers with an unacceptably long grid connection queue and as a result, delayed connections dates. The overall impact of the large and growing connection backlog, is increased risk and uncertainty for developers, potentially causing investment to be drawn to other countries given substantial global demand for renewable energy infrastructure, and ultimately putting Britain's Net Zero targets at risk.

The recently published 'Powering Up Britain Energy Security Plan' set out the need for a reduction in grid connection timescales to be a high priority for the Government, Ofgem, the Electricity System Operator (ESO) (and in due course the Future System Operator

the FSO), and network companies working together. In this context, we welcome Ofgem's publication of this Open letter on the Future Reform to the Electricity Connections Process.

Ofgem's open letter builds in large part on the already established industry reform initiatives such as the ENA Strategic Connections Group and the ESO Connections Reform Project, which are both working together to deliver significant reform to the connections process and ways in which network capacity can be deployed to facilitate quicker grid connections.. It is therefore important that Ofgem's consideration of a "fit for the future connections regime" does not unintentionally impede these existing reforms whilst focussing on the expected substantial residual connection queue, following their implementation.

The ESO reports that there is already 72GW of renewable generation connected to the UK network, with a further 283GW contracted, but only between 20-30% of these projects are expected to ultimately progress. The ESO's Holistic Network Design (HND) has forecast around £54bn of strategic transmission projects within the next decade. However, to address the current problems with queue management and the connections process will require a concerted effort from the Government, Ofgem, the ESO/FSO and the industry. We note that the open letter signals the need to consider radical and bold transformation to the current connections queue rules, for example, by moving away from first come first served and prioritising particular technologies or locations, or readiness to connect. We therefore look forward to the joint Government/Ofgem connection reform action plan planned for later this summer and to working with Ofgem to develop policy proposals in this area.

We welcome Ofgem's approach that recognises the need for short term solutions being produced by current reform programmes, coupled with the development of the more radical and sustainable medium-longer term solutions.

Our consideration of the Ofgem "three factors" is set out below:

Strategic Network Investment:

Historically, industry regulation has set a high bar for network companies to demonstrate a need for strategic investment or investment ahead of need, driven by an overarching regulatory agenda focussed on avoiding the risk of stranded investment in network infrastructure. Ofgem policies (for example, 'Connect and Manage') have cemented the approach of investing and reinforcing the network at the time of need, rather than adopting an approach of bringing forward investment in anticipation of future network use, which would be more consistent with the current upwards trajectory of customers seeking to connect Low Carbon Technologies (LCTs) and renewable generation to the transmission system.

The timely delivery of the scale of anticipatory investment required will necessitate radical transformation of decision-making by Ofgem and the ESO/FSO. The regulatory approaches in previous years having constrained investment by network companies to the point that today major reinforcement of the transmission network is needed quickly to facilitate the transfer of renewable energy to demand centres.

Whilst we welcome the introduction of the Accelerating Strategic Investment (ASTI) regime by Ofgem to accelerate large scale transmission investments required for 2030, we would not however describe this as anticipatory investment as the need is now immediate. To ensure the delivery of the scale of anticipatory investment required is

achieved, we would encourage ASTI style investment programmes but with longer lead times for the longer term.

Efficient and Flexible Network Management:

The development and deployment of a smart grid system with a high volume of renewable generation must look to incentivise developers such that the provision of services to the grid are delivered where it is most needed to aid the operability and flexibility of the network. Given the timescales involved in the design and procurement of large renewable generation developments such as offshore windfarms, significant investment and project planning will be required by developers to ensure that the most suitable equipment is secured in the right location as part of these developments.

Whilst we appreciate that the ESO has developed new types of grid service contracts (e.g. stability and constraint pathfinder), the timing of these needs to align with the staged financial/investment decisions made during the course of project development. For instance, the timing around such decision making is likely to be determined by the timing around a Contracts for Difference (CfD) auction process or Capacity Market (CM) auctions. Without better alignment in this way, equipment design and procurement cannot enable additional services to be provided without adding cost and risk to a project. Moreover, the value of such services needs to be forecast ahead so as to enable costs to be accounted for and offset during investment decision-making. The current methods used to procure services for the ESO do not currently deliver in this regard.

In addition to lack of alignment between CfD and the ESO's procurement of flexibility and operability services, there are no provisions of including flexible assets as part of the current CfD application. Such flexible assets when designed, procured, installed and operated in a hybrid manner could provide a range of system services to the ESO. These services include but are not limited to constraint management (storage, hydrogen electrolyzers), stability services and system restoration services. The requirements for such services are locational, thus these requirements need to be published and aligned with network planning and development process to inform the developer during their CfD and connection application to plan ahead to better support the network operators and the ESO in operating the overall power system. We also believe that developers' routes to market for flexibility and operability services, will be better supported by long term system services contracts and through other market mechanisms for developing assets which provide critical system services.

A Fit for the Future Connections Process:

With many projects across transmission and distribution now facing lengthy timescales to connect, largely driven by the transmission network upgrades required, it is recognised that the current connections process is no longer fit for purpose. We welcome the Connection Reform Project being led by NGENSO and the engagement undertaken by industry to develop and inform solutions which will be consulted upon. As noted above, it is important that any longer-term reform builds upon the work of the ESO's Connections Reform Project and the ENA 3-Point Plan.

Whilst we support reform which will ultimately deliver reduction in grid congestion, reduce timescales to connect and deliver efficiencies in the process, this should not undermine investment and project planning being currently developed against the expected ESO reforms. The imminent publication of NGENSO's Connection Reform Consultation will be key to setting out the detail of the connections process models for consideration.

As noted in our response to the NGESO Industry Consultation for CUSC Modification CMP 376, careful consideration should be given to the following in consideration of the proposals

- The impact on different technology types must be fully considered such that no advantage or disadvantage is given to one technology type over the other, recognising that different technologies will develop to a different scale of project development timelines. For example, offshore versus onshore wind.
- The level of investment, commitment and effort that will have taken place to deliver on those early key milestones should not be underestimated and should be fully recognised along with balance of risk and evidence to ensure viable projects are not terminated unnecessarily.
- A solution to queue management must be transparent and easy for users to navigate to avoid the risk of uncertainty for innovation and investment.
- Ensuring the solution is not overly complex on an administrative level and suitably resourced to be successfully administered.

We believe it is important that NGESO commits to full and transparent publication of the GB queue, taking account of both Transmission and Distribution contracted schemes, and undertakes a review of what capacity has been recovered as a result of any Queue Management Policy, 12 months post implementation.

Despite considerable development and industry engagement of queue management proposals as part of the ENA Open Networks Project, the CMP376 working group did not reach a conclusion quickly. Therefore, in order for reforms to the connections arrangements to make clear progress between now and 2025, where changes to codes/licences are required to facilitate any identified changes, consideration must be given to how the governance process will not become a blocker and delay the industry agreed improvements.

We would also ask that Ofgem note the challenges that developers have faced with the Holistic Network Design (HND). Whilst the HND was supposed to identify and accelerate the delivery of a more coordinated offshore transmission network, and associated onshore works, the reality has been somewhat different. As of today, developers are still waiting for updated connection offers resulting in the delay to the progress of ScotWind projects. We would further comment that Ofgem and industry have a key role to play in the development of a framework to support and facilitate offshore coordination and Anticipatory Investment (AI).

I trust you will find our comments helpful; however, should you wish to discuss any aspect of our response, please do not hesitate to contact me or my colleagues Haren Thillainathan (hthillainathan@scottishpower.com) and Deborah MacPherson (deborah.macpherson@scottishpower.com).

Yours sincerely,



Richard Sweet
Director of Regulatory Policy