

Consultation response

Ofgem future reform to the electricity connections process

Response from Regen and the Electricity Storage Network

June 2023

About Regen and the Electricity Storage Network

Regen is an independent centre of energy expertise with a mission to accelerate the transition to a zero carbon energy system. We have 20 years' experience in transforming the energy system for net zero and delivering expert advice and market insight on the systemic challenges of decarbonising power, heat and transport.

Regen is also a membership organisation and manages the Electricity Storage Network (ESN) – the voice of the UK storage industry. We have over 150 members who share our mission, including clean energy developers, businesses, local authorities, community energy groups, academic institutions, and research organisations across the energy sector.

This response is based on our extensive engagement with clean energy developers and investors on the challenges facing low carbon energy projects, including our Grid Connections Working Group. Our Chief Executive also chairs the Steering Group for National Grid ESO's 'GB Connections Reform'.

Regen published a [paper](#) in May 2023 which sets out the scale of the challenge to prepare our electricity network for net zero from the low voltage distribution to transmission network and our view of the key challenges and areas for action from Ofgem, National Grid ESO, the network companies and DESNZ.

Summary

Delays facing clean energy projects seeking to connect to the electricity network are now recognised across industry as one of the biggest barriers on the path to net zero. Our members inform us that their clean energy projects are now facing connection delays of up to fifteen years (see also chart on next page). Regen raised these issues in a [letter](#) to Ofgem in August 2022 and a [letter](#) to the energy secretary in December 2022.

Given the scale and urgency of the challenge, we welcome the publication of Ofgem's open letter and its commitment to publish a joint 'Connections Action Plan' with DESNZ this Autumn. Leadership from Ofgem and DESNZ is crucial to provide strategic direction and momentum to connections reforms. We also welcome the work and commitment of National Grid ESO and the network operators who have already begun to implement action plans.

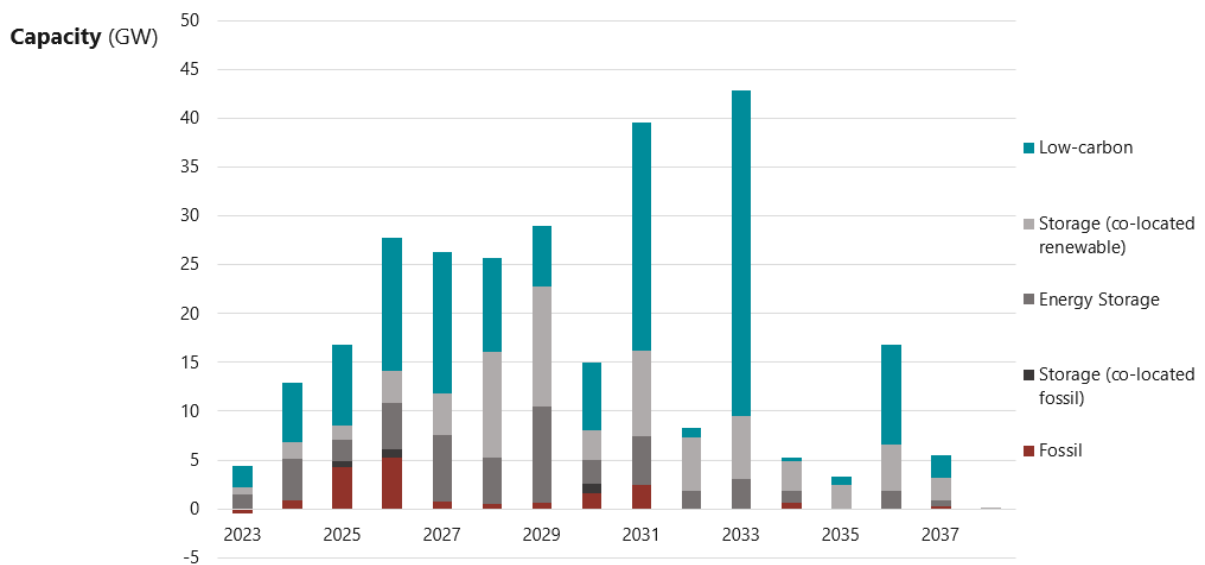
We agree with the proposed objective set out in the open letter to speed up connections timeframes. We also agree with Ofgem's assessment that the challenges stem predominantly from a 'first-come-first-served' application process that is no longer fit for purpose and the huge increase in the volume of applications to connect over recent years. Latest figures from ESO are that there is currently 320 GW (up from 257 GW in February) in the connections queue.

Three key areas of action are required to address the challenges:

1. **Moving rapidly to reform the connections process.** There is consensus across industry that the connections process is no longer fit for purpose. Our Chief Executive chairs the Steering Group of the 'GB Connections Reform' led by National Grid ESO and we support its work to develop a radically different approach to transmission connections. Ofgem and DESNZ must be ready to enable rapid implementation of the new connections regime through regulatory changes, licencing, etc.
2. **Addressing the existing queue.** Alongside reform, immediate action is required to unblock projects stuck in the queue and allow earlier connection dates to be offered to 'shovel-ready' projects. Unless the current queue is addressed, a new connections process, however much improved, will have limited impact for many years. Ofgem should work with ESO and the network companies to ensure a fair and transparent approach to setting milestones for existing projects. We also back a technology-specific approach to the queue, including prioritising low carbon projects over fossil fuel generation and taking a smarter approach to storage connections.
3. **Reforming the grid investment regime.** Though the open letter is focused on the connections regime, investment in grid infrastructure is a key part of the challenge. The grid investment regime has failed to deliver infrastructure developments in coordination with and ahead of new generation connections. Ofgem should move rapidly to deliver on its proposal to move from 'Connect and Manage' to 'Invest and Connect'.

Regen would be pleased to work closely with Ofgem to support you in delivering on your objective to speed up connections, drawing on our extensive experience from engaging with ESO, ENA and industry on the connections challenge.

Connection dates for generation are now as late as 2038



Note: Chart shows the queue of projects that hold connection agreements with ESO. Source: Transmission Entry Capacity, ESO.

1. Reforming the connections process

Deliver rapid implementation of a new connections process, based on the conclusions from the ESO's 'GB Connections Reform' consultation.

Connecting the gigawatts of renewables and storage needed for net zero will not be possible without delivering a streamlined and effective connections process. There is appetite for a radically different approach to transmission connections, such as the preferred option being consulted on in ESO's Connections Reform based on milestones and gates.

It is critical that this reform process is carried out through close consultation with industry to ensure the outcomes align with the needs of developers and investors. Ofgem needs to be ready to work with DESNZ to prioritise the necessary regulatory changes to enable clear and timely implementation. Speed of action is vital.

Address issues at the transmission-distribution interface by enabling DNO/DSOs to manage the distribution connection queue within agreed parameters at GSPs.

The process for assessing how projects connecting at distribution will affect the transmission network is a critical barrier for connecting decentralised generation. This interaction between the transmission and distribution networks repeatedly emerges as a key issue in our discussions with members.

The ESO and DNOs need to put in place a new process to resolve transmission barriers to distribution connections resulting in long queues to connect. Our preferred option is to allow DNO/DSOs 'headroom' to run the connections process below GSPs. The purpose of the DSO is to manage the system in a smarter way using flexibility tools, such as Active Network Management.

2. Addressing the existing connections queue

Ensure ESO and network operators communicate the current changes clearly to industry.

Recent meetings with our members have shown there is uncertainty and unease amongst the developer community due to scale of the changes proposed in the ESO's Five Point Plan and ENA's Three Step Plan. These changes do not appear to have yet been consistently communicated to the connections teams of network operators that members work with. Whilst we appreciate this is a very busy period for the teams involved, Ofgem should ensure that proactive communication is embedded in all the activity underway.

Apply milestones to the existing transmission and distribution queue, ensuring a transparent process, right of appeal and fair approach.

The ESO and ENA are currently progressing measures aiming to progress projects stuck in the existing queue. These measures are a critical step to unblock capacity and allow 'shovel-ready' projects to connect earlier. Ofgem should approve code modification CMP376 and any further measures required to allow the ESO to move forward with queue management, but also ensure milestones are implemented transparently and fairly, with right of appeal.

Work with ESO to deconstruct the queue by technology type and location and take a more targeted approach.

The approach to managing the connection queue is based on broad modelling assumptions as to what projects will actually be progressed. We welcome the fact that the National Grid ESO is now taking a targeted approach to storage connections and improving the assumptions used to model system impact.

We think that technology specific approach could be applied more broadly to address the existing queue, taking a specific approach to addressing each technology and tailoring modelling assumptions.

A technology-specific approach to address the queue might include:

- Removing fossil fuel projects without planning permission, or assuming they will not be built as they are not required for a net zero power system.
- Running a separate process for nuclear and interconnectors.
- Implementing a new, smarter approach for dealing with storage connections, as in the ESO's Five Point Plan.
- Removing offshore wind projects without a lease from the queue and progressing a more strategic approach for offshore wind development through the Holistic Network Design process.

Regen uses technology specific logic chains for assessing which projects are moving forward in the Distribution Future Energy Scenarios (DFES) process we deliver for NGED and SSEN. We would be happy to share this methodology with Ofgem and the ESO to support more sophisticated modelling assumptions.

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